FINAL REPORT
Focused Audit of Affiliated Transactions and Management Audit of Elizabethtown Gas

Volume One: Affiliate Transactions Review

Public Version
Confidential Materials are Redacted

Presented to the:

Division of Audits
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VOLUME ONE: AFFILIATE TRANSACTIONS REVIEW

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I. Procurement and Purchasing

A. Background

As part of its approval of AGLR's acquisition of NUI,[1] the NJ BPU approved the Parties' recommendation that AGLR subsidiary Sequent Energy Management (*SEM*) take over ETG's gas-supply asset-management function, effective April 1, 2005. ETG had been using an external asset manager since early 2004, when it severed its relationship with affiliate NUI Energy Brokers. The arrangements included an asset-management agreement and a gas-supply agreement providing for monthly supplies, daily supplies, and storage-fill supplies.

The initial asset-management arrangements ran for a period of three years. The acquisition-approval stipulation, which had been approved by the BPU, provided that, before the end of that period, ETG would "… competitively bid its asset management unless the Board ha[d] previously authorized an alternative asset management procedure for ETG…"[2]

In late 2007, ETG affiliate AGL Services Company (*AGSC*), which performs the gas-supply function for ETG, negotiated with SEM an extension of the in-place asset-management arrangements, and presented them to the same interested parties who had participated in the initial stipulation. Those parties reached a new stipulation supporting the extension, and filed it with the BPU in March of 2008. That stipulation attached *pro forma* agreements for gas supply and capacity management services, and contained provisions including the following:

- An increase to $5,000,000 per year in the minimum fixed payment by SEM for the right to manage ETG's assets, plus sharing of capacity-release credits, off-system sales margins and storage arbitrage margins. Methods of calculation of margins for sharing, and the functioning of the sharing mechanism were illustrated in appendices to the Stipulation (Appendices B and C, respectively)
- AGLR undertook to audit operation of the agreements annually
- ETG was "in the process of enhancing its staffing in the gas supply area."[3] ETG undertook to conduct periodic meetings with Staff and Rate Counsel to review staffing issues, and to "… use good faith efforts to resolve [any issues] collaboratively."[4]

Later that month, the NJ BPU adopted the stipulation "… as if fully set forth [in its Order] …" and approved the extension.[5]

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[1] NJ BPU Docket No. GM04070721, *In the Matter of the Petition of NUI Utilities, Inc. (d/b/a Elizabethtown Gas Company) and AGL Resources, Inc. for Authority under N.J.S.A. 48:2-51.1 and N.J.S.A. 48:3-10 of a Change in Ownership and Control*, "Order of Approval," November 17, 2004. (This proceeding is referred to hereinafter as "the acquisition-approval proceeding.")

[2] Attachment A to "Stipulation of Settlement," filed in the acquisition-approval proceeding on November 4, 2004, at p. 3. The Stipulation of Settlement was incorporated by the BPU into its order approving the acquisition. November 17, 2004 Order in the acquisition-approval proceeding, at p. 11.

[3] NJ BPU Docket No. GM07100752, *In the Matter of the Petition of Pivotal Utility Holdings, Inc. d/b/a Elizabethtown Gas Concerning its Proposed Capacity Management Plan*, "Stipulation," March 14, 2008, at p. 5.

[4] *Ibid.*

[5] NJ BPU Docket No. GM07100752, *In the Matter of the Petition of Pivotal Utility Holdings, Inc. d/b/a Elizabethtown Gas Concerning its Proposed Capacity Management Plan*, "Order," March 19, 2008. See, esp., p. 4.

The extended asset-management agreement specifies duties for the Asset Manager and for ETG. ETG's specified duties are the following:

- Forecast demand both long and short term
- Determine base load purchase levels
- Determine "logical" use of assets
- Approve alternate delivery options
- Determine use of peaking resources
- Determine if balancing provisions of tariff are to be put into effect
- Verify contract compliance and asset manager invoices
- Monitor margin sharing.

Liberty's examination in this task area focused on reviewing ETG's performance of its duties under the agreement. Additionally, Liberty examined certain policies and practices of the parent company as they affect the discharge of the gas-supply function by its utility subsidiaries. Broadly speaking, the objectives of this review were to:

- Determine whether ETG's customers are receiving the benefits in terms of personnel, systems and programs one would expect from a capable, experienced asset manager
- Verify that controls and accountability are sufficient to ensure that ETG's customers' interests are adequately protected.

B. Findings

Liberty's examination in this area included five tasks:

- Organization, Staffing and Controls
- Gas Supply Planning and Forecasting
- Supply Capacity Planning
- Supply Capacity Management
- Measurement and Balancing.

Discussions of findings in each task follow.

1. Organization, Staffing and Controls

ETG is one of six gas distribution utilities owned by AGLR. AGLR has a non-operating service company, AGSC, which provides common services to the six utility companies, and to AGLR's other operating subsidiaries. AGSC provides services to ETG pursuant to a Services Agreement. Each year, ETG selects the services that it wants to receive from AGSC. Gas Supply and Capacity Management comprises one of the services that ETG receives; another is Financial Services, including gas accounting.

AGLR organizes its activities around functions, rather than around legal entities, or "business units."[6] Thus, ETG's Manager, Gas Supply is resident in and an employee of ETG, but he is part of AGLR's Engineering and Operations organization. His supervisor is the Managing Director,

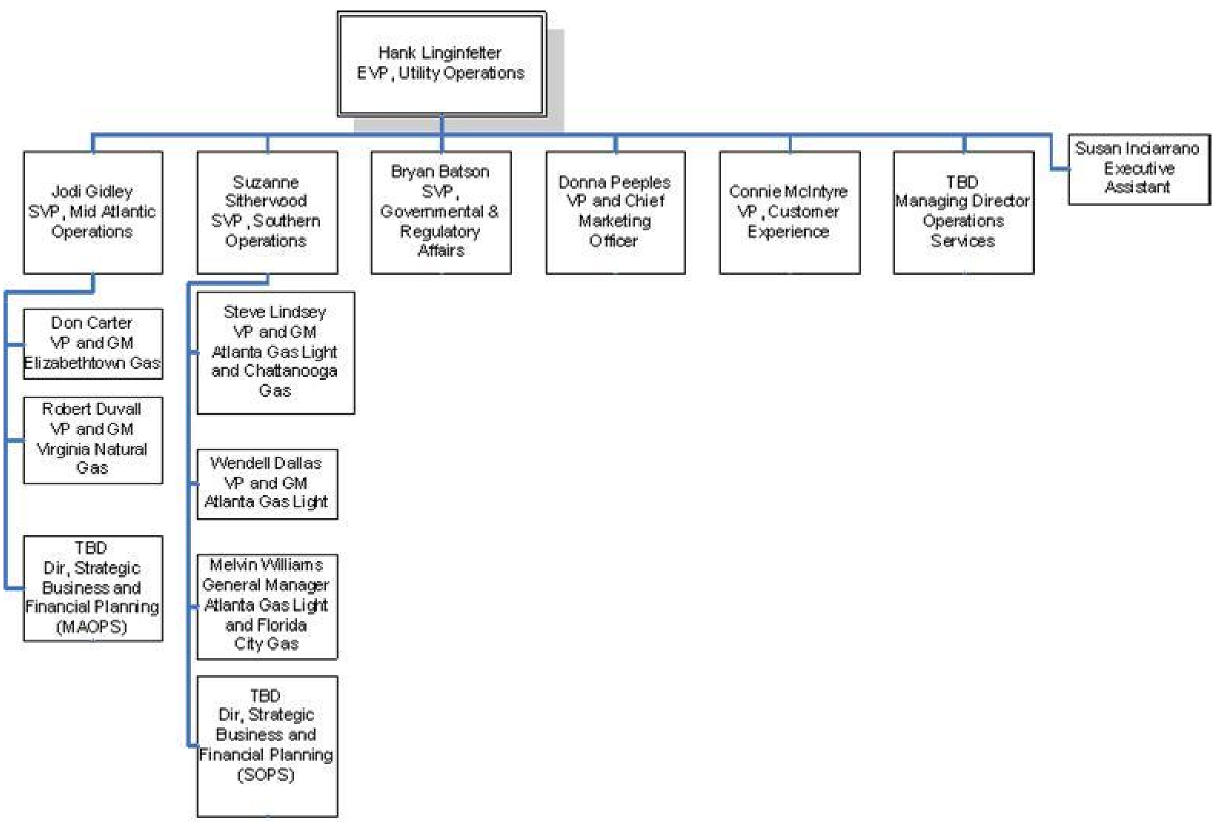
[6] AGLR refers to AGSC and ETG as business units.

Gas Supply and Capacity Planning, who is located at AGLR's headquarters in Atlanta. That manager has supervisees in Atlanta, who serve all of the distribution-company subsidiaries, but he also supervises other employees who are resident in, and employees of, other subsidiaries. Similarly, the employees who enter ETG's gas-purchase transactions into its transaction-tracking system are part of the parent company's Financial Services organization. While they are ETG employees, their supervisor is the Manager, Gas Accounting, who is also located at the Company's headquarters in Atlanta. As with the Managing Director, Gas Supply and Capacity Planning, the Manager, Gas Accounting also supervises other employees in the gas-accounting function who are resident in, and employed by, other distribution subsidiaries. The Cost Allocation chapter of this report provides additional information on AGLR's organization, and the bases on which employees are assigned to different business units.

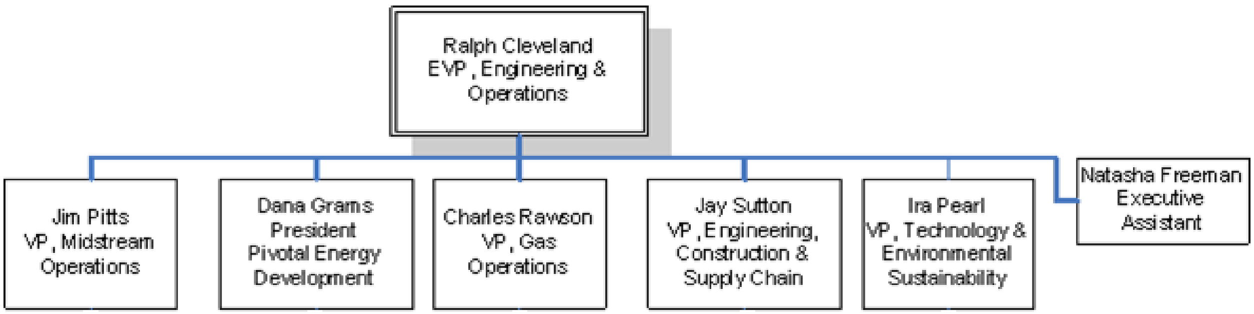
a. Gas Supply Planning, Acquisition and Management Organization

Units of three of AGLR's functional organizations perform gas supply planning, acquisition and management:

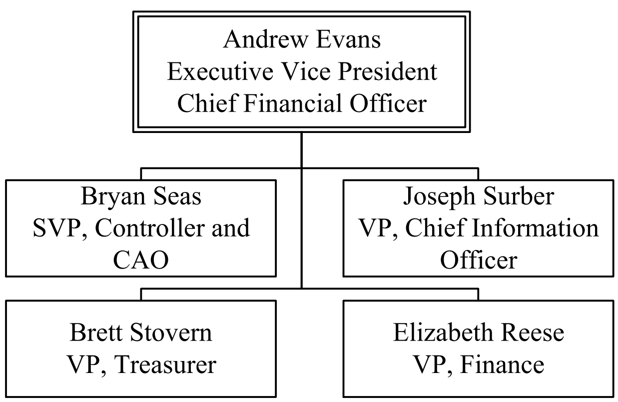
- A Planning and Forecasting group within Regulatory Affairs, which is part of the Utility Operations organization, conducts requirements forecasting. This group largely uses econometrics for forecasting, but Marketing personnel in each of the six utility companies review the results. Marketing personnel also provide customer-by-customer forecasts for the larger-volume (over 200 Dth/day) customers in each service territory. Marketing is also part of the Utility Operations organization. An organization chart illustrating the composition of the Utility Operations organization follows.



- A Gas Supply and Capacity Planning department within Gas Operations and Capacity Planning, which is part of the Engineering and Operations organization, conducts supply capacity planning. That department analyzes and recommends for contracting any increments of supply capacity identified as required through its planning processes. It also negotiated the most recent asset-management arrangements with SEM, and it conducts competitions for supplemental gas supplies, such as peaking services. An organization chart illustrating the composition of the Engineering and Operations organization follows.



- A Gas Accounting group within the Financial Accounting department performs gas accounting. This department is part of the Financial Services organization. An organization chart illustrating the composition of the Financial Services organization follows.



Regulatory Affairs ETG coordinates these groups for the purpose of preparing regulatory filings. Parts of the Basic Gas Supply Service (*BGSS*) filing, for example, are prepared by each of the involved departments, but Regulatory Affairs ETG coordinates production of the filing, and responses to questions from interested parties and from the BPU.

The Planning and Forecasting and Gas Accounting groups do not have formal mission and function statements, but the Company provided to Liberty descriptions of their functions in response to data requests. A Service Level Agreement Summary, which applies to each of the affiliated utility companies, details each of the services the Gas Supply and Capacity Planning department provides. The Service Level Agreement Summary is further amplified by a list of processes conducted by the department for each of the utilities. That list identifies the person responsible for each process, how often each process is provided, and a (qualitative) quality standard for each.

Gas Supply and Capacity Planning also has goals for each year, but those goals are not directly related to performance quality in the services provided. The Company reports that it assesses performance quality of the Gas Supply and Capacity Planning department primarily through evaluation against individual performance objectives for the department's leadership, but also through evaluation of compliance with the service level agreement with each utility for which the department provides support.

Planning and Forecasting assesses its performance quality using specific benchmarks:

- Unexplained variances of consumption or margin at each utility against established accuracy standards (plus-or-minus four percent on a quarterly basis, and plus-or-minus two percent on an annual basis)
- Timeliness of work products against specific benchmarks throughout the year.

Gas Accounting does not have specific performance metrics. Rather, the Company measures its performance against general standards that conform to the Company's missions and goals, including the following:

- Reviewing and processing gas invoices in a timely manner to ensure that late charges and/or interest are not incurred
- Providing accurate and complete purchased gas cost information on a timely basis to the Rates Department for regulatory filings
- Ensuring gas cost recovery is applied and recorded accurately
- Timely closing of monthly margin, including all journal entries and analysis of variances, in accordance with the financial closing calendar
- Maintaining records related to inventory levels, deferred and recovered gas costs and accuracy of intercompany invoicing between the wholesale trading company and the regulated utilities
- Resolving any discrepancies in a timely manner
- Ensuring all accounts are reconciled and reviewed in accordance with Company policies
- Providing accurate and transparent data to shareholders, investors, auditors, and regulators both in standard reporting and on an ad hoc basis.

b. Training, Experience and Performance of Gas Procurement Staff

Key personnel who administer the gas supply function for ETG are well qualified and experienced. In particular,

- The Manager, Gas Supply for ETG joined the Company before he finished college. He has been in Gas Supply at ETG for almost 25 years.

- The Managing Director, Gas Supply and Capacity Planning has been in gas supply for most of his 20-plus years in the gas industry. He held senior positions in gas supply at another East Coast distribution utility prior to coming to AGLR. While there, he performed or supervised most of the functions for which he is now responsible at AGLR, including negotiating asset-management arrangements.
- The Manager, Planning and Forecasting came from NUI, where he was in gas supply initially, then moved to Rates and Regulatory, doing the same kind of work that he is doing now. His college training specialized in econometrics, and he has been working in forecasting for more than 10 years.
- The Manager, Gas Accounting has been in gas accounting for the AGLR companies for about 10 years. She has a graduate degree (MBA), and considerable accounting experience before coming to AGLR.

The Company reports that it subjects all employees involved in gas supply planning and operations for ETG to AGLR's performance-management process. The program includes two formal feedback sessions per year, in which each covered employee is evaluated against the completion of stated individual performance objectives. Employees are also evaluated on their demonstration of attributes that lead to good performance, such as Business Acumen, Learning and Thinking, Collaborating and Building Relationships, and Executing for Results.

c. Policies and Procedures that Control Procurement-Related Activities

The various organizational units involved in providing gas supply to ETG's customers all have established policies and procedures governing their activities, but documentation of those policies and procedures varies considerably. Examples include the following:

- Planning and Forecasting forecasts throughput volume monthly, for the next five years, for each of AGLR's six gas-distribution utility companies. Methods and input data are handled consistently across the six; assumptions are consistent; and internal review of the results is extensive. Variance between forecast and actual is also analyzed monthly. The Company provided little documentation of this activity, however.
- The Company has documented supply capacity planning well, on the other hand, at least preliminarily. The Gas Supply and Capacity Planning department has prepared a description of the capacity requirements forecasting and supply planning processes that it uses. The Company reports that, while the individual circumstances and history of the six utility subsidiaries result in some differences among them in the application of these processes, the document describes the approach that the Company would like to use for all six, and to which it is moving as it is able.
- An attachment to ETG's Asset Management Agreement with SEM documents well the procedures for operating under that Agreement.
- ETG prepares Summer Injection Plans and "Storage Plans" (winter withdrawal plans), then tracks storage balances monthly.
- Training materials prepared at the time when AGLR was taking over the ETG operation document the procedures for third-party use of ETG's gas distribution system. Liberty understands that the Company uses the same materials now when a new marketer begins service on ETG's system.

- ETG established a Risk Management Policy in December 2000 in response to a requirement by the NJ BPU. ETG updates the statement of the policy periodically, most recently in August 2007. That document includes a Gas Procurement Strategy and Plan, and authority limits that apply to gas-supply transactions including hedging.
- In response to data requests in this audit, the Company provided 1) a statement of its policy regarding participation in proceedings at the U. S Federal Energy Regulatory Commission; 2) a description of the process it uses to prepare BGSS filings; and 3) a description of the system that Gas Accounting uses to capture "logical" gas purchases, and to reconcile invoices and volumes received, as part of approving invoices for payment and tracking storage balances.

For supply capacity, the Company monitors and reviews open-season announcements by project sponsors to look for capacity that can offer delivery to ETG's city gates. Since the cost of deliverability in most new projects is higher than that in the capacity currently under contract, the Company does not pursue those options as a replacement opportunity. Where a capacity offering would provide incremental service at a rate that would compare favorably for the Company's incremental needs, the Company responds to open-season notices with requests for additional information. ETG currently depends on a significant amount of delivered peaking services to meet its design peak day, and this is the capacity that would be replaced if a project for new capacity were to be added.

In the wake of the hurricanes in the fall of 2005, the Company focused on the fact that almost all of the gas injected into storage, and most of the supplies acquired to serve flowing-gas requirements, were sourced from the Gulf of Mexico Producing Region. As a result of the gas-supply and capacity disruptions that occurred during and after those events, the Company decided to look for opportunities to diversify its supply sources. Participations in two capacity-expansion projects were added after that review:

- Transco's Sentinel pipeline expansion project will increase deliverability to ETG's city gates, plus provide access to supplies from the Dominion Cove Point LNG receiving terminal, and to supplies from the Mid-Continent and Rocky Mountain Producing Regions, plus Marcellus shale development, via the Leidy Hub. Accordingly, ETG took 15,000 Dth/day of capacity in that project, 5,000 of which went into service on December 21, 2008, and 10,000 of which is scheduled to go into service in November 2009.
- ETG and sister utility Virginia Natural Gas each took 15,000 Dth/day on an expansion of the Gulf South pipeline. That expansion provides upstream access to gas supplies from West Texas. ETG's capacity feeds existing Transco capacity at Zone 4.

The Company added the Gulf South capacity after an evaluation process that looked at eight different options. It selected Gulf South on the basis of 1) access to non-Gulf-Coast Producing Regions; 2) costs, including interconnection costs, demand costs and fuel; and 3) future flexibility. The Company provided no analysis of the decision to add the Transco Sentinel capacity.

SEM supplies commodity under the Gas Purchase and Sale Agreement which is part of the Asset Management and Agency Agreement between Pivotal Utility Holdings, Inc., d/b/a

Elizabethtown Gas, and Sequent Energy Management, L.P. ETG also uses bundled peaking services to make up the difference between its design-day forecast of requirements for supply, and available supply resources. ETG acquires those services through an annual request-for-proposal (RFP) process. RFPs request supply offers for one-, two-, three-, and five-year periods. Acceptances depend on attractiveness of the offers.

The Company has an Approval Roles Matrix, approved by its Board of Directors, which governs authority levels for financial commitments, including contracting for pipeline and storage capacity, made on behalf of AGLR and its subsidiaries. This document divides approval roles between the Board and AGLR's CEO. The Company also has a Delegation Policy, whereby the CEO can further delegate his or her authority to other officers. Delegatees are determined by 1) the magnitude and duration of the commitment at issue, and 2) the nature of the commitment; *e.g.*, an officer of Utility Operations would make a commitment for pipeline or storage capacity.

d. Documentation Requirements for Development and Evaluation of Alternatives

Liberty did not find general requirements for documentation of development and evaluation of alternatives. In response to data requests about particular decisions, the Company provided copies of analysis done in support of those decisions. Referring to some of the matters listed in the previous section, for example, the Company provided: (1) the analysis that selected the Gulf South expansion (but nothing for the Transco Sentinel project), and (2) a spreadsheet comparing offers received for peaking service for the winter of 2008/09. The Company provided copies of the offers for peaking service in response to a further data request.

The Delegation Policy mentioned above refers to the Company's Purchasing and Contracts Policy and Procedure, which authorizes a Purchasing Department, provides for a purchase-order procedure, *etc*. The Delegation Policy also provides for legal review for contracts over a certain size (value greater than $50,000, term over 12 months).

The Delegation Policy also refers to a Document Retention Policy. That Policy focuses on agreements entered into, but does not address justification for entering into them. Again in response to a data request, the Company provided to Liberty copies of the Delegation Memoranda for the two pipeline projects mentioned above (Gulf South expansion and Transco Sentinel Expansion Project), providing authority for the individuals to sign, and a copy of the Resolution of the Board of Pivotal Utility Holdings, authorizing those individuals to execute the agreements. The Company reports that it did not retain any cover documents that might have explained what was being signed and why, however.

The NJ BPU has fairly extensive requirements for the ETG's annual BGSS filings. The Company uses that filing as a record of its decisions regarding its gas-supply portfolio made during the previous year.

e. Observation and Maintenance of Requirements for Documentation

Liberty could not find particular requirements for documentation; therefore, this question is moot.

f. Sarbanes-Oxley Requirements

For Sarbanes-Oxley (*SOX*) compliance, AGLR's Internal Control Department, which is separate from the Internal Audit function, works in conjunction with management of the various business units, and functions to identify significant accounts and processes that could affect the effectiveness of internal controls over financial reporting. Internal Control also identifies and documents key controls on those processes with business "owners." Internal Audit is responsible for testing the design and operational effectiveness of the key controls over financial reporting.

Internal Control and Internal Audit independently perform their duties for all material business units and subsidiaries of AGLR, including ETG. Accordingly, the majority of processes and key controls identified and tested are a part of centralized (Corporate) processes or applications. The remaining processes and applications are either decentralized or specific in nature to a particular business unit or function. The Company reports that decentralized or specific processes and controls that are not tested are "limited in number."

g. Internal Audit Reviews

There have been only six internal audits of ETG operations. Three of those have examined compliance with ETG's Asset Management and Agency Agreement with SEM. The Company reports that the gas procurement function has been reviewed as part of those audits.

The most recent of those reviews, covering operations during 2007, noted that ETG's (and Elkton's) "[d]aily, monthly and ad hoc responsibilities and procedures are not documented,"[7] and identified this finding as a "Control Gap & Weakness."[8] The Company reports that the Gas Supply and Capacity Planning group agrees with this assessment, and will prepare more formal documentation of the gas supply process.

None of the internal audits of ETG covers the period since the entry into force of the new Asset Management and Agency Agreement, which occurred on April 1, 2008. The Stipulation among the Company, NJ BPU Staff and the Department of the Public Advocate, Division of Rate Counsel, presented to the NJ BPU in support of the new Agreement, provides that, after each year of operation of the Agreement, AGLR will conduct an internal audit of the operation of the Agreement, to determine:

1. Whether margins were properly credited to ETG's BGSS-P clause in the manner intended by the Stipulation, and
2. Whether SEM was treating ETG in a non-discriminatory manner in relation to SEM's other asset-management arrangements.

ETG is to provide a copy of the results of that audit to the parties, along with access to supporting documents. The Stipulation also provides that, following the completion of the first 12 months of the Agreement, ETG will hire a non-affiliated consultant with expertise in evaluating performance under capacity-management arrangements to conduct an independent evaluation of SEM's performance as a capacity manager and gas supplier for ETG. ETG is to provide copies of that evaluation to the same parties.

[7] Attachment LC-508.1 to the response to DR #508.
[8] *Ibid.*

2. Gas Supply Planning and Forecasting

a. Throughput Volume Forecasting

The Planning and Forecasting group (*P&F*) forecasts billing units and throughput for ETG by customer class. Three approaches are used:

- For customers served under the Residential Delivery Service (*RS*), sales and transportation tariffs, the Company begins with statistically modeling gas usage per customer through a regression equation for each class of customers based upon monthly data that extends back to September 1989. Next, P&F projects the number of customers billed for each class along with any expected incremental growth in usage for existing customers. Finally, P&F develops a consumption forecast by applying the use-per-customer models to the projected number of customers for each class, and factoring in any expected incremental usage from existing customers.
- For commercial customers served under the Small General Service (SGS), General Delivery Service Sales (GDS-S), Multiple Family Service (MFS), General Delivery Service Transportation (GDS-T) tariffs, P&F begins with statistically modeling gas usage per customer through a master regression equation for all classes of customers based on monthly data that extends back to September 1989. Next, P&F models gas usage per customer through allocation regression equations for each class of customers based on a recent period, most recently September 2007 through December 2008. Next, P&F projects the number of customers billed for each class, along with any expected incremental growth in usage for existing customers. After this, P&F develops an overall consumption forecast by applying the master commercial use-per-customer model to the projected number of customers for all classes and factoring in any expected incremental usage from existing customers. Finally, P&F develops a preliminary consumption forecast for each class by applying the allocation use-per-customer models to the projected number of customers for each class, and factoring in any expected incremental usage from existing customers. The Company then uses the results of this forecast to allocate the results of the master commercial forecast usage to each class.
- For all other classes of customers, P&F projects demand on a customer-by-customer basis. This process takes into account historical consumption for the individual customer and makes appropriate adjustments based on marketing representatives' knowledge of the customer and its operations, and the annual key large customer survey.

Marketing Intelligence, a unit of the AGLR corporate Marketing organization, provides the billing-unit new growth and billing-unit attrition forecasts by month and type of customer for residential and commercial customer classes. The customers are grouped by residential non-heating, residential new-development single-family heating, residential townhouse/condo (multifamily) heating, scattered residential heating, and new commercial. The ETG Marketing group provides an estimate of the number of existing accounts expected to add heating load. Additionally, the ETG Marketing and Sales group provides review and new-customer load forecasts for large commercial and industrial accounts with a contract maximum demand quantity over 200 Dths.

These processes produce monthly throughput-volume forecasts, which are used for revenue forecasting. For gas-supply planning, the use-per-customer data are regressed against weather by customer class. Use per customer is combined with forecasts of numbers of customers in each class and 10-year weather normals to produce a daily usage pattern. The daily usage patterns are scaled so that each month's total consumption equals the volumetric forecast for that month. The resulting load pattern is used to develop annual requirements for delivery capacity. The weather pattern is changed to warmer-than-normal and colder-than-normal to develop the necessary range in requirements for delivery capacity.

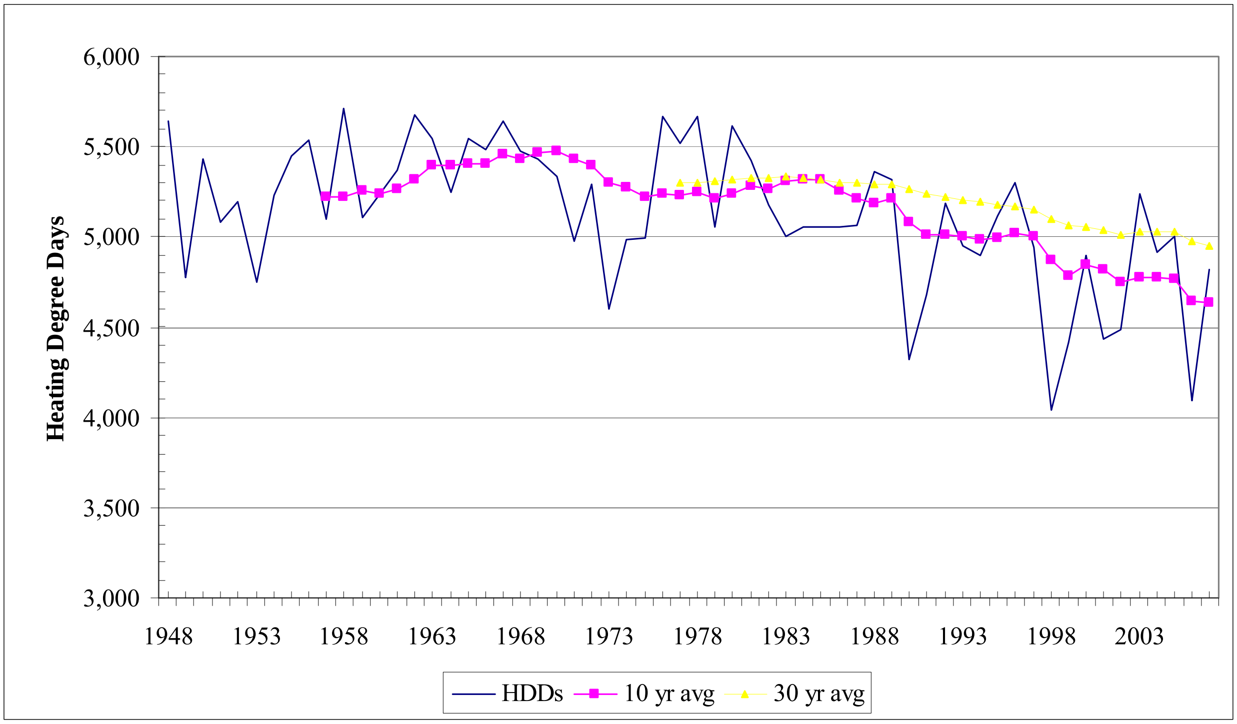
b. Peak Load Forecasting

Gas Supply and Capacity Planning makes the design-day forecast, based on a regression analysis of monthly customer count, daily historic load, and heating degree-days (HDD). The design-day calculation uses all November-through-March days over the last five years with more than 30 HDD. The historic usage on a given day is divided by the number of customers in that month to come up with a Use Per Customer (UPC) factor. The regression analysis uses the UPC factor and that day's HDD value. The forecasted customer count for January, along with a 65 HDD design-day temperature criterion, are applied to the regression equation to produce a forecasted load. Finally, projected GDS–T rate class (cycle-billed commercial transportation) consumption is subtracted from the forecast load to generate projected design peak-day demand.

The Company adds a reserve margin requirement of five percent to its estimate of peak load. The Company has not performed any studies supporting this standard; rather, the reserve margin provides protection from weather-related issues such as failure of mechanical plants (such as LNG facilities), supplier *force majeure*, temperature forecast error, customer sensitivity error, distribution system issues and/or interstate pipeline issues. These problems, and other factors, either by themselves or in combination, could affect the Company's ability to provide service to firm customers.

c. Weather Analysis

The chart below shows the weather, as measured by annual HDD, at Newark Airport since 1948. Thirty-year average HDD and 10-year average HDD are superimposed on the plot of annual HDD. The plot shows the decline in annual HDD over the period.



For revenue and volume forecasting purposes, the Company now uses 10-year average HDD, which it considers to have a probability of occurrence of 50 percent (equal chance of above or below). ETG's 2002 rate case used 20-year average HDD.

For capacity-planning purposes, the Company uses the 30-year average for "normal" weather, and a severe-weather pattern for "design" weather. The Company develops the severe-weather pattern from the coldest weather on record, now the year 1976-77. The coldest days in that weather pattern are replaced by a severe, seven-day cold stretch. The load is modified in this way to insure that the pattern used has a critical load period for the gas-supply portfolio to cover.

The Company assumes that the peak day occurs in mid-January. As noted earlier, the peak-day design criterion is zero degrees Fahrenheit. The Company reports that weather that cold or colder has occurred twice since 1948.

d. Assumptions, Variables and Probabilities

The Company reports that it uses the same key assumptions for annual budgets, quarterly forecasts, and the BGSS forecast. The key assumptions are as follows:

1. The most recent 10-year weather pattern, based on NOAA hourly temperature observations for Newark Airport is used for "normal" weather.
2. The most recent count is used as a starting point for billing-unit (customer) projections.
3. The most recent growth forecast from Marketing is used.
4. The most recent economic-indicator series from the Philadelphia Federal Reserve Bank, which provides consumption data, is used.
5. The most recent NYMEX strip is used to establish BGSS-M pricing.

6. The current BGSS-P pricing is used and assumed to be constant unless there are indications that it will materially change in the forecast period.
7. The industrial forecast includes the current status of existing large accounts.
8. An inflation rate is established based on a 10-year average.
9. The current meter-reading schedule is used to compute cycle average heating degree days.

The Company reports that forecast assumptions are mostly the same for budgeting and rate cases. Differences would be due to regulatory requirements established by the applicable jurisdiction, or to provide for a better estimate for rate-making purposes. For example, for budget purposes, the Company forecasts new growth and attrition monthly, and the associated revenues begin in the month the growth and attrition occurs; i.e., if a customer is added in June, revenue is budgeted for seven months (June – December). In a rate case, however, the Company annualizes forecasted growth and attrition so that the growth results in a full year of revenue regardless of when the growth and attrition occurred. While annualization is appropriate for rate-making, it would over-estimate the volumes and revenues the Company would expect to recognize for budgeting purposes. There may also be differences of within-month timing. For a budget forecast, calendar-month consumption and unbilled revenue would be included. This type of assumption may be inappropriate for a rate-making forecast where the focus needs to be on customer behavior as it is billed. This is particularly true for ETG where over 270,000 customers are billed on a cycle rather than a calendar basis.

The Company reports that sales and throughput-volume forecasts go through a three-step review process. First, the analysts and manager in the Planning and Forecasting department review key assumptions, statistical and forecasting models. Then, using review materials provided by the Planning and Forecasting department, the forecast and assumptions are reviewed with the Vice-President/General Manager of ETG; the Mid-Atlantic Operations Director of Financial Planning and Budgets or the Managing Director Capacity Planning and Gas Supply and their analysts, depending on the forecast purpose; and the Director of Marketing Intelligence. These executives review and challenge forecast assumptions and output with particular focus on reasonableness given current and recent years' conditions and customer behavior. After any changes are made on the basis of that review, a final review is conducted with the Senior Vice-President Mid-Atlantic Operations; the Vice-President/General Manager of ETG; and the Mid-Atlantic Operations Director of Financial Planning and Budgets or the Managing Director Capacity Planning and Gas Supply, again depending on the purpose of the forecast.

e. Evaluations of Actual versus Projected Performance

The Planning and Forecasting group does a variance analysis every month: customer count, consumption, revenue. If, after weather correction and correction for any other known factors, the variance is "material," which P&F sets at "about two percent," the group does some research to find out what is wrong.

The Company does not prepare a comparison of forecasted demand and how it is projected to be met, along with a summary of actual demand and how it was met by supplier, pipeline, storage or peaking resource or any other gas purchase. Under the Company's asset-management arrangements with SEM, physical deliveries may vary frequently from "logical" nominations, with the differences going into ETG's storages. The Gas Accounting group carefully tracks both physical and logical deliveries, as detailed in the previous section of this chapter. Gas Supply and Capacity Planning occasionally does *ad hoc* reviews of forecasted-versus-realized movements into and out of a particular pipeline or storage facility, in order to assess the effect of a particular "driver," such as weather forecast error.

Recently Gas Supply and Capacity Planning has begun evaluating the use of a neural-network-based short-term load forecasting application called Nostradamus®. The application learns from past load and weather observations in order to predict a future load value. The users provide historic daily load and actual weather data to train the model. In the training process the application learns the demand response or weights to attribute to various weather-related drivers of system load. These weights can be applied to a load forecasting process to project a day's system requirements.

f. Assessment of Market Conditions for Optimizing Supply and Capacity Mix

ETG had an array of marketing programs in place until mid-2008. Programs were organized by customer type, and were focused on market segments most likely to yield additional sales. The Company collected information important to maximizing the benefit of marketing efforts, such as identification of potential customers located along ETG's gas mains, and used the information in prioritizing marketing efforts.

In mid-2008, the Company suspended most active marketing, pending reorganization of the marketing function at AGLR, and introduction of a number of new State-supported energy efficiency programs. The reorganization effort has just been completed (June 2009). ETG's marketing is now focused on complementing the State's programs, a list of which is attached to this chapter.

As noted earlier, the marketing function at AGLR is extensively involved in revenue and sales-volume forecasting. Marketing Intelligence at headquarters provides the billing-unit new growth and billing-unit attrition forecasts by month and type of customer for residential and commercial accounts. The customers are grouped by residential non-heating, residential new development single family heating, residential townhouse/condo (multifamily) heating, scattered residential heating, and new commercial. The ETG Marketing group provides an estimate of the number of existing accounts expected to add heating load. Additionally, the ETG Marketing and Sales group provides review and new customer load forecasts for large commercial and industrial accounts with a contract maximum demand quantity over 200 Dths.

'External forces' are reflected through direct forecast of the projected number of customers adding or changing equipment. The Marketing department at ETG provides a series of estimates or projections of customers who are expected to participate in energy conservation programs. Currently included in these estimates are:

- The number of existing non-space-heat customers that are expected to convert to gas heating from another fuel source;
- The number of projected new customers that are expected to convert to gas heat from another fuel source;

- The number of new construction customers projected to receive Energy Star homes rebates;
- The number of new customers projected to receive New Jersey Clean Energy Program rebates for installing a high efficiency furnace or boiler;
- The number of new customers projected to receive New Jersey Clean Energy Program rebates for installing a higher efficiency water heater;
- Equipment changes for large customers with daily contract demand quantities over 200 Dths are provided individually on a case-by-case basis.

From these projections Forecasting and Planning estimates load reductions based upon efficiency gains on either the space heating or water heating portion of the load using a system-average customer with an 80-percent efficient furnace or boiler and a 50-percent efficient water heater. F&P then combines these load reductions are with the preliminary load forecast to arrive at the final sales forecast. These forecasts are available for the Gas Supply and Capacity Planning department to use in its forecasting of gas-supply capacity requirements.

g. Integration of Gas Supply Planning with Related Corporate Planning

Planning and Forecasting's sales and throughput-volume forecasts are the heart of all budgeting and forecasting for AGLR's Distribution Operations business segment. With normal weather, they are used for monthly cash-flow forecasts, and for the Company's five-year outlook. Aspects of the design-weather forecasts are used by Engineering for long-term infrastructure planning. Warm-weather scenarios are sometimes used for financial risk assessments.

3. Transportation and Peaking Assets

a. Rationale for Capacity and Storage Services Used

ETG is served by Columbia Gas Transmission (TCO), Tennessee Gas Pipeline Company (TGP), Texas Eastern Transmission Corporation (Tetco) and Transcontinental Gas Pipeline Corporation (Transco). The Union service territory has access to Tetco and Transco. The Northwest service territory can be divided into three segments in terms of access to the different pipelines:

- The northern part is only served by TGP, although it also has access to an exchange arrangement with Public Service Electric & Gas Company (PSE&G), which makes additional deliverability available[9]
- The central part has access to TCO and Transco
- The southern part has access to Tetco and Transco.

The same Transco segment serves both the southern part of the Northwest service territory and the Union service territory. The map on the next page shows the delivery capacities into each part of both service territories, plus summary statistics for the Company's supply resources.

[9] ETG has proposed an infrastructure project to connect the northern and central parts.

[redacted]

In the period since January 1, 2006, the Company reports that there have been several term extensions and additions of new capacity, but there have been no capacity expirations, re-negotiated rates, no de-contracting and no assignment or new long-term releases. The capacity additions and term extensions are as follows:

1. Capacity Conversions/Additions/Deletions:

a. Transco ESS service
   - Converted 22,940 Dth/day including an incremental 224,441 Dth of emergency service to storage capacity in March 2007.
   - Unbundled and allocated incremental ESS to qualifying shippers with existing emergency Eminence rights. The options Transco presented were to turn back the capacity to Transco, accept the incremental allocation at lower rates, or decline the allocation and pay higher rates. The Company accepted the allocation.
   - Withdrew gas from Eminence flows on the Company's existing Transco FT contracts.
   - Turned over the converted storage contract to the Company with a zero balance.

b. Gulf South
   - Added 15,000 Dth/day of upstream transportation capacity
   - Negotiated rate service (*i.e.,* rates fixed for term of service without regard to the applicable minimum and maximum tariff rates)
   - Started service April 1, 2008 for a ten-year term with an evergreen provision
   - Provides access to non-Gulf supply; supply sourced from on-shore east Texas (Carthage, TX receipt point)
   - Provides delivery to Transco, zone 4 (station 85); does not provide incremental city-gate deliverability

c. Transco Sentinel service
   - Adds a total of 15,000 Dth/day of incremental FT delivery to ETG's system. The capacity will be phased in as follows:
     - Phase I: 5,000 Dth/day of capacity that became available for the winter of 2008-09 for delivery to ETG's New Village meter station;
     - Phase II: 10,000 Dth/day of capacity becoming available for the winter of 2009-10 providing delivery service to ETG's Cloverleaf and Erie Street meter stations at 5,000 Dth/day each.
   - Provided receipt entitlements from the Dominion Transmission/Transco interconnection at Leidy for the 2008-09 capacity of 5,000 Dth/day. The 2009-10 receipt capacity will be as follows:
     - 5,000 Dth/day of receipt entitlements from the interconnection of Transco and Dominion Transmission at Cove Point LNG to the Company's Cloverleaf facility, and;
     - 5,000 Dth/day of receipt entitlements from the interconnection of Transco and Dominion Transmission at Cove Point LNG to the Company's Erie Street facility.

2. Term Extensions:

a. Transco SS-1 storage
   - Negotiated a two-year extension with evergreen rights and a six-month notice period; new termination date is March 31, 2010

b. Transco SS-1 transport
   - Negotiated a two-year extension with evergreen rights and a six-month notice period; new termination date is March 31, 2010

c. Transco LSS storage

- Extended term five years; new termination date is March 31, 2013

The Company contracts for 18 storage services, 14 in the Market Area and four in the production area. Those storages are as follows:

Contract	MDWQ	MDIQ	Location	Dedicated Transport
Columbia FSS	3,644	1,841	Market Area	Associated Transport
Dominion GSS1	10,826	3,585	Market Area	Associated Transport
Dominion GSS2	16,666	9,259	Market Area	Associated Transport
Dominion GSS TE	23,190	13,262	Market Area	Associated Transport
Transco GSS	27,604	9,778	Market Area	Bundled Service
Transco LSS	8,000	3,333	Market Area	Bundled Service
Transco S-2	7,267	5,443	Market Area	Bundled Service
Transco SS-1	6,973	3,007	Market Area	Associated Transport
Transco LGA	23,950	490	Market Area	Bundled Service
Transco LNG	15,000	284	Market Area	Bundled Service
TETCO SS-1	3,646	1,953	Market Area	Bundled Service
Steuben	5,750	3,696	Market Area	Associated Transport
Stagecoach	3,040	1,520	Market Area	Associated Transport
Tennessee FS-MA	1,014	670	Market Area	Associated Transport
Transco ESS	14,397	959	Production Area	None
Transco ESS	22,940	1,529	Production Area	None
Transco WSS	40,149	18,959	Production Area	None
Hattiesburg	6,200	3,100	Production Area	None

b. Peaking Facilities and Contracts

The Company has a liquefied natural gas (LNG) peaking facility, located at its Erie Street service facility in its Union service territory. The storage capacity of that facility is 135,000 Dth;[10] its maximum daily withdrawal capacity is 25,000 Dth/day.

The Company also buys bundled peaking services from some of its customers, and buys peaking services delivered to its city gates. Those services are presented in the following tables:

Counterparty	Delivering Pipe	Maximum Daily Volume (Dth/day)	Days Available
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]		[redacted]	

[10] The "name plate" capacity of this facility is 145,000 Dth. It is rated by ETG at 5.4 days at 25,000 Dth/day, or 135,000 Dth.

Counterparty	Term	Delivering Pipe	Maximum Daily Volume (Dth/day)	Days Available	Period Available
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]			[redacted]		

c. Improvements in Contract Terms and Conditions

Liberty asked whether, in the time that AGLR has owned ETG, it had sought improvements in pipeline and storage contract terms and conditions. The Company's response was as follows:

> *In the time that AGL Resources has owned ETG, the Company has looked for ways to improve contract terms and conditions with the pipelines. Two Texas Eastern contracts retained a favorable rate discounts through a mutual agreement on a term extension. Another package of existing Texas Eastern agreements are being reviewed with the pipeline for potential modifications to delivery pressure commitments.*
>
> *The Company has had discussions with Transcontinental Gas Pipe Line as well. A joint review of the Company's entire contract portfolio was conducted. We were looking for ways to reduce the number of contracts, through consolidation, to alleviate the level of administrative work in maintaining the agreements. Unfortunately the review revealed little or no potential benefits or administrative*

relief. However, once Transco's Eminence Enhancement project is put into service the Company's two (2) ESS service agreements with Transco will be combined into a single agreement for easier management.

There have also been discussions with Columbia Gas Transmission to modify or change rate schedules on existing contracts to better meet the needs of the system and our customers. No determination has been made at this point.

d. Performance of Capacity Portfolio During Periods of Peak Demand

The Company reports that, during the time that AGLR has owned ETG, it has experienced problems with two storage services:

- A temporary reduction in service from Steuben Gas Storage Company, due to continuous heavy withdrawals by all customers of that facility
- A reduction in service from the Hattiesburg gas storage facility, due to structural problems with one of its caverns.

The Company considers the first of those two to be a one-time event, driven by extreme weather which has not been repeated. The second problem is of more concern, and the Company is considering its options with respect to this contract.

The firm transportation capacity portfolio has performed as expected, and within the terms of the respective contracts.

e. Overall Assessment

Prior to 2009, ETG was adding customers at a rate of 0.9 percent per year. Most of these were residential oil-to-gas conversions, and the Company feels that there is considerable additional potential for those, as the saturation in the service territory is only about 60 percent. At the same time, however, use per customer has declined with higher gas prices and more efficient equipment. Pending clearer directions for customer and load growth in the wake of the current recession, ETG's Manager, Gas Supply, reports that the supply-capacity portfolio seems "about right," although with somewhat limited ability to deal with supply contingencies. He also reported that the company is looking for a possible LNG plant site in the Company's northwest service territory.

4. Supply Capacity Management

ETG's supply-capacity portfolio is managed by affiliate SEM, pursuant to an Asset Management and Agency Agreement between ETG and SEM, with an associated Gas Purchase and Sale Agreement. The asset-management agreement covers all of ETG's transportation contracts, and most of its storages. ETG retains control over the storages that it uses for balancing (Transco GSS, TCO FSS and TGP FS-MA); two peaking services that it buys from Transco, and its on-system LNG peaking facility; and the peaking services that it buys from its customers. ETG also contracts for delivered peaking services; those are dispatched by ETG until February 15, at which point the asset manager controls them. ETG's access to its production-area storages, Transco ESS and WSS, plus Hattiesburg, is restricted to certain load conditions.[11]

[11] Access is restricted to times when ETG's firm load is forecasted to be at or above 300,000 Dth.

The asset-management agreement specifies daily operational procedures. The agreement specifies which duties are to be performed by ETG and which by the asset manager, along with a daily schedule for completion of the various duties.

Operations are conducted through a share-point web site. By 8:00 a.m. Eastern time each morning, ETG's Manager, Gas Supply, receives weather and sendout forecasts via the web site. The weather forecasts are for the next 10 days, and the sendout forecasts are for the next five days. He uses the sendout forecasts to produce that day's "logical" nominations. "Logical" nominations are those that ETG would make if it were managing its own capacity; they are used for computing a base gas cost that goes into the calculations of extra margins to be shared with the asset manager and are the basis for SEM's gas costs billings to ETG. The gas supply manager enters those nominations into a spreadsheet on the share-point web site. An e-mail is generated with those nominations as well as any specific delivery requirements and limits or conditions placed on physical deliveries.[12] Those nominations are completed by 9:00 a.m. Eastern time, for flow on the next business day.

The asset manager then has from 9:00 a.m. Eastern until the pipelines' nomination deadlines – usually noon or 12:30 Eastern – to "optimize" ETG's transportation and storage assets. Optimization activities include the following:

- Arranging for delivery of ETG's nominated quantities to its city gates in a manner that saves variable costs
- Using ETG's transportation and storage assets in "secondary-market transactions"; *i.e.*, sales to third parties ("off-system" sales) and capacity releases.

By the time of the deadlines, the asset manager makes the nominations to the various pipeline and storage operators as ETG's agent; it also nominates to AGLR's Gas Operating System (the system that AGLR uses to manage gas movements behind its city gates) deliveries to ETG's city gates. The asset manager uses ETG's storage assets in various types of "arbitrage" transactions, involving trading stored quantities between geographic locations, and between different points in time.

The asset manager tracks on its own systems the optimization and storage-arbitrage transactions that it enters for ETG's account. An appendix to the Stipulation approving the extension of ETG's asset-management arrangements with SEM specifies how that tracking is to be done. Quantities of gas in ETG's storages, for ETG's account and for the asset manager's account, are tracked on a different spreadsheet on the share-point web site.

[12] In comments on Liberty's Draft Report, the Company reported that the "logical" nominations are finalized prior to any shift in delivery points that the asset manager may request, and thus that ETG's gas cost is set prior to any such shift. Accordingly, gas costs to ETG's customers are not affected by the shifts. Early in the audit, Liberty requested records of these shifts, in an effort to verify the Company's claim that they did not affect ETG's gas costs. The Company responded that, while the shifts occur "… on a significant percentage of the days," no records of them are kept. (Response to DR #422.) Thus, we were unable to conclude that the shifts did not affect ETG's gas costs.

5. Measurement and Balancing

a. Strategies and Programs for Minimizing Lost-and-Unaccounted-For Gas

The table on the next page shows ETG's calculation of its lost-and-unaccounted-for (LAUF) volumes over the period August 2005 through July 2008. Liberty noticed an increase in the LAUF percentage over the period, and inquired about the Company's efforts to determine the cause. The Company's response was as follows:

> *The Company has undertaken two related corporation wide efforts that include factors that influence utility LAUF.*
>
> *The first initiative is called the Damage Billing Process. Included in this effort, which was undertaken to better identify, quantify, and recover the costs associated with damages to Company pipelines by third parties, is a more specific and consistent process to quantify the amount of gas lost when company gas lines are damaged and results in leaks. Better quantification and classification of this volume of gas would tend to reduce LAUF.*
>
> *The second initiative involves a project to review gas volume data collected and reported by the utilities. A portion of the project is focused on reviewing the business processes involved in the reconciliation of monthly physical pipeline delivery with the invoiced amounts of gas under a cycle billing process. Again this effort is designed to improve volume data accuracy and better classify customer consumption. Work on both initiatives is ongoing at this time.*

ETG Lost and Unaccounted For Calculation

	City Gate Deliveries		Billed Volumes	Company Use	Lost and Unaccounted for Gas		Cycle Avg	Calendar	
Month	Dths	Therms	Therms	Therms	Therms	Pct.	HDD	HDD	Diff.
Aug-05	2,963,606	29,636,060	29,564,923	27,049	(44,088)		0	0	0
Sep-05	2,330,715	23,307,150	23,669,472	26,488	388,810		0	11	(11)
Oct-05	3,157,491	31,574,910	23,141,366	32,051	(8,401,493)		62	251	(189)
Nov-05	4,644,966	46,449,660	38,001,619	86,328	(8,361,713)		343	469	(126)
Dec-05	7,856,967	78,569,670	66,331,390	137,127	(12,101,153)		783	963	(180)
Jan-06	7,051,200	70,512,000	71,760,274	5,960	1,254,234		894	783	111
Feb-06	7,073,682	70,736,820	67,930,250	115,907	(2,690,663)		782	841	(59)
Mar-06	5,874,747	58,747,470	66,295,135	105,083	7,652,748		809	668	141
Apr-06	3,432,169	34,321,690	42,797,089	56,519	8,531,918		451	299	152
May-06	2,561,520	25,615,200	29,314,825	64,651	3,764,276		212	114	98
Jun-06	2,140,383	21,403,830	23,205,571	109,617	1,911,358		71	13	58
Jul-06	2,369,464	23,694,640	25,184,651	29,854	1,519,865		4	0	4
Annual	**51,456,910**	**514,569,100**	**507,196,565**	**796,634**	**(6,575,901)**	**-1.28%**	**4,411**	**4,412**	**(1)**
Aug-06	2,303,954	23,039,540	23,186,772	144,127	291,359		0	0	0
Sep-06	2,067,951	20,679,510	19,647,934	33,916	(997,660)		7	32	(25)
Oct-06	3,401,214	34,012,140	25,758,110	21,693	(8,232,337)		116	287	(171)
Nov-06	4,113,791	41,137,910	37,223,691	66,227	(3,847,992)		378	408	(30)
Dec-06	5,833,208	58,332,080	48,338,525	64,959	(9,928,597)		524	667	(143)
Jan-07	7,319,580	73,195,800	60,470,717	71,651	(12,653,432)		709	861	(152)
Feb-07	8,429,187	84,291,870	83,178,987	194,102	(918,781)		1,052	1,041	11
Mar-07	6,283,213	62,832,130	73,744,035	127,843	11,039,748		926	706	220
Apr-07	4,471,162	44,711,620	51,719,100	83,292	7,090,772		590	456	134
May-07	2,372,280	23,722,800	29,402,981	44,485	5,724,665		219	102	117
Jun-07	2,153,879	21,538,790	23,449,322	21,529	1,932,061		41	6	35
Jul-07	2,068,080	20,680,800	21,110,396	68,763	498,359		3	2	1
Annual	**50,817,499**	**508,174,990**	**497,230,569**	**942,587**	**(10,001,834)**	**-1.97%**	**4,565**	**4,568**	**(3)**
Aug-07	2,161,975	21,619,750	20,945,805	0	(673,945)		6	11	(5)
Sep-07	2,063,881	20,638,810	20,316,217	26,892	(295,701)		17	21	(4)
Oct-07	2,559,927	25,599,270	20,804,536	26,892	(4,767,842)		43	128	(85)
Nov-07	5,207,229	52,072,290	37,676,148	0	(14,396,142)		357	608	(251)
Dec-07	7,343,598	73,435,980	61,327,793	106,347	(12,001,840)		785	879	(94)
Jan-08	7,814,218	78,142,180	71,482,361	290,948	(6,368,871)		846	899	(53)
Feb-08	7,275,138	72,751,380	74,762,483	57,017	2,068,119		877	850	27
Mar-08	6,036,117	60,361,170	66,404,240	21,469	6,064,539		819	684	135
Apr-08	3,485,586	34,855,860	46,170,336	0	11,314,476		520	328	192
May-08	2,715,881	27,158,810	30,114,385	0	2,955,575		225	151	74
Jun-08	2,148,314	21,483,140	24,674,193	0	3,191,053		65	1	64
Jul-08	2,077,081	20,770,810	21,817,995	0	1,047,185		0	0	0
Annual	**50,888,945**	**508,889,450**	**496,496,490**	**529,565**	**(11,863,395)**	**-2.33%**	**4,560**	**4,560**	**1**

The Company reports that it has only recently (May 2008) added ETG (and sister utility Florida City Gas) to the first initiative, so improvement from it will only be observed after the period for which LAUF data is currently available (through 2007-2008). The Company began the second initiative in late 2005, in conjunction with standardization of the Company's supervisory control and data analysis (SCADA) system across all of the utilities. The Gas Measurement and Analysis System phase of this project was completed in May 2009; again, the Company anticipates improved results going forward.

The Company reported other measures to further address the increasing LAUF issue. Since acquiring NUI, the Company has detected volumes that had not been billed, principally as a result of non-functioning meters, due to mechanical problems, and programming inaccuracies on some electronic-read transponder (ERT) installations. In the fall of 2008, the Company began the process of true-up billing to correct these conditions. To date, the Company has billed approximately 5.1 million hundreds of cubic feet (CCF) directly as a result of correcting these issues. The effects of these efforts on LAUF will not be seen until the next calculation, scheduled to take place in late summer of this year.

Liberty also reviewed the Company's meter maintenance and testing programs, and found them to be in accordance with applicable safety codes and prevailing industry standards.

b. Company Approaches to Balancing

The gas operations function for the AGLR distribution companies is centralized in Atlanta. The Company's operations "platform" is its Gas Operations System (GOS), operated in and supported from Atlanta. A Business Operations group in New Jersey develops average daily delivery quantities (ADDQs) for aggregators working in ETG's service territory, but those ADDQs are provided to Gas Control in Atlanta, for comparison with receipts from the pipelines.

The system matches deliveries to nominations daily for all suppliers. Larger-volume transportation-service customers' consumption can also be matched daily to nominations and deliveries. Aggregators have a period in the month following the delivery month when they can trade among themselves any imbalances between nominations and what they delivered. Differences between deliveries and customer consumption are periodically rolled into succeeding months' ADDQs. The respective public utility commissions in each State determine the period for imbalance trading.

Nominations by ETG's asset manager are matched daily to its deliveries, like other shippers. Differences between deliveries and customer usage are managed with adjustments to storage balances on TCO, TGP and Transco; they are managed under an operational balancing agreement on Tetco.

The Gas Accounting staff at ETG reconciles ETG's "logical" storage balances to physical storage balances. Differences are treated as "parks" or "loans" between ETG and SEM. The Gas Accounting staff reconciles daily storage activity, including logical and no-notice activity as well as SEM's park and loan activity, to the monthly activity statements received from each storage facility operator. They communicate any variance to ETG and SEM for resolution between them.

C. Conclusions

1. The gas-supply function as conducted by AGSC for ETG pursues objectives whose aim does not focus on optimizing performance for ETG. *(Recommendation 1)*

The gas-supply function as conducted by AGSC seeks to provide reliable supply at "best" cost, as most LDC gas-supply operations do, but it also pursues other objectives, including the following:

- Maintain the utility affiliates' asset-management relationship with SEM
- Investigate, recommend and analyze projects providing incremental revenue to AGLR, such as installation of peaking plants.

Thus, rather than simply providing supply-management services to ETG, AGSC generally, and the Gas Supply and Capacity Planning department in particular, is charged with examining

ETG's supply operations, and those of the other LDC affiliates, to look for business opportunities for other affiliates.

This structure creates potential conflicts of interest that are inappropriate. Examples include the following:

- The Gas Supply and Capacity Planning department is charged with looking for business opportunities for affiliates, including SEM, but it also administers competitions for the right to provide supply to ETG. Those competitions include SEM as a competitor.
- Any asset-management relationship forces an LDC into the daily gas market more often than if it were managing its own assets. The reason is load changes or supply failures after nominations are set. The affiliated LDCs are encouraged to use SEM for their asset management, but SEM is also a principal spot-market supplier for them.

These conflicts, plus the lack of arm's-length competition for the asset-management relationship, have real potential for increasing costs to ETG's customers. These relationships need to be re-examined from the perspective of imposing full-fledged competition on all of ETG's gas-supply relationships.

2. **AGLR's organization is effective in providing gas supplies for ETG's customers, but has caused difficulties in reporting timely and accurate information.** *(Recommendation 2)*

AGLR's approach to organization assigns component parts of the gas-supply function to different organizations within the Company. Specifically,

- A unit in Utility Operations does forecasting
- A unit in Engineering and Operations does capacity planning, and capacity and commodity contracting
- A unit in Financial Services in does gas-cost accounting
- A different unit within Utility Operations tries to pull the filings together, but based on inputs from the others.

While this approach is efficient in bringing gas supplies to a large number of customers, it is also the reason that the Company has only recently begun to file required materials accurately and on time.

Liberty believes that Utility Operations, whose Regulatory Affairs ETG unit is the principal interface with the NJ BPU, has been sincere when it has made commitments about prompt and accurate filings. Before this year's BGSS filings, it has not been able to deliver, however, as it does not direct the program or priorities of the other organizations whose inputs are required. Utility Operations has pressed internally for additional staff at ETG for the gas-supply function, and the additional position promised at the time of the Stipulation extending the asset-management relationship was being advertised again as this report was being written.

Notable is that providing timely and accurate information for ETG's BGSS filings is among the individual performance objectives for 2009 for all of the managers whose inputs are essential to those filings. They are capable of meeting that objective if it has sufficient priority. The fact that performance is satisfactory so far this year shows that it can be done if the Company is serious about making it happen. The improvement observed with this year's BGSS filing must continue.

3. Key managers' training and experience are commensurate with their positions, but accommodating regulatory oversight has had insufficient priority as a performance objective. *(Recommendation 2)*

AGLR is a big company. It should be expected to be staffed by highly qualified people, and it is.

AGLR does not maintain formal mission and function statements for each organizational unit, but key managers have a clear sense of their organization's objectives, both for the next 12 months and for the longer term. Each of the managers involved in the gas-supply function not only has an established set of individual performance objectives for the coming year, but also has a clear sense of his or her role in accomplishing his or her unit's objectives.

Given the caliber of these people, ETG's poor record in responding to the NJ BPU is difficult to fathom. There has been a failure of AGLR management to address this responsibility before now. The NJ BPU Staff reports that the 2009 BGSS filing was on time, and the Company is responding to requests for additional information in a timely fashion.

4. Performance quality is a value within AGLR.

The Company reports that all employees involved in gas supply planning and operations for ETG are subject to AGLR's performance-management process. When problems are identified, such as the problem with timeliness and completeness of filings with the NJ BPU, the performance-management system can be used to address it, as it was with the addition of 2009 performance objectives specific to providing information for ETG's BGSS filing.

5. Approval processes for gas-supply commitments are consistent with industry norms.

AGLR's Approval Roles matrix and its Delegation Policy, approved by its Board of Directors, govern authority levels for all financial commitments made on behalf of AGLR and its subsidiaries, including those involving gas supply. These processes and their documentation are satisfactory and consistent with industry norms.

6. Process documentation is not sufficiently complete. *(Recommendation 3)*

The Findings section presented a discussion of the process documentation that Liberty found. The Company has generally prepared documentation in response to a regulatory requirement, (such as this audit,) or for an identified business need, such as training new third-party suppliers to use AGLR's Gas Operating System. Liberty found little or no documentation for requirements forecasting, or for supply-contracting processes, both commodity and capacity.

Adequate process documentation is essential to internal auditing, as well as to regulatory oversight. Adequate documentation includes statements of policies regarding documentation, plus conscientious implementation of those policies. Liberty found neither statements of policy, nor consistent practices regarding documentation. Thus, documentation must be improved.

7. Gas accounting is a strength.

The Company uses an in-house developed deal tracking/management system (Energy Management System or "EMS") to capture the "logical" purchases made by ETG's Manager, Gas Supply. This system is also used for the invoice reconciliation and approval process performed by Gas Accounting.

The gas trader (typically, ETG's Manager, Gas Supply) prepares "deal tickets" detailing each purchase, whether seasonal, monthly, daily, peaking, etc. Gas Accounting enters this information into EMS. Deal confirmations are printed and forwarded to the gas trader for review; corrections to the initial input, if necessary, are recorded on a deal change sheet that is forwarded to Gas Accounting for input into EMS.

Gas Accounting performs the invoice reconciliation process upon receipt of the invoice from SEM. Gas Accounting reconciles the billed amounts to those EMS generates based on the deal information input throughout the month. Differences between the EMS-generated data and the invoice-billed amounts are pushed back to the gas trader and SEM for resolution. Upon resolution, and to the extent necessary, SEM will issue a revised invoice and/or the gas trader will generate deal-change tickets to correct/update the data captured in EMS.

On a monthly basis, Gas Accounting also reconciles total delivered volumes, as measured by the delivering pipelines, to the total invoiced delivered volume. Gas Accounting trues up the differences between the delivered billed volume and that reflected on the pipeline reports in the month following the imbalance resolution by SEM, either through increased deliveries to storage or by reduced inventory balances, depending on the direction of the imbalance. Adjustments in quantities received, either at ETG's city gates or into ETG's storages, are recorded as "parks" or "loans" (short-term loans or repayments) between ETG and SEM at each storage facility.[13]

The physical balance number from the pipelines and storage operators are the ultimate control over the volume-reconciliation process. Liberty personnel worked through the various processes and spreadsheets used by Gas Accounting, and came away confident of their integrity.

8. Documentation of development and evaluation of portfolio alternatives is not adequate. *(Recommendation 4)*

Liberty believes that good utility practice requires documentation of most decisions that involve selection of components of a gas-supply portfolio from among alternatives. We could not find that AGSC routinely does this for ETG.

9. Revenue and volume forecasting is a strength, but capacity-requirements forecasting is not fully effective. *(Recommendations 5, 6)*

Econometrically-derived use per customer, times forecasted numbers of customers, all by customer class, is Liberty's preferred method for volume forecasting, and that is the way that AGSC does it for ETG. Liberty is especially impressed with AGSC's involvement of Marketing personnel, both at the corporate level and "on the ground" in New Jersey, in assessing trends in

[13] ETG balances on its "flexible" storages: Tennessee's FS-MA, Columbia's FSS, Transco's GSS, and its Operational Balancing Agreement with Texas Eastern. Thus, imbalances in SEM deliveries to the city gate are balanced through adjustments to SEM's park-and-loan account with ETG in those storages.

customer usage, and in helping to calculate specific adjustments to the numbers to incorporate observed trends in them. The fact that Planning and Forecasting's numbers are the foundation for AGLR's planning and forecasting for the Distribution Operations business segment is not only a sign that the Company is working off of the same numbers that it is giving to the NJ BPU, but it is also testimony to the faith that the corporation has in P&F's work.

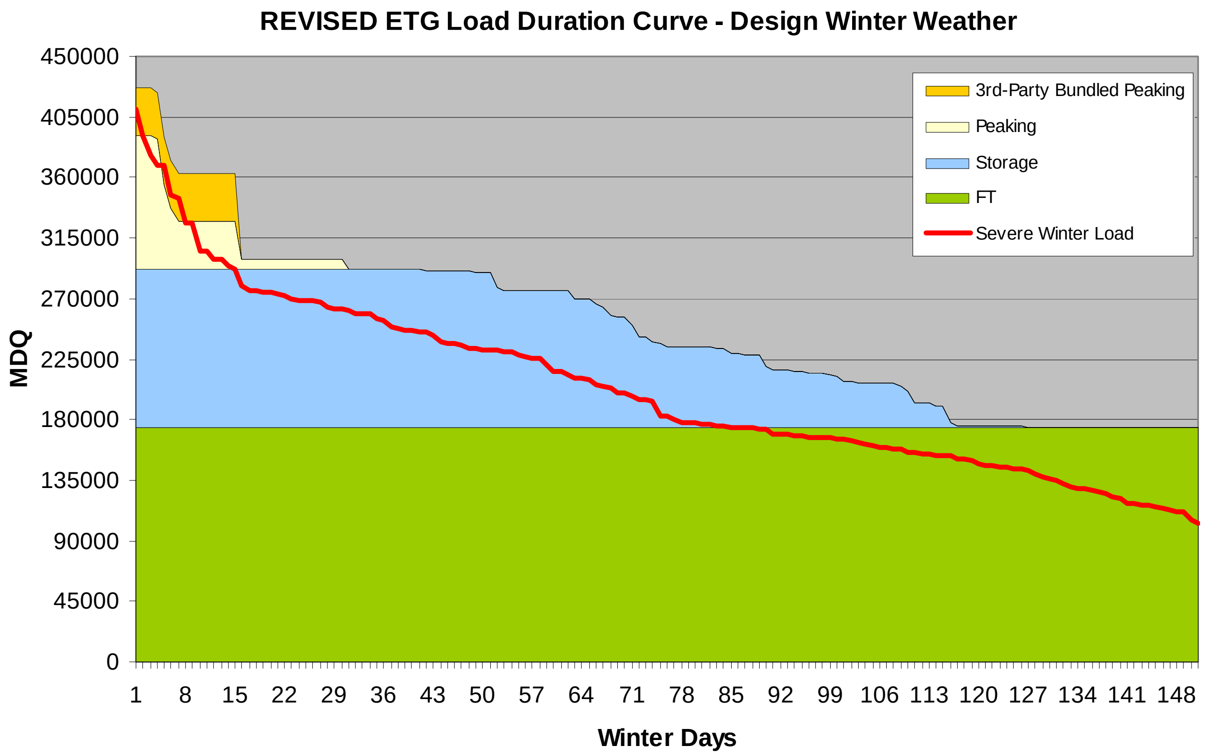
One concern arises from P&F's use of regression equations that use monthly data back to 1989. Data series of that length may obscure important trends that are more recent. Today's gas-using equipment is more efficient than that of 20 years ago, for example, and the field-price regime that exists today, even after the dramatic drop since last year, is still considerably higher than the one that prevailed through the 1990s, lasting until as recently as 2001/02. The Company's extensive use of its Marketing resources in "adjusting" the results of the regressions is appropriate, but using much shorter data series for its use-per-customer regressions remains a need.

Liberty found AGSC's supply-capacity requirements forecasting to be comparatively less effective overall. Liberty reviewed this area in an audit of the relationship between Virginia Natural Gas Company and SEM for the Virginia Corporation Commission in 2005. AGSC performed the capacity-requirements forecasting function for Virginia Natural at that time, just as it does for ETG now.) The sophisticated, industry-best-practices approach that we found then has deteriorated to an approach that relies heavily on arbitrary assumptions. The design-day and design-winter design criteria have been established without analysis of how likely those conditions are to occur, for example; similarly, AGSC has adopted an "industry-standard"[14] reserve-margin requirement without any analysis of whether any such requirement is appropriate, or, if it is required, how large it should be.

10. ETG is "long" on gas-supply capacity. *(Recommendation 7)*

The diagram below shows ETG's load duration curve superimposed on its supply-capacity profile. The load curve shown is the one for "design" weather – the coldest weather on record at the Newark Airport, with the coldest days replaced with an "extreme" cold spell – plus a reserve margin of five percent. Examination of the diagram shows considerably more capacity than would be required, even at the extreme load conditions assumed for the design weather case.

[14] AGSC refers to its five-percent reserve margin as "industry standard" (Response to DR #39). Liberty has considerable gas-industry experience, however, including in the Greater New York City Area, and knows of no such industry standard. In Greater New York City, for example, the National Grid companies use a peak-day reserve margin, but Consolidated Edison does not.



Note: load curve depicts 2008-09 projected firm requirements less transportation customer delivered supply assuming severe w eather pattern that is based on a modification to the 1976-77 actual w eather pattern.

Much of what appears to be excess capacity may be ETG's production-area storages, Transco ESS and WSS, and the Hattiesburg Storage facility. These resources were acquired to back-stop flowing supplies. They do not have associated transportation to ETG's city gates; rather, they flow on capacity that is normally used to move flowing gas from the Gulf Coast Producing Region to ETG. Today, those storages primarily serve SEM's storage-arbitrage activities. In fact, access to those storages is restricted to days when ETG's firm load is in excess of 300,000 Dth.

Liberty understands that SEM pays most of the costs of those facilities, except for the gas in them.[15] Liberty raised the question of whether ETG's share of the margins generated by SEM's activities cover the cost of maintaining them, including the carrying costs of the gas in storage.[16]

[15] ETG owns all of the gas in ETG's storages.

[16] In comments on Liberty's Draft Report, the Company questioned the accuracy of this question, as it reported that SEM pays for the gas injected into the production-area storages. In Data Request No. 846, however, Liberty had asked a question specifically about ownership of the gas in ETG's Transco Washington Storage, and was told, "All gas held in the ETG storage accounts is owned by ETG …" When asked to reconcile the two statements, the Company stated:

> *The gas purchased for injection into WSS is acquired by Sequent as agent for ETG pursuant to the Asset Management Agreement. SEM nets the cost of gas injected into WSS against the revenue generated by Sequent's optimization of the storage asset. The resulting net difference is shared according to the margin sharing terms of the asset management agreement."* (Response to DR #1027)

As noted in the text, Liberty recommends that the Staff and interested parties try explore the details of this arrangement in ETG's BGSS proceedings.

The Company judged that question to be out of scope for this audit, but Liberty recommends that the Staff and interested parties pursue it in ETG's BGSS proceedings.

11. The Gulf South and Transco Sentinel participations have added supply-source diversity, but more should be done. *(Recommendation 8)*

The Gulf South participation added access to the East Texas Onshore producing area, which is near the large onshore shale-gas reserves being added in central Texas and northwest Louisiana. The Transco Sentinel participation adds receipt entitlements at Leidy, Pennsylvania, which is connected to most U. S. and Canadian producing regions, and at Cove Point, Maryland, which provides access to Atlantic Basin LNG resources. These two are a good start, but the Company could and should do more.

Other LDCs in New Jersey have worked with their pipelines to adjust their capacity rights in ways that give them access to more diverse sources of supply. AGSC should continue this effort in its role as ETG's manager of these activities.

12. Peak-period performance needs more consistent attention. *(Recommendation 6)*

The Company reports that its firm transportation capacity portfolio has performed as expected and within the terms of its corresponding contracts prior to and since the time that AGLR acquired ETG. It notes, however, an "increased number and duration of … Operational Flow Orders … issued by delivering pipelines" over the past several years. It also reports problems with two of its storage services over the same period. In view of the Company's location at or near the downstream ends of the pipelines which are the principal sources of its supplies, these problems require sustained, consistent attention, in order to forestall an unanticipated emergency.

Liberty is concerned that ETG's supply planners assume that their "industry-standard" reserve margin of five percent will cover any contingencies. As noted earlier, Liberty knows of no such standard, even among the gas distribution companies in the Greater New York City area, most of which share ETG's downstream-end-of–the-pipeline problem. ETG's supply planners must give its peak-period performance the kind of sustained, analysis-based attention necessary to provide cost-effective supply options at times of peak demand.

13. ETG's LAUF requires continued attention. (*Recommendation 9*)

The Company reported that, with measures taken to date, its LAUF rate for 2007-2008 declined from 2.33 percent to 2.04 percent, as indicated by the revised data below. While 2.04 percent is indeed within "a reasonable range," it is still higher than the previous two years, and quite a bit higher than the rate for 2005-2006. It continues to merit management attention.

	City Gate Deliveries*		Billed Volumes**	Company Use	Lost and Unaccounted for Gas		Cycle Average	Calendar	
Month	**Dths**	**Therms**	**Therms**	**Therms**	**Therms**	**%**	**HDD**	**HDD**	**Difference**
Sep-07	2,050,115	20,501,150	20,316,217	26,892	158,041		17	21	(4)
Oct-07	2,559,887	25,598,870	20,804,536	26,892	4,767,442		43	128	(85)
Nov-07	5,207,050	52,070,500	37,676,148	0	14,394,352		357	608	(251)
Dec-07	7,344,697	73,446,970	61,327,793	106,347	12,012,830		785	879	(94)
Jan-08	7,807,648	78,076,480	71,482,361	290,948	6,303,171		846	899	(53)
Feb-08	7,258,231	72,582,307	74,762,483	57,017	(2,237,193)		877	850	27
Mar-08	6,036,386	60,363,860	66,404,240	21,469	(6,061,849)		819	684	135
Apr-08	3,492,654	34,926,544	46,170,336	0	(11,243,792)		520	328	192
May-08	2,721,648	27,216,477	30,114,385	0	(2,897,908)		225	151	74
Jun-08	2,145,844	21,458,442	24,674,193	0	(3,215,751)		65	1	64
Jul-08	2,077,758	20,777,576	21,817,995	0	(1,040,419)		0	0	0
Aug-08	1,867,511	18,675,112	19,307,814	0	(632,702)		0	0	0
Annual	**50,569,429**	**505,694,287**	**494,858,499**	**529,565**	**10,306,223**	**2.04%**	**4,554**	**4,549**	**6**

14. AGLR's balancing strategies and practices are reasonable and fair to all classes of customers.

AGLR's Gas Operating System maintains essentially all appropriate data, and Business Operations in New Jersey takes care of the aggregators that are active on ETG's system.

D. Recommendations

1. Bring arm's-length bargaining to gas-supply relationships. *(Conclusion 1)*

It is clear that renewal of the asset-management relationship with the affiliate brought better terms than the one that had been in place before. Even better terms may be available through an arm's-length competition, however. Liberty strongly recommends that this possibility be tested.

Beyond that relationship, it appears to Liberty that other aspects of AGLR's approach to the gas-supply function involve some unacceptable conflicts of interest. In this report, Liberty presents some specific recommendations for changes.

2. Ensure that AGLR's organizational units providing essential inputs to regulatory filings continue to afford those filings sufficient priority. *(Conclusions 2 and 3)*

ETG's record prior to this year's BGSS filings has been poor. The NJ BPU staff reports that this year's effort is much improved.

Responses to data requests suggest that this improvement is largely due to the persistent efforts of the Senior Vice President for Mid-Atlantic Operations. The "enhanced staffing in the gas supply area"[17] promised in the Stipulation extending the asset-management agreement has recently been advertised again. The position must be filled, and the incumbent tasked with maintaining the recent improvement.

[17] NJ BPU Docket No. GM07100752, *In the Matter of the Petition of Pivotal Utility Holdings, Inc. d/b/a Elizabethtown Gas Concerning its Proposed Capacity Management Plan*, "Stipulation," March 14, 2008, at p. 5.

3. Complete process documentation. *(Conclusion 4)*

Process documentation is necessary to guide various verification processes, such as internal audit, as well as regulatory oversight. The Company should document all of the processes required to produce a BGSS filing as a first step, and file the documentation along with the Company's 2010 BGSS filing. ETG should also file draft policies regarding documentation at that time. The Company and the NJ BPU can decide what additional process documentation is appropriate after the initial material has been received and reviewed.

4. Develop documentation requirements for supply-portfolio decisions that require selections from among alternatives. *(Conclusion 6)*

Good utility practice requires documentation of most decisions involved in the development of a utility company's gas-supply portfolio. Documentation is required to support regulatory review, but also for external audit and internal review.[18]

Liberty recommends that AGLR's Internal Audit group develop guidelines for documentation of gas-supply decisions, for use by AGSC as it makes choices for ETG's gas-supply portfolio. Liberty recommends that the Internal Audit group prepare these guidelines within 90 days, and that the Company file them for NJ BPU review with ETG's next (2010) BGSS filing.

5. Planning and Forecasting should use a shorter time period for its use-per-customer regressions. *(Conclusion 7)*

Liberty is concerned that P&F's use of 20-year data series for its regressions may obscure important changes in use per customer that are recent, or even ongoing. P&F's use of extensive input from Marketing may be correcting this problem, but P&F should test using shorter time periods to see whether the more-recent trends can be picked up in the data.

6. Require that Gas Supply and Capacity Planning bring more analysis to its selection of key parameters for capacity-requirements forecasting. *(Conclusion 7)*

The Company uses 65 HDD as its peak-day design criterion. (The Company uses the average of 24 hourly temperature readings at Newark International Airport as the definition of its design peak day, so the criterion equates to 24 consecutive hourly temperature readings that average to zero degrees Fahrenheit.) The Company reports that this criterion represents the point at which a typical residential furnace would operate at maximum output for 24 hours; missing, however, was any analysis of the probability of its occurrence.[19]The Company also uses a peak-day reserve margin of five percent. The Company lists a number of potential "issues" that might cause it to need a peak-day reserve margin, but no analysis of specific contingencies, happening individually or together. It justifies the number it has picked by referring to it as an "industry standard."

[18] One of the principal recommendations from AGLR's internal audits of the Gas Supply and Asset Agency Agreement between SEM and ETG was to improve process documentation. See, *e.g.*, Internal Audit Report 07-RC-004, issued July 31, 2008, at p. 7. (Recent internal audit reports were provided in response to DR #22.)

[19] In response to a data request, the Company reported that this weather condition, or one more severe, had occurred twice during the period for which data was available (1948 to the present).

For its design winter, the Company took the coldest year on record (1976/77), and replaced the coldest days in that weather pattern by a severe, seven-day cold stretch. The Company presented no analysis of whether this condition has ever happened before, nor the probability that it might happen in the future.

Industry best practice in this area is to represent weather as probability distributions, in order to use them in Monte Carlo simulations of capacity requirements.[20] Reserve margins, if used at all, are usually the result of evaluations of specific contingencies, with assessments of their respective probabilities of occurrence. Often, design peak-day criteria, reserve margins, and curtailment policies are established jointly as part of the same analysis, in order that the most cost-effective trade-offs among those criteria might be made. Liberty recommends that ETG not be allowed to add gas-supply capacity resources until a proper analysis of these parameters has been prepared and accepted by its stakeholders in a BGSS proceeding.

7. Restrict the addition of gas-supply capacity until ETG has worked off its current excess. *(Conclusion 8)*

ETG has ample capacity, even if its requirements were not over-estimated (which Liberty believes they are). ETG should stop adding capacity until: (a) it improves estimating its requirements, and (b) works off the excess. Prior to this year, ETG was showing growth in its numbers of customers, although its (weather-corrected) throughput growth was below the national average. New Jersey's Clean Energy programs may provide a boost to gas consumption, which could take up some of the excess capacity. ETG should have improved its requirements-forecasting methods, and show a new need for capacity, before it considers adding any more capacity.

8. Work with pipeline suppliers to further diversify ETG's sources of supply. *(Conclusion 9)*

In its discussion of its two new capacity additions, ETG focuses on upstream supply security in an era of damaging hurricanes. Supply security is certainly one reason for further diversification of supply sources, but gas price is another. As new sources of supply are added in different parts of the country, basis differentials adjust. Thus, supply source that yield the best prices at ETG's city gates are likely to shift over time. ETG can take advantage of these changes by trying to obtain access to as many of them as possible.

The Gulf South and Transco Sentinel participations add up to 30,000 Dth/day. With a peak day near 400,000 Dth/day, ETG can use more supply-source diversity.

9. Determine the causes of the increase in ETG's LAUF rate. *(Conclusion 10)*

The Company reported on several efforts to reduce LAUF rates, some Company-wide. It also reported some success at ETG, but more should be done. The Company should present a report with its next BGSS filings on its efforts to date, and what it plans to do to follow up its findings to that point.

[20] Indeed, the capacity-planning group used this approach when Liberty reviewed it in 2005 as part of Liberty's audit of Virginia Natural's relationship with SEM.

Appendix I.I: NJ BPU Clean Energy Programs Offered to ETG Customers

I. Residential Programs

Warm Advantage and Cool Advantage. Cash rebates are available for energy efficient heating and cooling equipment such as central air conditioners, heat pumps, furnaces, boilers or water heaters.

NJCEP Online Lighting Store. New Jersey's Clean Energy Program has an online store, which offers discounted ENERGY STAR qualified lighting such as compact fluorescent light bulbs (CFLs), lighting fixtures, ceiling fans, and more. Save energy, money and the environment by ordering energy efficient lighting products today.

Home Energy Analysis. An online tool to help residential customers understand their home energy use and take steps to save energy and save money. The analysis is linked to incentives and ENERGY STAR rebates.

New Jersey for Energy Star. This program offers rebates on ENERGY STAR clothes washers, a seasonal rebate on room air conditioners and a new rebate on ENERGY STAR dehumidifiers, as well as promoting the sale of ENERGY STAR qualified lighting products through major retailers throughout New Jersey.

New Jersey Energy Star Homes. Rebates for energy-efficient new home construction that target Smart Growth Areas. New Jersey Energy Star Homes are at least 15% more energy efficient than standard built homes.

New Jersey with Energy Star Home Performance. This program offers contractors certified by the Building Performance Institute who will come to your home and identify sources of wasted energy for just $125. Plus, you will be eligible to receive up to $1,000 in FREE air sealing services. You will receive a detailed plan with recommended measures, costs and payback analysis.

New Jersey Comfort Partners. Improves energy affordability for income-eligible households. If you qualify, a contractor will assess the energy savings opportunities and install the measures at no cost. The program also provides personalized customer energy education and counseling.

II. Commercial and Industrial Programs

New Jersey SmartStart Buildings Program. Provides financial incentives, design support and technical assistance for energy efficient measures including high-efficiency lighting and lighting controls, heating and cooling equipment, water heating, motors and variable frequency drives. The program is available to address the new construction and renovation needs of businesses, schools, municipalities and other commercial and industrial facilities

Introducing the new **Local Government Energy Audit**, the first step in identifying cost-justified energy efficiency measures for local government-owned buildings including offices, courtroom, town halls, police and fire stations, sanitation buildings, transportation structures, schools and community centers. Contact our program representatives and we'll review eligibility requirements and assist you in creating a preliminary scope of work.

Existing commercial, industrial, institutional and multi-family buildings with an average annual peak demand over 200 kW are eligible to participate in the **Pay for Performance Program**. This comprehensive, whole-building approach to energy efficiency starts with an Energy Reduction Plan developed by an Energy Expert that you select from among our network of Program Partners.

Combined Heat and Power (CHP). Offers incentives on various types of CHP units designed to enhance energy efficiency through on-site power generation with recovery and productive use of waste heat. CHP is now offered as part of the Pay for Performance Program.

Alternative fuel vehicles. Rebates are available for alternative fuel vehicles, defined as motor vehicles that operate on alternative and substantially non-petroleum fuels such as natural gas, propane, electricity, and fuel cells.

III. Renewable Energy Programs

Renewable Energy Incentive Program. Rebates and other programs that reduce the installation cost of solar, small wind and sustainable biopower systems.

Clean Power Choice Program. Statewide program that allows you to choose clean, renewable sources of energy for New Jersey, through a small charge on your monthly electric bill.

II. Affiliate Relationships

A. Background

Pivotal Utility Holdings, Inc. remained the entity owning ETG following AGLR's acquisition of NUI Corporation. Pivotal Utility Holdings, Inc., doing business as ETG and as a wholly-owned subsidiary of AGLR, provides utility service in New Jersey. ETG operates as one of six AGLR-operated gas distribution utilities. AGLR also engages in retail energy marketing, through a 70-percent-owned joint venture (with Piedmont Natural Gas) named SouthStar Energy Services. Affiliate Sequent Energy Management (SEM) provides gas supplies to ETG, and manages most of the gas-supply assets that serve New Jersey customers. SEM provides these services pursuant to an Asset Management and Agency Agreement, and a companion Gas Purchase and Sale Agreement, which were approved by the NJ BPU in Docket No. GM07100752. AGLR also owns and operates several high-deliverability natural gas storage facilities in the Gulf Coast Region of the U.S.

The examinations in this area sought to illuminate how the various affiliates relate to each other, and how the activities of each might affect the activities of the others. In particular, Liberty examined whether ETG has been able to conduct its activities in a manner consistent with the best interests of its ratepayers. Liberty conducted this analysis in conjunction with work described in Chapter V, Cost Allocation Methods.

Liberty considered eight separate aspects of the affiliate relationships:

- The nature and magnitude of affiliates' businesses
- Relationships among affiliates
- Affiliate contracts affecting ETG
- Reporting and control systems
- Impacts of affiliate relationships
- Officer and director attention to assuring arm's-length transactions
- ETG independence in procuring gas supplies
- ETG's internal controls to protect against irregular transactions.

B. Findings

1. Nature and Magnitude of (Energy-Related) Affiliates' Businesses

ETG engages in the purchase, transmission, sale, and transportation of natural gas for about 274,000 residential, commercial, and industrial customers, in an area of about 2,500 square miles in seven counties in northern New Jersey. ETG operates one of six gas-distribution companies that comprise AGLR's Distribution Operations business segment. Counterpart information for the other AGLR gas-distribution companies follows:

- Atlanta Gas Light (*AGL*) operates as the largest natural gas distributor in the Southeastern U.S. in terms of numbers of customers. It provides gas delivery service to about 1.6 million residential, commercial and industrial customers in franchised service territories across the northeast half of Georgia
- Chattanooga Gas provides retail natural gas service to about 62,000 residential, commercial and industrial customers in Hamilton and Bradley Counties in Tennessee

- Elkton Gas provides natural gas service to about 6,000 residential, commercial, and industrial customers in northeastern Maryland
- Florida City Gas provides natural gas service to about 104,000 residential, commercial, and industrial customers in southeastern and east central Florida
- Virginia Natural Gas provides natural gas service to about 271,000 residential, commercial, and industrial customers in southeastern Virginia.

SouthStar operates AGLR's Retail Energy Operations business segment. SouthStar supplies natural gas to about 526,000 residential and commercial customers in Georgia, and to more than 300 interruptible customers throughout the southeastern U.S. SouthStar's market share makes it the largest marketer of natural gas in Georgia. SouthStar also provides gas supply to customers in Ohio and Florida.

AGLR's Wholesale Services business segment consists primarily of SEM, which provides natural gas asset management, producer and storage services, and full-requirements supply, including peaking services, throughout the U.S. and Canada. SEM's producer-services business primarily aggregates natural gas supply from various small and medium-sized producers located throughout the natural gas producing areas of the U.S. SEM provides them with logistical and risk-management services that assist them in moving their supplies into the pipeline grid.

AGLR's Energy Investments segment consists principally of the following operating units:

- *Jefferson Island Storage & Hub*: this entity operates a high-deliverability natural gas storage facility in southern Louisiana, consisting of two salt-dome storage caverns with 10 Bcf of total capacity, and about 7 Bcf of working-gas capacity. Jefferson Island lies about eight miles from the Henry Hub, and connects directly to it via the Sabine Pipeline. Jefferson Island also connects to eight other pipelines in the area.
- *Golden Triangle Storage*: consists of a high-deliverability natural gas storage facility under construction in Texas. The project will initially consist of two underground salt-dome storage caverns that will hold about 17 Bcf of total capacity and about 12 Bcf of working gas capacity. The facility can potentially be expanded to five caverns with 38 Bcf of working gas capacity. Golden Triangle also intends to build nine-mile dual 24-inch pipelines to connect the facility with three interstate and three intrastate pipelines.
- AGL Networks leases telecommunications fiber to a variety of customers in the Atlanta, Georgia, and Phoenix, Arizona, metropolitan areas, and has a small presence in other cities in the U.S. AGL Networks typically provides underground conduit and dark fiber to its customers under leasing arrangements with terms that vary from one to 20 years. AGL Networks also offers telecommunications construction services.

AGLR owns propane facilities in Virginia that provide peaking services to Virginia Natural Gas. AGLR also owns an undivided interest in pipelines connecting AGL's service territory in Georgia to a liquefied natural gas (LNG) receiving facility in Elba Island, Georgia.

AGLR manages its businesses through four operating segments and a non-operating corporate segment. The following table shows the contributions of the five segments to AGLR's earnings before interest and taxes (*EBIT*) for the past three years. The negative earnings at the corporate level, which bears costs without revenues independent of the other segments, typifies holding company structures.

Earnings before Interest and Taxes
($ in millions)

Segment	2006	2007	2008
Distribution Operations	$310	$338	$329
Retail Energy Operations	63	83	57
Wholesale Services	90	34	60
Energy Investments	10	15	19
Corporate	(9)	(7)	(1)
Consolidated	$464	$463	$464

2. Relationships Among Affiliates

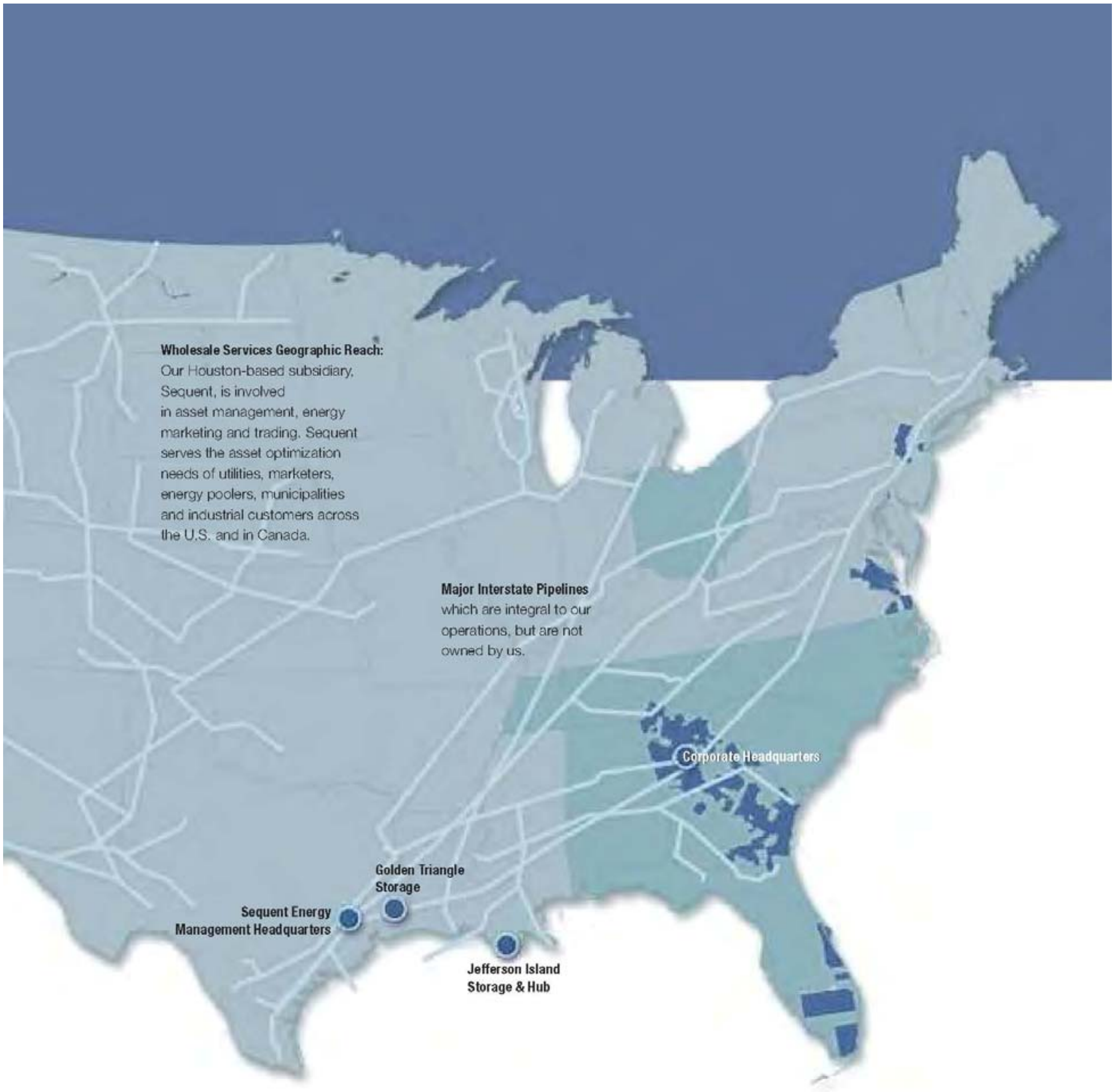
More than 80 percent of AGLR's EBIT come from supplying gas to retail customers. The supply comes directly from the utilities in five of the Company's six service areas. The sixth is Georgia, which has under legislative mandate separated the supply of natural gas from delivery service. The majority of subsidiary SouthStar's Georgia customers take service behind Atlanta Gas Light's city gates.

Wholesale affiliate SEM also provides asset-management services and gas supply to all six distribution companies. ETG receives spot-market gas and delivered peaking services from SEM, as well as seasonal, monthly and daily supplies. The table below shows the expiration dates of its asset-management agreements and payments made to each affiliated distribution company over the last three years.

Asset Management Agreements with Affiliated Utilities
(Amounts in $ millions)

Affiliate	Expiration Date	2006	2007	2008
Atlanta Gas Light	March 2012	6	9	9
Chattanooga Gas	March 2011	4	2	4
Elizabethtown Gas	March 2011	4	6	5
Elkton Gas	(indefinite)	0.01	0.01	0.01
Florida City Gas	March 2013	0	1	1
Virginia Natural Gas	March 2009	2	7	2
Total		16	25	21

The next map shows the service territories of the six gas distribution utilities, and depicts SouthStar's market area. That map suggests that the LDC affiliates and SouthStar take service from several of the same pipelines. That commonality may facilitate SEM's asset-management activities. The map also suggests that the Company's new Golden Triangle Storage facility lies on or near one of the common pipelines.



SouthStar Energy Services Market Area
(Retail Energy Operations)
Georgia
North Carolina
South Carolina
Alabama
Florida
Ohio
Tennessee

Distribution Operations Service Territory
Atlanta Gas Light
Chattanooga Gas
Elizabethtown Gas
Elkton Gas
Florida City Gas
Virginia Natural Gas

AGLR operates as an energy services holding company. It provides common services to all of its subsidiaries through a service company, AGL Services Company (*AGSC*). Each subsidiary elects annually those services it wants to receive from AGSC. AGSC has made considerable investments in staffing and technology to provide a low-cost and scalable platform of common services to all of the affiliates.

3. Affiliate Contracts Affecting ETG

Two affiliate contracts affect ETG: its Services Agreement with AGSC, and its Asset Management and Agency Agreement with SEM. The latter includes a Gas Purchase and Sale Agreement. ETG is also a party to several financing agreements.

a. Services Agreement

The Services Agreement consists of a simple form agreement that contains general statements about billing and compensation, and provides for a process for affiliated companies, such as ETG, to select from among the available services. AGSC sends an annual service proposal to ETG by October 1 of each year. ETG has until November 30 to respond. The Services Agreement provides that ETG may modify its selection of services or terminate the Agreement after a 60-day written notice. Exhibit I to the Service Agreement provides a Policies and Procedures Manual. The manual addresses cost accumulation, assignment, and allocation methods, and describes each service that AGSC provides. Exhibit II lists ETG's selection of services provided. The next table lists ETG's current selections.

AGSC-Provided Service to ETG

	SERVICES	YES	NO
1.	Rates and Regulator	X	
2.	Internal Auditing	X	
3.	Strategic Planning		X
4.	External Relations	X	
5.	Gas Supply and Capacity Management	X	
6.	Legal Services and Risk Management	X	
7.	Marketing	X	
8.	Financial Services	X	
9.	Information Systems and Technology	X	
10.	Executive	X	
11.	Investor Relations	X	
12.	Customer Services	X	
13.	Employee Services	X	
14.	Engineering	X	
15.	Business Support	X	
	i. Purchasing	X	
	ii. Facilities Management	X	
	iii.Fleet	X	
	iv. Other	X	
	– Corporate Communications	X	
	– Corporate Compliance	X	
16.	Other	X	

Liberty reviewed the Policies and Procedures Manual. Discussion of our findings is presented in Chapter V, Cost Allocations.

b. Asset Management and Agency Agreement

The Asset Management and Agency Agreement contains the terms and conditions under which SEM provides ETG's seasonal, monthly, and daily requirements for gas supplies. SEM also acts as ETG's agent, operating ETG's gas pipeline and storage capacity upstream of its city gates. In conducting these activities, SEM seeks to generate sharable value through:

- Optimization of gas sales to ETG
- Gas sales to third-party (off-system) customers
- Storage arbitrage.

[redacted]

[redacted]

[redacted]

SEM conducts asset-management and gas-supply activities for all but one of the other distribution-company affiliates under very similar arrangements. The exception is Atlanta Gas Light, which assigns most of its gas transportation and storage capacity under contract to marketers serving retail customers under the Georgia unbundling program. SEM's asset-management and gas-supply activities for AGL thus limit themselves to capacity not already assigned to others.

The sharing percentages for sharable margins comprise the principal difference among SEM's asset-management and gas-supply arrangements with the distribution-company affiliates for whom SEM performs comprehensive asset-management services. AGLR's Gas Supply and Capacity Planning department works with SEM to develop a proposal for extension of the agreements, as each approaches expiration. Utility Operations then takes that proposal to interested parties in the relevant jurisdiction. Utility Operations presents the proposal to the parties, and works with them to find mutually acceptable terms for the extension. When agreement occurs, the Company and the interested parties present the agreed terms to the state utility regulatory commission for approval. The most recent extension for Chattanooga Gas Company presented an exception to this process. Gas Supply and Capacity Planning conducted a competition for the right to enter the agreements, which had been developed from the standard package described above. SEM won the competition.

SEM also provides delivered peaking services and spot-market gas supplies to ETG. These services and supplies do not come under separate contracts. The Asset Management and Agency Agreement and its associated Gas Purchase and Sale Agreement cover them. There exist no other reported gas-supply agreements between ETG and its affiliates. All gas-supply arrangements between ETG and its affiliates are covered by written agreements.

c. Financing Agreements

In addition to the Services Agreement with AGSC, and the Asset Management and Agency Agreement with its associated Gas Purchase and Sale Agreement with SEM, ETG is party to several agreements with affiliates covering financing. Those agreements are covered in the Phase II report chapter covering Finance and Cash Management.

4. Reporting and Control Systems

a. Cost Allocations

Liberty discusses in the Cost Allocation chapter (Chapter V) the reporting and control systems AGSC uses for costs allocated to ETG under the Services Agreement.

As noted in that chapter, the Company's approach to allocating costs is reasonable. Liberty tested particular transactions, and found some deficiencies in implementation. Recommendations for correcting those deficiencies are presented in Chapter V.

b. Gas Cost Accounting

Gas accounting is a strength in AGLR's management systems. Gas Accounting personnel verify and enter daily into a transaction-tracking system developed at ETG the seasonal, monthly, and daily transactions executed by ETG's Manager, Gas Supply. The Company uses those records to validate the Asset Manager's gas-supply invoices to ETG. Gas Accounting personnel in Atlanta verify the gas-volume information in those transactions against physical measurements from pipeline and storage operators, and verify the price information using external sources of the information. The Manager, Gas Accounting, indicated that both the volume and price information used to verify ETG's "Logical" transactions come from sources external to AGLR, and over which no one in any entity at AGLR has any control.

An area of controls weakness occurs before the gas price and volume data enters the transaction-tracking system, however. ETG's Manager, Gas Supply performs a morning set-up of gas supplies for each day. This activity includes an initial allocation of supplies among ETG's city gates. A combination of two sets of factors ETG's drives initial allocation of supplies between two pipelines that serve ETG:

- Physical: given the configuration of its distribution system, ETG has limits on the amount of supply coming in on Texas Eastern[21]

[21] If the weather is cold, ETG must have at least 60,000 Dth/day on Texas Eastern. If the weather is warm, ETG cannot take more than about 30,000 Dth/day on Texas Eastern.

- Economic: ETG's city-gate delivered prices for supply on the two pipelines are determined by production-area prices at the points where ETG buys gas on each pipeline, plus the marginal costs (including fuel) that ETG incurs in bringing the gas to its city gates.

The Manager, Gas Supply also advises SEM on a daily basis whether load conditions on ETG's system would allow shifting the volumes among those city gates, particularly between those on Transco and on Texas Eastern. The manager also provides specific, physical limits on which shifting may occur. The Asset Manager can deliver physical volumes as logically requested and then adjusted based on the limits specified by ETG's Manager, Gas Supply. The Asset Manager can request additional volumes to shift, which can be approved or rejected by the Manager, Gas Supply, but hasn't done so to date. Such shifts can benefit ETG; *e.g.*, when market-area prices for gas on the two pipelines differs. ETG's city gates on Transco lie in Transco Zone 6 (non-New York); its Texas Eastern ones lie in Market Zone 3. Differences between the prices in those two markets, which can be substantial, allow for the producing of margins by arbitraging volumes on the two pipelines; *e.g.*, buying on one and selling on the other, or shifting volumes from one to the other.

ETG's customers benefit from shifts because ETG and the Asset Manager share in any margins made from shifting the volumes among ETG's city gates. Assuring net benefits, however, requires something that Liberty found to be missing; *i.e.*, changes in costs occasioned by the changes in delivery points. The cost of gas delivered to ETG's city gates on Texas Eastern will usually fall close to that of gas delivered to the Transco city gates, but not exactly the same. Thus, the costs that ETG's customers incur for volumes delivered via Texas Eastern differ from the costs for the same volumes delivered via Transco. The Company reports that, during asset-management contract years 2006/2007, 2007/2008 and 2008/2009, the Asset Manager requested a shift in delivery points to ETG's city gates on "a significant percentage of the days." ETG did not retain records of: (a) days for which SEM requested shifts, (b) the initial allocation of volumes to be delivered to each city gate, (c) sizes of the shifts requested, and (d) the difference in costs incurred by authorizing the shift. Thus, one cannot determine whether authorizing the shifts resulted in a net benefit or a net cost to ETG's gas customers.[22]

c. Margin-Sharing Reports

The Asset Manager computes the margins to be shared with ETG. The process that the Asset Manager uses for that computation is described in a document made part of the stipulation package filed in support of the interested parties' agreement to extend SEM's management of ETG's gas-supply assets.[23]

[22] As noted in Chapter One, the Company reported in comments on Liberty's Draft Report that any shift in volumes between the two pipelines does not affect ETG's gas cost, as it comes after ETG's gas cost has been set for the day through its "logical" nomination. As also noted in Chapter One, however, no records of the shifts are kept. (See the Company's response to DR #422.) Thus, we were unable to verify the Company's claim on this point.

[23] This process is presented in Attachment LC-029.5, which is Appendix B, Part I of II, to the Stipulation Package filed in BPU Docket No. GM07100752, *In the Matter Of The Petition Of Pivotal Utility Holdings, Inc., d/b/a Elizabethtown Gas Concerning Its Proposed Capacity Management Plan*.

SEM provides to ETG and to AGLR's Gas Supply and Capacity Planning department quarterly statements of the amounts of value generated from SEM's management of ETG's assets. Spreadsheets detailing the calculations accompany the statements, but they provide no detail of the transactions for ETG's account. The statements undergo review for reasonableness by a member of the Gas Supply and Capacity Planning staff, who uses the information provided to prepare ETG's quarterly reports to the NJ BPU. SEM's report and the staff member's draft report to the BPU then undergo review by ETG's Manager, Gas Supply, and the Managing Director, Gas Supply and Capacity Planning, prior to transmission to the NJ BPU. The Company reports that the three individuals "… look at the level of activity by pipeline and service type to determine if it appears reasonable given ETG's contract quantity, the level of utility use, and the general conditions in the market during the quarter."[24]

The terms of the Stipulation require the Company to evaluate SEM's performance through a third-party analysis to be conducted in 2009 for the 2008 contract year. This evaluation will provide the third party's estimate of the value that could reasonably be expected to be earned by SEM under the Asset Management and Agency Agreement. This analysis will take into consideration market conditions during the contract period, as well as assets available for management.

The Stipulation also provides that, following the completion of the first year of the Agreement (and each year thereafter), AGLR will conduct an internal audit of operation of the Agreement. The auditor will have responsibility for verifying: (a) proper margin crediting to ETG's BGSS-P clause in the manner required by the Stipulation and the Agreement, and (b) SEM treatment of ETG in a non-discriminatory manner, as compared with SEM's other asset-management arrangements. The results of this audit will go to NJ BPU Staff, and the NJBPU can obtain all supporting documents on reasonable notice.

5. Impacts of Affiliate Relationships

This section examines the impacts of ETG's relationships with its affiliates on first its non-gas costs, and then its gas costs.

a. Impacts on Non-Gas Costs

Chapter V, Cost Allocation, of this report explains the Company's cost allocation methods and procedures. That chapter discusses how those methods and procedures have changed since AGLR acquired NUI in late 2004. As discussed in more detail there, the effect of those changes has generally been to lower the costs allocated to ETG. Other non-gas costs include various capital costs and direct (*i.e.*, not allocated) operation and maintenance costs. As detailed elsewhere in this report, capital spending has increased since the AGLR acquisition, while most categories of personnel costs have declined, due to reductions in the number of employees. Rate proceedings now before the NJ BPU will examine the balance of cost increases and decreases.

b. Impacts on Gas Costs

ETG buys seasonal, monthly, and daily nominated supplies from SEM under the Gas Purchase and Sale Agreement that forms part of the asset-management relationship. SEM also conducts

[24] Response to DR #842

ETG's participation in secondary-market activities (off-system sales and capacity releases) pursuant to the Asset Management Agreement. SEM also bids for ETG's requirements for delivered peaking supplies and for spot-market gas supplies. Each of those three types of supply is discussed below.

AGLR's Gas Supply and Capacity Planning department conducts ETG's requirements forecasting and supply capacity planning, pursuant to the Services Agreement with affiliate AGSC. Potential impacts of that relationship on ETG's gas costs are also discussed below.

c. The Asset-Management Relationship

The prices that ETG pays to purchase gas pursuant to the logical-dispatch provisions of these agreements follow a relevant index for the points where the purchase occurs. Monthly indexes govern monthly purchases; daily indexes govern daily purchases. The Asset Management and Agency Agreement attaches a complete list of ETG's transportation and storage contracts, and identifies the pricing points and specific indexes that apply to ETG's logical purchases. "Asset-management transactions," which Liberty understands to comprise secondary-market transactions, also use indexed pricing to determine the value realized.

ETG uses a logical nomination process that operates similarly to what the industry commonly terms "shadow dispatch" in asset-management agreements negotiated at arm's length. Shadow dispatch essentially represents what the Company would do if its assets were not under third-party management. ETG's Manager, Gas Supply orders seasonal, monthly and daily supplies under the asset-management arrangements with SEM in the same manner (and on essentially the same terms) as would apply in the absence of an asset-management agreement.

d. Delivered Peaking Supplies

Before each winter season commences, AGLR's Gas Supply and Capacity Planning department identifies ETG's needs under design-day conditions, and uses the results to design and issue a request for proposals (RFP) for peaking services delivered to ETG's city gates. The department contracts for bundled peaking supplies in staggered terms of one-, two-, three-, or five-year periods. This approach operates as a price-volatility hedge by diversifying the time periods covered by purchase commitments. The RFPs generally request bids in increments of 5,000 Dth/day, to be delivered to ETG's city gates, identified by meter numbers, on its serving pipelines, Columbia Transmission, Transco and two branches of the Texas Eastern system.

The most recent competition, for the winter of 2008/09, included issuance of the RFPs[25] to 49 suppliers (six of those were different entities within the same parent company). ETG received a total of 32 offers for peaking service from 10 suppliers. No supplier bid on all four delivery locations, but at least two bid on each. ETG's flexibility to shift volumes among its delivering pipelines, particularly Transco and Texas Eastern, allows bids on some pipelines to compete with bids on others. More than two bids therefore effectively competed for each delivery location.

[25] Two RFPs were sent, one for peaking supplies, and a second for winter-period base-load supplies. The remarks above apply primarily to the peaking RFP.

The Company awarded four contracts totaling 17,000 Dth/day: one for 5,000 Dth/day and three for 4,000 Dth/day, on three different pipelines. Carryover contracts from competitions in prior years provided another 22,000 Dth/day. The four winners included: (a) two who had won the competitions in both 2006/07 and 2007/08, (b) a new non-affiliated supplier, and (c) SEM. Post-bid negotiations for the 2008/09 competition resulted in reduced volumes from three of the four winners (including SEM). Affiliate SEM was not a supplier of peaking services in 2005/06, 2006/07 or 2007/08. SEM did submit a bid in 2007/2008, but its bid was disqualified because it came after the submission deadline.

The Company did not inform other bidders of SEM's participation, but ensured confidentiality of all their bid information, stating that only ETG personnel and AGL Service Company employees supporting ETG would have access to that information.

e. Spot-Market Gas

The Gas Purchase and Sale Agreement that forms part of the Asset Management and Agency Agreement addresses what happens should ETG's nominations turn out not to provide enough gas, or when a change in the availability of anticipated supplies occurs. Insufficient gas results typically when ETG experiences an unanticipated load change. SEM in such cases will find more gas, but "… at a mutually agreeable price," rather than at the prices defined for normal purchases.[26] Such purchases comprise "spot-market" transactions. There exists no reference price for them; rather, SEM finds some gas in the marketplace, and charges ETG a price that SEM and ETG agree on. ETG has the option of obtaining price quotes from third parties, but SEM has the right to match any offer that ETG finds.

The table attached to this chapter lists the days in the last two winters (2007/08 and 2008/09) when ETG made spot purchases. It also lists the circumstances under which the spot purchases were made, who the suppliers were, and what ETG paid for the gas. The table shows that SEM was a frequent provider of spot gas on Texas Eastern and Transco. Other suppliers also provided some supply during the first winter; by the second winter, however, SEM sold the gas in all but two purchases. These exceptions occurred in early December 2008. ETG's Manager, Gas Supply, reported that he "made some calls" to seek additional gas on these days, but SEM was often the only one who had supply available. ETG also reports that it has not maintained active gas-supply agreements with suppliers other than SEM.[27] Liberty examined comparable prices to

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[26] Gas Purchase and Sale Agreement, p. 10. The Gas Purchase and Sale Agreement was provided as part of the Company's response to DR #29.

[27] In comments on Liberty's Draft Report, the Company reports that "ETG does have active GISB/NAESB contracts in place with suppliers other than SEM to contract for spot supply." In response to a data request on this question, however, the Company stated, "With a few exceptions, these contracts were executed by NUI Utilities, Inc. and nearly all have remained inactive since January 13, 2004…" (Response to DR #872) When asked about the discrepancy, the Company stated:

> *The response to DR #872 was meant to indicate that ETG has not used the majority of its GISB/NAESB gas supply contracts during the past 5 years. … A majority of the GISB/NAESB contracts that ETG holds are with counter-parties that provide supply to receipts other than at ETG's city-gates. Given that intra-day purchases require those purchases to be made at ETG city-gates, the majority of the currently held contracts are not used.* (Response to DR #1028)

Liberty also notes that the asset-management agreement requires ETG to buy all of its nominated supplies from SEM; thus, gas-supply contracts that provide for delivery <u>other than</u> on an intra-day basis at ETG's city gates cannot be used.

test the competitiveness of such purchases from SEM. SEM's prices were about the same as those from the non-affiliated suppliers on days when others provided supply to the same places on the same day.

f. Forecasting and Supply Planning

The 2008 goals for AGLR's Gas Supply and Capacity Planning department include:

- Finalize the extension of ETG's asset-management relationship with SEM
- Develop a long-range portfolio plan for ETG
- Hire an analyst to assist with regulatory processes in New Jersey.

Another goal was to "Investigate, recommend and analyze projects providing incremental revenue to AGLR." None of the goals addressed the possibility of reducing ETG's gas costs.

The Company reports that the performance quality of the Gas Supply and Capacity Planning department consists primarily of evaluation against individual performance objectives established for the department's leadership. The Managing Director's number-one goal for 2008 was extension of ETG's asset-management agreements with SEM; his objectives for 2009 include looking for on-system peaking opportunities for all of the LDC subsidiaries, but nothing about seeking to reduce ETG's gas costs.

g. Violations of FERC Rules

The Company reported that SEM had recently paid a civil penalty for self-reported violations of the U.S. Federal Energy Regulatory Commission's (*FERC's*) policies on capacity release, including the posting and bidding requirements and the shipper-must-have-title rule, over a 28-month period. Part of the civil penalty included settlement of an alleged violation of the rules prohibiting buy/sell transactions.

The Company reported that some of the violations involved one of ETG's Texas Eastern contracts. These violations occurred over 20 months, from September 2005 through April 2007. The Company also reported that, upon learning of the FERC settlement with BP Energy related to capacity release, shipper-must-have-title and the prohibition of buy/sell transactions, AGLR retained outside counsel to conduct a review of its compliance with the FERC's capacity-release and other rules.

AGLR's Internal Audit department participated in the review, "… at the request and direction of counsel." Accordingly, the Company argued that Internal Audit's work is protected from disclosure by attorney-client privilege and the work product doctrine. Liberty was provided access to "documents relating to the ETG assets produced by outside counsel to FERC Enforcement Staff in response to Enforcement Staff's data requests," but three months after our request, which was well after the close of field work. Thus, Liberty was unable to pursue the impact of these violations as part of this audit.

The violations occurred during the term of ETG's first asset-management agreement with SEM. That agreement provided a fixed payment for SEM's access to ETG's gas-supply assets, rather than the sharing arrangement which is part of the current agreement. Thus, to the extent that SEM assigned an ETG asset to itself and then used that asset in a transaction in which ETG did not share, ETG's customers were not adversely affected. The transactions may have affected ETG's physical dispatch, however, as in shifting volumes from Texas Eastern to Transco. As discussed earlier, such shifts would likely have affected ETG's commodity gas costs.[28]

6. Officer and Director Attention

AGLR's Vice President for Gas Operations and Capacity Planning has primary responsibility for ETG's relationship with SEM; the Senior Vice President, Mid Atlantic Operations exercises a review role. Both officers participated in the activities that led to ETG's extension of its asset-management relationship with SEM. Liberty interviewed the Vice President, Operations and Capacity Management on this subject, and reviewed all extension-related records provided. Those records indicate a process whereby the Managing Director, Gas Supply and Capacity Planning worked out a proposal for extension, and presented the result to the two vice presidents. With their approval, the Managing Director, Gas Supply and Capacity Planning presented the agreed proposal to NJ BPU Staff and staff of the New Jersey Rate Counsel, including its outside consultant.

Negotiations with the New Jersey staffs resulted in a sharing formula that, according to the Company's estimates, yielded more value to ETG than the original proposal. Liberty presumes that the revised formula was provided to SEM for its acceptance. Liberty found no mention of the arm's-length standard in any interview or data request response.

7. ETG Independence in Procuring Gas Supplies

The *Organization* section of the chapter on *Procurement and Purchasing* explains that there exists no distinct gas-supply capability at ETG. Rather, a member of AGLR's Gas Supply and Capacity Planning department serves as Manager, Gas Supply, for ETG. That person operates technically as an ETG employee due to AGLR's cost-assignment processes, rather than due to organizational affiliation.

8. ETG's Internal Controls

The *Organization* section of the *Procurement and Purchasing* chapter and earlier portions of this chapter address the controls that apply to the gas-supply function. These controls have two key elements:

- AGLR Gas Accounting verifies the prices and volumes of the Logical-nomination gas ordered by ETG's Manager, Gas Supply, thereby confirming the validity of SEM's invoices to ETG for those amounts
- SEM performs the margin-sharing calculation entirely. By agreement with the NJ BPU Staff and interested parties in ETG's gas-cost proceedings, AGLR will conduct an internal audit of the operation of ETG's agreements with SEM. The auditor will determine
    - Whether margins were properly credited to ETG's BGSS-P clause in the manner required by the agreements and the Stipulation among the parties recommending NJ BPU approval of the agreements, and

[28] As noted earlier, the Company argues that such shifts do not affect ETG's commodity costs, as those costs are set prior to the shifts. As also noted earlier, Liberty was unable to verify this statement, as the Company keeps no records of the shifts.

- Whether SEM treated ETG in a non-discriminatory manner in relation to other of SEM's asset-management relationships.

Those controls operate internally to AGLR; no controls internal to ETG apply to the gas-supply function.

C. Conclusions

1. The Services Agreement between AGSC and ETG appropriately and sufficiently identifies the services provided to ETG and the methods for allocating the costs of those services to ETG.

Liberty presents detailed findings, conclusions and recommendations regarding this Agreement and its implementation in Chapter V. Cost Allocation.

2. The structure of the Asset Management and Agency Agreement and its associated Gas Purchase and Sale Agreement are reasonable, but should undergo rigorous competition. *(Recommendation 1)*

Liberty has reviewed a number of arrangements like the ones covered by the Asset Management and Agency Agreement and the Gas Purchase and Sale Agreement. These agreements fall in the mid-range of others Liberty has reviewed.

Every set of asset-management arrangements has costs and benefits; the question becomes whether the benefits out-weigh the costs. The benefits of the arrangements generally lend themselves to ready measurement, as they come in the form of an asset-management fee payment. Measuring costs has more complexity; they usually result from restrictions on access to the gas-supply assets of the LDC involved.

Liberty's experience demonstrates that, the more severe the access restrictions, the more valuable become the asset-management arrangements. This linkage stands to reason, as it is during times of restricted supply availability that a supply resource has the most value, both to the asset owner and to the asset manager. When restrictions on asset availability prevent access to a supply resource, the asset owner will incur extra costs in replacing the restricted asset. That extra cost must be compared to the benefit obtained by allowing the asset manager to use the resource to generate sharable value. In general, the benefit must be larger than the cost for the owner to break even, because that benefit must be shared with the asset manager as part of the asset-management arrangement. The assumption implied by the prevalence of asset-management arrangements is that the asset manager's greater skill in extracting value from the resources under management will usually produce benefits to the resource owners that out-weigh the extra costs.

ETG has not ensured that it has optimized the benefit/cost trade-off. Wholesale marketing affiliate (SEM) always provides asset-management services to its utility affiliates. The map shown in the Findings section of this chapter shows overlaps that suggest that at least some of the wholesale and retail affiliates' business activities are likely to rely on the asset portfolios of the utilities. Negotiation of asset-management agreement extensions preserve affiliate access to assets, but only putting them out for bid can ensure maximum value for ETG.

Different asset managers operate in different ways. The SEM option has not been shown demonstratively to be the best option for ETG's customers. ETG should test it against a carefully-designed competition when the current asset-management arrangements expire.

3. ETG does not keep sufficient records of its SEM-requested shifts among delivery points. *(Recommendation 2)*

ETG does not keep records of its delivery-point adjustments when it agrees to SEM's proposals to shift volumes among its city gates. It should. ETG's initial distribution of volumes among its city gates occurs on the basis of minimizing costs to its customers, consistent with reliability and the physical constraints imposed by the configuration of the Company's distribution system. Thus, any change of that distribution, almost by definition, increases costs to be borne by ETG's system-supply customers. Without records of the dispatch before and after the adjustments proposed by SEM, one cannot calculate that cost. [29]

4. It is critical that upcoming reviews of the Asset Management and Agency Agreement address important issues. *(Recommendation 3)*

SEM performs two types of computations that go into determining ETG's gas cost:

1. Monthly invoices for gas delivered to ETG's city gates
2. Sharable margins from SEM's use of ETG's gas-supply resources.

The processes, data and systems that support both of these computations must be examined.

For gas delivered to ETG's city gates, AGLR's Gas Accounting group checks SEM's invoices against ETG's "logical" nominations. This examination involves assessment of the price and quantity information that SEM uses in preparing the invoices, and how it applies that information. Identifying relevant price and quantity information requires examination of ETG's transportation and storage contracts, as SEM must add amounts required for transportation fuel, and for fuel for storage injection and withdrawal. AGLR Gas Accounting does all this.

Computation of sharable margins is more complex, and involves application of considerable discretion by SEM. Application of discretion, in particular, introduces the opportunity for discrimination among SEM's asset-management clients, possibly in response to differences in rewards to SEM due to differences in sharing percentages in the different asset-management contracts, or other incentives. Thus, auditing these computations may involve auditing more than just ETG transactions.

As illustrated in Appendix B, Part I to the Stipulation adopted by the NJ BPU in its approval of the extension of ETG's capacity-management and gas-supply arrangements with SEM,[30] SEM keeps "books," or files of transactions, for each of ETG's transportation and storage assets. SEM uses these books to capture transactions for ETG's account involving each asset. In recording a transaction in each book, SEM must decide:

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[29] As noted earlier, the Company stated in comments on Liberty's Draft Report that ETG's gas cost is set prior to any shift in volumes between the pipelines, and thus that this concern is moot. As also noted earlier, however, the Company keeps no records of the shifts; thus, we were unable to verify this statement.

[30] NJ BPU Docket No. GM07100752, *In the Matter of the Petition of Pivotal Utility Holdings, Inc. d/b/a Elizabethtown Gas Concerning its Proposed Capacity Management Plan*, Order, issued March 19, 2008.

- How ETG ensures proper valuation of each transaction for the purpose of calculating sharable margin
  - What discretion applies to each valuation?
  - What decision rules were applied in that valuation?
  - Is the same rule applied in the same way for every transaction at each asset for each asset-management client?
- What assumptions are required for the valuation of each transaction
  - What discretion applies in the selection of assumptions?
  - Is available discretion applied in the same way in the selection of the same assumption for each client?

It will be important to examine and document how ETG's transactions get valued and the basis for each assumption required for valuation. The auditor must also examine books of business for other asset-management clients that involve the same assets, to assess whether SEM applied processes in the same manner for all asset-management clients.

SEM likely has more than one asset-management client with capacity in each asset. Thus, the question of "Who gets the good transactions?" arises in SEM's decisions regarding which transactions become ETG's. Unless the margin-sharing formula in every one of SEM's asset-management contracts is exactly the same, SEM has an incentive to assign the "good" transactions to the contract with the sharing percentages most favorable to SEM.

A related concern is the protection of SEM's transaction-assignment decisions against subsequent revision. The auditor must determine whether transactions originally assigned to ETG can be reassigned to another asset-management client with a more favorable margin-sharing arrangement.

5. The affiliate relationship has not adversely affected gas costs determined by ETG's logical nominations.

Liberty found the Logical-nomination process, as specified in the asset-management arrangements with SEM and administered by ETG's Manager, Gas Supply, is representative of provisions of that nature that have been negotiated at arm's length, except for the delivery-point shifts discussed above. This part of the asset-management arrangements produces appropriate costs.

The credits generated by the optimization activities of the Asset Manager also affect ETG's gas costs. Liberty has some concerns about the integrity of the transaction-tracking systems that form part of the determination of those credits, and about potential increases in costs that could offset those credits. However, the valuation scheme specified for the optimization transactions compares favorably with ones that have been negotiated at arm's length.

6. SEM's participation in a competition for delivered peaking services does not appear to have increased costs, but gives cause for concern. *(Recommendation 4)*

In the most recent competition for peaking services, SEM bid on two of the four possible awards, and won one. For the one that it won, SEM's bid was lower than two others most comparable to it, but not by much. Thus, if anything, SEM's presence in this competition lowered costs, rather than increasing them.

In future competitions, SEM's presence may inhibit competition for supplies of this type, thus increasing ETG's gas costs. The presence of an affiliate as a competitor affects the competition, generally adversely. Thus, as detailed below, Liberty recommends that SEM not be allowed to compete for supplies of this type.

7. **The approach to securing spot-market supplies does not promote costs optimization for ETG.** *(Recommendation 5)*

ETG's Manager, Gas Supply, tends to "fall back on" spot-market supplies from ETG's affiliate. Moreover, the affiliate has the right to match any third-party offers that ETG receives. By the winter of 2008/09, SEM was virtually the only supplier of spot-market gas.

This situation creates the unacceptable result of placing SEM in the position of naming its own price for the supply. Other suppliers cannot be expected to offer competitive prices if SEM always gets the business through its right to match. In this circumstance, unaffiliated suppliers who offer supply accomplish little more than informing a competitor (SEM) of its pricing strategy. The result is elimination of competition for ETG supply.

8. **The AGLR entity charged with planning ETG's gas-supply costs does not demonstrate a sufficient cost-control focus.** *(Recommendation 6)*

Liberty could find no evidence that the people who plan for ETG's gas supply have any interest in reducing ETG's gas costs. Those people have the incentive to look for additional revenue opportunities for AGLR, however. The quest for additional revenue for AGLR, in the absence of any sign of interest in reducing ETG's gas costs, has the potential for increasing those costs.

9. **SEM's recently-reported violations of the FERC's capacity-release policies have the potential for adverse impacts on ETG customers.** *(Recommendation 7)*

The Company responded to Liberty's data requests in this area three months after the requests, which was well after the close of field work. Those responses make clear that gas-supply assets under contract to ETG were involved in the violations. Thus, it is possible that ETG's customers' interests were adversely affected. Upcoming, independent review of the asset management relationships should address this issue.

10. **AGLR has not sufficiently provided for an arm's-length relationship between ETG and SEM.** *(Recommendation 1)*

The statements of corporate philosophy in the Company's annual reports, the interviews, and the data request responses provided to Liberty during the course of this audit make clear that AGLR's business model involves having SEM manage the affiliated utilities' assets. The responsible officers' roles in managing the relationship make clear that they understand the model. *Transparency* comprises a value in the design of the relationship between SEM and the affiliated utilities, but arm's-length bargaining does not. The terms of the asset-management relationship between ETG and SEM did not result from negotiations between the different AGLR entities.

D. Recommendations

1. Put ETG's asset-management arrangements out for bid when the current arrangements expire. *(Conclusions 2, 10)*

Liberty recommends that, when the current asset-management arrangements expire, the NJ BPU require that the subsequent arrangements be put out for bid. The competition for the new arrangements must be managed carefully. Different asset managers generate sharable margins in different ways. Putting exactly the same asset-management-and-gas-supply structure out for bid by other potential asset managers will not be a fair test of the best arrangements for ETG's customers.

The Company should work out the details of the offering closer to the time that the competition would be held. Liberty recommends that the process focus on net benefits to ETG's customers, rather than on the largest guaranteed payment. Arrangements that increase ETG's gas costs inordinately in order to generate larger sharable margins may not be the best outcome for ETG's customers.

2. Keep records of ETG's costs before and after the delivery-point shifts requested by SEM. *(Conclusion 3)*

Shifting volumes among delivery points in response to SEM's requests may lead to increased costs. ETG must track those costs, in order that they might be compared with ETG's share of the margin generated by the transaction. Records of the changes in costs must also be auditable.

3. Ensure that upcoming examination of the operation of SEM's agreements with ETG examines how optimization transactions get assigned to ETG, and how the transactions get valued. *(Conclusion 4)*

As discussed in Conclusion 4, key questions in determining Net Margin generated by SEM using ETG's assets include the following:

- How does SEM decide which optimization transactions become ETG's?
- How are those decisions captured and protected against after-the-fact reassignment?
- How does SEM exercise its discretion in valuing the transactions for ETG's account?

Upcoming examinations must answer these questions to the NJ BPU's satisfaction.

4. Prohibit SEM from participating in competitions to provide peaking supplies to ETG. *(Conclusion 6)*

Liberty's experience, including the prior audit of ETG's affiliate relationships,[31] shows that the presence of an affiliate in a competition to buy or sell gas supplies impairs that competition. Liberty has not examined in any depth the unaffiliated competitors' reasons for withdrawing from competitions that include an affiliate; putting ourselves in their place, we would be concerned about: (a) contract awards not being made on a completely objective basis, and (b) bid information being shared with the affiliate.

[31] Members of the East Coast Natural Gas Cooperative refused to participate in its auctions when they learned that ETG's wholesale-marketing affiliate, NUI Energy Brokers, was participating as a supplier.

Trying to avoid impaired competition by not disclosing the presence of the affiliate does not comprise an effective long-term approach. Someone will almost surely find out somehow; when everyone else finds out, they will feel that ETG has not been honest about the competition, and will, at least, withhold their best bid, or not participate at all.

An effective solution requires barring the affiliate to participate in these competitions unless there is a clear, compelling demonstration that the relevant market will become non-competitive as a result. Judging from the one comparison available to Liberty, not allowing SEM to participate will affect ultimate costs very little. Allowing SEM to participate could affect costs by a great deal more.

5. Develop an improved process for seeking spot-market gas supplies *(Conclusion 7)*

Other companies have quick-response systems for obtaining spot-market gas supplies (*e.g.*, e-mails to a pre-qualified list of potential suppliers, for example). ETG should develop such a system, and present it to the NJ BPU for approval as soon as possible.

SEM's right to match the lowest offer must also be terminated. Liberty would allow SEM to bid for this requirement as ETG's own pipeline capacity, which SEM operates as ETG's agent, has primary-delivery-point rights to ETG's city gates, and those rights may be essential to ensure deliveries in the circumstances that call for spot-market purchases. Other potential bidders would be told of SEM's participation, however, and provided an opportunity to participate in the development of procedures that would ensure them of an arm's-length competition.

6. Make reducing ETG's gas costs an explicit objective for AGLR's Gas Supply and Capacity Planning department. *(Conclusion 8)*

Not just ETG, but the holding company as well, should commit to and express the goal of providing the highest-quality service at the lowest possible price. The Company should make addressing ETG's gas costs an explicit objective for every person involved in determining those costs, and should track and assess each person's performance in pursuit of that objective.

7. Ensure independent examination of any SEM violations of the FERC's capacity-release rules involving ETG's assets. *(Conclusion 9)*

Pipeline capacity under contract to ETG was involved in these violations. Thus, it is possible that ETG's customers' interests were adversely affected. This matter requires independent evaluation.

Exhibit II.1: ETG Spot-Market Gas Purchases: 2007/08 and 2008/09

Date	Delivering Pipe	Volume (in Dth)	Price ($/Dth)	Supplier	Reason
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Date	Delivering Pipe	Volume (in Dth)	Price ($/Dth)	Supplier	Reason
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

III. Market Conditions

A. Background

This chapter addresses the following topics:

- Customer transfer activity
- Competitiveness of the third party supplier ("Supplier" or "TPS") market
- Opportunities to improve Supplier market competitiveness.

After the initial BPU orders and unbundled tariff filings in the mid-1990s, full supplier choice ("Energy Choice") became available to all customers by 2002 – 03. A timeline and significant milestones in the evolution of competition are shown below:

1985	FERC unbundling and restructuring orders 436, 500, and 380
1992	FERC Order 636
1993	BPU *Guidelines for Further Unbundling of New Jersey's Natural Gas Services*[32]
1994	Unbundled tariffs approved for all Commercial and Industrial (C&I) customers in New Jersey
1997	Limited residential transportation pilot programs approved (not including ETG)
1999	EDECA[33] law signed 2/9/99; BPU established procedures and schedule for natural gas rate unbundling filings to be submitted, including the Basic Gas Supply Service (BGSS) charge.[34] ETG stipulation signed 12/28/99.
2000	BPU order mandating Electronic Data Interchange (EDI) for all gas utilities and third party suppliers
2001	BPU order of 3/30/01 approving ETG stipulation, with clarifications and further direction, and approving ETG proposed tariffs
2002	BPU order of 5/6/02 addressing ETG consolidated billing standards and other customer account services
2003	ETG opened up residential market to Energy Choice
2004	BPU order of 6/24/04 further defined customer account services requirements

In New Jersey and a number of other states that adopted full retail choice in the late 1990s through the early 2000s, the markets have passed through the initial growth state, weathered the implosion in the energy markets, matured, and for the most part reached steady state.

B. Findings

1. Marketer Licensing

Under New Jersey Administrative Code, third party suppliers must be certified by the BPU Energy Division. On the BPU website, the *Third Party Supplier Information* page offers all initial and renewal licensing documents and related instructions. A prospective gas or electric supplier seeking a license must be registered with the New Jersey Secretary of State and must

[32] Docket No. GX93110516, December 20, 1993.
[33] Electric Discount and Energy Competition Act, N.J.S.A. 48:3-49 *et.seq*.
[34] Docket No. GX9903121

file with the BPU a four-page *Electric Power and Gas Supplier License* Application and a two-page *NJBPU Internet Website Information Disclosure* form, together with a $250 non-refundable application fee and a $1,000 Electric or $800 Gas License Fee, which is refundable if the application is rejected. Suppliers must also maintain a surety bond of $250,000. Annual license renewals are required, at a cost $500 and $400, respectively, for electric and gas licenses.

a. Marketer Applications

Following certification by the BPU, a supplier may sign up with ETG by executing a standard, BPU-approved *Third Party Supplier Agreement*. The agreement is effective for an initial term of one year and continues month to month thereafter unless terminated by either party on 30 days notice.

ETG then sends the supplier an electronic bulletin board (EBB) security request form. After that form is submitted and accepted, ETG provides a user identification and password, which enables access to the Supplier website.

b. Credit Checks and Security

After the supplier registration process is initiated at ETG, credit checks and security provisions are handled by the AGLR Treasury group in Atlanta. Suppliers must submit a standard credit application. If a firm is publicly traded, Treasury accesses financial information from various services such as Bloomberg, Moody's S&P, Dun & Bradstreet, and the supplier's website. If that information is not available, Treasury will request the information directly from the supplier. ETG Business Operations provides an estimate of volumes to be delivered by the supplier and the reliability risk associated with those supplies. ETG does not have written practices or procedures for estimating supply volumes, supply risk, or financial risk associated with prospective suppliers.

ETG's tariff permits it to require the following information:

- Audited financial statements, or if not available, an attestation by the CFO that the unaudited statements are true and correct,
- A bank reference and at least three trade references,
- Attestations that the supplier is not in bankruptcy, is not subject to the outcome of pending litigation or regulatory proceedings of material consequences.

Based on the estimates of volumes and supply risk, AGLR Treasury decides how much security is required, up to a maximum of three months' deliveries permitted by tariff, in the form of payment in advance, a letter of credit, a guarantee, or some other mutually acceptable form. ETG then monitors the deliveries and performance to see if the requirements should be modified.

2. Supplier Interfacing with ETG

a. Electronic Data Interchange

The BPU mandated that EDI be the standard protocol for information between LDCs and third party suppliers, and established a process for recovery of associated capital costs and operating expenses.[35] This would include nominations, metering, billing, payment, change requests and other applications. ETG's EDI testing and applications are run out of Atlanta by AGLR.

Suppliers execute a 10 page Electronic Data Interchange Standard Trading Partner Agreement with ETG, which sets forth the various terms, conditions, protocols and technical parameters for initiation and implementation of EDI.

b. Customer Account Services

In May 2002, the BPU approved a stipulation[36] which provided that ETG would provide consolidated bills to customers of third party suppliers, and established certain standards for those bills, including, among other things:

- ETG will provide consolidated bills to customers of third party suppliers.
- ETG will charge the third party supplier 75 cents per customer per bill.
- Suppliers may include, at rates to be negotiated with ETG, bill inserts to the suppliers' customers who are billed by ETG.
- Suppliers may provide consolidated billing.
- ETG will provide to suppliers a credit of 40 cents per customer per bill for customers billed by the suppliers.
- The billing party will assume the non-billing party's receivables.

In June 2004, the BPU adopted the recommendations of a working group and amended the standards for consolidated billing,[37] providing, among other things, that:

- Any customer deemed creditworthy by the billing party is entitled to a consolidated bill.
- The billing party will assume or purchase the receivables of the non-billing party. For ETG, this applies only to residential and small commercial customers.
- Seriously delinquent accounts may be converted from consolidated to dual billing.
- The party providing consolidated billing may, after BPU Staff review, charge an administrative fee or discount the accounts receivable.
- Third party suppliers are not required to provide consolidated billing.

In the June 2004 order, the BPU concluded that neither the electric nor gas competitive marketplace in New Jersey was sufficiently advanced such that competitive metering should be offered, and tabled competitive metering issues for a minimum of two years from the date of the order.

[35] Docket No. GX99030121 et. al., In the Matter of the Electric Discount and Energy Competition Act of 1999 – Natural Gas Unbundling, Order Dated March 22, 2000.
[36] Docket No. EX99090676, In the Matter of the Electric Discount and Energy Competition Act of 1999 – Customer Account Services – NUI Utilities, Inc. d/b/a Elizabethtown Gas Company, Order dated May 6, 2002.
[37] Docket Nos. EX99090676 and EX94120585Y, In the Matter of the Electric Discount and Energy Competition Act of 1999 Customer Account proceeding …, Order Dated June 24, 2004

c. Capacity Assignment

ETG's tariff provides that a supplier serving residential Energy Choice customers may request an annual capacity assignment of base load pipeline capacity up to its anticipated design day demand. That capacity would be allocated based upon 70% Transco pipeline capacity and 30% Texas Eastern pipeline capacity, at the rates paid by ETG. Capacity assignments will be effective annually for one year periods, recallable if the Supplier fails to deliver sufficient volumes.

At the present time, Suppliers have not requested such assignment, and ETG states it does not maintain levels of capacity to enable it to provide it. Since residential transportation is at such a low level, as described later in this chapter, that is not an issue. If significant residential migration were to occur, ETG could assign some of its existing capacity to suppliers under the terms of the tariff, since the net residential load on the system would not change under such a scenario.

3. Customer Information

ETG's web site has a tab on its home page which links to its New Jersey Energy Choice page. That page provides a very brief description of the Energy Choice program, links to the Consumer Bill of Rights and Frequently Asked Questions, and a link to the BPU web site to access a list of suppliers.
The latter link takes the customer to the BPU home page, after which the customer must click through five other pages (*Divisions, Energy, Electric and Natural Gas Suppliers, Gas, and Elizabethtown Gas*) to reach the Suppliers' pages, which provide names, addresses, telephone numbers, links to web sites, and classes of customers served. And, those links are not necessarily intuitive, as they are organized from a BPU perspective as opposed to the perspective of a customer looking for a supplier.

There is also a built-in lag in updating the site information, as ETG receives the information from the Suppliers in the first instance, notifies the BPU, and then the BPU updates its site.

C. Conclusions

1. There is a broad spectrum of suppliers doing business on ETG's system. *(Recommendation 1)*

The following table shows the 17 active Suppliers doing business on ETG's system as of year-end 2008.

Table 3.1 Active Suppliers on the ETG system

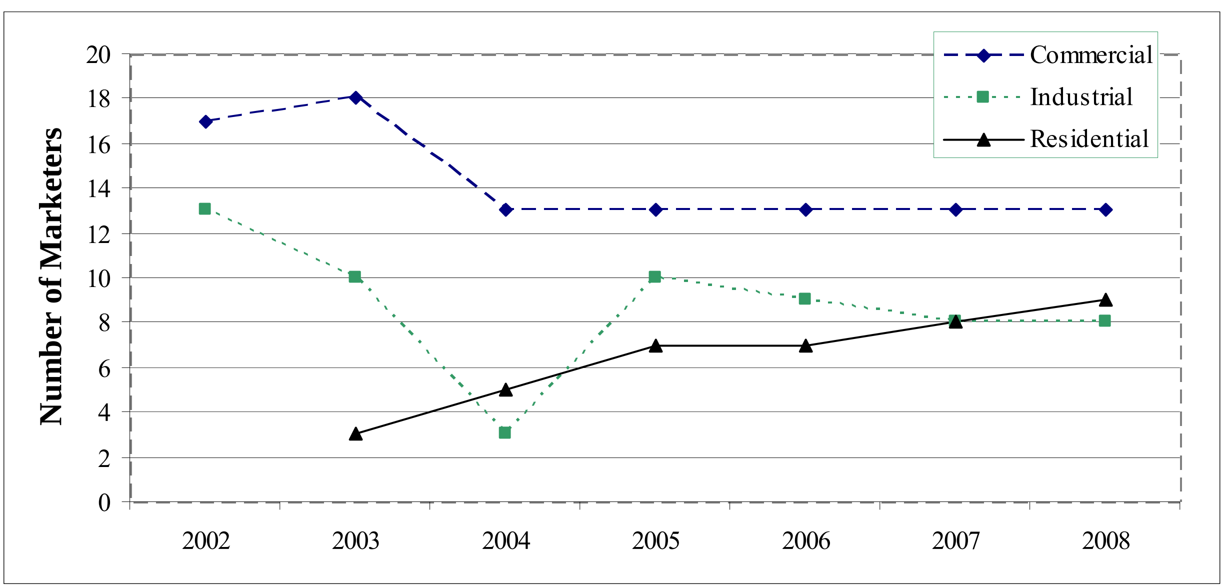
Supplier	Start Date	Res.	Com.	Ind.
Amerada Hess Corporation	07/01/1997	x	x	x
ConocoPhillips Company	07/01/1998			x
Covanta Energy	09/01/1992			x
EF Kenilworth	08/01/1998			x

Gateway Energy Services Corp.	06/01/2006	x	x	
Great Eastern Energy	12/01/2003	x	x	x
Intelligent Energy	09/01/2007	x	x	
Metromedia Energy	01/01/2007	x	x	
Mitchell-Supreme Fuel Co. aka NATGASCO	09/01/2005	x	x	
MXenergy Inc.	08/01/2006	x	x	
Pepco Energy Service, Inc.	07/01/1998	x	x	x
PPL EnergyPlus	11/01/2008		x	
South Jersey Energy Company	07/01/1998		x	x
Sprague Energy Corp	07/01/1998	x	x	x
UGI Energy Svces dba GAS MARK	07/01/1998		x	x
US Gypsum	07/01/1998			x
Woodruff Energy	04/15/1997	x	x	x
Totals		**10**	**13**	**11**

As may be seen from the table, ETG has a good representation of national and regional suppliers, and is well represented in each market segment. Many of the suppliers have been active in New Jersey for at least 10 years, and the field has stabilized after a shakeout in the earlier years. Overall, ETG has had as many as 44 different suppliers doing business on its system since 1992.

The following graph shows the numbers of suppliers by year for each market segment beginning in 2002, when the residential Energy Choice program began.[38] The numbers of suppliers serving each segment are not additive, as any given supplier may serve more than one market segment.

Number of Suppliers by Market Segment by Year



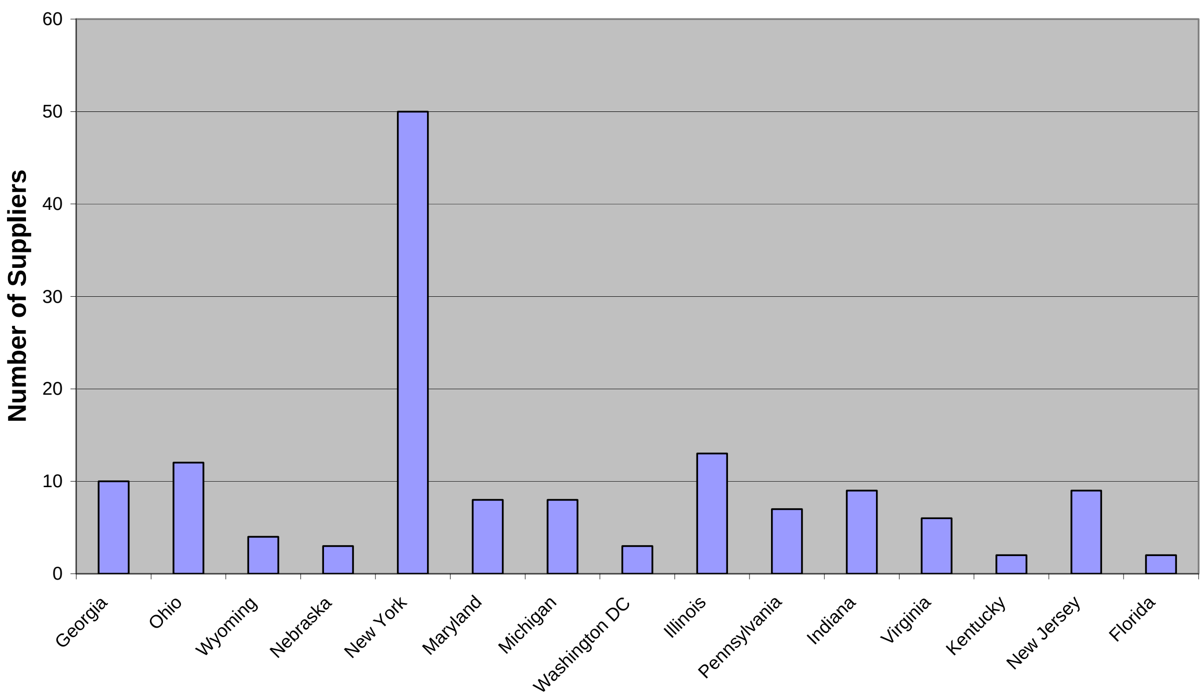
[38] ETG data in this and subsequent tables was analyzed on a monthly basis, but is presented on an annual basis for presentation purposes.

As may be seen from the graph, the numbers of suppliers in each market segment have been relatively stable for the last 4 to 5 years.

2. In comparison to other states, New Jersey has a good number of reliable suppliers to the residential market.

Using data from the US Energy Information Agency (EIA), Liberty performed a general comparison of the status of retail competition in New Jersey with all other states and the District of Columbia, and then a more specific comparison with all those states having greater than 1% of their customers served by third party suppliers. The table below compares the number of residential suppliers in the states in the latter category.

Figure 3.2 Number of Active Third Party Suppliers by State
December 2008



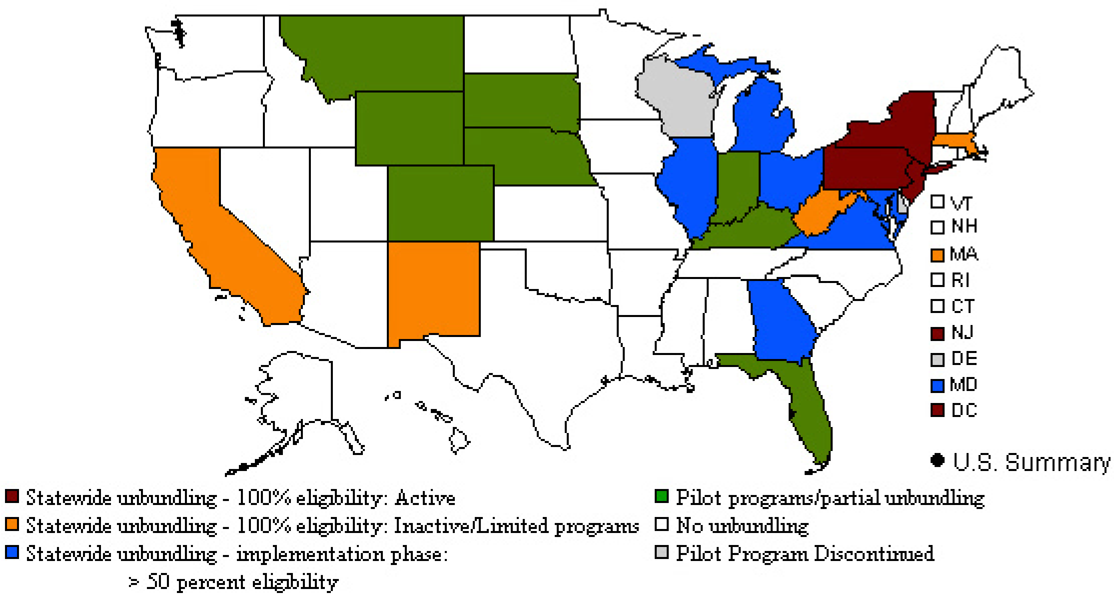
Excluding New York, which is clearly an outlier, New Jersey places among the top tier in terms of number of residential suppliers. Allowing for the slight discrepancy between ETG's data and the data reported by EIA, (10 vs. 9 suppliers, respectively) has no effect on that conclusion.

ETG personnel stated that generally the suppliers have been reliable and the Company has not experienced any significant reliability problems with their deliveries.

3. New Jersey is one of a small number of states that has implemented full unbundling and retail choice for all customers.

The map below shows the status of residential choice programs, as compiled by the EIA.[39]

Status of Natural Gas Residential Choice Programs by State as of December 2008



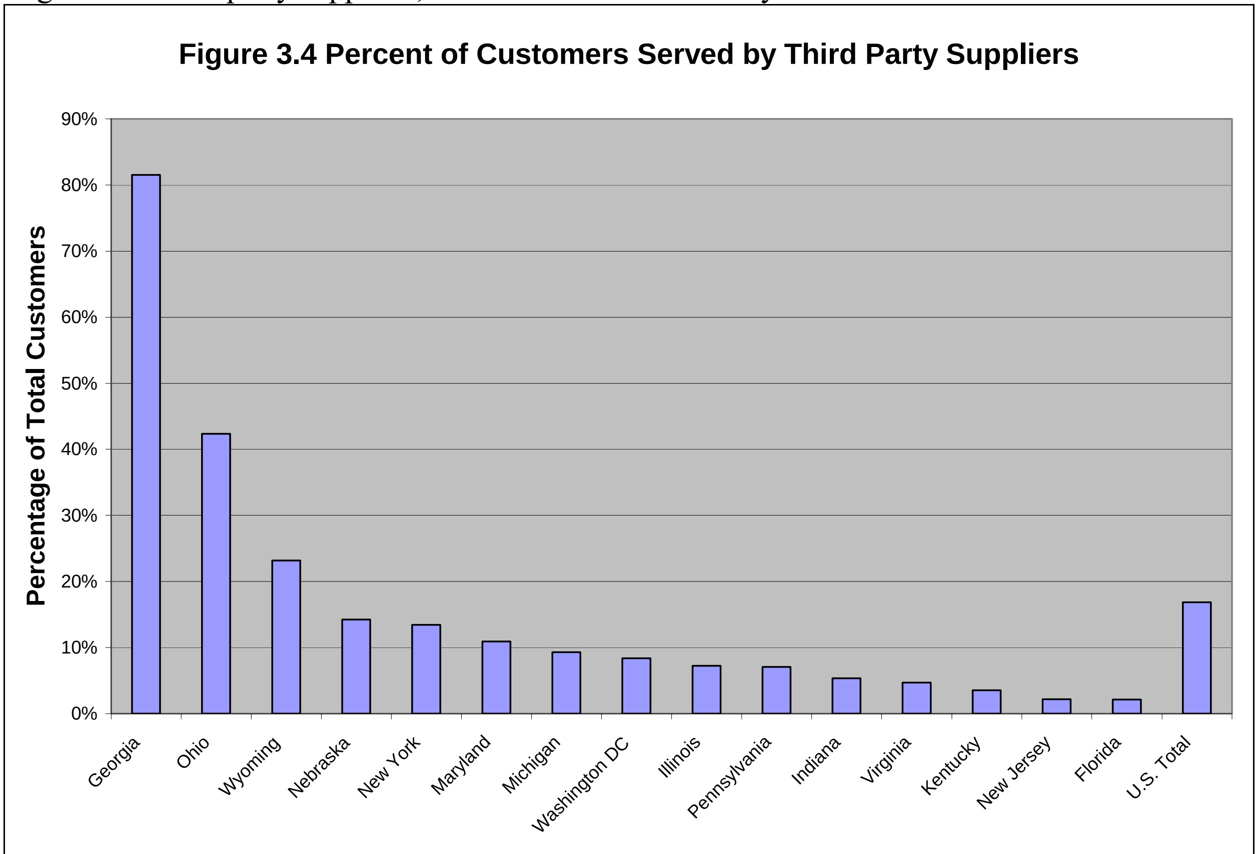
Residential Natural Gas Restructuring Status	States
Statewide unbundling - 100 percent eligibility: Active	DC, NJ, NY, PA
Statewide unbundling - 100 percent eligibility: Inactive/Limited programs	CA, MA, NM, WV
Statewide unbundling - implementation phase: > 50 percent eligibility	GA, IL, MD, MI, OH, VA
Pilot programs/partial unbundling	CO, FL, IN, KY, MT, NE, SD, WY
No unbundling	AK, AL, AR, AZ, CT, HI, IA, ID, KS, LA, ME, MN, MO, MS, NC, ND, NH, NV, OK, OR, RI, SC, TN, TX, UT, VT WA
Pilot program discontinued	DE, WI

The graphic above does not tell the entire story, because some states which have been relatively successful in their programs, as measured by the percentage of customer migration (e.g., Georgia and Ohio), do not have 100 percent unbundling and choice.

[39] US Energy Information Administration, http://www.eia.doe.gov/oil_gas/natural_gas/restructure/restructure.html

4. New Jersey ranks at the low end among states in which more than one per cent of residential customers has migrated to third party suppliers.

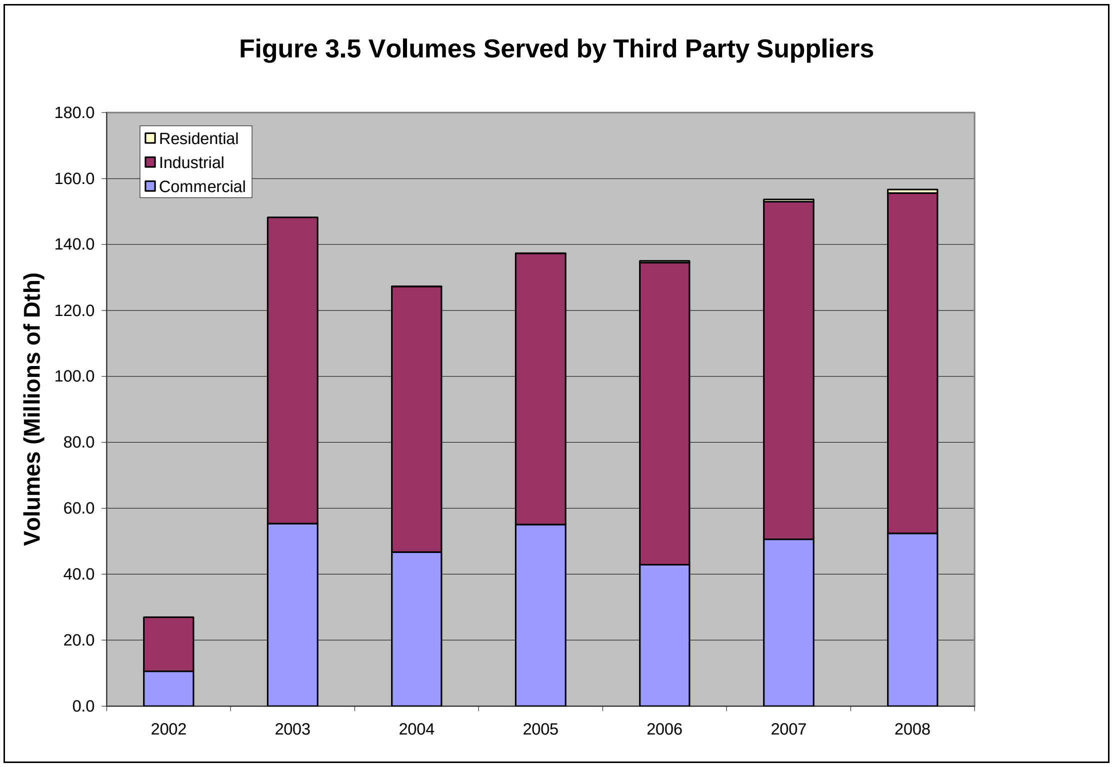
Liberty compared the percent migration of residential customers for the 14 other jurisdictions (13 states plus the District of Columbia) in which more than one percent of the customers have migrated to third party suppliers, and with the entire country.

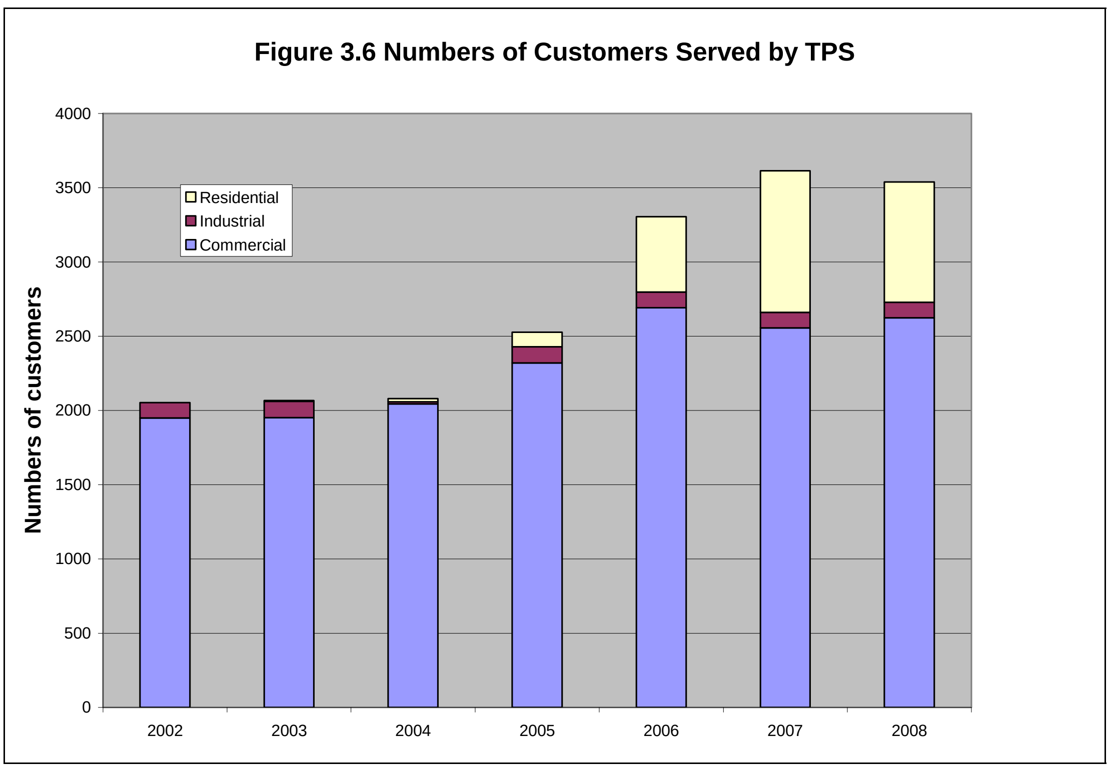


By this measure, New Jersey ranks at the low end, and lower than the other three jurisdictions with full unbundling (New York, Pennsylvania, and Washington DC,) and five of the six states with greater than 50 percent eligibility (Georgia, Ohio, Maryland, Illinois, and Virginia).

5. ETG's migration levels may have reached steady state. *(Recommendation 1)*

The following graphs show the volumes and numbers of customers served by third party suppliers from 2002 through 2008.





Commercial and industrial volumes delivered by third party suppliers, which dominate the graph of volumetric migration, reached a rough equilibrium in 2003 as illustrated by figure 3.5. As a frame of reference, in 2007, third party suppliers delivered approximately 36 percent of total volumes. Residential volumes were insignificant relative to commercial and industrial volumes and do not appear on the graph. With respect to numbers of customers served by third party suppliers, that total reached a rough equilibrium in 2006, as shown in figure 3.6.

6. ETG is at the low end of migration rates relative to the other LDCs in New Jersey, but the overall low migration percentages make the comparison inconclusive. *(Recommendation 3)*

Table 3.2 below shows the relative relationship of the New Jersey LDCs in terms of the percentage of all gas customers in the state, and then compares the migration rates of the LDCs on total customer and residential customer bases.

Table 3.2 Comparison of Migration Rates among New Jersey LDCs

Company	% of Total New Jersey Customers	Migrated Customers as % of Total Customers	Migrated Res. Customers as % of Total Res. Customers
ETG	9.5%	1.3%	0.3%
New Jersey Natural Gas	17.0%	3.6%	2.7%
PSE&G	61.5%	2.0%	1.2%
South Jersey Gas	12.0%	8.2%	7.8%
Total	**100.0%**	**3.0%**	**2.2%**

While ETG is lagging the others with respect to levels of migrated customers, all the percentages are low. Further, the better performance of South Jersey Gas may be explained by the presence of its marketing affiliate in its own territory. Liberty's experience suggests that a marketing affiliate operating within an LDC's service area tends to enjoy a significant advantage over other suppliers. Overall, however, the migration levels are low, and if ETG's percentage were to come up to the statewide average, for example, the gains would be small.

7. The low migration percentages are primarily functions of overall state, regional and national market structure and performance rather than ETG's management of its Energy Choice program. *(Recommendation 3)*

For New Jersey in general and ETG in particular, the third party supplier market is performing reasonably well in the large commercial and industrial sectors. This is consistent with the pattern observed in most other states. The residential third party supplier market, on the other hand, is performing poorly in terms of numbers of customers served. Only six states have broken the 10 percent migration threshold, and the two outliers, Georgia and Ohio, have some unique attributes. Georgia mandated migration at the utility serving over 90 percent of the state,[40] and Ohio has an abundance of pipelines and pipeline capacity coupled with an aggressive program statewide.

In its management audit report on New Jersey Natural Gas,[41] Liberty indicated several reasons for the poor performance of retail residential competition:

[40] Atlanta Gas Light Company, an affiliate at the present time, but not at the time the change was mandated.
[41] Focused Audit of New Jersey Natural Gas Company – Cost Allocations & Affiliate Relations, Docket No. GA05100909, Report of Liberty Consulting Group, November 20, 2007

- Only one state (Georgia) has mandated that LDCs be removed from the merchant function (for the LDC serving most of the state's customers), and only one company in another state, Dominion East Ohio, has voluntarily submitted a plan to do so.
- States are proceeding independently, requiring suppliers to adapt to the unique parameters of each state's programs.
- The collapse of the wholesale energy industry in the early 2000s, including bankruptcies, various criminal activities, false price reporting, and other actions removed arguably the largest driver of the residential competition movement.
- The nature of the utility business as currently structured is such that LDCs need to acquire medium- to long-term capacity and storage assets to ensure reliability for their customers, whom they are obligated to serve and for whom they are the provider of last resort.
- Many proponents of retail competition expected wholesale and retail suppliers to make long-term capacity commitments. That has not happened. The nature of the supplier business is such that they only make short-term commitments.
- The regulated price of gas commodity, with gas adjustment clauses of one form or another in most jurisdictions, do not mirror market prices due to a number of factors, including utility physical and financial hedging programs, the averaging and lags built into the periodic BGSS rate, and other factors.

D. Recommendations

1. Develop procedures for estimating supplier volumes, creditworthiness review and periodic review of existing suppliers. *(Conclusion 5)*

While the activity in this area is relatively low, ETG should have basic, standardized procedures for these evaluations. This has become more important in recent years as a result in staff turnover and relocation of some of the functions to AGLR.

2. Post the active supplier list to the ETG web site, with a clearly visible tab on the home page. *(Conclusion 1)*

Accessing the list of active suppliers is burdensome to customers, and requires that a customer be willing to navigate through a number of links and screens which are often confusing. Adding a Supplier page to the ETG web site with a link to the ETG home page would make it user friendly and enable timely updating.

3. ETG should consider initiating a dialogue with the BPU regarding its vision, goals and objectives for competition in the retail residential market. *(Conclusion 7)*

With the EDECA statue and the various BPU order and actions, New Jersey set the stage for Energy Choice. And, it has gone further than many, perhaps most jurisdictions in removing structural barriers with the EDI and Customer Account protocols.

Nonetheless, it has become clear that competition in the retail residential market as currently structured is barely functional. While the BGSS rate structure may contribute to that situation, the fragmented structure of the state, regional and national markets is the predominant factor.

there are other significant contributing factors. And, it is not at all clear that a “better” gas cost recovery mechanism can be designed to mitigate the dampening effects that the BGSS methodology has on competition, or even if that were feasible, that it would change anything.

Under EDECA, residential competition must remain available. However, absent any significant actions by the BPU or ETG, it will likely continue at very low levels. Allowing it to continue as currently configured may be the best course of action, but it may be time to revisit the underlying policies and programs.

IV. Recommendations and Review of Previous Audit

A. Background

The BPU has adopted standards for affiliate relationships, transactions, and cost allocations between gas utilities and competitive business segments; *i.e.*, affiliates that serve customers at retail. The BPU adopted them pursuant to the New Jersey Electric Discount and Energy Competition Act (*EDECA*) (N.J.S.A. 48:3 - 49 *et seq*.). New Jersey Administrative Code Section 14:4, Subchapter 3 - Affiliate Relationships, Fair Competition and Accounting Standards and Related Reporting Requirements codifies the relevant rules and regulations. These rules require periodic audits (*EDECA audit*) by an independent auditor of these relationships. The last of EDECA audit of ETG came in 2003 (*2003 EDECA Audit*), when NUI owned ETG.[42] The auditor issued 15 recommendations. This chapter provides Liberty's findings of the status of ETG's compliance with these recommendations.

B. Findings

1. 2003 EDECA Audit Recommendation A.1

Recommendation A.1 of the 2003 EDECA Audit is to: *Prepare monthly or quarterly itemized statements of inter-company services and charges (including allocations) for review by the business units and departments being charged for the services*.

The auditor found that, in general, NUI's subsidiaries did not prepare itemized bills showing amounts charged for intercompany functions. After AGLR's acquisition of NUI, ETG entered into a services agreement with the AGL Services Company (*AGSC*). The AGSC Policies and Procedures Manual now governs the charges and allocations for services. Liberty discusses these procedures and the Company's compliance with them in Chapter V, Cost Allocation Methods.

2. 2003 EDECA Audit Recommendation A.2

Recommendation A.2 of the 2003 EDECA Audit is to: *Develop service agreements to describe the nature, terms and prices to be charged for inter-company services*.

The auditor found that except for gas procurement services, the nature, terms and prices for inter-company services were generally not documented through service agreements. ETG now has both a services agreement with AGSC and an asset management agreement for gas procurement services with Sequent Energy Marketing (*SEM*). Liberty discusses the AGSC and SEM agreements in Chapter V, Cost Allocation Methods. That chapter includes findings, conclusions, and recommendations related to the inter-affiliate transfer pricing policy.

3. 2003 EDECA Audit Recommendation A.3

Recommendation A.3 of the 2003 EDECA Audit is to: *Expand the applicability of ETG's "Asset Transfer, Leases and Rentals" policy to include all inter-company transactions and all affiliates.*

[42] Audit of the Competitive Services Offerings of Elizabethtown Gas Company, Docket #GA2020099, Overland Consulting, March 14, 2003.

Remove the limitation on applicability to "affected affiliates" and clearly specify applicability to all inter-company services transactions.

The auditor found that the existing ETG policy for inter-company transactions was too restrictive in its applicability, both in the type of affiliates and in the range of transactions to which the policy applied. The former "Asset Transfer, Leases and Rentals" policy no longer applies. The services agreement with AGSC and the asset management agreement with SEM govern the current affiliate transactions. Liberty discusses the ETG's policy for these transactions in Chapter V, Cost Allocation Methods.

4. 2003 EDECA Audit Recommendation A.4

Recommendation A.4 of the 2003 EDECA Audit is to: *Develop an inter-company transaction procedure that provides for monthly settlement of amounts owed by affiliates to one-another. Investigate and clear the existing large, unsettled inter-company receivables and payables balances that have accumulated over the years.*

The auditor found that ETG's existing accounting procedures allowed inter-affiliate payables and receivables accounts to accumulate large balances that were not settled on an ongoing basis. Accounting procedures have changed under AGLR ownership. ETG participates in an AGLR money pool. Liberty discusses how this money pool operates in Part II of this report.

5. 2003 EDECA Audit Recommendation B.1

Recommendation B.1 of the 2003 EDECA Audit is to: *Adopt an attributable cost basis for allocating the common costs of NUIHQ departments and ETG departments providing shared utility services. Whenever possible, identify employee efforts benefitting subsidiaries using timesheets.*

The auditor found that NUI allocated most corporate costs based on a formula that did not link common costs to subsidiaries based on causation and resulted in an over-weighting of cost allocations to the utility affiliates, including ETG. AGSC now provides corporate services, and the service agreement with AGSC governs cost allocation for these services. Liberty discusses these cost allocation methods in Chapter V.

6. 2003 EDECA Audit Recommendation B.2

Recommendation B.2 of the 2003 EDECA Audit is to: *Implement management accounting procedures to fully allocate all common costs attributable to a business unit to its individual departments.*

The auditor found that NUI fully allocated some costs at the business unit level only, not at the department level. This caused an improper exclusion of such costs from the shared subsidiary allocations, because shared functions were allocated between affiliates based on departmental costs. The AGSC service agreement now addresses such cost allocations. Liberty discusses these cost allocation methods in Chapter V.

7. 2003 EDECA Audit Recommendation B.3

Recommendation B.3 of the 2003 EDECA Audit is to: *Limit ETG's charge for the direct and NUIHQ-allocated rental costs of the Union facility to the market price for efficiently-used space in the facility.*

The so-called "Plaza" building at 1085 Morris Avenue, Union, NJ previously served as NUI's largest office facility. Several NUI affiliates, including ETG, occupied space in the Plaza building along with some unrelated parties. The Liberty Hall Joint Venture owned the building. The auditor found the owner to be related through ownership to NUI's management. The auditor also found that the lease arrangement with Liberty Hall Joint Venture to be unfavorable to NUI, and consequently also to ETG. The lease assigned all the building space until 2022 to NUI at a time when NUI was beginning to move employees out of the building, requiring NUI either to sub-lease the unused space or absorb the excess cost. The auditor found that the majority of this excess cost was charged to ETG. In addition, the lease cost NUI paid and charged to its business units, including ETG, was considerably higher than the market rate NUI charged to the other unrelated tenants to which it sub-leased space.

AGLR assumed NUI's lease obligation for the Plaza building. However, at the same time, the Plaza building became oversized for ETG's operations, and ETG vacated the building. As a result, ETG does not lease any space in the Plaza building and does not incur any direct or allocated costs from it. Therefore, this recommendation is now moot.

8. 2003 EDECA Audit Recommendation B.4

Recommendation B.4 of the 2003 EDECA Audit is to: *Charge the market rental value of the Rahway operations center to the ASB unit.*

ETG conducted an appliance services business (*ASB*) under NUI ownership. This business provided appliance service contracts, appliance maintenance and repair, and appliance installation services to customers in ETG's gas service territory. ETG's ASB unit operated as a division of ETG, although NUI treated it separately for accounting and affiliate transactions purposes. The ETG-owned operations center in Rahway, NJ was entirely dedicated to ASB, and ETG apparently was not charging ASB for use of the building.

ETG's ASB unit discontinued operations in 2005. Therefore, this recommendation is now moot.

9. 2003 EDECA Audit Recommendation B.5

Recommendation B.5 of the 2003 EDECA Audit is to: *Obtain support to enable an attributable cost-based allocation of corporate liability, property and workers compensation insurance.*

The auditor found that NUI relied on its insurance companies to allocate corporate insurance costs to its subsidiaries, and NUI had no support to tell it how the insurers arrived at their allocation decisions. AGSC now provides insurance through its service agreement with ETG. The AGSC service agreement describes the methods used for distributing and allocating costs. Liberty discusses the AGSC service agreement in Chapter V, Cost Allocation Methods.

10. 2003 EDECA Audit Recommendation C.1

Recommendation C.1 of the 2003 EDECA Audit is to: *Recalculate floor prices based on fully allocated New Jersey ASB costs. Update tariffed appliance services prices based on recalculated floor prices.*

The auditor found that NUI's floor appliance prices to be several years old and not based on the fully-allocated costs of providing appliance services. The auditor recommended recalculating floor prices using more recent costs and a calculation of fully-allocated cost per productive appliance service hour. As noted above, ETG's ASB unit discontinued operations in 2005. Therefore, this recommendation is now moot.

11. 2003 EDECA Audit Recommendation D.1

Recommendation D.1 of the 2003 EDECA Audit is: *Because Energy Brokers acts as a procurement agent for ETG, the inter-company service agreement between these affiliates should include a term prohibiting Energy Brokers from selling gas or gas transportation to ETG except in emergency circumstances, and prohibiting Energy Brokers from profiting from such transactions.*

Energy Brokers was an affiliate acting as a gas procurement agent for ETG. The auditor found a potential conflict of interest in this arrangement, because Energy Brokers had a detailed knowledge of ETG's operations and gas supply requirements not available to competitive suppliers, thereby prompting Recommendation D.1.

ETG later ceased using Energy Brokers as its procurement agent. ETG then entered into an asset management agreement with SEM at the time of the AGLR acquisition. Liberty discusses the affiliate relationship between ETG and SEM in Chapter II, Affiliate Relationships. Liberty has recommendations in that chapter related to the relationship with SEM.

12. 2003 EDECA Audit Recommendation E.1

Recommendation E.1 of the 2003 EDECA Audit is: *UBS should support all professional services charged to NUI with timesheets describing the service performed and the amounts of time required to perform them. NUI Utilities should enter into an agreement each budget year describing the services UBS will provide and the amounts required to fund them. NUI Utilities should not incur the costs of UBS professional services that cannot be billed to third-parties in the market place. UBS should retain all unchargeable costs on its own books. Until this occurs, the BPU should consider requiring ETG to record all charges from UBS's Operations and Applications Services department below-the-line to avoid ratepayer cross-subsidization.*

Utility Business Services (*UBS*), an NUI subsidiary, provided utility operational support systems (customer information and billing and geographic information services) to NUI utilities, including ETG, and unaffiliated utilities, primarily in the water and wastewater industries. The auditor found that UBS did not have the supporting information to demonstrate that ETG and other NUI utilities were not subsidizing UBS services provided to unaffiliated customers.

AGLR acquired UBS as part of the acquisition of NUI, and subsequently sold it on January 31, 2006 to Cash Cycle Solutions, a North Carolina corporation. ETG terminated its service agreement with UBS in June 2005. The services provided by UBS now come from AGSC under a service agreement or, in the case of billing services, through a competitively bid agreement with Axiom Billing Services of New York. Therefore, Recommendation E.1 is now moot.

13. 2003 EDECA Audit Recommendation E.2

Recommendation E.2 of the 2003 EDECA Audit is: *ETG should not record the costs of UBS development efforts in its regulated accounts. The BPU should consider requiring NUI Utilities to identify and credit ETG for the costs of Wins Fieldbook, a UBS digital mapping application UBS sells third parties, that ETG helped pay to develop. The BPU should also consider prohibiting ETG from funding UBS's product development efforts.*

The auditor found evidence that ETG and other NUI utilities had helped fund the development of at least two of UBS products, one of which was subsequently abandoned. It was not clear that ETG had been properly compensated for this funding, leading to Recommendation E.2. As noted for Recommendation E.1, ETG's business relationship with UBS ended in June 2005 and UBS was sold by AGLR in January 2006. This recommendation is therefore now moot.

14. 2003 EDECA Audit Recommendation E.3

Recommendation E.3 of the 2003 EDECA Audit is: *The BPU should carefully consider NUI's interpretation that UBS is not a "retail" affiliate subject to the BPU standards.*

The auditor questioned NUI's interpretation of UBS as not a "retail" affiliate and recommended that the BPU should review this classification. Since UBS is no longer an affiliate of ETG, this recommendation is now moot.

15. 2003 EDECA Audit Recommendation F.1

Recommendation F.1 of the 2003 EDECA Audit is: *NUI should immediately complete an inventory of all telecommunications facilities and services it uses and purchases from Telecom. This inventory should be reconciled with currently unidentifiable charges on bills from Telecom. Telecom should identify all telecommunications facilities and services passed through from other carriers and billed to NUI with an NUI business unit, department, geographic location and description of the service or facility provided. Until this is done, Telecom should cease billing NUI for unidentified amounts (or, at a minimum, to avoid ratepayer cross subsidization, ETG should stop recording allocations of such charges above the line).*

NUI Telecom, an NUI subsidiary, resold local, long distance and wireless phone services it purchased from facilities-based telecommunications carriers. Telecom provided these services to NUI and its subsidiaries, including ETG, as well as other non-affiliated customers. The auditor found that Telecom's bills to NUI contained insufficient information to substantiate that ETG had been appropriately charged for the services.

Subsequent to the audit, NUI sold Telecom in December 2003. Therefore, this recommendation is now moot.

C. Conclusions

1. Many of the 2003 EDECA Audit recommendations are now moot because of changes in corporate structure since the time of the audit. The rest of the recommendations continue to have some relevance, although the specific applicability has been affected by the intervening corporate structure changes.

The following table summarizes the current status of the2003 EDECA Audit recommendations.

Status of 2003 EDECA Audit Recommendations

Recommendation	Relevant Changes Since 2003	Current Status
A.1 (Need for statements of inter-affiliate charges)	Affiliate agreements now with AGSC and SEM.	Addressed in Chapter V, Cost Allocation Methods.
A.2 (Need for additional inter-affiliate service agreements)	Affiliate agreements now with AGSC and SEM.	Addressed in Chapter V, Cost Allocation Methods.
A.3 (Completeness of inter-affiliate service agreements)	Affiliate agreements now with AGSC and SEM.	Addressed in Chapter V, Cost Allocation Methods.
A.4 (Need to clear inter-affiliate balances)	ETG now participates in an AGLR money pool.	Addressed in Part II of the report.
B.1 (Method for allocating common costs)	Affiliate agreements now with AGSC and SEM.	Addressed in Chapter V, Cost Allocation Methods.
B.2 (Allocation of costs to individual departments)	Affiliate agreements now with AGSC and SEM.	Addressed in Chapter V, Cost Allocation Methods.
B.3 (Rental costs of Plaza building)	ETG vacated the building and no longer incurs costs.	Moot.
B.4 (Rental costs charged by ETG to ASB)	ASB discontinued operations in 2005.	Moot.
B.5 (Allocation of insurance costs)	Affiliate agreements now with AGSC and SEM.	Addressed in Chapter V, Cost Allocation Methods.
C.1 (ASB floor prices)	ASB discontinued operations in 2005.	Moot.
D.1 (Restrictions on Energy Brokers' procurement activities)	Asset management agreement now with SEM.	Addressed in Chapter II, Affiliate Transactions.
E.1 (Support for UBS charges to ETG)	ETG ended relationship with UBS in 2005. AGLR sold UBS in 2006.	Moot.
E.2 (Appropriate accounting of UBS development costs)	ETG ended relationship with UBS in 2005. AGLR sold UBS in 2006.	Moot.
E.3 (Designation of UBS as a retail affiliate)	ETG ended relationship with UBS in 2005. AGLR sold UBS in 2006.	Moot.
F.1 (Support for NUI Telecom charges to ETG)	NUI sold Telecom in 2003.	Moot.

D. Recommendations

Liberty has no recommendations specific to the status of the 2003 EDECA Audit recommendations. However, other chapters of this report contain new recommendations related to some of the issues raised during the 2003 audit as they apply to the new corporate structure under AGLR ownership.

V. Cost Allocation Methods

A. Introduction

This chapter reviews the systems, methods, and results of affiliate cost assignment and allocation allocations that occur among AGLR's utility and non-utility segments. The chapter addresses how affiliate costs are incurred and how the Company charges, assigns, or allocates them to ETG and other affiliates. Liberty also addresses whether the methods for changing, assigning and allocating affiliate costs treat utility operations objectively and at arms'-length.

Liberty's examination focused on assessing whether AGL Service Corporation (*AGSC*), which supplies a broad array of support services to ETG, uses accounting policies and practices and supporting financial systems to ensure that ETG does not subsidize the operations of its affiliates. Liberty conducted this analysis in conjunction with work described in Chapter II, *Affiliate Relationships*, which describes the various ETG affiliates within the AGLR corporate structure.

Liberty reviewed transaction categories, paths, and amounts by which costs are exchanged among affiliates in ways that affect ETG directly or indirectly. Liberty also identified the goods and services provided among affiliates through service agreements and related documents, such as cost allocation manuals, and documented the various transaction paths. Liberty determined whether the Company has appropriate, written formal guidelines for cost allocation procedures and is in compliance with the guidelines.

The existence of a well designed and thorough cost allocation manual (*CAM*) is very important for assuring proper documentation of affiliate costs distribution and compliance with regulatory requirements. It expresses a company's policies and procedures for distributing costs among subsidiaries, provides employees with a comprehensive reference document, and identifies the required documentation to explain why particular kinds of costs are distributed in specific ways. The CAM should include safeguards and procedures to prevent cross-subsidization of non-utility operations by utility operations; *e.g.*, employee time reporting guidelines for regulated and non-utility activities. However, even a CAM that encompasses the requirements identified above may not be adequate. The Company must ensure that the results of accounting, documentation, authorization, and pricing decisions, and actions taken by the employees adhere to and support the underlying principles of the CAM and the requirements of a utility's regulators.

In addition to having a CAM, a company should ensure that the service providers within the corporate structure and the recipients of those services execute proper service agreements. These services agreements generally describe the types of services provided between affiliates and provide the allocation and billing procedures used to charge for these services. The services agreements should complement and be consistent with the CAM.

Liberty evaluated AGLR's cost assignment, allocation, and accounting policies, procedures and practices to ensure compliance with applicable legal, regulatory, and contractual requirements. Liberty reviewed time reporting and recording, assignment of common costs and transfer pricing as it relates to sales and transfer of assets. To ensure proper and accurate recording of activities and costs allocated to ETG and other affiliates, Liberty performed transaction testing of sample transactions. Liberty also evaluated the internal and external reporting of affiliate transactions and costs.

Liberty provides more detail about the overall adequacy of the Company's accounting practices and procedures, internal controls and reporting in the *Accounting and Property Records* chapter of the Phase II report.

B. Findings

1. Relationships among Affiliates

The following table shows selected AGLR revenues and expenses (in millions of dollars) by business segment.

AGLR Business Segment Revenues and Expenses

Business Segment	**2008**	**2007**	**2006**	**2005**	**2004**
Operating Revenues					
Distribution operations	$ 1,768	$ 1,665	$ 1,624	$ 1,753	$ 1,111
Retail energy operations	987	892	930	996	827
Wholesale services	170	83	182	95	54
Energy Investments	55	42	41	56	25
Corp/intercompany eliminations	(180)	(188)	(156)	(182)	(185)
Consolidated	$ 2,800	$ 2,494	$ 2,621	$ 2,718	$ 1,832
Operating Margins					
Distribution operations	$ 818	$ 820	$ 807	$ 814	$ 640
Retail energy operations	149	188	156	146	132
Wholesale services	122	77	139	92	53
Energy Investments	50	40	36	40	13
Corp/intercompany eliminations	7	-	1	-	(1)
Consolidated	$ 1,146	$ 1,125	$ 1,139	$ 1,092	$ 837
Operating Expenses					
Distribution operations	$ 493	$ 485	$ 499	$ 518	$ 394
Retail energy operations	73	75	68	61	62
Wholesale services	62	43	49	42	29
Energy Investments	31	25	26	23	8
Corp/intercompany eliminations	9	8	9	6	12
Consolidated	$ 668	$ 636	$ 651	$ 650	$ 505
Earnings Before Interest and Taxes					
Distribution operations	$ 329	$ 338	$ 310	$ 299	$ 247
Retail energy operations	57	83	63	63	52
Wholesale services	60	34	90	49	24
Energy Investments	19	15	10	19	7
Corp/intercompany eliminations	(1)	(7)	(9)	(11)	(16)
Consolidated	$ 464	$ 463	$ 464	$ 419	$ 314

The distribution segment comprises the largest component of AGLR's business. It includes six natural gas and local distribution utilities: Atlanta Gas Light, Chattanooga Gas, Elizabeth Gas, Elkton Gas, Florida City Gas and Virginia Natural Gas. These utilities construct, manage and maintain intrastate natural gas pipelines and distribution facilities. The next table summarizes assets (in millions of dollars) by segment. Distribution operations accounts for over two thirds of AGLR assets.

AGLR Assets by Business Segment

Business Segment	2008	2007	2006	2005	2004
Total Assets					
Distribution operations	$5,138	$4,847	$3,985	$4,167	$3,838
Retail energy operations	315	282	293	339	240
Wholesale services	970	890	830	1,057	688
Energy Investments	353	287	373	327	571
Corporate & intercompany eliminations	(66)	(48)	62	(257)	(318)
Consolidated	$6,710	$6,258	$6,123	$5,633	$5,019

The broad scope of services provided by AGSC shows in its comparatively large number of employees, which the following table illustrates.

AGLR Employee Headcount

Business Unit	**2008***	**2007**	**2006**
AGL Services Company	777	744	800
Elizabeth Gas Company	259	250	261
% to AGL Service Company	33%	34%	33%
Sequent Energy Management	137	132	127
% to AGL Service Company	18%	18%	16%

*End of October

The following table shows the flow of allocated costs for ETG and other affiliates for the years 2005 through 2008. The entities listed here are the accounting rather than operating entities. Hence, the list is different from and longer than that provided in Chapter II, *Affiliate Relationships*.

Allocated Costs for 2005 through 2008

Company	2008	2007	2006	2005
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]				
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]				
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

[redacted]

43 [redacted]

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

The table below shows AGL Service Corporation (*AGSC*) cost trends by AGSC cost pool from 2005 through 2008.

AGSC Costs by Service Corporation Cost Pools

AGSC Cost Pools	2008	2007	2006	2005
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

The table below shows the trends in Direct Charged, Direct Assigned and Allocated AGSC costs for all affiliates from 2005 through 2008.

AGSC Costs Charged to All Affiliates

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Total AGSC charges to all affiliates declined in each year from 2005 through 2008, consistently with ETG's trend of declining costs for the same period. This decline resulted in significant part from efficiencies following the NUI merger and changes to the allocation process. The table below presents historical trends in the Direct Charged, Direct Assigned and Allocated costs from 2005 through 2008 for ETG.

AGSC costs charged to ETG

ETG Affiliate Costs	2008	2007	2006	2005
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

The table shows that directly charged, directly assigned, and allocated costs all have trended downward. The fraction of allocated to total costs dropped sharply from 87.9 percent in 2005 to 66.7 percent in 2006. The fraction, however, increased after 2006, rising to 67.5 percent in 2007 and to 73.2 percent in 2008. The large decrease from 2005 to 2006 resulted principally from elimination of headquarters and holding company allocations as a result of the NUI acquisition. The cost declines in allocated costs experienced by ETG exceed (proportionately) the declines in AGSC total allocated costs to other affiliates during this period.

The **AGSC Cost Pools** and the **AGSC Costs Charged to All Affiliates** tables above Liberty show small differences between the total costs for the years 2005 through 2008. Liberty did not consider the differences, which the following table summarizes, to be material.

Reconciliation between AGSC Cost Pools and AGSC Allocated Costs to Affiliates

AGSC Costs	2008	2007	2006	2005
AGSC Cost Pools	$ 148,594,391	$ 155,069,639	$ 179,480,193	$ 193,481,213
AGSC Allocated	$ 147,820,806	$ 155,069,829	$ 179,480,203	$ 193,708,139
Difference	$ 773,585	$ (190)	$ (110)	$ (226,926)
% change	**.52%**	**.00%**	**.00%**	**.12%**

2. Agreements between ETG and Affiliates; Transaction Paths

There currently exist three agreements affecting ETG's affiliate transactions directly and indirectly:

- Services Agreements between AGL Services Company (*AGSC*) and Pivotal Utility Holdings, Inc. d/b/a Elizabethtown Gas Company (*ETG*)
- Asset Management and Agency Agreement between Pivotal Utility Holding, Inc. d/b/a Elizabethtown Gas and Sequent Energy Management, L.P. (*SEM*)
- Utility Money Pool Agreement.

a. AGSC/ETG Services Agreement

AGLR formed AGSC for the purpose of providing administrative, management, and other services to affiliated companies, which ETG after the NUI acquisition. AGSC provides a list of services from which ETG may choose. AGSC sends an annual service-selection proposal form to ETG and other affiliates. The form lists services proposed for the next fiscal year. ETG has access to this service selection about October 1. AGSC requires ETG and other affiliates to notify it by November 30 of the services elected for the next fiscal year. ETG and affiliates may also arrange for the services of affiliated or non-affiliated experts, consultants, attorneys, and others in connection with the performance of any of the services supplied within the service agreement. The services agreement states that AGSC will provide selected services at cost, but does not address the process it will use to determine the lower of cost or market price in pricing transactions between affiliates, utility and non-utility business units in the services agreement or the Allocation Process Manual (*APM*).

Two services agreements between ETG and AGSC applied during the audit period. The first covered the period from July 2004 through December 31, 2005. The second (and current) agreement became effective beginning January 1, 2006. Liberty reviewed these service agreements, and found that they include a description of how bills are rendered to ETG and other affiliates. The agreements contain an exhibit (Exhibit I - AGSC's Policies and Procedures Manual) describing the rules for determining and allocating AGSC costs. Another exhibit (Exhibit II – Agreed Upon Services to be Received from AGL Services Company) provides a list of services an affiliate may choose to receive.

The first services agreement bears no signature or date. Its service list (Exhibit II - Agreed Upon Services to be Received from AGL Services Company) was not completed. ETG could not locate an executed copy of the first agreement. The Company affirmed that ETG began receiving services under the AGL Services Agreement in December 2004. The Company further explained that ETG selects services to be received from AGSC during the annual AGSC budget review/approval process. Every utility president must formally approve the utility's individual budget, which includes AGSC and associated charges for the next year.

The following table shows the services AGSC provides and a description of the factors used to allocate the incurred remaining after direct charge and assignment. These services are the same services as those identified in Exhibit II- Agreed Upon Services to be Received from AGL Services Company.

Services	Allocation Factors
Rates and regulatory, Gas Supply and Capacity Management., Marketing, Customer Services (except call center), Engineering	No. of End Use Customers Ratio
Employee services	Number of Employees Ratio
Call Center	Call/Phone Volume Ratio
Internal Audit, External relations, Legal and Risk Management, Financial Services, Information Systems and Technology, Executive, Investor Relations, Business. Support (Purchasing, Facilities Management, Fleet, Other- Corporate Communications, Corporate Compliance), Other (records management, visual services)	Composite Ratio (average of FTE's, Assets, Operating Exp., Operating Margin)

Liberty verified that AGSC provided the services to ETG subject to the first agreement during 2005 by tracing and verifying the costs to ETG's 2005 Income Statements. Liberty was not able to verify the ETG 2005 invoices because the Company was not able to provide the invoices due to difficulty in segregating the costs Pivotal charged to the former NUI companies from those AGSC charged in 2005.

Liberty reviewed the Policies and Procedures Manual (Exhibit I) and verified that it contains an explanation of the methodology and procedures used to directly charge, directly assign, and allocate costs from AGSC to ETG and other affiliates. It also explains in very general terms how AGSC maintains an accounting system, for which payroll records from AGSC employees, accounts payable vendor transactions, and general ledger journal entries serve as the primary inputs.

The AGSC/ETG services agreement does not include a specific policy and procedure for AGSC employee time reporting. The agreement explains the use of the *Project Costing* work order system to directly assign payroll costs and related benefits by using a unique business unit identifier for all AGLR System Companies. It does not, however, provide any further detail or address how to properly report employee time to ensure that the correct benefitting entity bears the costs of such time. It merely states that other operational costs can be directly assigned to AGLR System Companies by using the unique business identifier.

Exhibit I of the services agreement does not cover all the services provided to ETG. For example, the agreement does not address allocated headquarters building costs, leases, outside consultants, services, or cost of capital. The Company indicated that direct allocation of headquarters building costs ceased January 15, 2008, because ETG no longer leases space at the Plaza Building in Union as a result of moving its headquarters from the Plaza to the current location in Berkeley Heights. AGSC frequently engages outside resources such as consultants and contractors to perform services in addition to the service AGSC provides to ETG. The Company does not consider the cost of capital, a return component for AGSC to recover interest expense based on net intercompany transaction activities, to be a service provided by AGSC. The service company therefore does not include cost of capital in the services agreement. Such costs do, however, comprise a line item on the monthly invoices billed to ETG and other affiliates.

Exhibit I of the services agreement addresses in general terms the way that AGSC costs get, directly assigned, distributed, or allocated to ETG and other affiliates. The exhibit lists the various standard rates or factors (cost drivers), and provides a brief explanation of the components of the factors. It also provides a description of the services, and explains that the Company allocates any remaining costs (*i.e.* those not directly charged or assigned) through the use of general allocators specific to the services provided. For example, the Company directly charges or assigns the specifically identifiable costs of the Information Systems organization (which provides subsidiaries with production support for web, mainframe and distributed computing applications, servers and networks), but allocates any remaining costs using what AGLR terms its *Composite Ratio*. This factor averages four ratios:

- Number of employees
- Total assets
- Operating expenses

- Operating margin.

AGLR employs other factors as well. For example, it allocates Marketing costs not directly charged or directly assigned by using the *Number of End-Use Customer Ratio*. This ratio uses the number of end-use customers for AGLR's six LDC operations. Liberty did not, however, find within Exhibit I of the services agreement or the APM, specific guidelines on how to charge time and expenses in order to avoid cross-subsidization from utility to non-utility subsidiaries.

AGLR considers the combination of the APM and Exhibit I to comprise its CAM. These two documents lack an essential CAM component; *i.e.*, procedures and guidelines for employee time reporting and the prevention of cross-subsidization by the utility business units to non-utility business units.

b. Asset Management Agreement

The current Asset Management Agreement (*AMA*) between SEM and ETG became effective April 1, 2008. It governs SEM services to ETG in managing the LDC's physical assets and contractual assets, which Exhibit A to the agreement identifies. SEM also has responsibility to meet ETG's firm gas supply requirements. Chapter I of this report (*Procurement and Purchasing*) and Chapter II (*Affiliate Relationships*) discuss the SEM and ETG Asset Management Agreement in more detail. The April 2008 Asset Management Agreement addresses SEM's obligation to supply gas consistent with ETG's nominations, schedules volumes on pipeline systems, provides ETG with a daily deployment of ETG's Assets (including finding markets for idle capacity), charges SEM to act as ETG's agent to manage the use of its gas assets, manages ETG's storage inventory accounts, cycles and trades the inventory as necessary to maximize the benefits of ETG's inventory, and sells gas or releases capacity to third parties as the agent for ETG.

SEM records transactions in its system of accounts, and the Company and the BPU track and audit them pursuant to Section 21 of the agreement. SEM must also maintain data integrity and adhere to internal controls.

The activities SEM performs on behalf of ETG determine the transaction paths for the various services provided. For example:

- SEM time reporting generates payroll costs and associated payroll benefits and administrative overheads for gas management activities
- Purchases of gas assets generate invoices through the accounts payable system, which are billed to ETG for remittance and settlement to SEM.

The SEM gas accounting group generates a sales invoice to ETG, using a deal calculation file. This file determines the billing of ETG requested gas volumes using a logical dispatch approach, which is more fully explained in Chapter I of this report. SEM's accounting group receives this file for invoicing. A SEM employee has already entered the requested volumes on the appropriate dispatch paths based on his daily communication with the ETG Gas Trader. As part of the invoice process, SEM accounting validates the following items: requested volumes, fuels and variables, and the reference prices from the identified benchmarks from the publications

Inside FERC and *Gas Daily*. The accounting group also obtains actual pipeline transportation and storage demand charges from the various pipeline invoices for charge back to ETG. Liberty reviewed sample gas purchase invoices from SEM to ETG. This examination verified that the billing components appear on the invoices as detailed in the agreement.

Liberty reviewed the monthly settlement process between the affiliates. The examination found that it to conform to with the Asset Management and Gas Purchase and Sale Agreement. The settlement process between SEM and ETG is consistent with other services provided to ETG. The Company uses intercompany accounts for the settlement process via journal entries recorded on the books of the respective affiliates, in the month immediately following the related production month. Liberty traced selected journal entries for SEM transactions (*e.g.*, Annual Guaranteed Minimum management services fee) to the posting of the general ledgers of ETG and SEM. Liberty discusses the SEM accounting transactions and internal controls in the *Accounting and Property Records* chapter in the Phase II report.

c. Utility Money Pool Agreement

The Utility Money Pool Agreement describes the process that AGLR and its subsidiaries use for the movement of cash between entities and the settlement of payments for the sale of goods and services among the participating affiliates. Liberty discusses the money pool operations in more detail in the *Finance and Cash Management* chapter of the Phase II report.

AGLR settles payments for the sale or transfer of goods and services between the affiliated companies and loan or investment assignments to each participating affiliate due to money pool operations through intercompany accounts. AGLR's accountants use two general ledger accounts for these purposes: a utility account (135451 - Intercompany Money Pool Utility) and a non-utility account (135450 - Intercompany Money Pool Non-Utility). For example, the Company recorded services charged to ETG and other changes to ETG's money pool balance in December 2008 in ETG's money pool account on December 31, 2008. The transaction creates an automatic journal entry through the monthly allocation process. As described in more detail in the *Finance and Cash Management* chapter, the Company calculates interest expense for the funds borrowed, and records this expense through intercompany accounts based on the money pool process. Interest expense is recorded on month-end balances due to or from the money pool.

Liberty reviewed selected invoices for services rendered per the AGSC Service Agreement to ETG. The examination found invoices to conform to the requirements of that section of the agreement. However, Liberty found that the method the Company uses to calculate the interest expense is not in accordance with the Utility Money Pool Agreement. The Utility Money Pool Agreement states that interest expense will be calculated based on the daily balances of all loans, which is in contradiction with the interest expense calculation described above. Liberty inquired about the variance between the method used and that called for by the Utility Money Pool Agreement. AGLR responded that the Company has always used the current method. In addition, Liberty found that the Utility Money Pool Agreement does not specifically make ETG a contract party. The agreement has not been updated since December 8, 2003 and does not consider or address the mechanics and procedures specifically for non-utility participants. Liberty provides conclusions and recommendations related to the Utility Money Pool Agreement in the *Finance and Cash Management* chapter of the Phase II report.

3. Systems, Processes and Reports to Control Costs

AGSC uses its Accounting Process Manual (*APM*) to describe the processes for the accounting and allocation of costs and to define the internal controls to support transaction flow costs between affiliates. The Company refers to the APM and Exhibit I of the Services Agreement as the Company's CAM. Liberty's review of the APM found it insufficient to meet the needs of a fully effective CAM.

The APM can be better described as a detailed accounting procedures manual, which provides a list of month-end closing accounting procedures and steps, and identifies the internal controls and reports that contain affiliate transaction costs allocated to ETG and affiliates. The APM does not explain the activities and processes in the form of policies and procedures, as a well-constructed CAM should do. In essence, the APM describes the procedures used in the PeopleSoft accounting system application, and provides the intended outcome of processing affiliate transactions through journal entries, calculating allocation factors and producing standard monthly or periodic *ad hoc* cost allocation reports.

The APM does, however, serve adequately to provide the processes and mechanisms for a detailed step-by-step procedure documenting the path of a transaction as part of the month-end closing process. The manual also includes internal control documentation (SOA 404), to ensure process documentation, proper activity execution, and results validation for each step before moving to another step of the transaction path. For example, the APM system provides the mechanized process to receive data feeds of such statistical data, as end user counts, full-time employee counts, call-center volumes, and vehicle counts from various departments of the organization. The accounting manager must review and follow a SOA 404 Key Control document for that function as part of the control feature of the APM. The accounting personnel then use the data received to calculate allocation factors and ratios and as a basis for costs to be allocated to ETG and other affiliates. The APM also has the capability to generate various reports. Examples of these reports include:

- Monthly invoices to bill affiliates (Billing Statement) for AGSC-provided services by business unit
- Monthly cost allocation statements, which include costs that are identified as directly charged, directly assigned and allocated
- Standard monthly and periodic *ad hoc* reports such as the Allocation EBIT Report
- Other internal cost allocation reports for upper management use.

Liberty addresses the APM and such specific functionality as the calculation of allocation factors, accounting procedures, internal controls and reports below and in the *Accounting and Property Records* chapter of the Phase II report.

4. Transaction Flow and Process

AGLR maintains very detailed and comprehensive transaction path documentation of the flow of source information through the recording of the transaction costs to the appropriate general ledger accounts and department IDs within a business unit. An accounting transaction path begins with services provided by AGSC on behalf of ETG or other affiliates as selected under the service agreements. Most of these transaction flow processes originate when AGSC receives the invoices from vendors or time reporting documents from employees. AGSC then processes these source documents through the Company's PeopleSoft integrated financial systems; *e.g.*, the accounts payable system, the billing system, the payroll time reporting and the labor distribution system. Liberty discusses the Company's systems and processes in more detail in the *Accounting and Property Records* chapter of the Phase II report.

Use of department IDs allows further breakdown of the costs, and defines specific activities within that department. The Company allocates these costs based on specific allocation factors and drivers. For example, operating costs for customer services are accumulated from purchases made by AGSC and AGSC employees reporting time for services provided in support of Customer Services activities. The Company assigns these costs to general ledger accounts and department IDs for those services performed. The Company allocates all operating expenses within the Customer Services Department not directly charged or directly assigned to ETG and other affiliates.

The table below provides examples of the accounting structure and transaction flow using Customer Services accounts and department IDs that capture the costs to be allocated. Customer Service is a distribution operations service provider (*DOPS*) and is broken down into the following sub-nodes, which are hierarchy levels within an account tree and allocated as shown in the table.

Service Provided	Sub Group	Dept ID	Account	Driver	Allocated to BU's
Call Center	Support Staff	6011	671416	Call Volume w/VNG overflow	**(B)**
Call Center Management	-Strategic Alliances -VP Customer - Service Call Center Mgt	1502 1215 6018	671005	Call Volume	**(B)**
Customer Except AGLC	Credit & Collections	6040	671103	End-Use Customers	**(B)**
Customer Service Management, Staff and Overhead	-Measurement Support -Call Center Overhead - Customer Relations -Customer Services Technology	1853 6019 6035 6045	671104	End-Use Customers	**(B)**
Customer Services	-Operation Services	1366	671018	End-Use Customers	**(B)**

Logistics	-Customer Logistics Services	6016			
Emergency Response Team		6017	671105	Call Leak Call Volume	**(B)**
Call Center Management		6018	**(A)**	**(A)**	**(A)**

(A) Tracks, prepares and distributes to Dept ID 1180-Financial Accounting spreadsheets reporting call center call volumes by business unit (GL55-ETG) and type of call, which are then posted in statistical accounts 690652, 690653 & 690654.
(B) GL7-Atlanta Gas & Light, GL8-Chattanooga Gas Company, GL28-Virginia Natural Gas, GL53-Florida City Gas, GL54-Elkton Gas Services, GL55-Elizbethtown Gas Company. The business units identified in (B) are reported through Distribution Operations and agree with the Company's allocation and reporting procedures for utility companies. The Call Center department will continue to submit a monthly spreadsheet and the information is loaded to the respective accounts.

Similar documentation exists for other departments within the APM document, as described above for the customer services department.

5. Cost Allocation Methods and Procedures

The Services Agreement provides that AGSC's methods and procedures are to directly charge, directly assign, distribute or allocate costs to AGLR System Companies in the manner described below.

a. Direct Charged Method

The Direct Charged method accumulates costs in specific Operations & Management (*O&M*) projects. Costs then get charged to one or more AGLR System Companies as defined by the project owner, depending on the business unit receiving the services. The Company uses O&M projects to capture costs for specific projects that require time to accumulate the costs for subsequent disposition, such as directly charging or assigning costs to the various business units benefiting from the service provided. The Company also directly charges costs to ETG and other affiliates using methods determined on a case-by-case basis consistent with the nature of work performed or based on the use of one of the various standard rates and drivers, such as rate per vehicle. These costs, for example, can consist of maintenance expenses for vehicles used by the AGLR system companies. In this case, the metric used to determine the rate is the number of vehicles. Once the rate (AGLR vehicle expense divided by the number of vehicles) is calculated, it is applied to the actual number of vehicles the applicable business unit uses.

Another example of the Direct Charged method of costs is the *Direct Charge Payroll Ratio*. The Company uses this ratio to charge directly costs related to administration of benefits, at-risk compensation components, and health and pension retirement benefits when such benefits are not recorded directly on the books of AGLR System companies. This ratio is based on the relative percentage of a participating AGLR System Company department's payroll costs to those of the total AGLR System. Liberty addresses these and other factors in more detail within the transaction testing section of this chapter.

b. Direct Assigned Method

The Direct Assigned method of costs accumulates the costs in general ledger account codes for services specifically performed for one or more AGLR System Companies. These costs are further assigned using a unique business unit identifier for all operational costs including payroll expenses. For example, for Financial Services, general ledger account code 671043 and business unit GL55 (ETG) is used in accumulating payroll costs for ETG. This method is generally accepted for these types of transactions.

The Company directly assigns payroll expenses based on the total payroll costs a department incurs on behalf of an AGLR System Company, as tracked in a unique business unit identifier or O&M project. The Company determines this ratio monthly based on time recorded on time sheets by AGSC employees and the AGSC employees' effective salary rates. The Company also directly assigns benefit-related expenses, such as healthcare and 401(k) plans, to the relative worked performed or uses a distribution or allocation method as described below. Due to the effort and timing to accumulate actual benefit costs, budgeted benefit costs are used for the monthly allocation process and trued up quarterly. The transaction testing section of this chapter discusses this process in more detail.

c. Distributed and Allocated Method

AGSC distributes or allocates any remaining costs not directly charged or directly assigned. Liberty found that the Company fully allocates costs, meaning that the full cost of providing services includes certain indirect costs, such as departmental overhead, administrative and general costs, and taxes. AGSC accumulates costs in general ledger account codes for services of a general nature that are applicable to all AGLR subsidiaries. These indirect costs are associated with AGSC-provided services not directly charged or directly assigned to one or more AGLR subsidiaries. The Company identifies causal relationships between the services provided and identifies and uses the allocation factors as the basis for selecting the appropriate allocation driver for distributed and allocated costs. For example, the Company allocates call center costs based on call volumes. The following table shows the methods used to allocate accumulated costs of these general services to individual business units.

Services	Allocation Factors
Rates and Regulatory, Gas Supply & Capacity Management., Marketing, Customer Services (except call center), Engineering	No. of End Use Customers Ratio
Employee Services	Number of Employees Ratio
Call center	Call/Phone Volume Ratio
Internal audit, External relations, Legal, Financial, Executive, Investor Relations, Business. Support (Purchasing, Facilities Management, Fleet, Other (records management, visual services)	Composite Ratio (average of FTE's, Assets, Operating Expense, Operating Margin Ratios)

6. Changes in Allocation Practices and Methods after the NUI Acquisition

a. Accounting Changes and Recording of Allocated Costs

The Accounting Process Manual (*APM*) serves as the source of Company practices and procedures documenting the development and accounting of cost allocations. The Company uses statistical data, such as call volume counts and full-time employee equivalents (*FTEs*), to develop the allocation factors. Liberty provides further discussion of the Company's Accounting Policies, Practices and Procedures (descriptions of financial systems, processes, internal controls, *etc*.) in the *Accounting and Property Records* chapter of the Phase II report.

The Company's month-end accounting and allocation process begins with the cost allocation accountant sending e-mail notification to the various departments that the month-end process has started, and requesting statistical and financial data. AGSC's next step is to verify that all existing departments are valid; if new ones are needed, they are added to the Service Provider Tree. The Service Provider Tree is a hierarchal listing of departments similar in structure to the general ledger account chart fields. The account chart field lists and describes general ledger accounts set up to accept monthly journal entries and transactions. If a new department is needed, it is added to the Service Provider Tree to ensure the department is available to accept department specific transactions. At this point, the accountants perform system validations to ensure there are no duplicate or invalid department numbers. After completing this process, the accountant begins to prepare the various allocation factors by reviewing current factors in the system and requesting any updates to the factors from the responsible departments. For example, the Human Resources department is responsible for providing FTEs and the Customer Service department is responsible for providing End User counts and Phone/Call Volumes. The accountant and the accounting manager review the statistical data for trending reasonableness. If they notice a change in a data trend, the accounting personnel will request a review and reasons for the trend change from the department owner. The department provides an answer, and then the accounting group makes changes based on new input from the department, or will input the statistical data provided, if no change is required. The accountants validate statistical accounts, similar to the ones shown in the Customer Service account structure described earlier.

After calculating allocation factors and validating cost drivers, the accounting personnel ensure that all AGSC standard journal entries (such as depreciation, cash receipts, payroll, and benefits.) are run and posted to the general ledger. After confirmation this, they run the allocation groups (such as benefits, call centers, and fleet services.) within the general ledger system as part of the allocation process. The general ledger system incorporates system validations and checkpoints along the transaction process path to ensure data accuracy and integrity. For example, there are checkpoints to "review message for success of the allocation run," "identify errors and resubmit if necessary before moving on to next step," "perform a query to verify all journal entries are posted." If it is needed, a journal edit can be run to post the correcting transactions based on the validation process. At this point, most of the monthly transactions have been posted to the general ledger. The service company costs have been charged to AGSC accounts and department IDs and allocated from the AGSC departments to ETG and other affiliates business units. Accounting personnel verify that all costs are allocated from each AGSC department on a month-to-date and year-to-date basis. This is accomplished by the Company's reviewing each department's cost in AGSC's income statement to ensure the allocation journal entries have been validated and posted accurately. Once these steps have been properly executed, the AGSC general ledger is closed. An e-mail is sent to the appropriate personnel stating the cost allocations to affiliates are completed and the AGSC general ledger has been closed for the current period.

The costs not allocated to ETG and other affiliates and remaining on AGLSC's books are Taxes, Other Income, Interest expense and Interest income.

b. Changes in Allocation Methods after the NUI Merger

Liberty requested a description of how AGLR combined the resources of the NUI Service Company and the AGL Service Company to better understand the changes to the allocation methods and accounting of cost allocations before and after the acquisition. The Company indicated that one of the objectives related to the NUI merger and integration was to establish one service company to provide services to ETG and other affiliates to take advantage of economies of scale. AGLR's expectation of the merger was to produce efficiencies associated with more economical gas purchasing, information technology initiatives, improved transmission capacity and storage use, and administrative expense reduction. The Company further stated that it incorporated new systems and processes for the NUI companies; it classified services as either NUI-only services or as services provided to all of the utilities in the distribution operations segment.

The Company explained that a project plan was put into place and monitored until all the services had been incorporated into AGSC. Liberty requested a copy of the project plan to confirm and verify the changes made for services pre- and post-merger, but the Company responded that it could not locate the project plan. Liberty understands that the Company's intent and primary objective for the project plan was to determine which roles and functions could be absorbed within AGSC; *i.e.*, which services are provided to all utilities in the distribution operations segment, and which roles should stay in New Jersey (NUI headquarters service only). The Company identified the following criteria to base their decision on which roles should remain in NUI: location of subject matter experts, complexity of job duties, New Jersey-specific duties and requirements, and travel and location requirements. The Company also noted that the retention of these roles in New Jersey does not preclude allocations from AGSC to ETG if the services providers still provide services to ETG. Liberty agrees with the concept based on its review of the payroll process for shared employees, as an example.

A new version of the AGL Services Agreement effective January 2006 (and based on the changes described above) implemented a revised allocation process. The Company's primary goals were to streamline the allocation process to directly charge first whenever practical and to provide transparency of the allocation process. Prior to January 2006, costs passed through multiple steps before ultimately being allocated, thereby making it difficult to identify the actual driver of the expenses. In addition, the new process created allocation groupings such as Corporate Operations Service Providers (*COPS*) and Distribution Service Providers (*DOPS*). Liberty discusses these in further detail in other sections of this chapter.

Following is a summary of the changes effective January 2006:

i. Benefits

Annual Incentive Plan (*AIP*): Before 2006, AGSC recorded the AIP bonus in the benefits department for all eligible subsidiaries participating in the plan and allocated it to a human resources (*HR*) department within the eligible companies through the allocation process. The payroll expense ratio allocates the AIP expense to the eligible subsidiaries.

Beginning in 2006, AGSC directly charged AIP expenses on the books and records of the eligible participating affiliates. AGSC distributed AIP expenses at a department level based on a standard rate applied to every dollar of payroll expense incurred. These costs are recorded in direct O&M expense within the benefits and incentives line. AGSC allocates AIP expense to affiliates based on the applicable service provider drivers.

Group Insurance, Pension and Retirement: Other benefit-related expenses for group insurance, pension, and retirement processes also changed. In 2005, these costs were recorded in a Human Resource department in each company and were not distributed at a departmental level.

Beginning in 2006, AGSC directly charged pension and retirement expenses on the books and records of the eligible participating affiliates, based on a report provided by the Company's actuary. AGSC distributed pension and retirement expenses to each department based on a standard rate applied to every dollar of payroll expense incurred. AGSC began distributing group insurance expenses to each department based on the number of FTEs. The Company records these costs in direct O&M expenses within the benefits and incentives line. As noted below, the Company distributes these benefit costs based on a standard rate using budgeted numbers. Hence, variances between budget and actual costs should be driven primarily by changes in payroll and FTE amounts.

Standard rate and true-up process: During the annual budgeting process, the Accounting department calculates standard benefits rates based on budgeted numbers. It updates these rates annually and reviews them quarterly for any adjustments. Accounting reviews the difference between actual benefit costs and the standard distributed amount quarterly and trues up distributed benefit costs if the differences are significant.

Liberty reviewed and independently tested an actual transaction subject to the true-up process. If the budget-to-actual variance or true-up is significant in the period, the revised rate is abnormally inflated. Because of the inflated rate, AGSC charges to the current month prior-period costs that should have already been distributed. Liberty found this to be the case in the testing of the standard rate and true-up process performed for the benefits rate calculation for the fourth quarter 2008. For example, the AGSC benefits rate from July through November 2008 was consistent and in a range from $413.78 in July to $411.97 in November. When the Company calculated the true-up rate in December 2008, to clear out any remaining benefits expense balance to the affiliates, the trued-up rate surged to $1,214.45, or an increase of approximately 200 percent. There are two factors that determine the rate revision impact, the FTE budget-to-actual true-up and the remaining undistributed expense balance at a given period. In this example, the amount to distribute to affiliates at December 2008 based on the revised rate and the remaining undistributed balance as of November 2008 is $943,624.71.

ii. Long-Term Incentive (LIP) and Stock Awards

Prior to 2006, AGSC allocated LIP awards to the departments. Now, AGSC records LIP awards directly to the employees' home department, obviating the need for further distribution. However, AGSC records stock awards within a unique HR functional department and distributes them to each subsidiary's corporate-level department based on FTEs.

AGSC distributes any remaining Employee Services costs, after direct charging and direct assignment, using an allocation methodology outlined in the Service Agreement.

iii. Operations and Management Projects

In 2005, AGSC allocated Information Systems and Technology (*IS&T*) base services and special O&M projects costs using various methods to eligible companies. Beginning in 2006, the Company no longer charged costs associated with O&M projects to the applicable business unit through the standard allocation process. AGSC now uses O&M projects to track O&M project costs but achieves the movement of those costs through a journal entry rather than through the allocation process.

iv. IT and Technology Based Services

With the discontinuation in 2006 of treating O&M projects through the standard allocation process, the Company began allocating IS&T base services, PC equipment charge backs, and special project costs based on a realigned departmental structure in which costs are aligned between Corporate and Distribution Operations along with base services and special initiatives. AGSC directly charges these costs using various allocation factors. It distributes any remaining IS&T costs, after direct charging and direct assignment, using an allocation methodology outlined in the Service Agreement.

For example, AGSC allocates corporate base service departments (1500-Chief Information Officer and 1520-Technology Systems Delivery) to all active companies using the composite ratio allocation factor. It allocates distribution Operations project departments (1515-Customer Solutions – IT and 1517- Gas Ops Technology – IT) to all active utility companies using the end-use customers allocation factor. The company records these allocated costs separately to unique income statement accounts for reporting and analysis purposes.

v. Facilities

Beginning in 2006, AGSC no longer allocates AGLR headquarters building (Ten Peachtree Place) costs to eligible subsidiaries based on square footage. It distributes these costs using the Business Support Facilities allocation methodology outlined in the Service Agreement after the direct charging and direct assignment process. For example, department 1695-Ten Peachtree Place is allocated using the composite ratio at a corporate departmental level.

vi. Fleet

AGSC records Fleet Services costs at a company and Fleet functional level. As in the past, a percentage of Fleet Services are capitalized on a company level. However, beginning in 2006, AGSC no longer allocates Fleet Services (AGSC location 1235) costs to eligible subsidiaries based on a standard vehicle rate applied to occupied vehicles. It directly charges these costs using the total vehicle count per subsidiary. It distributes any remaining Business Support Fleet costs, after direct charging and direct assignment, using an allocation methodology outlined in the Service Agreement.

vii. Cost of Capital

The cost of capital method did not change. However, in 2005 the Company recorded these costs within the allocated costs line as an operating expense. Beginning in 2006, it recorded these costs within the interest expense line item.

viii. Residual Allocation

AGSC allocates any remaining Corporate and Distribution Operations Service Providers O&M costs not directly charged and/or directly assigned based on approved Service Agreement methodologies.

ix. Summary

As a result of the accounting and allocation methods changes described above, the Company also changed some of the allocation factors as described below. Liberty verified the Company's uses of these factors through the review of the Services Agreement Exhibit I and the APM, independently calculating the allocation factors, and comparing the results to the Company's calculations.

The changes to allocation factors are as follows:

- Customer Services - changes from end-use customers ratio to call/phone volume ratio for the allocation and distribution process.
- Total Assets Ratio – now excludes intercompany receivables and intercompany notes.
- Number of Employees Ratios – now incorporates employees for the parent or holding company of AGLR. The employees are officers common to the parent and AGSC.
- Operating Margin Ratio – now includes a margin factor for the parent or holding company of AGLR for dividends paid by AGLR system company subsidiaries AGLR.
- Timing of when allocation factors are updated – the current agreement states that the factors are updated at regular intervals, at least annually, using the most recent data reasonably available. In the previous agreement, in addition to an annual update, the Company may adjust the factors due to known events or significant changes.

Liberty found these changes to constitute "fine tuning" of the Company's allocation factors. Liberty also verified that Company made the changes described within the APM beginning January 2006, subsequent to the NUI merger and integration efforts. Liberty found that the accounting and allocation process documentation within the APM was updated to accommodate the changes.

Liberty analyzed the costs within the Distribution and Corporate categories charged to AGLR and other affiliates. Liberty verified that the charges are based on the same methods of allocation as detailed in the Services Agreement.

Liberty found there are other transactions between AGSC and its affiliates not specifically detailed in the Services Agreement, although the Company passes these types of costs through to ETG and other affiliates. The table below shows the types of expenses passed through and charged to ETG, the general ledger expense account, the AGSC department ID charged and the allocation drivers. The Company treats these expenses as pass through charges. Their flow through the inter-company accounts is similar to that of the other directly charged and directly assigned and allocated costs.

AGSC Passed Through Services/Costs

Expense Type	Account	Process/Calculation for Entry	Dept	Allocated to
Workers Compensation	670410	Consists of expenses based on actuarial report	1471- Alternative Risks& Claims	All affiliates based on composite rates.
General Business Insurance	670300	Consists of premium payments for property and casualty, executive risk and general liability insurance policies.	1471- Alternative Risks and Claims	All affiliates based on composite rates
Group Insurance	670500, 670502	Acct. 670500 consists of premiums and self-insured claims paid for employees'' health, dental, life, and vision insurance along with prescription drug costs; Account. 670502 consists of employee buyback of vacation time.	Spread among all GL29[44] departments. based on FTEs	Allocated to affiliates based on methodology of each GL29 department.
401(k)	670530	Consists of employer matching of employee contributions to Retirement Savings Plus Plan	Spread among all GL29 departments based on payroll expenses	Allocated to affiliates based on methodology of each GL29 department.
Pension	670450	Consists of expenses based on actuarial report	Spread among all GL29 departments based on payroll expenses	Allocated to affiliates based on methodology of each GL29 department.
AIP Bonus	670590	Consists of bonus payments to employees in the Annual	Spread among all	Allocated to affiliates based

[44] GL29 is the general ledger ID for AGSC.

		Incentive Plan.	GL29 departments based on payroll expenses	on methodology of each GL29 department.
OPEB	670503	Consists of health, life insurance and other benefits paid to retirees and expenses provided by the company's actuary.	Spread among all GL29 departments based on payroll expenses	Allocated to affiliates based on methodology of each GL29 department.

c. Effect of Changes in Allocation Methods After the NUI Merger

The Company provided Liberty the following data showing the effect of the cost allocation from AGSC to former NUI subsidiaries following the November 2004 acquisition of NUI.

Effect on the Allocation of AGSC Costs after the 2004 Acquisition of NUI

	2007	2006	2005	2004
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	

As mentioned previously, AGSC costs allocated to ETG and other affiliates show a year-over-year decline since 2005, indicating a benefit from the production of efficiencies gained following the NUI acquisition. The fraction of costs allocated to each affiliate from 2005 to 2007 tends to remain relatively flat, showing consistency in the cost allocation.

Liberty's further analysis shows continued declines in AGSC costs beginning in 2005, excluding the one-time merger integration and duplicate service corporation costs of $7.7M in 2005. This analysis provides some assurance that ETG does not appear to be over-charged relative to some of the other affiliates and is benefiting from the NUI merger and revised allocation process.

Liberty tested and analyzed the Company's data by independently capturing the same data that AGSC provided for ETG and compared it to the Company's data shown in the table below to ensure accuracy of the data.

Reconciliation of ETG Allocated Costs

ETG Allocated Costs	2008	2007	2006	2005
Per AGSC	Not provided	$21,515,165	$25,569,496	$26,004,598
Per Liberty	$19,464,687	$21,512,856	$25,547,267	$33,749,722
Differences	N/A	$ 2,309	$ 22,229	$(7,745,124)

Liberty reconciled the differences for the years 2007, 2006 and 2005. The differences in 2006 and 2007 are immaterial, but are noteworthy as they are due to continued AGSC allocations to the New Jersey Appliance Business, which discontinued operations in 2005. The Company explained that the appliance business continued to receive charges from AGSC because it still had assets recorded on its books. Remaining transaction activity covers asset transfer (plant in service) of the appliance business. The Company noted that the transfer of assets was to be completed, and the appliance business closed for accounting purposes, during the first quarter of 2009.

The most significant difference between Liberty's and the Company's analysis of AGSC costs allocated to ETG occurred in 2005, in the amount of $7.7M. Liberty identified the reconciling differences and the specific type of costs charged and allocated to ETG during 2005. The differences are due to the following: NUI corporate, distributed charge backs, redistribution and conversion costs - $2.2M; service allocations for IS&T- $2.3M; Financial - $1.3M, Employee - $.8M; Legal-$.7M; and Other - .4M. These costs total to $7.7M, which agrees with the 2005 difference shown in the table above.

The Company explained that the 2005 increases described above result from the acquisition of NUI and primarily from the conversion and integration of functions, which lasted throughout the year. During 2005, the Company operated two service companies with duplication of services as they continued the transition of NUI Service Company to AGSC.

When the one-time $7.7M integration impact is removed from Liberty's trend analysis in 2005, the AGSC allocated costs to ETG and other affiliates continue to show a decline year over year similar to what the Company has provided.

d. Corporate Allocations from AGSC

AGSC performs a variety of general services for its utility and non-utility affiliates under the Services Agreement. AGSC has also provided services to AGLR through the audit period. They have included Financial Services, Internal Auditing, Legal, Information Systems and Technology, Executive, Investor Relations, Purchasing, Facilities Management, Corporate Communications and Compliance. These services come in addition to services provided to its utility and non-utility affiliates such as ETG. The NUI Headquarters and Pivotal Utility Holdings, Inc. entities also receive a share of the allocated costs for the functions identified above.

Liberty examined the degree to which costs charged to corporate, NUI Headquarters and Pivotal Utility Holding Inc. are retained at the holding company level and are charged back to ETG and other affiliates. The Company explained that due to AGLR's size and cost efficiencies, AGSC provides substantially all of the corporate governance and management for the subsidiary companies. However, a portion of these expenses are allocated to the holding company based on the composite rate driver. AGLR does not reallocate back to ETG or other affiliates any of the costs that get allocated to corporate and the holding companies. In 2005, costs were allocated back to ETG and other affiliates from AGSC as part of the integration and conversion efforts. In addition, costs from the NUI Service Company were allocated to the NUI companies until the integration of the two services companies was completed in 2005. In reviewing sample cost allocations between affiliates, Liberty did not find any instance after 2005 where AGSC costs were allocated to corporate or the holding companies and then allocated back to ETG.

The Company clarified for Liberty that when applicable (*e.g.*, for merger and acquisition activities) it directly charges these types of costs to AGLR, and stated that it does not allocate the costs back to ETG and other affiliates. Below is a table which identifies costs distributed and allocated from AGSC to AGL Resources for the period 2006 to 2008.

Costs Allocated from AGL Services Company to AGL Resources

Service Provided Costs	2008	2007	2006
[redacted]			
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	
[redacted]			
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]

The table shows that AGLR's allocated costs from AGSC are segregated and defined in categories similar to its affiliates; *i.e.*, between distribution and corporate operations. The trend in the AGSC costs allocated to AGLR is consistent with that of ETG and other affiliates. AGLR's allocated costs have declined year over year, which supports the Company's contention that the NUI merger resulted in integration cost efficiencies.

7. Time Reporting and Employee Sharing

Liberty reviewed the Company's time reporting process and procedures to ensure accurate reporting of employee time spent working on behalf of ETG and other affiliates. One of the purposes for testing of the payroll time reporting function is to ensure there is no cross-subsidization from a utility to a non-utility business unit.

The Company uses the PeopleSoft v8.3 Time and Labor system to allow all employees to fill out a payroll time sheet online. The Company requires all employees to report time in the Time and Labor system, because it is AGLR's system of record for hours worked, and determines how these hours are charged. Online reporting allows the employee the benefit of quick and accurate time reporting, including mechanized checks and balances. The Company instructs employees to enter time daily, but employees can report time weekly or bi-weekly depending on their payroll cycle. The Company stated that it uses positive time reporting and that it prohibits exception time reporting. If employees do not enter their time, the system automatically sends an e-mail to their managers. The managers are responsible for following up with the employees to ensure the time is reported into the system.

The employees enter time using the Time and Labor system, selecting a Time Reporting Code (TRC) for work performed. Exempt and Non-Exempt employees use the same time-reporting screen but the Non-Exempt employees use an additional field for shift premium codes. The shift premium codes identify a different hourly rate for employees not working the standard work day hours (*i.e.*, 8:00 a.m. to 5:00 p.m.). When an employee selects a TRC, the system inserts default values from the employees default O&M project in the rest of the fields of the time sheet line. The employee can charge time to multiple business units by selecting a specific Resource Type field. Doing so allows the employee to change business units and proper charging of time. Changing a general ledger account requires a change in the Resource Sub-Category field. The time reporting system allows time reporting to capital projects. The employee must know which project costing business unit to be charged and the specific project number assigned to a particular project the employee is working on. AGLR uses the project costing module to track the total cost of a project. Liberty finds this method of time reporting to be adequate and flexible enough to enable charging to multiple business units

Liberty requested the Company to clarify how it uses the O&M project system to allocate directly assigned payroll costs appearing in the AGSC Direct Assignment Payroll reports. AGSC responded that the directly assigned costs appearing in the report are allocated through the Human Resource Time and Labor & General Ledger Financial system. The cost is based on the employees' time charged to a specific business unit for services provided to that business unit and not allocated through the O&M project system. The Company further explained that for a typical O&M project, costs are pooled by project ID and directly charged to a single affiliate through an online journal entry and not allocated. Liberty finds the explanation reasonable, as the O&M project system is used to capture and directly charge costs specific to a business unit while the Human Resource Time and Labor & General Ledger Financial system is used to allocate costs to multiple business units. Liberty agrees with this process and finds it consistent with the method described within the Services Agreement.

A critical function to guard against cross-subsidization is to have time reporting procedures that guide and train the employee on how to charge their work activities appropriately. Liberty reviewed and assessed the Company's time reporting procedures and guidelines. Liberty determined that the Company's time reporting procedures have adequate internal controls, with validation and approval-level checkpoints throughout the payroll reporting process. In reviewing the Service Agreement and the APM, Liberty did not find time reporting guidelines for employees to use when charging time to multiple business units, and in particular when charge time both to utility and non-utility business units. If the Company relies on the Services Agreement and the APM as comprising their CAM, there should be time reporting procedures included in one of the documents that addresses affiliate cross-subsidization. The Company explained that when an employee provides services for multiple affiliates and the affiliates are both utilities and non-utilities, each affiliate is identified as a utility or non-utility by its unique business unit; for example, GL55 equates to ETG, a utility, and GL 39 equates to SEM, a non-utility. The payroll reporting approval process allows for review by the employee's manager to ensure accurate time reporting and attempts to safeguard against cross-subsidization of costs by reviewing the employee's time sheet.

Liberty requested the Company's policy and procedures for maintaining time sheets for all business entities, whether regulated or non-regulated. The Company provided copies of the Payroll Policies and Practices and Time and Labor Manual. Although the two documents described time reporting adequately, the documents did not specifically detail the policies and procedures for reporting regulated and non- regulated time. However, Liberty found that the Company has structurally separate business units and separate sets of books for reporting utility and non-utility activities.

Liberty reviewed how the Company accounts for the transfer and sharing of employees between business units and departments. The Company explained that AGSC employees perform work for others, but very infrequently. Liberty reviewed and discussed an example of shared employee time reporting with the Assistant Controller and his staff, specifically the process when an AGSC employee is transferred to another department or shared for a period of time. Both the manager of the department in which the employee currently works and the manager of the department with which the employee is to be shared or transferred must provide approvals. The employee charges time to his or her "home" business unit, using the associated department ID, resource code and general ledger account that the employee uses to provide the service. For temporary transferred employees, a project costing ID is used to capture the employee's time. Once the employee reports the time, the accounting department transfers the costs from the employee's home department to the department to which the employee is providing services by a manual journal entry. The Company stressed that their goal is not to allow cross-subsidization by a utility to a non-utility business unit for shared services.

The Company provided Liberty copies of e-mails documenting the procedures used for a project requiring sharing of employees. The e-mails contained documentation of meetings held to discuss work functions and how to account for them, meeting notes, the suggested time reporting process by accounting personnel for the affected employees, and the monitoring and approvals of the shared employees' work function. Although this is a manual process, it demonstrates the Company's control of time reporting for shared employees.

8. Accounting Reporting and Business Unit Structure

In addition to time reporting, Liberty assessed the accounting, reporting and business unit structure to ensure that the Company records transactions properly and guards against cross-subsidization. AGLR assigns distinct service-provider classifications to affiliates, for which the primary distinction is between regulated utilities and non-regulated affiliates. The service provider classification that refers only to regulated utilities is Distributed Operations Services Provider (*DOPS*). The service provider classification, Corporate Services Provider (*COPS*), refers to both regulated and non-regulated affiliates. There is an additional level of classification for allocated costs, by geographic region, within DOPS: the Southern Operations Services Provider (*SOPS*) and Mid-Atlantic Operations Services Provider (*MOPS*) classifications. The APM contains a complete list of affiliates that belong to each service provider classification in the form of a general ledger business unit and account tree hierarchy.

The affiliates belonging to the DOPS service-provider classification are shown in the following table, along with their geographic region designation (SOPS/MOPS).

Distribution Ops (DOPS)	SOPS	MOPS
Virginia Natural Gas		X
Elkton Gas Services		X
ETG Gas Company		X
Florida City Gas	X	
Atlanta Gas & Light Company	X	
Chattanooga Gas Company	X	

The affiliate companies are designed to be structurally separate with distinct business units and department IDs that differentiate between utility and non-utility business units. The Company complies with the USOA Chart of Accounts as prescribed by FERC. The fact that the Company provides a listing of the utility and non-utility business units, their associated general ledger accounts and specific department IDs helps the employees identify and charge the appropriate utility or non-utility business unit based on their work activity. The accounting systems, processes and internal controls are discussed further in the *Accounting and Property Records* of the Phase II report.

As previously noted, Liberty reviewed the Asset Management Agreement between SEM and ETG to determine how the Company accounts for costs charged between SEM and ETG. Liberty discovered through its review of the APM processes that the Company allocated gas supply management costs to ETG as part of the monthly allocation process in 2005, 2006, and 2007. These cost allocations were in addition to costs charged to ETG based on the Asset Management Agreement in effect between SEM and ETG during 2005, 2006, and 2007. Therefore, Liberty determined there could be duplication of costs charged to ETG from the cost allocation process and the costs resulting from the SEM/ETG Asset Management Agreement. The SEM gas supply and capacity cost allocation process is detailed and documented in the Company's current APM. Liberty discusses the SEM/ETG Asset Management Agreement further in Chapter II, *Affiliate Relationships*.

AGSC Company confirmed that it made the SEM allocations to ETG and other affiliates in error for the years identified above. The Company stated that it directly assigned SEM Gas Supply Service costs to ETG beginning in April 2005, when the AMA between SEM and ETG began, and continued this practice through May 2007, after which it stopped direct assignment of the costs to ETG. The total of these directly assigned costs were $39,225, $5,451, and $3,615 for 2005, 2006, and 2007, respectively. The Company indicated that it planned to reverse these charges in the second quarter of 2009 to correct this error.

9. Transaction Testing

a. Testing Methods

Liberty used sample ETG transactions and invoices for August 2008 for the detail transaction analyses and testing of costs and document flow. Liberty tested various transactions on site with the AGSC accounting personnel. The analysis included a review of selected document flows and analysis of journal entries, including time reporting, monthly billing of invoices, monthly reports, monthly settlement of charges, and snapshots of the general ledger for selected services billed and recorded. The transaction testing began with the review of the cost pool activity within the following selected AGSC service providers:

- Fleet services
- Customer Services
- Financial Services
- Cost of Capital
- Payroll - Direct Assign – from timesheet to GL to invoice to statement of allocations
- Benefits - calculation of the allocation rate, true-up of rate and cost on a quarterly basis.

For each transaction examined, Liberty performed with the AGSC accounting personnel a transaction path review and test through AGSC's PeopleSoft financial system. In particular,

1. Liberty tested and verified that the service provider departments were in fact identified and addressed in the Service Agreement.
2. Liberty performed a detailed review of the types of costs included in the AGSC cost pools. For example, Liberty tested and followed an actual invoice and time sheet from source of origin to the final general ledger account. This test supported the Company's process flow of costs charged to and residing in cost pools before allocations, and the subsequent direct assignment or allocation to the final business unit and general ledger account.
3. Liberty calculated selected allocation factors for transactions of the various selected AGSC service provider identified above and reconciled the results to the Company's mechanized allocation factor calculation and amount. (Tables showing AGSC's and Liberty's data are located below.)
4. Liberty verified that the APM generates the invoices resulting from the calculation of the allocation costs that will be billed to ETG and other affiliates.
5. Liberty viewed the actual "drill-down" function within the nVision monthly Actual to Budget Income Statement Variance Report. nVision is the Company's financial reporting tool and has the capability to "drill down" to lower levels of detail within an income statement line. For example, there is an Allocated Costs line item within the Company's income statement. By clicking a "+" button, the Allocated Costs line expands to over thirty levels of detailed costs. These costs are either categorized as directly charged, directly assigned or allocated costs. Liberty traced and reconciled these detailed costs from the invoice to various allocation reports as explained further within this section.

6. Liberty viewed and verified online the transaction path and costs for the selected cost categories. Liberty and AGSC reconciled the AGSC cost pool types and amounts to the monthly invoice to ensure the costs agree.
7. Liberty reconciled the allocated costs contained within AGSC invoices to monthly allocation statements and to the general ledger accounts and Income Statement. The income statement used in this case is the Company's Actual to Budget Income Statement Variance Report, Report ID AGL0105. The Company produces this report monthly; it includes month-to-date and year-to-date actual and budget revenue, expense, income and taxes on a comparative basis.
8. Liberty viewed statistical files containing the various counts and amounts used to calculate allocation factors and ratios on line with company personnel.

After generating the monthly invoices and allocation statement reports, AGSC's accounting personnel review and verify them as part of the APM allocation process and control steps.

Liberty selected various factors to test the mechanized factor calculation and the costs distributed from AGSC to ETG and other affiliates. Liberty reconciled the directly charged, directly assigned and allocated amounts to AGSC's monthly report -- Shared Services Cost Business Unit by Service Provider.

Payroll costs are directly assigned. For the testing of directly assigned costs, Liberty reviewed and tested the exempt and non-exempt employee rate calculations, the salary and wages, and the associated payroll costs directly assigned. Liberty then reconciled the payroll directly assigned costs to AGSC's August 2008 Direct Assignment Payroll Report for ETG. Liberty reconciled the same costs to ETG's August 2008 invoice.

b. Results Replication

Liberty selected and tested Fleet Services, Customer Call Center Management, Customer Services-Logistics, Customer Services-Credit and Collections, Customer Services-Services Overheads, Customer Services-Emergency Response, Customer Call Center, and Financial Services as examples of directly charged, directly assigned and allocated costs for August 2008 as shown in the tables below. Liberty, reviewed the actual on-site transaction testing along with AGSC's accounting personnel responsible for the accounting and allocation process. The transaction testing began at the point the accounting personnel receives statistical data from the various departments through the recording of the allocated costs to each business unit's general ledger. Liberty replicated the factor and allocated costs shown in the August, 2008 Allocation Statement – Shared Services report. Liberty successfully reproduced the ETG results in the transaction test performed on site by AGSC's allocation accounting personnel.

Fleet Services: Direct Charged (Driver: Vehicle Counts)

[redacted]

[redacted]

Customer Call Center Management: Allocated (Driver: Phone/Call Volumes)

[redacted]

Customer Services-Logistics: Allocated (Driver: End User Counts)

[redacted]

Customer Services-Credit and Collections: Allocated (Driver: Phone/Call Volumes)

[redacted]

Customer Services- Services Overhead: Allocated (Driver: End User Counts)

[redacted]

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Customer Services- Emergency Response: Allocated (Driver: Call Center Leak Volume)

Business Unit	AGSC		Liberty		Differences	
Acct 671105	**Factors**	**Distr. Amts.**	**Factors**	**Distr. Amts.**	**Factors**	**Distr. Amts.**
VNG	7.37%	9,451	7.37%	9,451	0%	$0
FL City Gas	6.28%	8,052	6.28%	8,052	0%	0
Elkton Gas	.61%	780	.61%	780	0%	0
ETG	11.74%	15,048	11.74%	15,048	0%	0
AGL Company	71.54%	91,726	71.54%	91,726	0%	0
Chattanooga Gas	2.46%	3,158	2.46%	3,158	0%	0
Total	**100.0%**	**$128,215**	**100.0%**	**$128,215**	**0%**	**$0**

Customer Call Center: Allocated (Driver: Phone/Call Volumes)

[redacted]	[redacted]		[redacted]		[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Financial Services: Allocated (Driver: Composite Ratio)

[redacted]	[redacted]		[redacted]		[redacted]	
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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[redacted]

c. Other Testing

In addition to the transaction analysis, calculation and reconciliation of allocation factors and billed charges for Fleet Services, Customer Services (all service categories), and Financial Services as shown above, Liberty also performed transaction testing for the following:

- Payroll Direct Assignment
- Cost of Capital
- Capitalized Engineering Costs
- Benefits Overhead and True-up.

Liberty participated in live sessions with AGSC accounting personnel for the transaction testing of payroll time reporting and labor distribution, cost of capital calculations, benefits overhead rate and true-ups, and determination of capitalized engineering costs. The Company began with a verbal explanation of how AGSC's cost pools capture each of the costs. The primary capture systems for these costs are the accounts payable system, for such items as paid vendor invoices, and the payroll time and labor reporting system, for time sheets and distribution of labor. The Company selected a vendor's invoice and an employee's time sheet and traced the document through its transaction path within AGSC's accounts payable and payroll time reporting system and then to the applicable general ledger cost pools (Dept IDs) and accounts. The Company navigated through the transaction path for each cost category from receipt of the statistical data input, the calculation of the associated ratio or factor, application of the factor to the associated costs pools, and finally to the allocation of AGSC cost pools to the affected business units (*i.e.*, ETG and other affiliates).

i. Payroll Direct Assignment

The Company explained that the directly assigned payroll ratio is used to charge costs to affiliates based on time AGSC employees recorded on time sheets and the employees' effective salary rates. The Company calculates these rates using the PeopleSoft Human Resource Time and Labor & General Ledger Financial system. The Company maintains these factors (hours charged and effective salary rate) in PeopleSoft. For exempt employees, the amount charged to a business unit receiving AGSC services is based on the effective hourly salary rate of the exempt employee multiplied by a ratio of total regular hours worked (excluding non-productive time) to total pay period hours (less non-productive time) multiplied by hours assigned to the business unit. The Company directly assigns non-productive pay to AGSC and charges it out based on the effective salary rate of the employee.

Liberty performed the transaction analysis by calculating and replicating the Company calculation for payroll directly assigned costs described above for selected AGSC exempt and non-exempt employees. Liberty also participated in the transaction test payroll assignment with Company personnel during the transaction testing at the Company's on-site facilities.

ii. Cost of Capital

Liberty reviewed and tested the Cost of Capital calculation and allocation to ETG and its affiliates along with the AGSC accounting personnel. The Company develops Cost of Capital using the intercompany balances from the Company's balance sheet for a given period. The intercompany money pool balances are a result of settlement transactions between utility and non-utility affiliates within the money pool account. It was not clear to Liberty how the intercompany balances used in the calculation segregated utility and non-utility activity. The Company could not provide a response to Liberty's request for clarification. Liberty found that there are intercompany accounts for utility and non-utility business units, but the Company was not able to provide an explanation of how utility or non-utility money pool activity was assigned to the utility or non-utility intercompany accounts or business units.

iii. Capitalized Engineering Costs

Liberty asked for the explanation and basis for calculating the capitalized engineering rate. The Company states that the Engineering department completed a time study in 2006, and the rate has not been updated since. The Company applies the rate to total engineering costs and allocates the result to the construction work in process (CWIP) projects that are general in nature. Liberty asked the Company for a copy of the time study, but the Company replied that the current study is not available. The Company agreed to discuss and review with the engineering department updating the current time study and the development of the capitalized engineering rate.

iv. Benefits Overhead and True-up

Liberty reviewed the calculation and on-site transaction test with the AGSC accounting personnel for the benefits overhead calculation and related true-up process.

d. Transfer Pricing

Liberty asked the Company to provide and explain its policy for transfer pricing of goods, services and asset transfers between affiliates. Regulatory Accounting and Reporting personnel explained to Liberty that the Company uses outside consultants to review and provide to AGSC a market cost comparison study related to the pricing of goods and services provided to ETG and other affiliates. The market-cost comparison study compares AGSC's costs to the competitors' costs for like services and determines if AGSC is pricing its service to its affiliates at the lower of cost or market price. The Company explained that it completes a market cost comparison pricing study prior to a utility's rate case filing. The Company stated that the results of the study show that AGSC's costs for services provided and charged to ETG and its affiliates are below that of the competition.

Liberty performed a review of the asset transfers and the transfer price assigned to the transactions during the audit period provided by the Company. Liberty found that the Company does not have specific written policies relating to transfer of assets between ETG and an affiliate. The Company provided a SOX Control Transfer document, which is the Company's Key Risks and Control Matrix for the Asset Management processes. This document is a control document used for asset transfers. The Plant Accounting personnel receive authorization from both the transfer–from and transfer–to locations prior to processing the transfer of assets within the Company's financial system. The Company stated that asset transfers are infrequent and are generally made to transfer assets that have physically moved from one business unit to another. The Company explained that asset transfer examples include fleet vehicles, IT projects like the Customer Information System (*CIS*), corrections for misclassification of assets.

The Company explained and confirmed that asset transfers between business units are to be priced at cost. However, the Company did not differentiate between utility and non-utility transfers priced at cost or the lower of cost or market price. The Company added that it seeks to segregate costs for a business unit. Liberty asked how the Company handles common costs associated with asset transfers. The Company explained that it allocates common costs based on a cost driver that is applicable to the asset or system transferred. For example, the Company used the number of customers to allocate CIS common costs when the CIS billing assets were transferred from AGSC to participating utilities.

Liberty requested a listing of asset transfers since 2004 through 2008. The Company provided a schedule of assets transferred and supporting journal entries from AGSC to ETG. The Company explained that it assigns the transferred assets a transfer price at cost, which is net book value. Net book value is defined as original cost of the asset less the associated accumulated depreciation.

Liberty tested the asset transfer data for April, 2008 and found that several of the transferred assets were transferred with a <u>negative</u> book value (specifically, Asset IDs 160215, 160216, 16223 and 171231), based on the schedule provided by AGSC. An asset with a negative book value normally occurs when the original cost of the asset is over-depreciated. The accumulated depreciation the Company calculates and charges to the asset is greater than its original cost, resulting in a negative net book value. However, in the case of Asset ID 171231, the plant-in-service cost was already stated at a negative original cost of \$(1,179.46); the accumulated depreciation was \$256.47 and the resulting negative net book value was \$(922.49). Although the dollar values are not material in this case, these examples illustrate a potential flaw in the asset management system that allows balances in plant-in-service costs to be carried at a negative book value.

Liberty discovered that the Company transferred another asset, Asset ID 20029, with an original cost of $2,559.19 without any accumulated depreciation applied. The asset was transferred to ETG at original cost and not at net book value as required by Company policy. The Company explained that its practice is to price asset transfers at net book value, not at original cost. The Company further explained that the error in pricing the asset was a result of a PeopleSoft system problem. Specifically, the Company determined that a product field was eliminated when the PeopleSoft system was upgraded to the 8.9 version. When an asset is transferred without the product field, the system does not know how to process the data. In this case, the accumulated depreciation was not deducted from the original cost of the asset.

Liberty asked the Company to explain why the internal controls (Risk Navigator) did not detect the problem. The Company responded that the Risk Navigator controls associated with asset transfers ensure that proper authorization is received for the transfer and system access is granted to the Plant Accounting personnel. The Company indicated that since this issue was identified, the Plant Accounting personnel have suspended inter-company transfers until a permanent solution is developed; the Company said that a permanent solution will be available by year-end 2009.

Liberty determined that other internal controls should be in place to flag such problems. These would include such control steps as manual review of machine generated journal entries, and system validation or listing of assets with negative book values and original cost without the associated accumulated depreciation.

Liberty also reviewed asset leases and rentals between ETG and its affiliates. Liberty requested the Company to provide asset leases affecting ETG. The only lease the Company provided is that for the Plaza Facility, which is the former NUI headquarters building in Union, NJ. The cost of the lease for 2008, 2007, and 2006 was $20,218, $485,232 and $676,068, respectively. As of January 15, 2008, ETG no longer leases space at the Plaza Facility. The calculation for the leased cost charged to ETG is based on the ratio of the number of square feet ETG occupied to the total square feet of the building. The 2008 lease cost of $20,218 represents the January 1 through January 15 occupancy of ETG personnel. AGSC stated that the allocation of ETG's portion of the NUI headquarter building was not part of the monthly allocation process and not a cost pool to be allocated. ETG was the only affiliate to occupy and use the space at Liberty Hall Plaza Office Building. Liberty reviewed and tested the documentation and calculation the company provided and traced the leased cost to the general ledger accounts.

Liberty reviewed the AGSC and ETG Income Statements, which the Company provided during transaction testing. Liberty noted that within the AGSC Income Statement, there are the following revenue categories: Miscellaneous Energy Revenues at $1M and Service Fees at $.3M, totaling $1.3M for 2008. Liberty questioned the reason for these revenues and asked how the revenues were generated and their source. The Company explained that the revenues are Field Service Revenue generated from AGSC transportation of LNG gas through a third-party vendor, as requested by a customer. Liberty asked for documentation and clarification of how these revenues relate to the SEM Asset Management Agreement or Gas Supply Purchase Agreement the impact to ETG. The Company responded,

> *The Capacity Planning and Gas Supply department of AGL Services Company is responsible for providing services including, but not limited to long-term demand forecasts, design day forecasts, annual load forecasts, portfolio analysis and development, day-to-day gas supply management to meet customer demand, hedging, contract negotiation and administration and participation in regulatory proceedings such as rate case filings and the annual BGSS filing. The asset manager is responsible for securing gas supply requested by the Capacity Planning and Gas Supply department and providing transportation logistics such as scheduling supplies on the various natural gas pipeline electronic bulletin board systems. The asset manager is also responsible for generating value from idle assets and optimizing the use of assets requested with the goal of generating additional value.*

10. Compliance with State Rules and Guidance for Affiliate Transactions

The Company informed Liberty that ETG does not have a requirement to file a CAM with the BPU. As noted above, the Company does not have a single document that meets all the criteria for a CAM, although AGSC has documentation that describes how costs are directly charged, directly assigned and allocated as part of the Services Agreement's Exhibit I- Policies and Procedures Manual. Liberty asked if there are any written detailed procedures or guidelines, including training materials regarding the development of affiliate charges, which support the transaction paths, under the AGSC Services Agreement beyond what is described in the agreement itself. The Company responded that the financial accounting group maintains an Allocation Procedures Manual (APM), discussed earlier, which consists of the following sections: Process, Directly Assigned Payroll, Benefits, Information System, Fleet, Engineering, Gas Supply, Cost of Capital, and Allocate. The Company further stated that each section provides an overview of the allocation process and the detailed allocation steps, which are run in PeopleSoft, the Company's accounting general ledger and financial reporting application. Liberty determined that the APM is the document which the Company uses and relies on for its guidelines to account for, process and report its affiliate transactions and costs. The APM is very detailed and over 740 pages in length. The Company considers Exhibit 1-"Policies and Procedures Manual" of the Allocation Service Agreement and the APM to comprise its CAM.

11. Reporting

a. Affiliate Transaction Reporting

Liberty reviewed the various reports that the Company generates specifically for the reporting of affiliate cost allocations to ETG and other affiliates. The Company generates formal intercompany invoice statements for ETG and other affiliates. In addition to the standard monthly invoices, the company generates cost allocation reports, which support the services and invoices provided to ETG and other affiliates.

As part of the month-end accounting process, which includes running the allocation process through the Company's cost allocation module (APM), the Company produces the following standard monthly cost allocation reports for its affiliates

- Monthly invoice statement. The invoice identifies the distribution operations and corporate operations costs with details of directly charged, directly assigned and allocated costs from AGSC. The invoice also includes cost of capital even though it is not a service provided by AGSC and not included within the Service Agreement.
- Direct Assign Payroll Report. This report provides a summary by service provider of payroll expenses directly charged to an affiliate company from AGSC.
- Shared Services by Segment Report. This report provides all expenses allocated to an affiliate company by job function; for example, engineering, financial services, and customer services.
- Actual to Budget Variance Income Statement. This is an nVision report that shows the revenues, expenses, and other income and taxes for month to date and year to date. There is a line item, Allocated Costs, within the report that summarizes the costs allocated from AGSC to ETG and other affiliates. The line item can be expanded further to show the same level of detail, by department and job function, as described above. The report is produced for each affiliate, and by individual cost pool (*e.g.*, Fleet Services). The report compares the actual-to-budget data at all levels of reporting.
- Rolling 13 Month Allocated Costs. This report provides a rolling13-month view and trend of the costs allocated to an affiliate by general ledger account in the same detail presentation described in the previous reports.

The Company has the ability to generate other *ad hoc* reports, through the nVision reporting tool, of the allocated costs for all the affiliates as needed by management and regulatory reporting.

Liberty reviewed and discussed the regulatory reporting requirements for cost allocations with the regulatory reporting personnel during one of Liberty's interview sessions at AGSC offices. Liberty and AGSC reviewed the month-end process flows and functions required to complete the month-end reporting cycle. The Company uses the PeopleSoft financial reporting application for its internal and external reporting. Most, if not all, internal financial reports are standard or *ad hoc* reports produced at month end. The Company can produce *ad hoc* reports at any time during the year, as the reporting need dictates. AGSC follows the Generally Accepted Accounting Principles (GAAP) for accounting and reporting, and the accounting procedures and internal controls are an integral part of the PeopleSoft general ledger and reporting application. However, Liberty discovered through the interview sessions with the Regulatory Reporting personnel that the Company manually develops regulatory reports. Regulatory adjustments to GAAP financial results are and must be made in accordance with rate-making adjustments as required by the BPU.

The Regulatory Reporting personnel explained they must make manual adjustments to the GAAP-produced financial results in order to prepare regulatory reports at the end of the month, quarter or year. Currently, the Company does not have a mechanized regulatory reporting system process in place to electronically produce the regulatory reports. In 2009, the Company plans to eliminate the need for the manual regulatory reporting as it is currently planning to develop an automated process within the PeopleSoft general ledger and nVision reporting tool. The Regulatory Reporting personnel discussed with Liberty the internal controls and reconciliation processes used to reconcile the system-generated GAAP financial reports with the manually adjusted regulatory reports. Liberty found the controls and reconciliation process adequate. The Company indicated that there are no requirements to provide affiliate allocated cost reporting to the BPU.

As part of the affiliate cost allocation reporting review, Liberty tested and traced affiliate transactions for the sample month of August 2008. Liberty reviewed how AGSC captures costs within the cost pools and reports the allocated costs to ETG and other affiliates. Liberty further traced the allocated costs to the invoice statements and then to each of the reports identified above. Liberty finds the Company's reporting of affiliate cost allocations and the related internal controls to be adequate, especially with the Company's plans to mechanize the regulatory reporting function by year-end 2009.

Liberty also reviewed representative regulatory reports required to be filed by the Company with the BPU. They are:

- The 2007 Annual Report of Pivotal Holding Inc., d/b/a Elizabethtown Gas
- The 2008 Manufactured Gas Plant (MGP) Remediation Program Summary Statement of Site Expenses, July 1, 2007 to June 30, 2008
- The Quarterly Elizabeth Gas Report on Asset Management Sharing, October 2008-December 2008.

Liberty selectively tested various amounts and reviewed discussion summaries within the reports and supporting documentation provided. Liberty traced sample sections of the reports to the supporting agreements (*e.g.*, the SEM/ETG AMA) and to internal documentation (*e.g.* MGP Remediation Report filing requirements or the ETG general ledger) to ensure reporting compliance by the Company. Liberty found the reports to include sufficient detail and supporting explanations and analysis of the reporting period's activities. Based on a limited review, Liberty did not find any misreporting in the filed documents. The reports reviewed present the key financial and statistical data in a sequential and understandable format for ease of review. The layout and presentation of the reports should allow the BPU to review and understand the business operations of ETG.

b. Internal Controls

Liberty performed an independent review of sample reports provided within the APM. Liberty discovered that an Allocation Process Document, outlines the process SEM uses to charge costs to AGSC for gas supply operations; this involves payroll costs, which AGSC allocates to ETG and other affiliates. The procedure identifies the affiliate's business unit to be charged, department IDs, general ledger accounts, and the associated cost drivers used to allocate costs.

Since the Asset Management Agreement is between SEM and ETG and is in effect during the audit period, the Company should not be allocating costs from SEM to ETG; instead, revenue sharing and cost responsibility are addressed in and should be controlled by the Asset Management Agreement. Thus, the allocation process is in obvious conflict with the Asset

Management Agreement and should no longer be followed, although it is still a part of the allocation process documentation. Liberty brought this to the attention of the Company's accounting personnel during an interview session and the Company agreed with Liberty's finding. The Company explained that the costs should not be allocated to ETG and other affiliates if they have an Asset Management Agreement currently in place. The Company's further investigation confirmed Liberty's findings that it charged SEM gas supply cost allocations to ETG and other affiliates in 2005, 2006, and 2007, but should not have done so. AGSC explained that the allocated charges, charged in error for the years 2005, 2006 and 2007 are $39,225, $5,451, and $3,615, respectively. The Company plans to correct the error in the second quarter of 2009. When questioned by Liberty, the Company stated there are no instances where SEM charges gas supply payroll directly assigned costs to ETG or other affiliates through its allocations groups and then allocates the SEM costs through AGSC's cost allocation process. The Company further explained that all costs classified as Gas Supply on the Service Provider Tree, which identifies AGSC departments, are AGSC costs only, and when allocated to ETG and other affiliates, do not contain costs originated from SEM.

C. Conclusions

1. The Company has in place a services agreement that adequately identifies centralized services provided to ETG and other affiliates and the methods for allocating costs.

Although a services agreement with AGSC exists, Liberty did not find within its Policy and Procedures Manual (Exhibit I) and the Allocation Process Manual specific guidelines on how to charge time and expenses to guard against cross-subsidization from utility to non-utility Company. Time reporting procedures should be part of the CAM, as noted in Conclusion 2.

2. The Company does not have a formal CAM. *(Recommendation 1)*

Because the Company lacks a formal CAM, it does not have a single source of reference and procedures outlining cost allocation methods, time reporting, how to account for and differentiate between regulated and non-regulated transactions, and procedures to guard against cross subsidization. The Company considers the Services Agreement's Policy and Procedures Manual (Exhibit I) and Allocation Process Manual to comprise the CAM. These documents and the time reporting training documents contain some of the elements identified above, but they are not sufficient to qualify as a formal CAM.

3. The Company has not provided evidence that it has filed the Services Agreement or a CAM with the NJ BPU and that these documents have received BPU approval. *(Recommendation 2)*

New Jersey statutes (N.J.S.A 48:3-7.1) require services agreement approval. The BPU authorized ETG to enter with AGL Services Company into the service agreement that was in place at the time of acquisition. That agreement had been approved by the Securities and Exchange Commission. (See *In the Matter of the Petition of NUI Utilities, Inc. (d/b/a Elizabethtown Gas Company) and AGL Resources Inc. for Authority Under N.J.S.A 48:3-10 of a Change in Ownership and Control*, Docket No. GM04070721, November 17, 2004.) The CAM is a separate document, and the Company stated that it is not aware of requirements for filing a CAM with any regulatory agency.

4. The Allocation Process Manual (APM) is a good source of accounting procedures and reference manual for processing allocation transactions and reports.

The APM provides a good reference on the methods the Company uses for capturing costs and calculating cost factors, and describes the accounting procedures the Company uses to allocate and record costs to affiliates. It lists and describes the required steps for the month-end allocation process and the generation of monthly standard allocation cost reports.

5. The process the Company used to identify what roles and functions need to remain in ETG was reasonable, although the Company did not provide a project plan to Liberty.

After the acquisition, AGLR introduced new systems and processes for the former NUI companies. It classified services as either NUI-only services or as services provided to all of the utilities in the distribution operations segment. The Company also identified criteria for its decision about which roles should remain in NUI utilities, including ETG, such as location of subject matter experts, complexity of job duties and travel requirements.

6. The Company does not have a written policy covering situations under which costs should be retained at the corporate level and not allocated to affiliates. *(Recommendation 3)*

There are circumstances, such as officer time devoted to strategic development or mergers and acquisitions, for which costs should not be assigned to affiliates. Although Liberty did not find any activity of this type charged to ETG or other affiliates, the Company has no formal documented procedures to ensure that it does not occur. The Company does not have a written policy as a guide for its employees to identify the costs that should be retained at corporate headquarters.

7. The Company does not have a formal written policy for employees to report time to utility or non-utility business units. *(Recommendation 4)*

Although Liberty did not find any cases of cross-subsidization of costs through its review of the time reporting procedures, the Company does not have a formal policy to ensure that it does not occur. The Company explained how it accounts for the costs of sharing employees between utility and non-utilities, but the procedures are not documented and not all employees may be aware of the proper way to report or account for their time in such circumstances.

8. The Company needs a thorough review of all the services provided and allocated to ETG based on the applicable service and asset management agreements. *(Recommendation 5)*

Liberty found duplication of costs from SEM to ETG and other affiliates for the years 2005, 2006, and 2007. ETG received SEM allocated costs through AGSC's monthly allocation process in addition to the charges received per the SEM/ETG Asset Management Agreement for the same periods.

9. The Company's approach to allocating costs is reasonable.

Liberty found that AGSC's methods for allocating costs to corporate headquarters, ETG and other affiliates are reasonable. Based on our review of the Company's cost allocation methods and procedures, Liberty found an equitable distribution of costs to the corporate entity and its subsidiaries, including ETG, and no evidence that ETG is subsidizing non-utility affiliates to any significant extent. However, Liberty found some examples where the Company did not apply the methods appropriately or completely. In particular, as noted in Conclusion 9, the Company should not have allocated SEM gas supply costs to ETG and other affiliates in 2005, 2006 and 2007, although the net impact on ETG was minor. In addition, the capitalized engineering study and rate are not current, as noted in Conclusion 12.

10. The Allocation Process Manual is out of date. *(Recommendation 6)*

The APM contains some out-of-date allocation process descriptions. For example,

- The SEM Gas Supply and Capacity allocation process within the APM are no longer valid
- The APM contains a procedure for using Mirror Accounts but the Company no longer uses such accounts
- The APM contains certain general ledger accounts that the Company no longer uses or are no longer applicable
- The SOA 404 Key Control documents are footnoted as "working draft - for discussion purposes only."

11. The capitalized engineering rate has not been updated. *(Recommendation 7)*

The Company has not updated the capitalized engineering rate since 2006 and cannot locate the engineering time study to support the current rate. Without an updated engineering time study to capture expense and capital time reporting results, the Company is at risk of either charging too much or not enough capitalized engineering costs to ETG and other affiliates.

12. The Company has adequate time reporting procedures, including sufficient internal controls and flexibility to allow charging to multiple business units. *(Recommendation 8)*

The time reporting procedures are well documented and mechanized, which tends to minimize the chances for errors or inaccurate charges to business units. Liberty reviewed and saw evidence of time reporting controls that provide compliance to the schedule of authorization, level approvals and follow-up by managers for missing time sheets. However, Liberty suggests that the Company consider the use of the number of time sheets instead of the number of FTE as a cost driver to allocate the cost of its payroll system.

13. The Company does not have adequate procedures for asset transfers, transfer pricing and related plant accounting internal controls. *(Recommendation 9)*

The Company priced several asset transfers at negative book value and others at more than cost; *i.e.*, original book value. The transfer price to a utility should be at net book value: original asset cost less associated accumulated depreciation.

14. The Company calculates the benefits true-up accurately based on its method for the benefits true-up process. *(Recommendation 10)*

The Company's calculation of various accounting true-ups is proper and accurate, specifically for the benefits rate true-up based on the transaction test performed. However, Liberty suggests a closer monitoring of budget-to-actual variances.

15. The Company's reporting of allocated costs is reasonable.

Liberty found that AGSC's methods for reporting allocated costs to its affiliates are adequate. The Company produces reports that document AGSC's allocated costs, and show the costs at a sufficient level of detail for affiliates to review them. The Company also provides comparative reporting of budget-to-actual costs on a month-to-date and year-to-date basis to aid in controlling costs.

16. The Company develops and produces regulatory reports on a manual basis. *(Recommendation 11)*

The Company does not have a mechanized regulatory reporting process as part of the PeopleSoft general ledger closing and reporting process. The Company prepares the reports manually from internal financial data adjusted for BPU-required rate making adjustments.

D. Recommendations

1. Develop a new CAM that rectifies the deficiencies of the current documents. *(Conclusion 2)*

The Company should develop a CAM that incorporates and describes the Company's costing system, the rules that govern service pricing and charging to affiliates, time reporting, and the billing process used to generate invoices. A CAM should be a self-contained document to be used as a reference manual that incorporates the Company's policies and processes to guide employees to accurately report time, expenses, revenues and capital expenditures for transactions affecting affiliate companies. Specifically, there should be a complete description of the types of all costs shared with an affiliate. There should be a comprehensive methodology and procedure used to charge, assign and allocate costs from the service provider affiliate.

The CAM needs to include employee guidelines for time reporting in order to provide guidance and training for accurate time reporting among affiliate companies. The CAM should incorporate procedures for calculating hourly billings and appropriate approvals. The CAM should address other miscellaneous affiliate transactions such as leases, cost of capital, and pass through costs (such as employee benefits), not otherwise covered by service agreements. Ideally, within the CAM document, there should be an organization chart of the Company, showing all of its regulated and unregulated affiliates and the officers of the parent or holding company, the utility, and the service company as applicable.

The CAM should clearly indicate that the Company's methods comply with relevant regulatory requirements, if appropriate. The Company should also update the CAM regularly with changes and modifications affecting the Company and notify employees of significant regulatory and accounting reporting changes to be incorporated with the CAM.

2. Make a formal filing seeking NJ BPU review and approval of Services Agreement. *(Conclusion 3)*

This filing should take the form used by other state utilities that have made a formal request. It should include the CAM as a principal source of pricing guidance.

3. Develop a written policy identifying the types of costs the Company should retain at the corporate level. *(Conclusion 6)*

The Company should include as part of the written policies and procedures in the CAM a description of conditions under which it retains costs at the corporate level and does not charge back the cost to ETG and other affiliates. The policy should address costs incurred at both the AGLR Corporate level and at the affiliate utility level.

4. Develop a written time reporting procedure and include it in the CAM. *(Conclusion 7)*

The Company should include in the CAM written policies and procedures that describe the circumstances in which costs (*e.g.,* payroll time reporting) would be charged to a utility or non-utility. The Company contends that it has time reporting procedures, but it should include the time reporting procedures, specifically addressing protections against cross-subsidization, in the CAM as a reference and guide for employees. Liberty suggests that Company develop a time reporting procedure that lists and identifies the utility and non-utility companies for time reporting purposes. It should include employee guidelines for charging time when working on a project affecting both a utility and a non-utility, and the ramifications for not reporting time properly. These procedures and guidelines will enhance employee time reporting and help guard against cross-subsidization. The Company should develop these procedures in the context of a training document.

5. Review all services and charges allocated to ETG based on the AGSC/ETG Services Agreement and eliminate any duplicate charging for those provided under the Asset Management Agreement. *(Conclusion 8)*

The Company should perform an internal review of gas supply and transportation costs allocated according to the Services Agreement to ETG and affiliates. It should compare these allocated costs to the gas supply and transportation costs charged to ETG based on the current Asset Management Agreement. The Company must ensure that the costs allocated or otherwise recognized for services provided through the AGSC/ETG Services Agreement do not duplicate those results from the Asset Management Agreement between SEM and ETG or any other internal agreements.

6. Perform a complete review and audit of the Allocation Process Manual. *(Conclusion 10)*

AGSC should review the Allocation Process Manual to ensure it includes up-to-date practices, procedures, and cost allocation methods; and that it contains active and valid general ledger accounts, department IDs, and business unit numbers. The Company should perform an internal audit of the Allocation Process Manual procedures, processes and documentation. Liberty understands that the Company's Internal Audit organization has in place SOX control documents, but Liberty suggests a more comprehensive and timely audit and compliance testing of the process.

7. Update the engineering time study and capitalized engineering rate to more accurately represent engineering costs to be capitalized over large and general construction work. *(Conclusion 11)*

The Company should update the capitalized engineering study to determine if engineering expense and capital costs have changed from 2006 to present. Significant changes to engineering time reporting between expense and capital activities since 2006 may materially affect the capital costs allocated to existing CWIP projects. The engineering capitalization ratio needs to be current to ensure costs are allocated properly based on current expense and capital time reporting activity. Once the Company determines the updated rate, it should perform a comparison to the old rate and determine the materiality of the change. The Company should perform time studies and the rate calculation at least annually. The Company should monitor the mix between engineering capital and expense charges on a quarterly basis for changes in time reporting trends.

8. Consider the use of the number of timesheets instead of full-time equivalent employees as the cost driver for allocating payroll costs. *(Conclusion 12)*

The number of timesheets processed appears to provide a more appropriate measure of the costs of the payroll systems than FTE. The number of timesheets per employee varies from employee to employee, based, for example, on whether the employees are exempt or non-exempt.

9. Review and update procedures for asset transfer, transfer pricing and internal controls. *(Conclusion 13)*

The Company should modify existing plant accounting procedures related to asset transfers, transfer pricing and internal controls. The Company is in the process of reviewing the PeopleSoft system problems that generated incorrect transfer pricing for asset transfers, but did not provide a timeframe when the problem is to be corrected.

10. Review and monitor benefits true-up calculation more frequently. *(Conclusion 14)*

The Company should monitor the actual-to-budget activity on a monthly basis. The Company needs to be more observant of the timing of the true-up based on the budget versus actual for FTEs and remaining expense balances to be distributed at month- or quarter-end. More frequent reviews of actual-to-budget variances will minimize the need for a material benefits rate true-up at the end of the year.

11. Develop a mechanized regulatory reporting system. *(Conclusion 16)*

The Company has plans to develop a mechanized regulatory reporting system within the PeopleSoft general ledger month-end closing and reporting process. The Company plans to complete this task in 2009.

VI. Remediation Activities and Costs

A. Background

For almost the first 100 years of its existence, ETG manufactured the gas that it distributed, rather than buying it for delivery to its city gates. The Company ceased gas manufacturing in the mid-1950s; subsequently residues from the old manufacturing processes were found to present public health risks. Agreements with the New Jersey Department of Environmental Protection (*NJ DEP*) cover ETG's conduct or sharing of responsibility for investigation and remediation activities at six sites in New Jersey An appendix to this chapter provides descriptions of the sites, with their history and regulatory status. The sites are:

- Erie Street, Elizabeth
- South Street, Elizabeth
- Rahway
- Perth Amboy
- Flemington
- Newton.

ETG has responsibility for four of the six sites because it or its predecessor companies operated manufactured gas plants (*MGPs*) at them. Predecessor companies also operated MGPs at Flemington and Newton, but those were also owned by a predecessor of Jersey Central Power & Light Company (which now does business under the name First Energy). A 1993 agreement between ETG and JCP& assigns ETG responsibility for 40 percent of MGP-related costs associated with those sites.

AGLR was already addressing MGP issues before its acquisition of NUI. Its SEC Form 10-K for 2008 reports that AGLR has identified 13 sites (ten in Georgia and three in Florida) where it is responsible for MGP residues. For ETG, AGLR reported that,

> *Although the actual total cost of future environmental investigation and remediation efforts cannot be estimated with precision, the range of reasonably probable costs is $58 million to $116 million. As of December 31, 2008, we have recorded a liability of $58 million. (p. 57)*

The Company also reported that ETG has been successful in recovering a portion of remediation costs from insurance carriers, and that it continues to pursue additional recovery.

Dealing with MGP sites is a common problem for LDCs; Liberty's review of a number of them has found that the quality of efforts varies considerably. MGP remediation programs generally comprise a "pass-through" for ratemaking purposes. Regulators allow LDCs to recover the prudent costs incurred in conducting the remediations, often (as in ETG's case) including carrying costs. Remediation activity, while often involving large expenditures, has not always, in Liberty's experience with other companies, commanded management attention in the way that a comparable profit-making activity would.

Development and administration of a remediation program can be complex and time-consuming, as stakeholders and affected parties' interests often do not coincide. Months- or even years-long negotiations frequently characterize a company's remediation efforts. These characteristics make organizing and staffing an effective remediation program often difficult. Programs can be plagued by high staff turnover, bad morale, and comparatively lower quality staff.

The solution to these challenges is usually to increase the visibility of the program within the company. The best programs report to a senior officer of the company, and are staffed by highly-qualified and well-compensated personnel. Program direction and focus are generally essential to cost-effectiveness; thus, continuity in key staff and officer responsibility are also usually present in effective programs.

Liberty inquired about the organization and staffing of the Company's program in reviewing the whether ETG has staffed the remediation program with capable, qualified personnel with appropriate training and experience, and whether the remediation program reports to a senior officer.

MGP remediation normally proceeds through a well-defined sequence of investigation and testing, stakeholder consultations and negotiation, and then program execution. Effective program management requires disciplined cost control and cost analysis at every stage. Stakeholder consultations and negotiations usually involve careful development and costing of alternatives. Maintaining the confidence of stakeholders, including responsible government authorities, then requires disciplined execution of agreed actions.

Liberty inquired about the Company's program control and record-keeping in order to determine whether:

- The Company's systems and processes for expense capture and recording are well-designed and accurately implemented.
- The Company routinely compares actual expenditures at each site with planned, and promptly analyze any variances.
- Document storage and retrieval are organized and operated effectively.

The chemical compounds of concern in MGP remediation have been classified as "potential environmental problems" under the criteria established in the Federal Comprehensive Environmental Response, Compensation, and Liability Act (*CERCLA*), commonly known as "the Superfund law." That law gives the Federal government the authority to clean up hazardous waste sites if necessary, and to bill those it identifies as responsible parties for the costs of the clean-up.

New Jersey has been a leader in pressing for remediation of chemical contamination; thus, the Federal government has not been as intrusive as might otherwise be the case. The effect of driving responsibility to the state level is avoidance of potentially extensive additional costs generally associated with Federal involvement, while at the same time promotion of effective and prompt clean-up.

Maintaining state control over the remediation process has required careful management of the relationship, however, and steady progress toward resolution of contamination problems. Liberty examined the effectiveness of Company interaction with government authorities by reviewing:

- Completeness of its files for correspondence with the NJ DEP and other government stakeholders
- Reflection in correspondence between ETG and the various involved government entities of steady progress through the steps necessary to resolve its liabilities for MGP contamination
- Relationships with various government entities, especially the NJ DEP, to assess agency confidence in ETG's ability and willingness to accomplish the necessary steps in the remediation process.

Liberty also reviewed insurance issues, examining questions such as whether:

- ETG has conducted a disciplined review of its insurance coverages.
- ETG has accessed outside expertise as necessary to pursue adequate recovery
- ETG has applied a reasonable basis for accepting any settlements.

B. Findings

1. History of ETG's Remediation Activities

ETG's activities in support of MGP remediation have been progressing for a long time. Site identification and examination of ownership records occurred through the 1980s. ETG reached agreements with the NJ DEP on responsibility for remediation activities in the early to mid-1990s. ETG has been operating its Erie Street, Rahway, and Perth Amboy sites under Memoranda of Agreement with the NJ DEP since the early 1990s; South Street has been operated under an Administrative Consent Order dated April 9, 1991. The Flemington and Newton sites have been operated under Memoranda of Agreement between the NJ DEP and both ETG and JCP&L, dated July 10, 1992 and May 15, 1996, respectively. ETG established Master Service Agreements with environmental engineering and consulting firms for most of the sites in the second half of the 1990s. Activities since then have focused primarily on investigation of the nature and extent of contamination. As of today, however, only remedial investigations have been completed for most sites. Source material has been removed from Erie Street, Newton, South Street, and Rahway.

The Company removed source material from the South Street site in 2004, and took interim measures, including removal of impacted soil and certain source material, at the Rahway site in 2008. The table below shows ETG's expenditures by site over the past eight years.

ANNUAL RAC COSTS

	2001-2002	2002-2003	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	Total
Erie St.	31,493	99,048	63,829	84,955	37,781	127,930	55,002	6,133	$ 1,017,397
South St.	220,967	144,230	187,337	551,254	33,434	61,939	113,392	28,931	$ 1,577,473
Rahway	95,007	56,277	79,642	144,656	90,669	284,255	2,147,846	1,664,841	$ 4,586,510
Perth Amboy	167,103	248,320	29,019	29,610	9,533	2,472	12,834	2,482	$ 582,672
Flemington	8,660	8,099	22,380	68,147	52,212	26,687	201,680	8,805	$ 414,859
Newton	115,468	49,204	122,968	65,879	45,450	10,175	7,410	2,468	$ 436,755
Butler (Erie St)	0	0	0	3,924	451	11,576	0	0	$ 15,951
Renora (Erie St)	0	0	0	3,439	0	111	1,330	163	$ 5,043
Internal	0	0	0	0	-39,710	17,447	0	16,428	$ (5,835)
Unallocated	56,144	50,970	-8,583	154,131	0	0	0	0	$ 231,760
Misc.	0	0	0	0	174,987	63,782	26,909	324	$ 266,002
NJ MGP Remediation	$ 694,842	$ 656,148	$ 496,592	$ 1,105,995	$ 404,807	$ 606,374	$ 2,566,403	$ 1,730,575	$ 9,128,587
	$ 694,842	$ 656,148	$ 496,592	$ 1,105,995	$ 404,807	$ 606,374	$ 2,566,403	$ 1,730,575	$ 9,128,587

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[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

As is the case for the other gas utilities in New Jersey, the NJ BPU has authorized recovery of prudently-incurred expenditures for this activity. ETG reports expenditures to the BPU each year in a Remediation Adjustment Clause (*RAC*) filing. The RAC forms part of the Company's Societal Benefits Clause (*SBC*). The SBC charge applies to all tariff service classifications.

AGLR performed some assessment of ETG's MGP problem as part of its "due-diligence" process prior to its acquisition of ETG's then-parent company, NUI Corporation. Following the acquisition, AGLR Environmental personnel spent some months carefully reviewing the status of each site, and developing a program to take to the NJ DEP. That process was completed in the first half of 2006.

The Company attributes the relatively slow pace of its remediation activities to inattention by the NJ DEP. The Company reports that the agency responded to one of its Remedial Investigation reports only after a delay of six years. The Company notes that it could proceed without NJ DEP approval, but doing so is unwise, as proceeding without approval would likely result in having to repeat some work.

One consequence of this slow pace is that AGLR has elected to continue ETG's program with minimal internal staffing, using consultants as technical experts as needed. Like virtually all other LDCs, ETG uses contractors for all field work. ETG has only one person devoted to the program full-time,[45] although AGSC employees in Atlanta provide assistance with accounting and technical support.

2. Organization and Staffing

a. Caliber and Qualifications of Program Staff

The employee who conducts ETG's remediation program is very well qualified. He is a lawyer by training, but has been doing environmental work virtually his entire professional career. He worked on environmental compliance and liability issues at NUI Corporation for nine years prior to its acquisition by AGLR, and has worked in ETG's MGP remediation program since NUI was acquired by AGLR in late 2004. Prior to his employment with NUI, he worked for an environmental contractor, assessing the impacts of federal, state, and local environmental laws and regulations on various environmental projects. His particular responsibilities included site remediation, permitting and compliance, and environmental liability management.

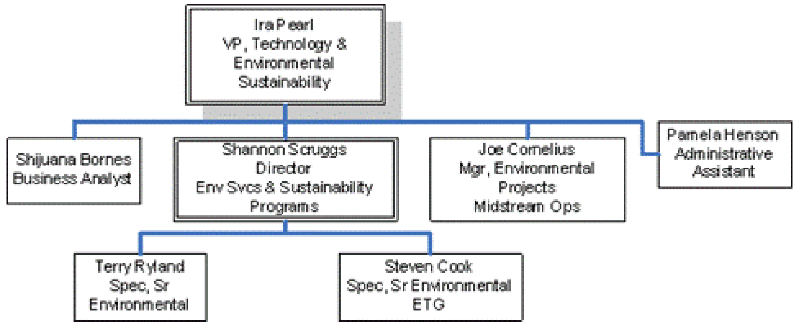
A Business Analyst at AGLR's service-company offices assists him with cost-tracking and budgets by. That analyst, with staff support, assists with classification of contractor invoices, and accounting data entry. They perform the same function for all of AGLR's other Technology and Environmental Sustainability programs (managed together at the service company), however.

Other organizational units in AGLR involved with ETG's MGP remediation program include the Legal Department, which provides basic legal advice on access and contract issues, and Supply Chain, which manages the procurement of contractors, consultants and other outside services for the remediation program. The authority to enter contracts for program design and execution follows the approval matrix discussed earlier in this report.

b. Reporting Structure for Remediation Program

The Senior Environmental Specialist who manages ETG's program reports up through AGLR's Technology and Environmental Sustainability group, which is part of the Company's Engineering and Operations organization. His supervisor is the Director of Environmental Services and Sustainability Programs, who is responsible not only for the Company's MGP programs but also its other environmental compliance programs, as well as its renewable-energy and other sustainability programs. The organization chart for the Technology and Environmental Sustainability group follows.

[45] That person is an AGSC employee, located at ETG's offices.



The Executive Vice President, Engineering and Operations, gets quarterly briefings on the progress of the programs (AGL's and ETG's). He in turn reports to AGLR's Board of Directors once a year, usually in January, on the program progress.

3. Company Role in Program Management

a. Company Planning and Cost Estimation

AGLR's preferred strategy for MGP remediation is to excavate source material and "hot spot" areas (areas with concentrations of contaminations that exceed impact to groundwater standards), along with the use of engineering controls, such as engineered caps, and institutional controls, such as deed restrictions, to achieve remediation, rather than excavating to meet unrestricted-use standards. For groundwater, the Company prefers monitoring and natural attenuation where possible, and active treatment if necessary. If MGP impacts extend to bedrock fractures, (as they appear to at the Newton site where responsibility is shared with JCP&L) hydraulic controls to restrict the movement of groundwater through the affected area may prove necessary. For sediments, the Company's strategy is to excavate only those sediments known to contain MGP impacts. AGLR has also taken this approach for its sites in Georgia and Florida; therefore, so the Company has considerable experience with it. Its use at the New Jersey sites is subject to NJ DEP approval for each site individually, but it provides a consistent framework for discussions with that agency.

AGLR estimates overall costs using a modified version of the Gas Research Institute's MGP Cost Model software. The software is a spreadsheet model that combines two probabilistic methods. It uses Decision Tree analysis and Monte Carlo simulations to estimate potential costs for each site. The Decision Tree analysis involves determining alternative paths to achieving remediation, considering the steps along those paths: preliminary assessments, remedial investigations, feasibility studies, interim measures and remedial actions. The analysis uses ranges of input parameters (*e.g.*, volumes to be excavated or treated, areas, depths, and unit costs) and probabilities of occurrence for selected steps along the paths. AGLR uses Palisade Corporation's @Risk software for Monte Carlo simulations. This software produce a distribution of probable costs for each site.

Through its investigations to date, ETG has found that the nature of contamination, and thus the nature of the required remediation, varies among different locations within each site. Accordingly, ETG divides each site into "Areas of Concern" (*AOCs*), defined by the areal extent of particular problems at each. At present, ETG has identified 17 distinct AOCs, and produces distributions of probable costs for each one. ETG updates these distributions twice a year.

A consultant acting under the direction of AGLR Environmental personnel developed the initial decision trees during the last half of 2005 and the first half of 2006. This development involved a detailed examination of what was known about each site and a painstaking process of developing and assessing possible paths to complete remediation for each.

ETG updates the distributions of probable costs twice per year, as remedial investigation at each site produces data and information that affects the paths, the probabilities of various steps along each path, the input parameters for the Monte Carlo simulations, or all of these. The same consultant produces these updates. Over time, this process produces a very detailed understanding of each site, which yields remediation paths having increasing levels of certainty. The remediation parameters listed above – volumes to be excavated or treated, areas, depths, unit costs, *etc*. – remain uncertain, but the specific remediation steps can be determined with increasing confidence, ranges of uncertainty are narrowed, and cost "drivers" are identified for budgeting and cost-tracking purposes.

b. Company Activities in Testing and Monitoring

The Company takes the lead in any negotiations with responsible government agencies regarding testing and monitoring programs. The Company then directs its consultants to design programs that comply with agreements reached with the agencies. ETG's Senior Environmental Specialist reviews the results of the tests, then passes them along to the various parties involved in planning and budgeting for succeeding phases of remediation at each site.

c. Company Role in Program Design and Execution

The Company designs and executes the program based on remediation strategies developed for each site. Engineering consultants provide technical design for implementation, and oversight of execution by remediation contractors.

The principal activities of consultants during a design phase are to review site information and collect whatever additional information is necessary to prepare plans and specifications for the implementation of a Company-developed investigation or remediation strategy that conforms to applicable regulatory requirements. This activity can include collection, analysis, and presentation of data to the Company to assist it in determining an approach to a remedial investigation or remedial action design that achieves the Company's programmatic goals in an efficient, cost-effective manner. Consultants also assist the Company with preparation of engineering plans and specifications for bidding purposes and in reviewing bids and specifications submitted by contractors competing for remediation tasks.

During the execution phase of a remedial investigation or remedial action, consultants provide engineering oversight of contractors to ensure that activities are performed in accordance with the remedial action design, work plans and specifications. In addition, consultants document the completion of the remedial activities for inclusion in reports provided to the NJ DEP.

As noted earlier, AGLR's Supply Chain group assists the program with procurement of remediation contractors. All remediation services are competitively bid.

4. Program Control and Record Keeping

a. Accounting Methods and Procedures

The Company uses the PeopleSoft system application for its accounting and reporting function, and uses Comshare as its application for the remediation budgeting process. Each affiliate is structurally separate, keeping its own set of books with a unique general ledger business unit and department identifier, which identifies the specific site locations to capture transactions for the MGP remediation costs.

There are two primary sources for transaction flow of remediation costs: (1) internal Company reporting of time assigned to remediation activities, and (2) invoices received from engineering and legal firms hired to consult and perform remediation activities. The Senior Environmental Specialist charged with oversight of the Company's remediation activities has primary responsibility for capturing, recording, and reporting MGP remediation costs. The Company's business analyst has responsibility for the review, analysis, and tracking of all the MGP remediation costs billed to the company. Accounting personnel process the invoices within PeopleSoft, record all other remediation activities, and generate internal reports, such as the margin report the regulatory personnel use in preparing regulatory reports filed with the NJ BPU. The manager of the rates and tariffs department files the reports with the BPU quarterly and annual filing requirements. In addition, MGP costs are tracked to the Company-approved remediation budgets for each site periodically throughout the year.

b. Accounts Payable Process

The Company contracts with vendors to perform work related to MGP remediation, such as remedial and subsurface investigation for a specific site location as well as legal services. The contractors prepare invoices for work performed and send invoices to AGLR. The Senior Environmental Specialist reviews and codes the invoices and, along with the Managing Director, Environmental Health and Safety & Crisis Management, approves the remediation program invoices. Liberty reviewed several invoices to ensure invoice approval is compliant with the Company's schedule of authorization.

The Senior Environmental Specialist reviews the invoice information for reasonableness and accuracy of the charges, and codes the invoices with general ledger account codes, site identification or department codes, and business unit code. The invoices are then sent to the Business Analyst in Atlanta for entry into the PeopleSoft System. The Company uses department codes to identify a specific remediation site within each business unit's general ledger in capturing site-specific remediation costs. The invoice may also have general costs along with specific site costs, such as administrative costs. These vendor-related general costs may not be specific to any one site, but if the services provided benefits to more than one site, the Company allocates general costs to all the sites within the invoice based on the level of expenditures for each site.

After review for accuracy and reasonableness, coding, and approval, the Company sends the invoices to an off-site processing company, Caliper Pointe, for data entry into the PeopleSoft accounts payable system for processing and payment. There is an online verification check to ensure correct data entry from the invoice document, once the invoices have been entered into the system. After data entry validation, the PeopleSoft accounts payable system processes the invoices and records the costs to the identified sites, the appropriate business unit and its general ledger based on the accounts-payable-generated journal entries.

Liberty found that the internal controls from receipt of invoice to the invoice processing and eventual recording of costs to the Company's books are adequate. However, Liberty observed a different method from those described above for capturing and processing remediation-related legal invoices. For these invoices, the Company uses its e-billing system, DataCert, which has been in existence since 2005. DataCert allows external law firms to enter their invoices via an extranet website location. The Company makes available a list of personnel authorized to review the legal invoices. After the law firms enter the invoices into the e-billing system, the system notifies the first person on the Company's reviewer list. The Company states that the list of reviewers include the primary system administrator, the MGP business analyst, Senior Environmental Specialist, Managing Director of Environmental Health and Safety & Crisis Management, Senior Corporate Counsel, and the V.P. & Associate General Counsel. Each reviewer must provide electronic approval for each invoice entered before payment is made and costs are recorded in the general ledger. From this point forward the internal processing of the invoice within PeopleSoft is the same as that for non-legal invoices described above.

c. Time Reporting Process

Liberty reviewed the time reporting process from the point the employee completes a time sheet to the recording of the associated labor costs in the general ledger. Liberty found that the time-reporting process for the MGP remediation program does not result in recording time directly to the business unit affected. The AGL Service Corporation (AGSC) accounting personnel responsible for recording remediation costs for ETG and other affiliates explained that the process for the payroll time reporting begins with charging time to the AGSC business unit, and assigning a site location code and the appropriate general ledger account for the activity performed. The Company uses the Department and Resource Code to capture the labor expended specific to ETG. At this point, the payroll costs reside on the balance sheet in accounts referred to as "mirror accounts/departments." The mirror accounts/departments are accounts used to record and defer the remediation costs for future amortization to expense per BPU requirements. Payroll costs directly charged to AGSC are then transferred to ETG's general ledger based on the Company's monthly review and analysis of MGP remediation costs. The Company uses the site location code to identify the appropriate affiliate in which to transfer these costs.

Liberty reviewed two sample time reports and tested the transactions (*i.e.*, journal entries), transferring the remediation costs from AGSC to ETG's general ledger. Although Liberty determined the transactions to be recorded properly, Liberty questioned the Company's use of mirror accounts/departments instead of direct assignment of the payroll costs to ETG and other affiliates. The Company explained that mirror departments are only used to capture remediation costs specific to the affiliate and reclassify those costs from AGSC to ETG and other affiliates. The Company further stated that the payroll system is not set up to allow for direct assignment of payroll costs to a balance sheet account; *i.e.*, deferring the costs for future cost amortization to an expense account.

d. Data and Record Retention

Liberty found the Company's data and record retention policy for MGP remediation expenses to be adequate. The Company scans and files the invoices entered through the People Soft Accounts Payable system for a period of four years onsite. After four years, it transfers the documents to an offsite facility for storage. AGLR is moving toward electronic storage, where invoices requiring storage may be electronically scanned and stored on a computer disk rather than having paper copies filed in boxes.

e. Remediation Cost Control

The Company has a budgeting process in place to track, monitor and control costs based on actual-to-budget variance analysis along with periodic reviews and dialogue with regulatory agencies. The Company also initiates steps to reduce remediation costs by implementing remedial actions that comply with applicable laws and regulations. These steps are taken to protect human health and the environment but to be less costly than other alternatives. The Company provided examples such as selection of hot spot removal with institutional and engineering controls instead of complete remediation to clean up standards. Another Company cost control effort is to allow for natural attenuation for ground water remediation instead of active treatment. The Company also uses a competitive bid process for its remediation contracts. This process allows the Company to use the most cost effective and qualified contractors.

The Company uses the budget process as an integral part in monitoring and controlling remediation costs. The Company's effort, process and basis for budgeting remediation activities and costs rely on its strategic plans for remediation. The Company explained that the main driver for the budget is compliance with the NJ DEP requirements for site remediation and the activities required for compliance. In addition, after the Company determines the status of the site and required activities, it requests and receives cost estimates for those specific activities from outside contractors. The cost estimates are provided by the engineers and consultants (*e.g.*, legal) contracted to perform the work and which have experience in performing these activities. The Company then develops time frames using contractor input and budgets money for the work. The Company did note that the time frames and actual expenditures may change because of NJ DEP review times that are longer than budgeted, additional initiatives required for specific site issues, delays by government agencies in issuing permits, and difficulties with access to property not owned by the company.

The Business Analyst responsible for the ETG remediation budget, the Senior Environmental Specialist, and the Managing Director of the Environmental, Health, Safety and Crisis Management track and monitor the remediation budgeted expenditures by each site location in monthly, quarterly and annual reviews. Budget re-forecasting is performed when required. The MGP remediation budget is included and made a part of the overall corporate capital budget and specific business unit, such as ETG. In addition to this corporate approval process, the Vice President, General Manager of ETG reviews the ETG budget. Liberty examined the Company's process to compare ETG's actual MGP remediation expenditures to budgeted amounts and found it to be adequate.

[redacted]

ETG MGP Remediation Budget ($ 000)

[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
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[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	

The Company is responsible for MGP remediation of sites and associated costs based on the BPU requirements. Because the Company incurs substantial MGP remediation costs, it is allowed to recover the remediation costs through a mechanism referred to as the Remediation Adjustment Clause (*RAC*), which determines a rate per thermal unit, to be reviewed and approved by the BPU. ETG makes an annual filing in July of each year for a rate adjustment effective on October 1. The annual recovery period is October 1 through September 30 of a given year.

Liberty confirmed that the Company includes adjustments for the over- or under-recovery of costs related to prior years in its annual RAC filing. The Company recovers the remediation costs through a tariffed bill rider, enters it into the billing system as a tariffed surcharge to the customer's bill, and applies the rate to the volumes invoiced in the customers' bills.

The Company records revenue from the billing system based on the monthly bill cycles and the month-end billing journals provided to Accounting as part of the month-end closing process. The Company is allowed to amortize the remediation costs that have been accumulated in the balance sheet deferred accounts. Liberty verified that the Company amortizes deferred remediation costs to expense over a seven-year period, as prescribed by the BPU, offsetting the revenue recovered from the rate adjustment. The Company records the deferred costs as an offsetting entry to the billed surcharge revenues in a specific remediation expense general ledger account.

Liberty reviewed the ETG 2008 SBC and RAC filing and the supporting work papers the Company provided. Liberty reviewed the process flow, tested calculations from the Company's worksheets and documentation, and traced the documentation to the journal entries, which are then posted to the general ledger, to ensure costs are recorded to the proper business unit, department codes and general ledger accounts based on the Company's chart of accounts. Liberty also verified that the Company properly computed and included in the filing the credit for deferred tax benefits, resulting from the reduction of the deferred remediation costs, and the carrying costs, based on the average monthly balance of the remediation assets (costs).

Liberty also evaluated and tested three sample invoices for the month of April 2009from a specific consultant. ETG includes them as part of its RAC filing for the recovery year 2009. Liberty tested the invoices to ensure that the Company applied the appropriate internal controls: for example, that authorized Company personnel approval was proper based on the Company's schedule of authorization; that Company personnel verified the time reported and charged by the consultant to the consultant's time sheets; and that miscellaneous expenses such as equipment rental, highway tolls, and meals charged to the remediation project were verified and reconciled to supporting expense receipts. Liberty also verified that the coding of the invoice was completed according to the Company's accounting procedures. Liberty verified that the proper business unit, department identification (site location identifier) and the general ledger accounts assigned were valid and proper based on the Company's chart of accounts. In addition to the invoices and detailed supporting documentation of the charges within the invoices, this particular contractor provides a cover letter outlining the status of the tasks and an accompanying summary showing committed work, the amount expended and balance remaining or over-expended.

The MGP accounting personnel informed Liberty that a filing for a refund to ETG's customers is pending and the credit balance (refund) continues to grow. ETG's 2008 RAC filing sought to reduce rates. When Liberty asked why the credit balance (refund) identified in the filing continues to grow, the Company explained that it was due to a delay in receiving BPU approval of a lower RAC rate, other riders being closed and credited to the RAC, and the sale of two MGP parcels. The Company clarified that the reason for the proposed reduction to the RAC rate was not due to the disallowance of costs proposed for recovery. Liberty asked the Company why the refund to the ETG customers has not yet been implemented. The Company responded that it can only surmise the BPU's attention to other more pressing matters has delayed the attention to ETG's filings.

Based on this review, Liberty found the accounting process and methods of capturing and reporting MGP remediation costs and the reporting and filing of those costs to regulatory agencies to be proper and adequate. However, the issue of the pending filing to reduce customer rates should be a high priority for ETG and the BPU.

Following is a table showing a history of ETG's MGP remediation expenditures used in the Annual RAC filings.

Annual RAC Costs MGP Remediation Expenditures ($ 000's)

Site	2008-2009	2007-2008	2006-2007	2006-2005	2004-2005	2003-2004	2002-2003	2001-2002	Liberty's Total	ETG's Total
Erie St	$ 6	$ 55	$ 128	$ 38	$ 85	$ 64	$ 99	$ 32	**$ 506**	**$ 1,017**
South St	29	113	62	33	551	187	144	221	**1,340**	**1,577**
Rahway	1,665	2,148	284	91	145	80	57	95	**4,565**	**4,587**
Perth Amboy	2	13	2	10	30	29	248	167	**501**	**582**
Flemington	9	202	27	52	68	22	8	9	**397**	**415**
Newton	3	7	10	45	66	123	49	115	**418**	**436**
Butler (Erie St)	0	0	12	1	4	0	0	0	**17**	**16**
Renora (Erie St)	0	1	0	0	4	0	0	0	**5**	**5**
Internal	16	0	17	-40	0	0	0	0	**-7**	**-6**
Unallocated	0	0	0	0	154	-8	51	56	**253**	**232**
Misc.	0	27	64	175	0	0	0	0	**266**	**266**
Liberty's Total	**$ 1,730**	**$ 2,566**	**$ 606**	**$ 405**	**$ 1,107**	**$ 497**	**$ 656**	**$ 695**	**$ 8,262**	**$ 9,129**
ETG's Total	**$ 1,731**	**$ 2,566**	**$ 606**	**$ 405**	**$ 1,106**	**$ 497**	**$ 656**	**$ 695**	**$ 9,129**	

Liberty found the dollar amounts in the rows and columns within the table do not add to ETG's totals, possibly due to arithmetic formula problems. Liberty compared the annual RAC filings, from 2004 through 2008, to the MGP remediation costs provided by the company. See table below.

Annual RAC Filed Costs Compared to ETG Provided MGP Remediation Expenditures ($ 000's)

	2007-2008		2006-2007		2005-2006		2004-2005		Total	Total
Site	ETG sched.	RAC Filing	ETG sched.	RAC Filing	ETG sched.	RAC Filing	ETG sched.	RAC Filing	ETG sched.	RAC Filing
Erie St	$55	$55	$128	$128	$38	$38	$85	$85	$306	$306
South St	113	113	62	62	33	33	551	551	759	759
Rahway	2,148	2,148	284	284	91	91	145	145	2,668	2,668
Perth Amboy	13	13	2	2	10	10	30	30	55	55
Flemington	202	202	27	27	52	52	68	68	349	349
Newton	7	7	10	10	45	45	66	66	128	128
Butler (Erie St)	0	0	12	29	1	1	4	4	17	34
Renora (Erie St)	1	1	0	0	0	0	4	4	5	5
Internal	0	0	17	17	-40	-40	0	0	-23	-23
Unallocated	0	0	0	0	0	0	154	154	154	154
Misc.	27	27	64	64	175	175	0	0	266	266
Total	**$2,566**	**$2,566**	**$606**	**$623**	**$405**	**$405**	**$1,107**	**$1,107**	**$4,684**	**$4,701**

The difference between the RAC 2006 – 2007 filed report and the Company's internal schedule is not material in this particular case, Liberty does not know which report is the correct one.[46] Liberty therefore believes it appropriate to reconcile internal reports to the quarterly and annual MGP reports to be filed with the BPU, before the actual filing to ensure the correct data is reported.

[46] In comments to Liberty's Draft Report, the Company explained that the $29,000 reported for the Butler (Erie St) site in the 2006-2007 RAC filing is adjusted to $12,000 in the Company's 2008 – 2009 RAC filing.

5. Interaction with Government Authorities

a. Correspondence with Responsible Agencies

Liberty reviewed ETG's files of its correspondence with Federal and State environmental officials. The Company provided access to files since January 1, 2004. The Company organizes the files by site and, to this point, keeps them as paper records in file boxes. The Company reports that it maintains the "current working" documents in files and filing cabinets at the Company's Berkeley Heights facility, and then transfers them to Green Lane when they are no longer current.

Liberty reviewed the files relating to the Rahway site, as active remediation was conducted there in 2008. All files were of correspondence with the NJ DEP. Liberty found no evidence of correspondence with Federal environmental authorities.

Liberty found the correspondence to be highly professional, respectful of the agency's authority, but appropriately insistent about proper limits to the Company's responsibility.

b. Inquiry About Company Relationships

Liberty spoke by phone with the NJ DEP's Site Manager for the Rahway site. His assessment was that the Company was making satisfactory progress in remedial work at the site. He had met with some people from AGLR when that Company acquired NUI Corporation, but stated that progress had been satisfactory before that; therefore, AGLR's involvement had made no real difference from his perspective in the conduct of remedial work at the site.

The Site Manager also characterized his relationship with Company personnel as satisfactory. He understood that ETG's Senior Environmental Specialist, while knowledgeable about the history of each site and the Company's activities at each over time, was not a technical expert. ETG's Senior Environmental Specialist had brought in technical people when necessary, however, and the Site Manager had experienced no difficulty accessing technical expertise when technical discussions were called for.

6. Insurance Recovery

Like other aspects of ETG's MGP program, the Company's efforts at insurance recovery have been going on for a long time. The Company selected a law firm (Covington & Burling) was selected in the early 1990s to assist with this work. ETG's files reflect correspondence with insurers beginning about 1992.

The first step in this work was an assessment of coverages. The Company assembled charts covering general liability policies in the early 1990s, pursuant to guidance from the retained legal experts. After completion of this assessment, the Company notified more than 30 insurers of potential claims arising from ownership or operation of MGP facilities. The Company reached settlements with two insurers, one of which provided insurance from January 1948 to January 1951. The other provided excess liability coverage from 1970 to 1976. The first of the two was a partial settlement, with "carve-outs" involving coverage for future possible claims. Proceeds from these settlements have been flowed through the Company's RAC. The Company reached another settlement this year, from London insurance markets.

The Company also filed MGP-related claims with several insurers that provided general liability coverage, but have become insolvent. The Company has collected some money from some of these insolvent insurers. The next table summarizes the current status of these claims.

ETG MGP Claims Filed With Insurers

Insurer	Bar Date	Claim Amount	Agreed Claim	Current Payment Percentage	Received to Date
Andrew Weir	9/25/02		$86,800.00	49.65% (final)	$43,224.07
Highlands	3/30/07	Unstated[1] -	Pending		
North Atlantic	4/30/03		$585,115.28	15%	$87,767.29
Transit	3/15/01		$25,000.00	77%	$19,249.98
United Standard	9/12/08	$54,999.00	Pending	27%	
				Subtotal	**$150,241.34**

[1] Policyholder Protection Claim

The Company reports that there eight insurers with which it has claims pending are insolvent. The Company's largest coverage is with AEGIS, which is a utility-industry insurance organization. The Company held initial settlement discussions with AEGIS in the late 1990s, but those discussions did not close. Estimates of ETG's liability today are much higher than they were at that time.

The Company's lead law firm in this matter sends updates on progress in remediation to all of the remaining insurers, in an effort to preserve ETG's claims. The Company's files show correspondence associated with these updates in 2001, 2004 and 2008. The law firm, with assistance from a firm in Atlanta that helps AGLR in this area, is the principal source of advice regarding strategy for dealing with the remaining insurers. A key problem is that AEGIS is the largest provider of relevant coverages for most of the gas utility industry, so not forcing it into liquidation is a key strategy question.

Responsible personnel at ETG characterize its insurance-recovery efforts as "mid-term stage."

C. Conclusions

1. The controls environment for authorizing expenditures for ETG's MGP program warrants strengthening. *(Recommendation #1)*

The Senior Environmental Specialist at ETG is well qualified, but he essentially runs the program by himself. He is knowledgeable and capable, but Liberty is concerned that expenditures of the magnitude that he authorizes require more oversight of the approval and authorization for the original MGP expenditures.

2. ETG's MGP program has appropriate visibility within the Company.

All of AGLR's MGP programs report to a senior officer of the Company, who is responsible to the Board of Directors for their conduct.

3. AGLR's extensive use of consultants and contractors in the design and management of its MGP program warrants a more formal program for reviewing their effectiveness. *(Recommendation #2)*

The relatively slow pace of ETG's remediation program has meant that the most cost-effective way to proceed was with minimal internal staff resources, adding technical experts on a contract basis as needed. This is apparently AGLR's preferred approach, as well, as it has continued after the acquisition. AGLR has brought experience with remediation in other states, and has managed this way successfully, calling on corporate resources such as Legal and Supply Chain Management to supplement program staff.

Liberty did not find any formal evaluation of remediation contractor performance in its review of AGLR's approach. No doubt the various consultants have opinions in this area, and AGLR's Supply Chain staff checks references before a contractor is hired. The Company should develop a more formal requirement to ensure that performance is routinely evaluated once the contractor is on the job.

4. The Company does not currently have in place a structure sufficient to address remediation activities at the level that it is facing. *(Recommendation #3)*

2008 was ETG's first year of actual remediation activity, as opposed to investigations that lead to remediation. The first table in this chapter shows that, prior to 2008, remediation program expenditures had not exceeded \$1.1 million in any year. Expenditures in calendar 2008[47] were \$4.3 million. The second table shows that the budget for 2009 is \$7.3 million, with increases in almost every year after that to a peak of \$18.5 million in 2013. ETG is simply not going to be able to manage a program that large with the same staff and systems that it has managed until now.

As discussed below, AGLR's control processes for classifying and recording program expenditures are satisfactory. The problems will occur before that point. For example, one person is not going to be able to review invoices totaling \$18 million per year with the same care and attention that has characterized those reviews when the total was about \$1 million per year.

Liberty also does not believe that the Company's approach to program management is adequate to the challenge of the increased level of activity. The Company reports that it "develops strategies" for remediating the sites, then works with consultants to "identif[y] the activities and resources … necessary to implement these strategies." "Developing strategies" and "identifying resources" are not program management.

To date, ETG has largely been able to operate in a reactive mode, due to lack of pressure from the NJ DEP and affected stakeholders. As its remediation activities increase in scale and scope, however, the Company will have to take a more proactive role in program management in order to ensure its effectiveness.

5. The Company's accounting systems, procedures, and controls are adequate to ensure accurate recording and reporting of MGP remediation costs.

[47] The table at the beginning of the chapter is in RAC years. Expenditures in 2008 occurred over two of those years.

The methods of accounting for remediation costs are adequate. The Company accurately records remediation transaction costs within its general ledgers and uses them for internal and external reporting. Each affiliate maintains a separate set of general ledgers and has a unique business unit and remediation site location identifier to capture site-specific costs. The Company appears to have adequate internal control procedures and processes in place once program invoices have been approved and coded to the proper account. However, Liberty questions whether the Company is prepared to provide effective review of program expenditures at the levels that are anticipated, given the dependence of the current approval process on a single individual, as discussed above.

6. The payroll system is not currently set up to handle charging payroll costs to balance sheet accounts. *(Recommendation #4)*

The Company captures remediation payroll costs charged to balance sheet accounts accurately. Liberty believes that PeopleSoft's project costing module and the Operations & Maintenance (O&M) functionality would allow accumulation of all remediation costs, by remediation project. The costs would then be able to be accumulated directly to a balance sheet account, including payroll costs, which are associated with remediation programs and would tend to simplify the quarterly accounting process. This process would also eliminate the need for continued use of "mirror accounts/departments."

7. The Company's reporting and filing of MGP remediation costs through the Remediation Adjustment Clause mechanism and the quarterly and annual filings to the BPU are adequate, but there is a need for expediting RAC credit adjustments. *(Recommendation #5)*

The Company's method of capturing and tracking remediation costs allows it to accurately and timely file BPU-required reports. The accounting personnel are experienced and knowledgeable about the regulatory reporting requirements and how to capture the MGP remediation costs recorded in the general ledgers for reporting purposes. However, the Company and the BPU need to determine how to expedite the proposed RAC credit adjustment to allow customers of ETG the benefit of lower rates. Once the credit adjustment is approved, it will reduce ETG's customer base billing rate.

8. The Company's files of its correspondence with the NJ DEP and other government stakeholders are orderly and complete.

The correspondence between ETG and the NJ DEP reflect steady progress through the steps necessary to address its responsibilities for MGP remediation.

9. The Company's relationships with the NJ DEP reflect that agency's confidence in ETG's ability and willingness to accomplish the necessary steps in the remediation process.

The NJ DEP official with whom Liberty spoke indicated such confidence.

10. The Company's efforts at insurance recovery are sound.

The Company has availed itself of adequate expertise in this area, and efforts at potential recovery are proceeding.

11. The Company's data and records retention process is adequate.

The Company was able to find and produce all documents that Liberty requested. At present, all program records are hard copies in file cabinets or boxes, but that medium has sufficed to date. The Company uses a scanning process to copy documents for record retention purposes. The records are stored on site and at offsite locations, depending on the age of the documents. The Company is also moving to electronic data storage which will increase efficiency in storing records and eliminate the need for paper copies.

D. Recommendations

1. Review the controls environment for ETG's MGP program. *(Conclusion #1)*

The Company should review the process for review and approval of program expenditures. When a MGP remediation capital expenditure is to be authorized and approved by the Senior Environmental Specialist at ETG, Liberty suggests including a procedure to reference and cross check the approved MGP capital expenditure budget to ensure the project is part of the approved budget. If the project is not included in the original capital expenditure budget, additional review and approvals should be required based on the Company's Approval Matrix schedule. The Approval Matrix identifies the expenditure type and level of approval required in addition to the Senior Environmental Specialist's approval level. By performing this check and control, the Company ensures the approval and authorization for a MGP capital expenditure has already been provided for during the budget process. Also, if actual costs are to be more than the budgeted costs for a particular project, there are required approval levels for over budget expenditures within the Approval Matrix schedule.

This process should be reviewed with AGLR's Internal Audit group, and it should be done soon, as expenditures are scheduled to increase rapidly, beginning this year. A report regarding findings and recommendations from the review should be submitted with ETG's next RAC filing.

2. Develop a program for evaluating contractor performance in ETG's MGP program. *(Conclusion #3)*

AGLR's approach to MGP program management involves extensive use of consultants to supplement a minimal internal staff. Many of the consultants for ETG's sites have been in place for some time, and provide important continuity in developing and conducting remedial investigations, and in designing remedial actions as that phase begins. AGLR corporate resources provide important assistance in identifying and hiring execution contractors, but someone must evaluate contractor performance if the program is to be managed effectively. Liberty could not identify who has that responsibility; therefore, we recommend that the function be formalized and assigned to someone.

3. Develop a more active approach to MGP program management. *(Conclusion #4)*

Liberty recommends that the Company develop a more active approach to MGP program management. The revised approach should be presented to the BPU and the Company's stakeholders as part of its next RAC filing.

The new approach will require at least more active involvement of Company personnel in the development of each year's remediation program, and a much more intense program of budgeting and cost analysis. Liberty recommends that the Company look to experience in New Jersey, rather than its experience in Georgia and Florida, in designing its approach. The other two gas-only distributors in New Jersey, New Jersey Natural and South Jersey Gas Company, have effective programs, and should provide experience that the Company can draw on.

ETG's budget for MGP expenditures in 2008 was $3.8 million. Actual expenditures were closer to $4.3 million, for an increase of about 13 percent. As shown in a table in the Findings section of this chapter, estimated budgets for 2008 through 2013 total $60.9 million; internal documents suggest total remaining expenditures of $86.6 million. If a more intensive approach to program management can prevent cost increases of 13 percent, it will be well worth any extra cost.

4. **Adjust the accounting process to charge payroll costs associated with the MGP remediation program directly to balance sheet accounts.** *(Conclusion #6)*

The Company has the ability to capture remediation labor, material and other relevant remediation costs through the project costing module within the PeopleSoft application. Using the project costing module to capture remediation costs would eliminate the need to reclassify MGP remediation costs on a quarterly basis and simplify the accounting process.

5. **Reconcile internal MGP remediation expenditure reports supporting the annual RAC filings to the actual reports filed with the BPU.** *(Conclusion #7)*

The Company should include as part of its internal controls, a process to reconcile all internal supporting schedules and worksheets to the final RAC report before it is filed with the BPU.

Appendix VI.I: Remediation Site Descriptions and Status (February 2009)

Erie Street

Site Location and Description

The Erie Street site is located southwest of the intersection of Third Avenue and South Second Street in Elizabeth, Union County, New Jersey. The site is bordered on the southwest by the Elizabeth River and on the northwest by the New Jersey Turnpike.

The Erie Street site occupies approximately 25 acres. Elizabethtown owns this property and uses it as a liquefied natural gas ("LNG") storage, transfer and distribution facility. Portions of the southeast corner of the property are leased for truck parking.

Site History

Between 1889 and 1952, Elizabethtown and a prior site owner used the site to manufacture gas using the water-gas process. MGP operations were initiated on a 2-acre portion of the site by the Metropolitan Gas Company, which operated the gas plant from 1889 until 1892, when Metropolitan Gas Company is believed to have gone bankrupt. The Elizabethtown Gas Light Company ("Elizabethtown Gas Light"), a predecessor of Elizabethtown, acquired the property in a sheriff's sale in 1892.

In 1952, the facility was retrofitted to manufacture oil gas and used for "peak shaving" -- that is, supplementing natural gas supplies in times of peak demand -- until 1974, when gas production activities ceased.

From 1974 through 1998, the facility was used for peak shaving and as a propane and LNG storage facility. Since 1998, the facility has continued to be used for peak shaving and the storage of LNG.

Regulatory Status

In accordance with a Memorandum of Agreement with the NJDEP dated June 15, 1992, Elizabethtown is continuing to conduct environmental investigations at the Erie Street site.

The NJDEP's review of the Phase I Supplemental Remedial Investigation (SRI) Report, which was first submitted on April 27, 2001, has long been delayed due to changes in the NJDEP case management team for the Erie Street site. On April 1, 2007, Elizabethtown resubmitted the Phase I SRI Report with minor revisions. On April 18, 2007, Elizabethtown met with the new NJDEP case management team and provided them with an update on the site and discussed additional activities to be completed to bring the Phase I SRI Report into compliance with new regulatory requirements promulgated since the initial submission of the report in April 2001. In the interim, Elizabethtown has conducted a Baseline Ecological Evaluation (BEE) and an updated well search, which is required by NJDEP for the Phase I SRI Report to meet current technical regulatory requirements. The results of the BEE and well search are currently being finalized for submission to NJDEP.

Elizabethtown received a Notice of Deficiency (NOD) Letter from NJDEP in September of 2008 regarding the Phase I SRI Report. Based on subsequent discussions with NJDEP, Elizabethtown has agreed to perform some initial vapor intrusion investigations and additional on site and off site remedial investigation activities. These additional off-site environmental investigation activities were implemented in December 2008. The objective of these investigations was to determine the former MGP's environmental impact, if any, on adjacent industrial property to the southeast of the site and to the residential area to the northeast of the site. The off-site investigations included soil borings and groundwater monitoring wells, as well as soil and groundwater sampling. Based on these investigations, vapor intrusion studies will be necessary in some off-site residential buildings. A VI Work Plan was submitted to NJDEP in December 2008. The Work Plan in response to the NOD was submitted to NJDEP in February 2009.

As requested by NJDEP, Elizabethtown conducts quarterly inspections of the Elizabeth River in the vicinity of the Erie Street site. During a quarterly inspection in November 2006, a light sheen was observed in the Elizabeth River near a storm sewer outfall. Elizabethtown sampled and analyzed the discharge from the outfall and detected benzene in concentrations in excess of the applicable NJDEP surface water criteria. An investigation traced the discharge to an offsite drainage ditch running along the rear boundary of the site. Storm water runoff from the site collects in the drainage ditch and flows to a catch basin before passing through an outfall and into the Elizabeth River. Elizabethtown notified the NJDEP and implemented efforts to prevent a recurrence of the sheen. These efforts included constructing a berm with absorbent "pigs" and crushed stone along the rear of the site and adjacent to the drainage ditch. Storm water runoff from the site now passes through the absorbent berm on its way to the drainage ditch. During subsequent inspections -- conducted monthly from November 2006 to April 2007, and quarterly since April 2007 -- no sheen has been observed.

ETG is awaiting NJDEP review and approval of the VI Work Plan and the RI Work Plan in response to the NOD. Upon receiving NJDEP approval, ETG will commence implementation of these Work Plans.

South Street

Site Location and Description

The South Street site is located at the corner of South Street and Fourth Avenue in Elizabeth, Union County, New Jersey. The site is bounded by Fourth Avenue to the east, Centre Street to the south, South Street to the north, and concrete bulkheads bordering the Elizabeth River to the west. The Routes 1 & 9 viaduct is elevated approximately 30 feet above the western portion of the site.

The site occupies approximately 3 acres, of which Elizabethtown owns 1.5 acres. The Elizabethtown portion of the property is enclosed by a chain-link fence and, until 1993, was occupied by four buildings. The remainder of the site (1.5+ acres) is owned by the New Jersey Department of Transportation ("NJDOT") and the City of Elizabeth and is occupied by the viaduct and two storm water retention basins.

Site History

Elizabethtown Gas Light acquired the South Street MGP property in 1855 and reportedly utilized the property to manufacture gas from 1855 to 1901. Following the cessation of MGP operations in 1901, Elizabethtown Gas Light used the site as a dispatch center for construction crews and pipeline storage until 1965.

In 1929, the NJDOT obtained, by condemnation, part of the west-central portion of the site for construction of the Routes 1 & 9 viaduct. With the exception of the construction of the viaduct, site conditions remained relatively unchanged through 1965.

In 1965, Elizabethtown Consolidated Gas Company ("Elizabethtown Consolidated Gas"), a successor to Elizabethtown Gas Light and a predecessor of Elizabethtown, removed all dispatching operations from South Street and leased the vacated property to Franklin Hudson for use as an architectural office and drafting shop. In 1974, the site was leased to Harvester Chemical Co. and, shortly thereafter, subleased to Vignola Haulage of New Jersey, Inc. ("Vignola").

Between 1978 and 1980, the City of Elizabeth obtained, by condemnation, the lower elevations of the western portion of the site along the Elizabeth River for construction of two storm water retention basins as part of a flood control project. In connection with the flood control project, the U.S. Army Corps of Engineers also regraded the western and southwestern portions of the site in the areas straddling the viaduct. The river upstream, downstream and adjacent to the site was channelized within a concrete flume.

In 1979, Vignola, which was in the business of storing and repairing bank safes, began leasing the remaining portion of the site directly from Elizabethtown and remained as an occupant of the property until December 1990. During Vignola's tenure, portions of the property were sublet to J&T Trucking Co., Burns Trucking, and C.B. Furniture Co. The trucking companies used the site primarily for parking. C.B. Furniture Co. left the site in 1988, and P.J. Construction Co. -- a contracting firm that repairs city utility lines -- then used the yard for parking trucks until 1991.

The NJDOT has since condemned an additional 0.23-acre portion of the site adjacent to the eastern side of the Route 1 & 9 viaduct for the expansion and reconstruction of the viaduct. Condemnation proceedings regarding property valuation resulted in a settlement with a consent order entered for a value of approximately $425,000. Full payment has yet to be received in 2008.

Regulatory Status

In accordance with an Administrative Consent Order with the NJDEP dated April 9, 1991, Elizabethtown is continuing to conduct environmental investigations at the South Street site.

From August to October 2003, field activities were implemented under the Revised Phase II Pre-Design Investigation Work Plan, which had been approved by the NJDEP by letter dated June 26, 2003. A Draft Phase II Pre-Design Investigation Report (Draft Phase II PDIR) was submitted to the NJDEP on December 22, 2003. Elizabethtown received NJDEP comments to the report by letter dated March 19, 2004, and met twice with the NJDEP during May 2004 to discuss the comments. In response, Elizabethtown prepared a letter to the NJDEP dated June 22, 2004 summarizing the mutually agreed scope of work to be implemented in connection with the Phase II Pre-Design Investigation.

A Tar Well Removal Work Plan dated June 30, 2004 was submitted to the NJDEP. Tar well removal activities were implemented on July 19 and 20, 2004. On July 21, 2004, the NJDEP issued a comment letter on tar well sampling requirements. Elizabethtown responded, and further discussions were held regarding both sampling requirements and the scope of further groundwater investigation in the tar well area of concern. On September 9, 2004, the NJDEP issued a letter relating to additional groundwater investigation in the tar well area of concern.

A Work Plan for Groundwater Investigation in the Vicinity of the Former Tar Well was submitted to the NJDEP on September 16, 2004. The NJDEP issued a comment letter dated September 21, 2004 to Elizabethtown with conditional acceptance of the groundwater investigation work plan. Elizabethtown then submitted on September 21, 2004 a Work Plan for Bedrock Monitoring Well Installation. The NJDEP issued a comment letter with a conditional acceptance of the bedrock monitoring well work plan on September 29, 2004. Elizabethtown responded by letter dated October 6, 2004, and further discussions were held with the NJDEP regarding groundwater investigation. On October 11, 2004, Elizabethtown submitted construction details for two overburden monitoring wells to be installed for groundwater investigation in the vicinity of the former tar well. These monitoring wells were installed on October 12, 2004.

In February 2006, Elizabethtown issued a Revised Draft Phase II Pre-Design Investigation (PDI) Report documenting the results of additional investigation activities conducted since the submission of the Draft Phase II PDI Report on December 22, 2003. Pursuant to a conclusion in the revised report calling for additional subsurface investigation in the area around the large gas holder, Elizabethtown submitted to the NJDEP a "Work Plan for Additional Soil Borings, Large Gas Holder Investigation" on July 25, 2006. The NJDEP approved this work plan on August 8, 2006, and the plan was implemented August 15-17, 2006. On November 1, 2006, Elizabethtown submitted a "Progress Report - Additional Soil Borings, Former Large Gas Holder Investigation."

On April 12, 2007, Elizabethtown met with the NJDEP to receive comments on the pre-design investigation activities conducted at the site. On July 24, 2007, Elizabethtown issued an addendum to the February 2006 report (entitled "Addendum Revised Draft, Phase II Pre-Design Investigation Report, February 2006, Progress Report-Additional Soil Borings, Former Large Gas Holder, November 2006") responding to NJDEP comments and providing a work plan for additional investigation activities. The Addendum was approved by the NJDEP on July 26, 2007.

Elizabethtown is planning certain interim measures to be implemented in 2009 to address soil impacts at the South Street site. These activities will include the excavation and removal of the large gas holder and impacted soil on the southeast portion of the site, as well as removal of additional impacted soil on the southern portion of the site. These measures will address the NJDEP's concerns regarding the large gas holder and hot spot areas identified during the prior environmental investigations. A work plan for these activities was submitted to NJDEP in September 2008. Based on comments received from NJDEP regarding the Work Plan, a Work Plan addendum addressing these concerns was prepared and submitted to NJDEP in January 2009.

ETG is awaiting NJDEP review and approval of the Remedial Action Work Plan and Addendum. Upon receipt of NJDEP approval ETG will begin remediation activities. In the interim, ETG is performing certain activities in preparation of Work Plan implementation, including survey work, permitting, and preparation for community outreach efforts.

Rahway

Site Location and Description

The Rahway site is located at 219-245 Central Avenue, Rahway, Union County, New Jersey. The site, which occupies approximately 1 acre, is currently owned by Elizabethtown and it is not used by Elizabethtown except for investigating and addressing environmental impacts.

There is a small office building located on the southeastern corner of the Rahway site. A vacant warehouse building formerly located at the southwestern property boundary was demolished in April 2007. Prior to Elizabethtown's current use of the property, the office building and warehouse were occupied by a tenant and subtenant, Tabloid Lithographers and Consolidated Roofing, respectively.

Site History

The Rahway Gas Light Company operated a MGP at the site from 1861 until approximately 1901. In 1922, the Rahway Gas Light Company became a part of Elizabethtown Consolidated Gas. In 1972, the City of Rahway acquired the property from Elizabethtown, and in 1982, Tabloid Lithographers purchased the property from the City. In 1994, Elizabethtown reacquired the property for the purpose of reducing the overall cost of investigating and addressing environmental conditions at the site.

Regulatory Status

In accordance with a Memorandum of Agreement with the NJDEP dated September 2, 1992, Elizabethtown is continuing to conduct environmental investigations at the Rahway site.

Field activities pursuant to the Revised Phase III Supplemental Remedial Investigation (SRI) Work Plan, which was approved by the NJDEP by letter dated July 19, 2003, were implemented between July 2003 and February 2004. A Phase III SRI Report detailing the findings and results of these investigations was submitted on July 11, 2005. Elizabethtown received the NJDEP's comments on the report by letter dated October 27, 2005, and responded by letter on December 21, 2005.

On April 24, 2006, Elizabethtown submitted a Pre-Design Work Plan for preliminary investigations to support the design of interim environmental measures for two areas of the site. The NJDEP commented on the plan by letter dated August 24, 2006, and Elizabethtown responded by letter dated December 21, 2006. The NJDEP provided additional comments by email on April 14, 2007. Elizabethtown implemented the Pre-Design Work Plan between April 17, 2007 and July 2, 2007, including demolition of a warehouse building located at the southwest boundary of the site. On September 10, 2007, Elizabethtown submitted to the NJDEP an Interim Remedial Measure Selection Report / Interim Remedial Measure Work Plan (IRMSR/IMRWP) for the site based on the findings of pre-design investigations. The IRMSR/IRMWP was finalized after a response to comments and was approved by NJDEP on December 19, 2007.

Elizabethtown implemented the interim measures to address surface and subsurface impacts at the site beginning in March 2008. Activities included the removal of impacted soil at the northwestern and north-central portions of the site, the removal of a gas holder and impacted soil located in the central portion of the site, the removal of a gas holder located in the eastern portion of the site and the removal of impacted surface soil, which extends onto adjacent property to the west of the site. Construction activities were completed in August 2008 and site restoration activities were completed by the fall of 2008. The IRM Report is currently being completed along with a groundwater monitoring plan, which will propose a natural attenuation/monitoring remedy for ground water at the site.
The Report and Plan will be submitted to NJDEP by March 2009.

During IRM implementation, MGP impacts were indentified that may extend beneath an adjacent river bottom. Investigation of these impacts will likely be required and remediation of impacts may need to be negotiated with NJDEP.

Perth Amboy

Site Location and Description

The Perth Amboy site is located approximately 300 feet north of the Raritan Bay shoreline in the City of Perth Amboy, Middlesex County, New Jersey.

The site occupies approximately 1 acre and is bordered by Linden Street to the east, St. Demetrios Greek Orthodox Church ("St. Demetrios") property to the west, a city-owned recreational park to the south, and residential dwellings to the north. Sadowski Parkway, which was constructed after MGP operations at the site ended, divides the southernmost portion of the property.

The majority of site, as well as the properties to the west and northwest, are owned by St. Demetrios. The southernmost portion of the site, underlying and across Sadowski Parkway, is owned by the City of Perth Amboy. At present, St. Demetrios' auditorium is the only structure to occupy a portion of the site and is located on the southwest corner, adjacent to Wisteria Street and Sadowski Parkway.

Site History

The Perth Amboy MGP was originally owned and operated by the Perth Amboy Gas Light Company ("PAGLC") from 1872 to 1922, when the site was known as the Perth Amboy Gas Works. After MGP operations ended in 1922, PAGLC maintained ownership until 1955. During that time, many of the original structures were demolished and the site was used primarily for pipe storage.

In 1955, the property was transferred to Elizabethtown Consolidated Gas. The condition and use of the site as a pipe storage facility remained unchanged until 1964, when Elizabethtown Consolidated Gas sold the property to St. Demetrios.

In 1965, all remaining structures and buildings were demolished. The site remained vacant until 1978, when construction of St. Demetrios' auditorium and parking lot was initiated.

Regulatory Status

In accordance with a Memorandum of Agreement with the NJDEP dated June 14, 1993, Elizabethtown is continuing to conduct environmental investigations at the Perth Amboy site.

On June 19, 2007, Elizabethtown met with the NJDEP case management team to discuss environmental activities at the site. During this meeting, NJDEP verbally approved the "Polynuclear Aromatic Hydrocarbon Compounds Sources Evaluation Report, Residential Properties" (dated March 2007) and discussed additional activities required to bring the "Phase III Supplemental Remedial Investigation Report" (dated February 2002) into compliance with current technical regulatory requirements. As a result, Elizabethtown agreed to perform a Baseline Ecological Evaluation (BEE) at the site and to perform a vapor intrusion study on the St. Demetrios auditorium building located on the site. The BEE and planning for the vapor intrusion study were both conducted during July and August of 2007. Vapor Intrusion study field activities were conducted October 16, 2007, and the results were submitted along with the BEE to the NDJDEP in late February 2008. The NJDEP Case Manager for the site has been reassigned. No new Case Manager has been assigned to the site. ETG is awaiting NJDEP reassignment of this case, review and approval of the BEE and Vapor Intrusion study report, and approval of the Remedial Investigation.

Flemington

Site Location and Description

The Flemington site is located at 60 East Main Street, straddling the border of Flemington Borough and Raritan Township, Hunterdon County, New Jersey. The Flemington site occupies approximately 3 acres. Elizabethtown owns the site and uses it as a natural gas service center.

Site History

Two former MGPs were located on the Flemington site. The first, located on a 0.2-acre parcel immediately east of Bushkill Brook and west of Branch Street (currently East Main Street), was operated by the Flemington Gas Light Company, which was founded in 1859. Although little is known about the plant configuration or operations during the 1800s, it is known that the site was damaged by fire in both 1866 and 1877, but was subsequently repaired and operated until approximately 1909 or 1910. It is also known that the original gas production process was the rosin process that, per the Aubin's Patent, uses tree rosin (a material left over from the distillation of tree sap) as feedstock. Sometime in the 1880s, the MGP switched to a naphtha oil gas process. By 1921, the facility was occupied by and utilized as an auto repair shop.

The second MGP was built in 1909 by the Flemington Gas Light Company on a 2.7-acre parcel located to the west of the original property. Gas manufacturing operations at this facility began in 1909 or 1910 and used the carbureted water gas process, although a different process may have been used in the earliest years of operations.

In 1912, the Flemington Gas Light Company merged with the Lambertville Gas & Light Company to form the New Jersey Northern Gas Company. New Jersey Northern Gas Company was a predecessor of the New Jersey Power & Light Company and JCP&L.

In 1946, regulatory authorities required New Jersey Power & Light Company to divest itself of assembled gas properties. The Flemington property was sold to Mr. Harry Carver, who formed the City Gas Company of New Jersey. The City Gas Company of New Jersey converted the entire distribution system from manufactured gas to natural gas in 1949 to 1950. Following this conversion, gas manufacturing operations ceased at the Flemington site and the property was used as a natural gas service center and liquid propane storage facility.

Elizabethtown purchased City Gas Company of New Jersey in 1965 and operated it as a wholly owned subsidiary known as Northwest Jersey Natural Gas, Inc. In 1989, Elizabethtown purchased additional properties adjacent to the Flemington site for the purpose of reducing the overall cost of investigating and addressing environmental conditions at the site.

Regulatory Status

In accordance with a Memorandum of Agreement with the NJDEP dated July 16, 1992, Elizabethtown and JCP&L are continuing to conduct environmental investigations and evaluate options for addressing environmental conditions at the Flemington site.

Elizabethtown and JCP&L completed implementation of the NJDEP-approved “Draft Revised Phase IV Remedial Investigation Work Plan” in July 2007. A Phase IV Remedial Investigation Report was submitted to NJDEP September 2007. A Notice of Deficiency (NOD) regarding the Work Plan was received from NJDEP in December 2008. ETG and JCP & L are working to address the NJDEP comments in the NOD which may require an additional phase of remedial investigation including the installation of additional monitoring wells to investigate the presence of NAPL in groundwater.

Elizabethtown and JCP&L continue to sample private water wells located nearby and potentially down gradient of the Flemington site. All water quality samples collected to date indicate no site health impacts to any of the wells tested.

Newton

Site Location and Description

The Newton site is located off Diller Avenue and Brooks Plaza (also known as Olympian Plaza) in the western section of the Town of Newton, Sussex County, New Jersey.

The Newton site, occupying an area of approximately 3 acres, is currently owned by Elizabethtown and is leased to Amerigas Company ("Amerigas") for liquid propane gas storage and distribution. The operations of Amerigas are located on the central part of the site and consist of two small buildings, a storage trailer, and a number of above-ground propane storage tanks.

Site History

The properties that comprise the Newton site were purchased by Newton Gas & Electric Company on May 12, 1911. An MGP was built on the site sometime between 1911 and 1916.

In 1921, ownership of the MGP property was transferred from Newton Gas & Electric Company to New Jersey Power & Light Company ("NJP&L"), a predecessor of JCP&L. On January 24, 1947, NJP&L sold the MGP property, with the exception of Block 1308 Lot 2 (substation property), to City Gas of New Jersey. MGP operations ceased at the site sometime between 1946 and 1953. In 1957, City Gas of New Jersey sold the northwestern portion of the site to the Town of Newton.

In 1965, Elizabethtown purchased City Gas Company of New Jersey and operated it as a wholly owned subsidiary known as Northwest Jersey Natural Gas, Inc.

In 1987, Northwest Jersey Natural Gas, Inc., in order to reduce the overall cost of investigating and addressing environmental conditions at the site, repurchased the portion of the site previously sold to the Town of Newton. At present, Elizabethtown owns the entire former Newton site except for Block 1308, Lot 2, which remains owned by JCP&L.

Regulatory Status

In accordance with a Memorandum of Agreement with the NJDEP dated May 15, 1996, Elizabethtown and JCP&L are continuing to conduct environmental investigation activities at the Newton site.

Phase III environmental investigation field activities, which were presented as Section 9.0 of the Phase II Remedial Investigation Report, dated January 21, 2000, were completed in April 2003. A Phase III Remedial Investigation Report that includes the findings and results from a Baseline Ecological Evaluation was submitted to NJDEP in January 2008. Elizabethtown and JCP & L are pursuing the sampling of certain off site wells as called for in the Phase III Remedial Investigation Report.

An interim remedial measure (IRM) addressing the gas holder and certain soil hot spot areas at the site is currently being planned by ETG and JCP&L for 2009 or early 2010.

VII. EDECA

A. Background

The BPU requested that Liberty audit ETG's compliance with the standards (*Standards)* for affiliate relationships, transactions, and cost allocations between gas utilities and competitive business segments (N.J.S.A. 48:3 - 49 *et seq*.), which the BPU adopted pursuant to the New Jersey Electric Discount and Energy Competition Act (*EDECA*). The last EDECA audit of ETG was performed in 2003, and Liberty describes the status of ETG's compliance with the 2003 EDECA Audit recommendations in Chapter IV of this report. The 2003 EDECA Audit took place while ETG was still under NUI ownership. The set of ETG affiliates and their relationship to ETG has changed significantly since 2003, partly because of actions taken by NUI after the last EDECA audit and partly because of the AGLR acquisition in 2004.

The EDECA Standards apply to transactions between ETG, on the one hand, and its public utility holding company or a related competitive business segment (*RCBS*) of either ETG or its public utility holding company that is offering or providing retail service to customers in New Jersey, on the other hand. As specified in the scope of the Standards (N.J.A.C. Section 14:4-3.1(a)),

> *(a) This subchapter shall apply as follows:*
>
> *1.* N.J.A.C. 14:4-3.3 *through* 3.5 *set forth standards of conduct applicable to transactions, between an electric public utility or gas public utility, including a related competitive business segment of an electric or gas public utility, and a related competitive business segment of the electric or gas public utility holding company providing or offering competitive services to retail customers in New Jersey or the public utility holding company itself providing or offering competitive services to retail customers in New Jersey;*
>
> *2.* N.J.A.C. 14:4-3.6 *sets forth standards of conduct applicable to electric and/or gas public utilities and the related competitive business segments of each electric public utility and gas public utility, as well as the transactions, interactions and relations between an electric and/or gas public utility and a related competitive business segment of an electric and/or gas public utility; …*

Hence, a precondition for the EDECA Standards is the existence of RCBSs. ETG and NUI RCBSs existed at the time of the 2003 EDECA Audit. A key issue for Liberty's audit is the current status of RCBSs, given the significant changes in ETG's ownership and affiliate relationships since 2003.

B. Findings

1. ETG's Affiliate Relationships in 2003

The next table shows ETG's affiliates that the auditor considered in determining compliance with the EDECA Standards at the time of the 2003 EDECA Audit. They exclude the utility and corporate services affiliates. The table also shows the current status of these affiliates.

ETG Affiliates Considered in the 2003 EDECA Audit

Affiliate Name	Type of Business	Current Status
NUI Appliance Services	Retail appliance services	Discontinued operations in 2005
NUI Energy	Retail gas marketing	Discontinued operations in 2003
NUI Telecom	Telecommunications services reseller	Sold in 2003
NUI Energy Brokers	Wholesale energy brokerage	Relationship with ETG replaced by Sequent Energy Management with AGLR acquisition in 2004
Virginia Gas	Gas pipeline and storage operations	Component parts sold during 2004 and 2005
NUI Energy Solutions	Energy management consulting	Merged with AGLR operations in 2006
Utility Business Services	Utility operations support systems	Sold in 2006

The 2003 EDECA Audit auditor noted that the Company identified as NUI Appliance Services, NUI Energy, and NUI Telecom as "affected affiliates," which the Company considered subject to the EDECA Standards. The auditor did not consider the determination of whether affiliates should be classified as competitive service segments or retail affiliates to be within the scope of the 2003 EDECA Audit. However, the auditor did recommend that the BPU should "carefully consider" whether Utility Business Services was an affiliate subject to the EDECA Standards. Since the 2003 audit, NUI Appliance Services, NUI Energy, NUI Telecom, and Utility Business Services have either discontinued operations or been sold, as shown in the table above.

2. ETG's Current Affiliate Relationships

AGLR's acquisition of NUI brought ETG new affiliates; moreover, ETG's relationships with the already existing NUI affiliates that remained changed. Chapter II of this report reviews ETG's current affiliates and evaluates their impact on ETG. The principal currently active affiliates are:

- Other AGLR LDCs
  - Atlanta Gas Light (operating in Georgia)
  - Chattanooga Gas (operating in Tennessee)
  - Elkton Gas (operating in Maryland)

- − Florida City Gas (operating in Florida)
  - − Virginia Natural Gas (operating in Virginia)
- South Star Energy, a natural gas marketer operating in Georgia, Florida, and Ohio
- Sequent Energy Management (*SEM*), which provides natural gas asset management, producer and storage services, and full-requirements supply, including peaking services, throughout the U. S. and Canada
- AGLR's Energy Investments segment, principally consisting of
  - − Jefferson Island Storage & Hub, which operates a natural gas storage facility in southern Louisiana
  - − Golden Triangle Storage, which is building a natural gas storage facility in Texas.
  - − AGL Networks, which leases telecommunications fiber to customers in the Georgia and Arizona and offers telecommunications construction services
  - − Miscellaneous additional investments, including propane facilities providing peaking services for Virginia Natural Gas and pipelines connecting the Georgia service territory to liquefied natural gas facilities
- AGL Services Company (*AGSC*), which provides common services to all the AGLR subsidiaries.

Liberty investigated whether any of these affiliates can be considered an RCBS in New Jersey according to the EDECA Standards. Liberty found that none of the current ETG affiliates has any customers, either wholesale or retail, in New Jersey, aside from ETG, which has a Services Agreement with AGSC and an Asset Management and Agency Agreement with SEM.

3. Potential Changes

AGLR is seeking new business opportunities that may have retail customers. The Vice President-Communications & Chief Marketing Officer (VP-C&CMO) has responsibility for business development at AGLR. A Director, Business Development manages this function, which he divides into three sections:

- Manager, Energy Services
- Manager, New Market Technologies
- Manager, Product Development

The first has responsibility energy-management services (such as conservation) for businesses that have operations in multiple LDCs (such as federal government units). The new market technologies manager researches emerging opportunities, (such as natural gas vehicle and heat pump developments), and has responsibility for initial development of business opportunities in those areas. The product development manager operates businesses when they are ready to be handed off from the new market technologies manager. Such a hand-off has recently occurred under this organization. AGLR has partnered with affiliates of two major utilities to begin a business that will sell appliance warranty business. It will begin commercial operations in the Fall of 2009. Neither this business nor any other under development, however, operated commercially in the audit period.

C. Conclusions

1. AGLR does not operate any related competitive business segments in New Jersey.

All the affiliates identified in the 2003 EDECA Audit as RCBSs or potential RCBSs are now either discontinued or have been sold. None of the existing affiliates has any customers in New Jersey, aside from ETG itself. Liberty concludes that there are currently no ETG or AGLR RCBSs in New Jersey. AGLR is seeking new business opportunities that may change that situation in the future, however.

D. Recommendations

Liberty has no recommendations specific to compliance with the EDECA Standards. However, other chapters of this report contain recommendations related to other aspects of the relationships with ETG's current affiliates.