Final Public Report
Focused Audit of Affiliated Transactions and Management Audit of the New Jersey Natural Gas Company

Volume Three: Management and Operations Review

Public Version

(SHADED MATERIALS ARE CONFIDENTIAL)

Presented to the:

Division of Audits
New Jersey Board of Public Utilities

By:

THE LIBERTY CONSULTING GROUP

65 Main Street
Quentin, Pennsylvania 17083

(717) 270-4500 (voice)
(717) 270-0555 (facsimile)
Admin@LibertyConsultingGroup.com (e-mail)

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Management and Operations Review
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I. Introduction

A. Background

This portion of Liberty's audit examined the issues that typically comprise principal focuses of a general management and operations audit. The principal exception is gas supply. This topic, which forms a central element of a general management and operations audit of an LDC, was examined and reported on separately in volume one of this report. The objectives of this management and operations segment of Liberty's audit was to describe management and operations in the following areas, assess effectiveness and efficiency, and make recommendations to address any problems, concerns, or improvement opportunities observed:

- Focus Areas (consisting of those for which the RFP delineated a specific scope)
  - Executive Management and Corporate Governance
  - Organization Structure
  - Human Relations
  - Strategic Planning
  - Finance
  - Cash Management
  - Accounting and Property Records
  - Open Season Capacity Assignment
  - Contractor Performance
- Survey Areas (consisting of those for which the RFP listed the function to be examined)
  - Distribution and Operations Management
  - Customer Service
  - External Relations
  - Support Services.

B. Summary of Recommendations

MO-1. Periodically solicit competitive proposals for providing outside audit services.

MO-2. Add a more traditional articulation of mission, vision, and values statements.

MO-3. Add formal contingency planning to the strategic/business planning process.

MO-4. Provide for periodic reviews of the accuracy of customer consumption data.

MO-5. Prepare a structured, comprehensive, documented analysis of effectiveness and alternatives before making any further extensions of the Alliance contract, and develop through competitive or other measures a sound understanding of likely costs from other potential suppliers.

MO-6. Improve DOT compliance tracking and reporting.

MO-7. Designate a member of top management as the project manager for GIS.

MO-8. Establish a focused source of responsibility for productivity programs and expand the use of cost accounting as a tool for identifying productivity improvement opportunities.

MO-9. Adopt a policy of evaluating existing electricity consumption.

MO-10. Reallocate resources or increase staffing to answer inbound customer calls.

MO-11. Undertake a study to determine the appropriate telephony infrastructure to accommodate customer calls.

MO-12. Reallocate resources or increase staffing to improve the meter reading read rate.

MO-13. Allocate the tax benefits of stock options and all other corporate expenses to subsidiaries using a consistent method.

MO-14. Consider the slightly higher than required equity percentage in the context of earnings reporting and the filing of the next rate case.

MO-15. Require that NJNG maintain a minimum level of equity as a utility credit insulation measure.

MO-16. Develop and utilize daily cash flow forecasts that project at least 90 days of cash positions.

MO-17. Use separate NJR and NJNG solicitation processes and separate lead banks in soliciting lines of credit and private placement debt.

MO-18. Specifically exclude NJNG from restrictions included in the "negative covenants" sections of future NJR revolving-credit and private-placement agreements

MO-19. Implement major changes to the structure and functioning of HR.

MO-20. Start a program of working with other, similar companies on comparing programs in non-technical training.

MO-21. In future analyses of compensation, use companies closer in size.

MO-22. Formalize and centralize the responsibility for managing NJNG.

MO-23. Study the staffing of the Fleet department.

MO-24. Put more focus and resources on the GIS project.

MO-25. Develop and put in place a program for frequent visits to other IT departments.

MO-26. Devote more attention to controls and documentation.

MO-27. Study the operations and staffing of Stores and embark on a program of learning about the materials-management departments of other utilities.

MO-28. Revise Financial Procedure 133 to include language that open work order monitoring reports are sent to senior level management.

MO-29. Implement more frequent focused audits by the NJR Service Company Internal Audit Division on the Accounting Department's Construction & Capital Costs Area.

MO-30. Direct NJR Service Company to follow FERC guidelines for timely closing work orders as classified as completed and in-service.

MO-31. Revise the CWIP aging report to provide for additional information sufficient enough to assist upper level management in its review and decision making process as it relates to major long outstanding work orders.

II. Governance

A. Background

This chapter addresses board of directors and senior executive management structure and performance. It includes a review of SOX and exchange listing requirements and guidelines. Those exchange listing guidelines cover a wide range of areas. Liberty has incorporated them, as appropriate, in its work in each of the topics addressed in this chapter. There is not separate set of conclusions addressing compliance with the recommendations. However, Liberty did not find in its study any material exceptions involving them.

The NJR parent board of directors consists of 12 members, divided into three classes, and serving overlapping three-year terms. Election takes place at the annual meeting generally held each January. Members may not stand for nomination to a new term after reaching their 70th birthday. The one change in directors at the 2007 annual meeting left because of that limitation. The next table shows the current membership of the NJR board of directors.

Current NJR Parent Board Membership

Director	Position	Joined	Tenure	Term	Age	Comm
Nina Aversano	Pres./CEO, Aversano Consulting	1998	9	2008	61	A, E, **F**, M
Lawrence R. Codey	Ret'd. Pres/COO, PSE&G	2000	7	2010	62	A, **E**, N
Laurence M. Downes	Chmn/CEO, NJR	1995	12	2010	49	E
M. William Howard, Jr.	Pastor, Bethany Baptist Church	2005	2	2009	60	F
Jane M. Kenny	V.P., Mngng Dirctor, Whitman Strategy Group	2006	1	2010	55	F
Alfred C. Koeppe	Pres./CEO, Newark Alliance	2003	4	2010	60	A, E, M, N
J. Terry Strange	Ret'd. Chmn., KPMG	2003	4	2009	62	**A**, E, F
David A. Trice	Pres./CEO, Newfield Exploration Co.	2004	3	2008	58	E, F, **M,** N
William H. Turner	Stony Brook Univ., Bus. College Dean	2000	7	2010	66	M, N
Gary W. Wolf	Ret'd. Sr. Partner, Cahill, Gordon & Reindell	1996	11	2009	68	A, E, **N**
George R. Zoffinger	Pres./CEO, NJ Sports & Exposition Auth	1996	11	2009	58	M, N
Duncan Thecker (Emeritus)	Pres., Duncan Thecker Associates	1982	25		91	

Bold = Committee Chair; F = Financial Policy Committee
A = Audit Committee; M = Management Compensation and Development
E = Executive Committee; N = Nominating/Corporate Governance Committee

B. Findings

1. Board of directors Membership

The NJR Nominating/Corporate Governance Committee has responsibility for recommending candidates for election to the NJR board of directors. The board completes a matrix that shows the existing backgrounds and experiences of incumbent members. The members use this matrix to identify professional and personal backgrounds that would complement the strengths of existing members. The approach is to begin with multiple possible candidates, generate a short list of two for interviews with the Nominating/Corporate Governance Committee chair. The goal is to seek Nominating/Corporate Governance Committee and Chairman and CEO concurrence on a single candidate, and then to solicit the opinions of the full board of directors. Outside board members have been the initial source for recommending a number of current board members.

A long-time leader on and chair of the NJR Nominating/Corporate Governance Committee has had a long career as an attorney with a large firm, for which he has worked in corporate governance matters.

The NJR board of directors used to rotate committee chairs frequently, but has changed its approach after SOX. Rotation now follows a two or three year cycle, but does not apply to the audit committee. The board of directors and all committees perform self-evaluations each year.

The Nominating/Corporate Governance Committee chair makes a practice of asking current directors to identify additional candidates. The chair, the CEO, and the Lead Director generally interview candidates. The chair tries to arrange meetings with all the other board members before selection of a new candidate for nomination.

The CEO observed that the 70-year age rule has produced regular board of directors turnover; it has entirely changed membership during his tenure. The board has discussed limits on terms, but feels that its current approach has produced an effective blend of experience and “freshness” of viewpoints. He also observed that only two of the current directors came at his initial recommendation; other board of directors members first recommended all of the others for nomination. The board tries to bring new members into meetings no later than the September prior to their first meeting (following election at the January annual meeting typically), in order to provide them with some introduction to the company and its key people.

2. Assuring Board Member Independence

The board-adopted “Company Independence Standards” require that all board of directors members be independent, except for the company CEO. The Board of directors’s standards of independence exceed those of the New York Stock Exchange, requiring specifically that no board member or immediate family member may have a material “business or other” relationship with NJR. The standards include existing relationships and those within three years, and those relationships include:

- Directly or indirectly receiving any compensation other than Board of directors or committee meeting fees

- Service by an immediate family member as a company executive officer
- Serving as a partner, controlling shareholder or executive officer of any organization making or receiving material payments involving the company or otherwise having a material relationship with the Company

Board of directors members must offer resignation when changing or retiring from principal occupation or employment.

The members do not have other public or private board positions that have any appearance of jeopardizing their ability to act solely in the interests of NJR. There are no apparent business relationships of any material size between them and NJR or any of its affiliates.

Each director and officer receives annually a copy of the Company's Code of Conduct, Annual Review Statement, and Annual Directors' and Officers' Questionnaire. Directors and officers confirm through signing and returning to the General Counsel the Annual Review Statement that they understand and comply with the Code of Conduct. This Code states that:

> *Directors, officers, non-bargaining unit employees who report directly to officers, and buyers in the Purchasing Department of the Company have an affirmative obligation to disclose to the Compliance Officer any interest, including but not limited to a financial interest, in any outside activities or business that may conflict or compete with those of the Company. This affirmative disclosure obligation extends to the immediate family member(s) of an officer or director.*

3. Chairman/CEO Division

The current Chairman and CEO did not take on the chairman title until he had served 14 months as CEO. He described the lead director approach (with separate lead directors for the parent and for the utility boards) as an effective alternate approach to long-term separation of the chairman and CEO roles. NJR is in the process of making a further division to its board governance structure. It will adopt the model that Liberty proposed in its South Jersey Gas audit report; *i.e.*, to divide the parent board members (who will continue to sit as the parent directors) into two groups, one of which will serve as the NJNG board of directors and the other of which will serve as board members for the non-utility group of companies. The NJNG board of directors already has a separate structure and membership consisting of some NJR directors. The remaining NJR directors will take seats on the non-utility board of directorss.

4. Outside Director Sessions and Agenda Formation

The independent directors hold a meeting, chaired by the lead director, in the absence of management at each meeting of the board of directors. Those meetings run according to an outline, and focus on the full board meeting, which will just have ended. Typical discussion items for this follow-on to the full board of directors meeting include discussion of its agenda, content, adequacy of data provided by management, and any issues that a participant feels this group should discuss further.

The lead director meets with the CEO for several hours before each meeting and he also provides the CEO with any feedback that the outside directors consider appropriate based on their separate meetings. The lead director also communicates with the CEO by phone at least twice per week and the two also exchange e-mails frequently. The lead director considers board improvement initiatives and encouraging board of directors dialogue and reflection on the distinctions between the board's and management's role to be central elements of his contribution as lead director.

5. Board of Directors and Committee Structure and Operation

a. Board Meetings

The parent board met 10 times during fiscal 2006. These meetings follow a very substantial presentation of information from management. The CEO provides what he terms "the dashboard" each month by e-mail and separately from other information routinely provided to the board of directors. It follows the seven commitment categories that NJR has established to plan and measure its performance:

- Safe, Reliable, and Competitively Priced Service
- Customer Satisfaction
- Growth
- Quality
- Valuing Employees
- Corporate Citizenship
- Superior Return

The Financial Planning, Analysis, and Budgeting Department prepares an "NJR Management System Monthly Update." This fifteen or so page document provides a structured, comprehensive summary of goals and performance:

- A one-page summary of performance, listing goals and measurements for areas where performance is particularly strong and where it is failing to meet expectations
- A one-page narrative summary of actual revenue, expense, net income, and margins versus plan
- One-page of planned versus actual financial measures including:
  - Consolidated net income
  - Consolidated net income by subsidiary
  - Earnings per share
  - Consolidated margin by subsidiary
  - NJNG customers by type
  - NJNG therms by customer type
  - Consolidated O&M by subsidiary
  - Consolidated O&M
  - Capital &MGP expenditures
- One-page of key performance indicators divided by the seven commitment areas NJR has established):
  - Emergency response time
  - Leaks per mile
  - Overall customer satisfaction percentage
  - Complaints per customer
  - Growth in core margin
  - Costs per new customer installation

  - Missed service appointments
  - Percent of issues resolved on first call
  - OSHA lost time rate
  - OSHA reportable incident rate
  - Employee volunteer hours
  - Percent of dollars spent on minority and M/WBE purchases
  - O&M per customer
  - NJRSC share of total O&M
- Two-pages charting monthly and year-to-date financial measures
  - Actual versus normal weather
  - NJNG firm gross margin
  - NJNG regulated wholesale gross margin
  - Total O&M labor
  - Overtime
  - Fringe benefits
  - Other O&M
  - Total O&M
  - Marketing dollar of gross margin per dollar of O&M
  - Interest expense
  - Commercial paper and long term variable interest rates
  - Net income
  - NJNG O&M per customer
  - Capital expenditures
  - Net MGP expenditures
  - NJRES gross margin, net income, number of employees, gross margin per dollar of O&M
  - NJRHS revenue, direct and administrative O&M, net income, number of employees, and gross margin per dollar of O&M
  - NJR Service Corporation total O&M, number of employees, and O&M as a percent of consolidated &M
  - Total NJR O&M, employees, and O&M per employee
- One-page statement of NJR planned and actual net income by subsidiary, showing:
  - Distribution margin
  - Incentive margin
  - Sales margin
  - Other taxes
  - O&M
  - Depreciation
  - Other income
  - Interest expense
  - Income taxes
  - Actual net income
- One-page statement of O&M expense by subsidiary, showing:
  - Labor and fringe benefits
  - Stores expense
  - Miscellaneous employee benefits

  - Contractor expense
  - Markouts expense
  - Bad debt
  - Other
  - Affiliate allocations
- One-page productivity analysis of margins under a variety of objective measures
- One-page summary of key construction performance indicators, including new business, system replacement, system improvement, pipeline integrity, technology, tools and facilities, removals and remediation
- One-page summary of customer satisfaction percentages against a range of call center, field, and marketing measures
- One-page summary detailing safety incident rates by location and subsidiary
- One-page summary showing performance status for the month and year-to-date in 66 measures under the seven categories
- Two-page summary of status against 21 improvement initiatives under the seven categories.

Management has recently changed the distribution cycle for the information sent to the board of directors. The lengthy Report on Operations now goes out two weeks before meetings; the other information, including the CEO's summary memo, goes out a week ahead.

The CEO and NJR lead director work together to draft a preliminary agenda for board of directors meetings. It goes to the members two or three weeks before the next meeting, in order to allow director review and input. The CEO counted over 150 e-mails to board members during 2006. He has appointed a senior executive to serve as liaison to each NJR board committee:

- NJNG: head of Corporate Services
- Financial Policy Committee: CFO
- Audit: head of Internal Audit
- Nominating/Corporate Governance: General Counsel
- Leadership Development: head of Human Resources

b. Audit Committee

The NJR board's audit committee has responsibility for:

- Overseeing accounting, internal controls and financial reporting
- Selecting and retaining the firm that serves as the independent registered public accounting firm for each fiscal year and determining the firm's other responsibilities
- Approving audit and non-audit fees the Company pays to the outside firm
- Monitoring and overseeing the firm's independence
- Reviewing information to be provided in the quarterly reports (SEC Form 10Q) and earnings releases
- Discussing with management, the internal auditors and the independent accountants the quality and adequacy of the Company's internal controls and the internal audit functions, organization, responsibilities, budget and staffing

- Reviewing independent accountants' and the internal auditors' audit risk identification and audit scope and plans
- Discussing the results of the independent accountants examination of financial statements and the results of internal audit examinations
- Reviewing audited financial statements for the fiscal year with management and the independent accountants

The audit committee operates under a formal charter that it reviews annually. The Board of directors has determined the audit committee chair to be a financial expert, as defined by SEC Regulation S-K Item 401(h)(2), and each member of the Audit Committee to be financially literate. All members are independent. The committee meets frequently (11 times during fiscal 2006).

c. Executive Committee

The Executive Committee has the power between board meetings to exercise all the powers of the board. NJR does not make material use of this power. The executive committee has not made a decision for the board of directors as a whole in ten years or more.

d. Financial Policy Committee

This committee reviews and makes recommendations to the Board of directors concerning financing proposals, dividend guidelines, capital and operating budgets and other corporate financial and pension matters. It met three times during fiscal 2006.

e. Leadership Development and Compensation Committee

The Leadership Development and Compensation Committee oversees the performance and qualifications of senior management, and interprets, implements, and administers the annual compensation and benefits of officers. It met six times during fiscal 2006. The committee reviews the performance of officers, and makes recommendations to the Board of directors regarding their compensation. The committee also reviews and makes recommendations concerning officer benefits, and oversees some employee benefit plans. It works with a compensation consultant to review the marketplace for senior executive salaries, considering base salary, annual short-term incentive, long-term incentive and executive benefits and perquisites.

f. Nominating/Corporate Governance Committee

The Nominating/Corporate Governance Committee identifies requirements for assuring board of directors effectiveness, and makes recommendations regarding Board of directors composition, size, and required additional skills and talents. This committee recommends nominees for election as directors, and assesses performance of sitting members. The committee met five times in fiscal 2006.

6. Focus on Utility Needs

NJR set up an NJR board Utility Operating Committee shortly after Liberty's report on the NUI audit, in order to begin to emphasize the need for focus on issues from the strict utility perspective. The original structure selected (in 2005) for a separate board-level organization to deal specifically with NJNG was a committee of the NJR board of directors. The primary goal was to provide for a more detailed focus on utility operations through a committee of the parent board. The introduction of the concept has not particularly changed the parent board's consideration of utility matters, but has provided a regular opportunity to address utility matters in greater detail.

The company did not continue long under the Utility Operating Committee structure, replacing it with the separate NJNG board of directors. One of the concerns that NJR had in setting up the utility committee and then board was the problem of repetition of information, given that it was never the intent for the parent board to narrow its oversight of NJNG, which remains the dominant NJR business. The solution to that problem was to focus the utility board's reviews on the extensive monthly Report on Operations that goes to parent board members. Added depth of review of these operations issues, rather than a segmentation of formal responsibilities between the parent and utility boards became the main difference under the split structure.

The NJNG board of directors generally meets the day before the parent board. Both boards address utility management, operations, and needs, with the main difference being that the utility board addresses operations matters in more depth. Outside NJR directors Codey, Howard, Kenny, Koeppe, and Zoffinger serve as NJNG board of directors members, along with the Chairman and CEO.

Utility data and issues consume a significant majority of the information that the board of directors receives and the agendas that govern meetings. Information and issue discussion show a careful distinction between utility and non-utility performance and requirements. Liberty's interviews with board of directors members showed a consistent understanding of the priority of NJNG's needs and operations. They also showed an understanding of the differing natures of NJR's utility and non-utility businesses, including the particular requirements and risks of trading operations. They demonstrated a common understanding of the company's utility mission and goals, and of the limits placed on risk toleration for non-utility businesses. They also reflected a common view of the focuses on NJR's core utility business, on concentrating non-utility growth strategies on the existing energy-related businesses of NJRES and NJRHS, and on the value of asset-based NJRES operations in providing growth opportunities that mitigate risk. Liberty's reviews of board of directors documentation and budgeting processes and products and its interviews with directors produced no indication of an inability to provide adequate resources for meeting utility needs.

7. Audit Independence

The audit committee chair retired from a very senior position with one of the nation's major public accounting firms in 2002. He has served a member and chair of the audit committees of other publicly traded companies. He views changes in the form of the documentation, but not in the processes themselves, as the principal difference that SOX has brought to NJR. Another Audit Committee member, who has spent 40 years in the banking industry, serves on the boards of a number of other publicly traded companies, and serves as Audit Committee chair for two of them.

The chair of the audit committee demonstrated familiarity with Internal Audit's use of a risk model to form audit plans. He noted that the plan shows variance each year, with certain baseline work regularly appearing. The plan includes detailed resource plans and schedules, and leaves open time to deal with needs unanticipated when the plans emerge. Internal Audit generally presents a proposed plan for audit committee consideration each September. The independent accountants assist in plan review and development, and can, but generally do not do much work to augment Internal Audit's resources for dealing with the department's internal work. The head of Internal Audit provides committee members with audit reports as they are completed. The audit committee chair generally speaks with the head of Internal Audit once between meetings to discuss the committee's agenda for its next session and typically one other time to address a variety of matters that may be of current interest.

There is not a hard and fast rule about the use of the independent accountants for other work during the year. The audit committee, must, however, approve any other services performed by the firm. The audit committee also does not have a formal requirement for rotating auditors; at the end of each annual cycle, it examines individual and firm performance, and reviews any replacements for independent accountant personnel due for rotation. After this review, which has routinely confirmed that performance has met expectations, the independent accountants present for committee review a work scope statement and proposed fees. The review of the 2007 program was underway in January 2007. The audit committee chair considers the time for consideration of a change in independent accountant to be when the five-year engagement-partner rotation takes place. He does not believe, however, that there is substantial enough price competition among the very few firms who provide such services, to create expectations that rotation would lead to lower fees. The audit committee has the power to retain expertise it decides that it needs, but has not done so.

The audit committee executive sessions (one each with Internal Audit, the independent accountants, and management) review the elements of the charter and planner under which the committee routinely operates. Discussions with Internal Audit and with the independent accountants also review new or emerging accounting requirements, guidance, and issues. Management routinely reports on emerging issues, and discusses financing statements.

8. Ethics and Conflicts Matters

NJR offers toll-free hotline and e-mail contact options for persons wishing to contact non-management directors anonymously. The lead director serves as the clearing point for addressing such communications.

The Board of directors has adopted a "Principal Executive Officer and Senior Financial Officers Code of Ethics" governing the CEO and senior financial officers, in compliance with SOX. It also has an "NJR Code of Conduct" that applies to all directors, officers and employees. These codes address employment policies, conflicts of interest, intellectual property, protection of confidential information, and adherence to laws and regulations.

9. SOX Compliance

The baseline SOX compliance deadline for NJR was the end of its 2005 fiscal year. The company actually began compliance activities in 2003, in anticipation of a December 31, 2004 date. The company used fairly standard foundation activities for compliance:

- Identifying and flowcharting processes and activities
- Reviewing and documenting controls and identifying key controls
- Mapping processes, activities, and controls to the financial statement
- Performing a "susceptibility to fraud" analysis.

Unlike others, NJR performed much of its work internally. For example, it used MS Excel-based matrices, rather than purchasing SOX software packages being sold by some vendors. It did use an outside firm, but primarily just for assistance in documentation. The company completed its baseline compliance efforts before its deadline.

SOX annual "maintenance" activities consist of:

- Process-owner review of the narratives of their processes and activity flow charts
- Determination of controls applicable to processes and activities
- Management performance of assessments of key controls
- Internal Audit verification of performance on management assessments
- Internal Audit performance of its own testing
- Identification and tracking of gaps and open items to closure.

10. Training

The board of directors members had access in 2006 to a one-day program offered by the American Gas Association. In July 2007, all board members attended an 8-hour ISS accredited training program conducted by The Directors' Network and held at the Company's headquarters. The day-long program was led by subject area experts and consisted of five different customized sessions that focused on procedural issues and key topics relevant to the Board of directors and the Company. The chair of the Nominating/Corporate Governance Committee works with the corporate secretary to identify and screen promising director training opportunities. The board of directors encourages members to attend development programs every several years. New directors are encouraged to observe work at all major company facilities. The newest director was scheduled for a director-training course during her first year on the board.

11. Executive Succession

The new chair of the Management Development and Compensation Committee described the board's involvement in executive succession as a "work in progress." It began with Board of directors questioning a year or two ago about whether enough attention was being paid to assuring effective succession options for the CEO. The company conducted an extensive assessment of a dozen or so of the company's senior managers and executives, for the purpose of aligning their skills and current job functions and for developing succession plans. There now exist development plans for these senior personnel and the firm that performed the outside assessment has continued to work with a number of them. This committee monitors the diversity of the workforce at least once per year, and directors showed familiarity with some of the benchmarks used to measure that diversity.

C. Conclusions

1. NJR and NJNG board members have exceptional qualifications and experience.

NJR has taken a sound, structured approach to identifying current board strengths and possible gaps. The board of directors' outside members have taken an active role in identifying candidates that will complement those strengths. NJR has a very strong blend of utility industry, financial, legal, governmental and regulatory, environmental, community, and other experience that suits the Company's current position and plans for the future well. Its members have strengths that one would find notable in a company even larger than NJR.

2. NJR takes effective measures to assure that board members do not have competing interests.

Save the Chairman and CEO, all NJR and NJNG board members are independent. There are no significant commonalities in other directorships, employment, or business interests. NJR has firm and comprehensive standards applicable to conflicts of interest, and requires all directors, as well as employees and officers, to confirm their compliance with them on an annual basis.

3. NJR has adequately addressed the question of using a combined Chairman and CEO.

The Company does not operate under a firm practice of using the combination, although that is the approach undertaken after the current incumbent had served for some time as CEO alone. The particularly strong outside board member predominance on the boards, the use of separate parent and subsidiary boards, the use of lead directors with extensive utility industry experience, and the material reliance that the boards place on outside-director only sessions provides sufficient assurance that the boards can and do exercise their roles with sufficient vigor and independence.

3. Outside directors have a substantial opportunity to participate in agenda formation and they undertake substantial reviews of governance effectiveness in regular sessions among themselves.

There is frequent communication among directors and between the lead director and the Chairman and CEO between meetings. Directors have sufficient opportunities to contribute to agenda formation. The post-meeting sessions among independent directors are consistently held, appropriately structured, communicative, and used to provide feedback to senior management.

4. The audit committee operates independently and effectively.

Membership has particularly strong credentials for a company of the size of NJR. Its membership is independent, conducts separate meetings with auditors and management, and actively participates in audit plan formation, status monitoring, and follow-up. It has sufficient control over the selection and performance of the independent accountants and it adequately controls the use of those accountants for additional work.

The committee's structure and governing documents provide sufficient independence. The committee has been active in setting its agenda, determining its information requirements, setting the format required for outside and internal audit reports, selecting the independent accountants, determining audit fees, and limiting other work by the auditor. The success in complying with SOX requirements on a timely basis depended greatly on the active oversight of the Audit Committee.

The committee may retain outside expertise at its own discretion. Committee members have sufficient informal communications paths and dialogue with the independent accountants, particularly given the plan for the chair to arrange meetings with the partner-in-charge on a recurring basis. It is important that the plan for these meetings be executed. The Audit Committee's actions in the past years have shown engagement in the right kinds of issues and at the right level of detail.

5. There is not a formal process for soliciting proposals from independent consultants. *(Recommendation #1)*

There is regular review of estimated costs of the independent accountants. The committee chair recognizes the value in considering rotation of independent accounting firms, but the Company has not formally done so for an extended period. Nevertheless, periodic solicitation of proposals from other firms remains an important way for assuring that services are provided at best cost. It is not necessary that a different firm be selected, but it should be clear that the Company remains committed to assuring best costs for independent accounting purposes.

6. NJR has given adequate attention to SOX compliance.

NJR made a timely identification of stock-exchange and SOX requirements, and sufficient plans and schedules for addressing them. The Company made appropriate use of its independent accountants and other sources of expertise. The audit committee has members who have substantial experience in SOX compliance. NJR did well in meeting baseline compliance requirements while keeping a comparatively high level of work in-house, at lower effective rates and through personnel who bring a greater depth of knowledge to company operations. SOX maintenance activities have appropriate structure and require sufficient accountability. The board of directors has exercised leadership over compliance efforts, and has remained actively involved in monitoring the substance and the timing of actions as part of compliance plans. There exists an effective set of tools to assure that controls undergo comprehensive and timely evaluation, change, and certification.

7. Board of directors and committee structure are sound and the creation of a separate utility board comprises a strength of NJR's structure.

The principal recent change in the NJR board of directors structure was the creation of the Utility Oversight Committee in 2005 and its replacement soon thereafter by the creation of a separate utility board. NJR has decided to create a companion board for its non-utility businesses. NJR will divide its current parent board membership into two equal groups, with one group assigned to the utility board and the other to the non-utility businesses boards. The executive committee has not met for an extended period of time, which means that the full board of directors has been directly involved in all major decisions requiring board decision.

Each committee operates under well-defined charters that undergo annual review. Committee membership now rotates less frequently than it did before, given that recent corporate governance developments have increased the importance of maintaining a core base of expertise within each committee. There remains some membership rotation, however. NJR has divided committee membership to align strengths of individuals with particular committee responsibilities. The utility board also has strong representation from parent board members who have extensive energy utility experience that has the added advantage of including former senior executive leadership from New Jersey utilities. The board of directors members have substantial control over the process of identifying committee membership changes, which occur at annual meetings generally. Newer members have committee memberships that suit their skills and experience and that fit the experience that they bring to the board of directors at the beginning of their tenures.

Liberty conducted an extensive review of minutes and interviewed virtually all directors. The agendas, presentation materials, minutes, and interview observations show attention to the expected subjects, a focus on emerging issues, and consistent director understanding of key committee activities, and more significant special issues addressed over the recent past. The board of directors has substantial involvement in plan and budget development and it receives comprehensive information each month about performance against a wide array of operating, financial, and stakeholder benchmarks.

The board of directors members demonstrate a sound knowledge of utility needs and of the tensions that operation in a holding company structure creates when there are substantial non-utility operations. The information flow and dialogue reflected in board documentation and in Liberty's interviews of directors showed a consistent and sufficiently strong commitment to NJNG's public service responsibilities and the requirements for meeting them. NJR's board and senior executive management have adopted a growth strategy that focuses on the opportunities created by its advantageous service territory and on limiting the risks imposed by non-utility growth opportunities. NJR has worked itself reasonably clear of non-core businesses and it plans and is operating under a strategy that, if it continues, will keep the company so.

D. Recommendations

1. Periodically solicit competitive proposals for providing outside audit services. *(Conclusion #5)*

The available options have become more limited in number in recent years, as has the ability to move outside the range of major service providers, given the greater level of visibility and risk associated with accounting and auditing requirements and guidelines. Working within the limitations it faces, NJR's audit committee does pay attention to managing audit costs and considering (generally as audit partner rotation milestones occur) the continuation of its existing relationship. Periodic solicitation of competitive proposals would emphasize to potential providers the need to offer "best costs" to secure NJR's business.

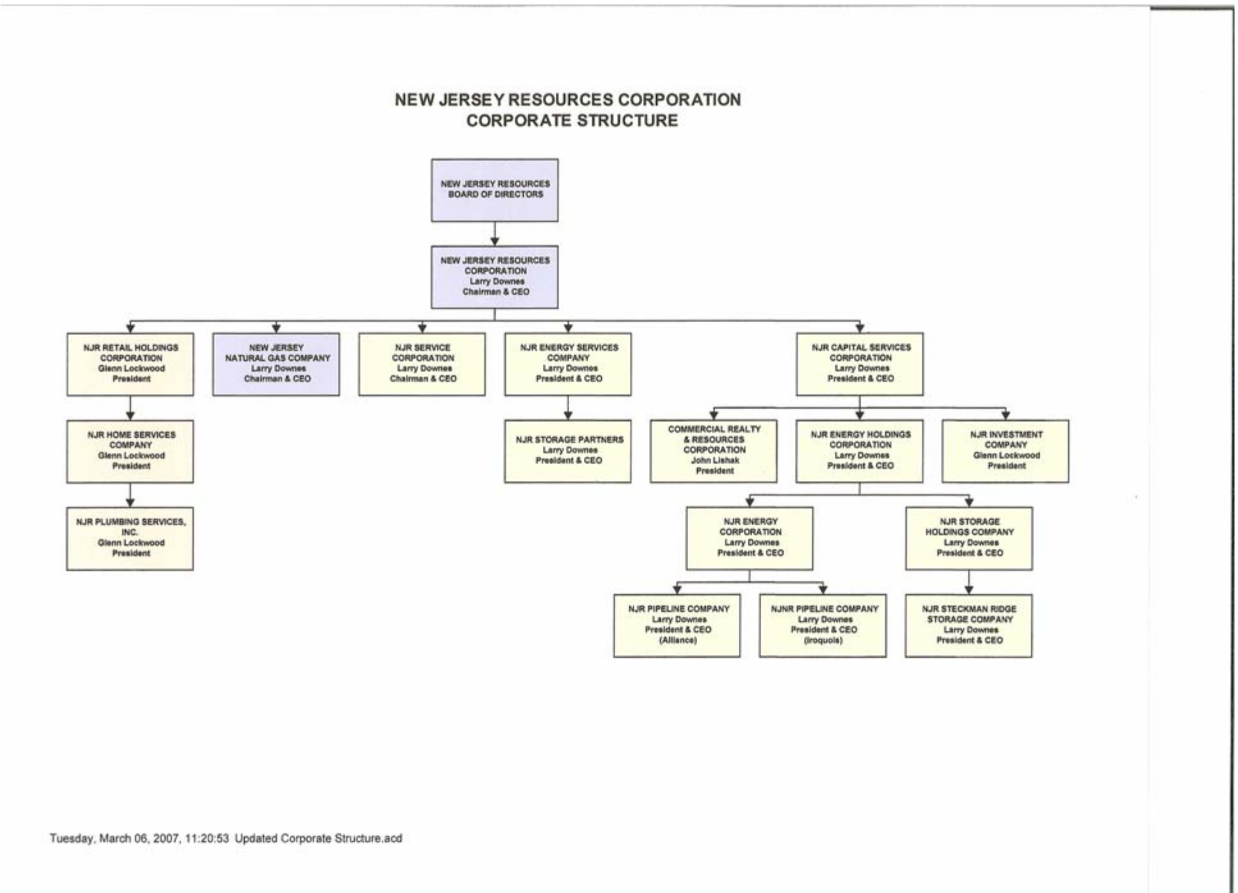
III. Organization

A. Background

This chapter addresses the following topics:

- The corporate structures of New Jersey Resources
- The structure of its principal subsidiary, New Jersey Natural Gas
- Services provided from the parent to the utility

The following chart shows the overall organization of NJR's subsidiaries. Two of its principal branches have responsibility for the functions it takes to provide utility services: (a) New Jersey Natural Gas Company (NJNG) and (b) NJR Service Corporation. The NJR Chairman and CEO serves as the CEO of each of these branches.



B. Findings

NJR operates three principal non-utility businesses, each of which operates under a separate corporate subsidiary branch:

- NJR Energy Services Corporation (NJRES), which operates wholesale energy services: energy trading, risk management and storage businesses

- NJR Home Services Company (NJRHS), which, along with a plumbing services business operate under the first-tier subsidiary, NJR Retail Holdings Corporation
- Commercial Realty & Resources Corporation (CR&R), which operates a variety of legacy non-utility operations under first-tier subsidiary, NJR Capital Services Corporation.

Each of these three major non-utility subsidiaries operates under the day-to-day direction of separate officers other than the NJR Chairman & CEO. NJRES takes day-to-day direction from the Senior Vice President, Energy Services. The NJR Service Corporation Senior Vice President and CFO serves as President of NJR Capital Services Corporation and of NJRHS. A separate officer serves as the President of its major subsidiary, CR&R. NJRHS operations include a dedicated staff of about 90 persons operating under a Director of Service and Field Operations. He and a Director of Marketing and Business Development report to the President of NJRHS.

NJNG includes the following functions, or business units:

Energy Delivery	Customer Services	Marketing
Energy Services	Corporate Affairs	

Although Energy Services resides nominally in NJNG, the resources that support the gas supply and management activities of Energy Services operate largely in common with those who perform similar functions for the non-utility subsidiary, NJRES. Volume I of this audit report addresses those arrangements in more detail.

The service company functions consist of:

Financial Services	Internal Auditing	Strategy and Business Intelligence
General Counsel	Corporate Services	Corporate Affairs

Four persons report to the NJR Chairman and CEO for NJR Service Corporation purposes:

- Senior Vice President & CFO (no parallel NJNG role)
- Vice President Corporate Services (no parallel NJNG role)
- Senior Vice President Corporate Affairs (parallel NJNG role)
- Vice President and General Counsel (parallel NJNG role)

This report volume addresses the utility-related activities of the NJNG and NJR Service Corporation functions in more detail. Volume I addresses the joint functions and the charges for services provided in common to utility and non-utility operations.

The NJR Service Corporation's alignment of functions is as follows:

- Financial Services
  - Accounting
  - Financial Planning & Analysis
  - External Reporting & Accounting Policy
  - NJRES Finance
  - Tax
  - Treasury Services
  - Quality
  - Business Transformation

- Corporate Services
  - Information Technology
  - Human Resources
  - Purchasing and Office Services
  - Homeland Security
- Internal Auditing
- General Counsel
- Corporate Affairs

The Vice President, Corporate Services heads a group that includes a Manager, Purchasing, Manager, Information Technology, Manager, Compensation and Benefits, Manager, Recruiting & Leadership Development, Manager, Employee Relations, and a Homeland Security Specialist.

The NJR Service Corporation Senior Vice President and CFO provides overall direction to the Corporate Strategy and Business Intelligence Group.

A Controller, reporting to the Senior Vice President & CFO, heads the NJR Service Corporation's Accounting group. The group reports to him through an Assistant Controller. The direct reports to the Assistant Controller are:

- Manager, General Accounting (staff of five)
- Coordinator, Accounts Payable (staff of two)
- Supervisor, Construction & Capital Costs (staff of three)
- Manager, Consolidation and Parent Company Accounting (staff of one)
- Manager, Financial NJRES
- Manager, Business Transformation (currently vacant)

A number of other functions report to the Controller:

- External Reporting and Accounting Policy, which includes a manager and a senior accountant
- Financial Planning & Analysis, which an Assistant Controller Budgeting, Financial Planning & Analysis heads, supported by a staff of five managers, supervisors, and analysts including the Manager, Quality
- NJRES Mid-Office, headed by a manager and supported by an accountant
- Tax, headed by a manager and supported by an accountant.

Treasury Services reports to the NJR Service Corporation Senior Vice President and CFO. A Manager, Treasury Services and two analysts staff this function.

The Vice President, Internal Auditing heads the internal audit group. His six-person staff includes an audit manager, two lead auditors, a lead financial auditor, and two auditors.

C. Conclusions

1. NJNG operates under an appropriate organization that internalizes the key functions directly associated with utility operations.

Key utility operations functions have dedicated, capable leadership. They operate under specific missions, goals, and objectives, and management uses a comprehensive system of performance measures to monitor their performance.

2. The service company is appropriately structured, and provides a range of service that is in accord with general practice in holding company arrangements.

The service-company functions provided in common are appropriately limited to those that NJR entities commonly require. Service company leadership is capable and experienced, and uses appropriate measures for planning, measuring, and monitoring the performance of common services groups.

3. The combination of utility and non-utility gas supply functions has presented problems at NJR.

The conclusions and recommendations of volume one of this report fully address these problems.

4. The NJR and NJNG complement of officer level positions is appropriate for a company of its size and scope.

There are sufficient officers to provide for an appropriate mix of capabilities and experience. NJR has created its current officer structure through a structured, comprehensive process. Recent executive changes have increased the ability of the executive team to meet current and expected challenges for NJNG and for the parent. Spans of control are at acceptable levels.

D. Recommendations

Liberty has no recommendations in this area, other than those related to Gas Supply, which volume two of this report addresses.

IV. Executive and Director Compensation

A. Background

Liberty's objective in undertaking audit activities on executive and director compensation was to assess whether their packages are competitive with those offered by other, similar companies without being excessively generous. In making this evaluation Liberty used the general standard applied in the utility industry and by other employers of whether compensation packages are reasonably likely to support the goal of attracting and retaining the kind of employees (as officers) and independent people (as outside directors) that a company needs, without paying too much to achieve that result.

B. Executive Compensation

1. Background

The participants in NJR's executive-compensation program are its officers, of whom there have generally been more than a dozen and less than 20 in the past few years. NJR's officer positions range from its CEO to a few senior vice presidents, several vice presidents, and then to the Corporate Secretary and the Chief of Staff.

The structure of NJR's executive-compensation program has been in effect for more than 10 years. It has three parts:

- Base salary
- Short-term incentive plan—an annual cash bonus opportunity
- Long-term incentive plan, which generally involves performance over more than one year.

Base salaries consist of the compensation that does not depend on future performance by executives. Base salaries often establish the level of some forms of incentive compensation. The latter two components are, as the names indicate, forms of incentive compensation, which means that they are structured to provide financial incentives to executives to meet or exceed certain performance objectives. They are sometimes called at-risk compensation because the executives do not have absolute assurance that they will receive that pay.

NJR's approach to incentive compensation is much like that used by other American publicly-held corporations in that the short-term incentive is tied to internal measures of performance over a one-year period. Another commonality is the use of a form of stock as payment for the long-term incentive. Eligibility to benefit under this program is a function of how well the company's stockholders do over a multi-year period.

2. Findings

Base Compensation

NJR's executives are paid in salary grades 11 through 17, which encompass a wide range (from about $90 thousand to almost $700 thousand), and also have significant dollar ranges within the grades. In 2005 the majority of NJR's executives were above the midpoints of their salary grades, which reflected their long tenures in their positions. In 2006 NJR's executive group turned over substantially. The reduction in tenures had the effect of placing the majority of the executives at or below the midpoints of their salary grades, excluding NJR's CEO, even though there were increases in salary grades and salary structure.

Benefits comprise another part of employees' remuneration. The differences between the benefits that NJR's officers can receive and the benefits offered to all other employees of NJR are small. The differences, in summary, are:

- There is no reduction in officers' life insurance, on their retirement, from the maximum-coverage level of $75,000; in contrast, non-officers' life-insurance coverage declines over time after they retire
- Active officers are covered by travel and accident insurance, and have enhanced salary-continuation benefits
- Officers have a compensation-deferral program
- Officers receive an extra two weeks of vacation during their first 22 years of employment
- Officers' surviving spouses receive lifetime medical-insurance coverage after the death of the officer (surviving spouses of other employees are offered COBRA coverage).

The following table shows the base salaries of the five most-highly-compensated executives of NJR over the past three years as disclosed in the company's latest proxy statement.

Position	Fiscal Year	Salary ($)
Chairman, CEO, and President	2006	629,231
	2005	552,615
	2004	541,962
Senior VP, Energy Services, NJNG	2006	250,923
	2005	222,539
	2004	219,058
Senior VP and CFO	2006	227,077
	2005	223,015
	2004	225,654
Senior VP, Corporate Affairs	2006	181,923
	2005	146,731
VP and General Counsel	2006	162,135

The opinion of NJR's board of directors is that the CEO's base salary of $650,000 for fiscal-year 2006 was at the median of the market, and that this amount recognized other factors that contributed to the board's decision in setting his salary. The topic of how the compensation of NJR's executives compares with the *market* is treated in greater detail later in this chapter. The percentage increases in the CEO's base salary were 2 percent for 2005 and 14 percent for 2006. The increases for the next two most-highly-compensated executives were small for 2005 and 2006, but the increase for the senior VP, corporate affairs was substantial, which reflects the fact that she only joined the company at the beginning of 2005.

Short-Term Incentive Plan

The short-term incentive plan (officially the Officer Incentive Compensation Plan) provides officers with the opportunity to receive annual bonuses in the form of cash or restricted stock. They can receive the bonus if the performance of NJR, their respective business units, and their personal performance merits being rewarded. The officers of NJR Service Corp are part of the NJNG plan from the standpoint of achieving performance targets. Objective criteria approved by the Leadership Development and Compensation Committee (LDCC) of NJR's board of directors serve as the measurement basis. For subordinate officers, the NJR CEO's judgment on their achievement of leadership measures is also a factor. The board of directors separately assesses the performance of the CEO.

The performance measures combine financial, customer, strategic, and other operational targets. Other than financial performance, NJR has recently changed the other measures to those used in the company's Commitment to Stakeholders.

No annual incentive awards are made unless NJR's earnings for the fiscal year exceed a specified percentage of a targeted amount. The weights accorded to the classes of performance measures are earnings at 50 percent. 30 percent for measures tied to the Commitment to Stakeholders, and 20 percent for leadership.

Currently the bonus opportunity targets as a percentage of base salary by position are, generally:

- CEO: 100
- Senior vice presidents and general counsel: 40-50
- Vice presidents: 35-45.

Actual awards can range from 0 to 150 percent of the target percentage of salary based on specific quantitative performance measures that determine the plan payouts. The range of payouts for the earnings-performance measure recently has been calculated in the following manner:

	% of Budget	Payout as a % of Target
Threshold	90	50
Target	100	100
Maximum	110	150

The range of payouts for performance against the measures in the Commitment to Stakeholders recently has been calculated in the following manner:

	% of Budget	Payout as a % of Target
Threshold	80	50

Target	100	100
Maximum	120	150

The bonus payout for leadership is determined by NJR's CEO, with the same maximum opportunity of 150 percent of target; *i.e*., 150 percent of 20 percent.

The calculations of whether NJR has met a net-income goal can be adjusted by NJR's board of directors. An example of such an adjustment is for the effects of weather, both positive and negative, using the logic that weather is not in the control of the executives. The latest example of this situation occurred in fiscal-year 2005 when NJNG experienced unfavorable revenue and hence profit results because of warm weather and high natural-gas prices. NJNG's weather-normalization clause did not completely mitigate the revenue effects of those conditions. NJRES's results, however, were exceptional; therefore, NJR as a whole met its earnings targets. This meant that NJNG's and NJR Service Corp.'s executives were, according to the plan as constructed, ineligible to receive bonuses. The board of directors decided, however, that NJNG's and NJR Service Corp.'s executives would be awarded restricted stock with four-year cliff vesting as a retention tool. This approach would cause the stock to be forfeited if an officer left before the end of the vesting period. The board decided to grant NJR's CEO a bonus of $300,000 because NJR's financial performance exceeded the goals, but the CEO declined the award because NJNG did not meet its earnings target. For fiscal-year 2006 NJR met or exceeded its targets on earnings and operational results.

The following table shows bonuses of the five most-highly compensated executives of NJR as reported in the company's latest proxy statement. Liberty added the column on the right.

Name and Principal Position	Fiscal Year	Bonus ($)	Bonus as a % of Salary
Chairman, CEO and President	2006	400,000	64
	2005	0	0
	2004	360,000	66
Senior VP, Energy Services, NJNG	2006	350,000	139
	2005	275,000	124
	2004	205,000	94
Senior VP and Chief Financial Officer	2006	80,000	35
	2005	24,000	11
	2004	76,000	34
Senior VP, Corporate Affairs	2006	100,000	55
	2005	40,000	27
VP and General Counsel	2006	68,000	42

This table shows the total payouts of short-term incentives, by NJR subsidiary, in the three most-recent fiscal years.

Company	2006	2005	2004

Company	2006	2005	2004
NJRC	[redacted]	[redacted]	[redacted]
NJNG	[redacted]	[redacted]	[redacted]
NJRES	[redacted]	[redacted]	[redacted]
NJRSC	[redacted]	[redacted]	[redacted]
CR&R	[redacted]	[redacted]	[redacted]

In the preceding table, NJRC is NJR Corporate and the costs of the bonus for the Senior VP, Energy Services, was reported to NJRES for fiscal-year 2006.

Long-Term Incentive Program

NJR's long-term incentive program (formally, the Stock Award and Incentive Plan) has provided and continues to provide NJR with compensation tools aimed at motivating and retaining executives. The program provides opportunities to earn stock or other forms of stock-based compensation if the company's performance meets stockholder-performance objectives set by NJR's board of directors, or for other reasons deemed appropriate by NJR's board.

NJR has changed its program over time. It used stock options for years, but will no longer be using them for the reasons discussed in the subsection below on the compensation of outside directors. NJR now uses performance-share units. The number granted to each executive is determined by the CEO and approved by the board of directors, except for his own compensation. The receipt of any shares earned is at the end of a performance period. NJR also can use restricted stock (shares that vest over time or at the end of a period, but the number of shares is fixed) on a discretionary basis.

With respect to the latter, the board of directors made special-recognition grants to certain officers in fiscal-year 2006 because there were no annual bonuses (discussed above), and also in 2006 the board made grants of performance units and stock options to the officers who were hired or promoted that year.

The cyclical performance-unit programs that NJR has been using regularly involve the earning of shares if the company's TSR (total shareholder return) performs well against a peer group of companies. (TSR is changes in the price of NJR's stock plus dividends.) The current peer group has 21 companies, all of whom are in an energy-utility business; the majority of the companies are in the gas-utility business.

The performance units represent, as noted before, compensation at risk. NJR's executives covered by the cycle of contingent grants for the three-year performance period that ended on September 30, 2005 received no payout under that plan. The performance units that are now outstanding will vest if NJR's TSR performance exceeds predetermined goals at the end of a 30-month period ending September 30, 2007. As of September 30, 2006 NJR's TSR performance in this cycle was such that the payout for the covered executives would be 110 percent of the target number of performance units they were each granted in that cycle.

The total costs of the long-term incentives in fiscal 2006 and 2005 are shown in the table below; there were no costs in 2004.

Long-Term Incentive Costs by Subsidiary

Company	2006	2005
Company	2006	2005
NJRC	[redacted]	[redacted]
NJNG	[redacted]	[redacted]
NJRES	[redacted]	[redacted]
NJRSC	[redacted]	[redacted]

NJRC means NJR Corporate. Costs were calculated using models or stock price on grant date, and expensed over four years, depending on the form of incentive. The costs of the stock-based compensation granted to the Senior VP, Energy Services, was split between NJRES and NJNG.

The next table shows the cost of the long-term incentive grants for the five most-highly-compensated executives of NJR in recent fiscal years.

Name and Principal Position	Year	Cost
	2006	$0
Chairman, CEO and President	2005	609,564
	2004	0
	2006	0
Senior VP, Energy Services, NJNG	2005	228,506
	2004	0
	2006	15,733
Senior VP and Chief Financial Officer	2005	114,293
	2004	0
Senior VP, Corporate Affairs	2006	21,981
	2005	200,853
VP and General Counsel	2006	138,134

Note that the *cost* of this compensation is different than the *value* that the executives may eventually realize; the costs are estimates.

Competitiveness of NJR's Executive Compensation

The Board's LDCC's view of the market against whom NJR competes for executive talent is that it is first, companies in the natural-gas-utility industry whose businesses are similar to NJR. For positions not specific to natural-gas utilities, the LDCC views potential competing employers as industry in general. NJR's view of the market for executives and directors in which it competes, from the standpoint of designing compensation packages is that, generally, it competes for executives from a pool of people who live in NJR's locality. A number of NJR's directors, however, come from outside of New Jersey.

NJR's board views the company's executive group as being highly sought-after. It therefore believes that NJR's compensation program for executives must be designed to keep and attract the talent the company needs. NJR's broad objective in positioning itself in executive compensation is to be at median of the market, but if performance exceeds target expectations then total compensation can exceed the median of the market.

NJR's CEO views good *comparators* (companies used for comparison) for NJR from among its compensation peer group as, especially, WGL, Piedmont, and SJI. The peer group of companies that NJR's compensation consultant most recently used for comparisons to NJR was:

- AGL Resources, Inc.
- Atmos Energy Corporation
- Laclede Gas Co.
- Nicor, Inc.
- Northwest Natural Gas Co.
- Peoples Energy Corp. (now part of Integrys Energy Group)
- Piedmont Natural Gas Co.
- South Jersey Industries, Inc.
- Southwest Gas Corp.
- Vectren Corp.
- WGL Holdings Inc.

These companies are generally larger than NJR as measured by revenues and employees, but are relatively close to NJR in terms of their market value (stock price multiplied by number of shares outstanding). With only two exceptions (Peoples Energy Corp. and Southwest Gas Corp.), the companies now included in the peer group for purposes of analyzing the competitiveness of NJR's compensation program for executives are also included in the broader financial peer group that NJR uses to determine the its performance for its stockholders (relative TSR).

In 2005 and 2006 NJR's compensation consultants gave NJR substantial presentations on the competitiveness of its executives' compensation as compared with different views of the relevant market. In January 2006 the consultants presented results of matching NJR's executives with similar executive positions in other companies using seven surveys. The results, displayed below in the three tables that follow (base salary, salary plus bonus, salary plus bonus plus long-term incentive), show that with a few exceptions NJR was paying its executives less than the median (50^{th} percentile) of the market, often substantially so.

NJR 2006 Base Salary *versus* Market Consensus

(percentage difference from percentile)

Executive Position	25^{th}	50^{th}	75^{th}
Chmn, Pres., & CEO	[redacted]	[redacted]	[redacted]
SVP-Energy Services	[redacted]	[redacted]	[redacted]
SVP-CFO	[redacted]	[redacted]	[redacted]
SVP-Treasurer	[redacted]	[redacted]	[redacted]
SVP-Corporate Affairs	[redacted]	[redacted]	[redacted]

VP-General Counsel	[redacted]	[redacted]	[redacted]
VP-Mktg & Cust. Svc.	[redacted]	[redacted]	[redacted]
VP-Regulatory Affairs	[redacted]	[redacted]	[redacted]
VP-Corporate Services	[redacted]	[redacted]	[redacted]
VP-Corporate Strategy	[redacted]	[redacted]	[redacted]
VP-Internal Auditing	[redacted]	[redacted]	[redacted]
VP-Energy Delivery	[redacted]	[redacted]	[redacted]
All executives	[redacted]	[redacted]	[redacted]

NJR 2006 Total Cash Compensation versus Market Consensus
(percentage difference from percentile)

Executive Position	**25th**	**50th**	**75th**
Chmn, Pres., & CEO	[redacted]	[redacted]	[redacted]
SVP-Energy Services	[redacted]	[redacted]	[redacted]
SVP-CFO	[redacted]	[redacted]	[redacted]
SVP-Treasurer	[redacted]	[redacted]	[redacted]
SVP-Corporate Affairs	[redacted]	[redacted]	[redacted]
VP-General Counsel	[redacted]	[redacted]	[redacted]
VP-Mktg & Cust. Svc.	[redacted]	[redacted]	[redacted]
VP-Regulatory Affairs	[redacted]	[redacted]	[redacted]
VP-Corporate Services	[redacted]	[redacted]	[redacted]
VP-Corporate Strategy	[redacted]	[redacted]	[redacted]
VP-Internal Auditing	[redacted]	[redacted]	[redacted]
VP-Energy Delivery	[redacted]	[redacted]	[redacted]
All executives	[redacted]	[redacted]	[redacted]

NJR 2006 Total Remuneration versus Market Consensus
(percentage difference from percentile)

Executive Position	**25th**	**50th**	**75th**
Chmn, Pres., & CEO	[redacted]	[redacted]	[redacted]
SVP-Energy Services	[redacted]	[redacted]	[redacted]
SVP-CFO	[redacted]	[redacted]	[redacted]
SVP-Treasurer	[redacted]	[redacted]	[redacted]
SVP-Corporate Affairs	[redacted]	[redacted]	[redacted]
VP-General Counsel	[redacted]	[redacted]	[redacted]
VP-Mktg & Cust. Svc.	[redacted]	[redacted]	[redacted]
VP-Regulatory Affairs	[redacted]	[redacted]	[redacted]
VP-Corporate Services	[redacted]	[redacted]	[redacted]
VP-Corporate Strategy	[redacted]	[redacted]	[redacted]
VP-Internal Auditing	[redacted]	[redacted]	[redacted]
VP-Energy Delivery	[redacted]	[redacted]	[redacted]
All executives	[redacted]	[redacted]	[redacted]

In the preceding charts, references to 25th, 50th, and 75th are to percentiles. The consultant increased 2005 market data by 3.8 percent to compare with 2006 NJR data.

Later in 2006 NJR's new compensation consultant provided NJR with more market comparisons and analysis using a slightly-different comparator group and method. That consultant found that NJR's executives received base salaries that were generally below the market median, including seven positions that were below the 25th percentile and only two at about or over the median, and generally, that the executives' total-cash compensation and remuneration were below the median.

The consultant also concluded that the CEO's salary was above the median of the market when it used proxy-statement data, but was below the median when compared against weighted-proxy and survey data, and that the CEO's total-cash compensation and total remuneration were about at the market medians.

With respect to the validity of the comparator-company peer group for comparison against NJR, the consultant found that, NJR was near the top in revenues because of the accounting treatment accorded NJRES, but NJR had net income at the 39th percentile, was below the median in annual net income, had fewer employees (the median of the comparator companies was more than 2 thousand employees), and its market capitalization was 8th of the 12 companies.

NJR's consultant showed NJR the effect of using a different peer group and analytic approach. The table below shows those results, which demonstrate the sensitivity of results to assumptions and methods. While there is significant variability for different positions, the net average effect for the entire officer group was generally close to zero.

	Base - Percentage Difference			Total Cash - Percentage Difference			Total Remuneration - Percentage Difference		
Executive Position	25th	50th	75th	25th	50th	75th	25th	50th	75th
Cmn, pres & CEO (survey and proxy weighted)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Cmn, pres & CEO (proxy only)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
SVP-Energy Services	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
SVP-CFO (survey and proxy weighted)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
SVP-CFO (proxy only)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
SVP-Treasurer	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
SVP-Corporate Affairs	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
VP-General Counsel	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
VP-Mktg & Cust. Svc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
VP-Regulatory Affairs	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
VP-Corporate Services	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
VP-Corporate Strategy	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
VP-Internal Auditing	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
VP-Energy Delivery	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

Note: references to 25th, 50th, and 75th are to percentile.

NJR's consultant also provided the company with a comparison of NJR's compensation package for its executives for 2006. This comparison applied the consultant's judgment in using data from *general industry* and the utility industry. The following table displays the results of that comparison.

Executive Position	Base - Percentage Difference 25th	50th	75th	Total Cash - Percentage Difference 25th	50th	75th	Total Remuneration - Percentage Difference 25th	50th	75th
Cmn, pres & CEO (survey and proxy weighted)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Cmn, pres & CEO (proxy only)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
SVP-Energy Services	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
SVP-CFO (survey and proxy weighted)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
SVP-CFO (proxy only)	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
SVP-Treasurer	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
SVP-Corporate Affairs	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
VP-General Counsel	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
VP-Mktg & Cust. Svc.	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
VP-Regulatory Affairs	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
VP-Corporate Services	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
VP-Corporate Strategy	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
VP-Internal Auditing	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
VP-Energy Delivery	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

The analyses that NJR's consultants have done have not focused on other New Jersey utilities. Making decisions or evaluations by using comparisons with only a few companies or positions is not a valid method of analysis. It can still be useful, though, to make such comparisons as rough indicators. The best comparison of this sort, in Liberty's opinion, is with SJI. For 2006:

- SJI's CEO's base salary was $483 thousand, compared with that of NJR's CEO, at $629 thousand. NJR's CEO has been in the job for more than a decade and SJI's CEO is newer to the job.
- SJI's CFO made the same as NJR's in base pay in 2006; NJR's CFO has less tenure in the position.
- SJI's general counsel made about the same as NJR's; NJR's is new to the position, but SJI's general counsel has been in the job for several years.

3. Conclusions

1. The structure of the incentive-compensation package used for NJR's executives is reasonable and consistent with that used in the industry.

The three-part program is standard in publicly-held corporations. The use of relative TSR as the performance measure for the stock-based long-term compensation is logical, because it rewards executives for their performance for owners, without adjustments, and takes into account the company's performance against a reasonable group of financial peer companies.

The incentives offered to the company's executives correspond to NJR's business, and are mostly focused on financial performance and encourage teamwork, as should be the case. The cost of the incentive compensation has not been excessive in light of NJR's performance.

2. When all factors are considered the compensation paid to NJR's executives is reasonably competitive with the market.

NJR's board of directors has used reasonable means in assessing the competitiveness of the compensation of the company's executives.

The unadjusted peer group data probably overstates the relevant market measures of pay-competitiveness. Nevertheless, the position of NJR's executives in the market mitigates the effect of that potential bias.

4. Recommendations

Liberty has no recommendations in this area.

C. Administration of Executive and Director Compensation

1. Background

The administration of executive compensation is different from the compensation of the entire management body, at least because the boards of directors of corporations are responsible for setting executive pay. It also can be different because of the size and thus sensitivity of compensation packages, and because incentive compensation can be tied to confidential corporate information involving goals for future performance.

Boards of publicly-held corporations have the ultimate responsibility for the compensation of executives. The details of compensation analysis and decisions are usually assigned to a committee of the board that is responsible for executive and outside-director compensation and the full board votes on the recommendations made by that committee. The LDCC has this role for NJR.

2. Findings

The activities, decisions, and responsibilities of the LDCC are spread out through the year as it approves payments made on past performance and the programs and formulas for pay for forthcoming periods and make adjustments to executives' and directors' compensation in the middle of the year and for the forthcoming year, as needed. The LDCC sets salaries and incentive-compensation opportunities for executives, including the related performance objectives. The LDCC met six times in fiscal-year 2006.

NJR employees do work that supports the LDCC on matters related to executive and director compensation. The greatest responsibility is that of NJR's CEO, on whom the burden rests to make recommendations about executive-compensation actions (all other executives' base and short-term incentive, working with the compensation consultant; the CEO also gives the board a list of the executives' accomplishments for the year). The CEO is assisted by the Vice President, Corporate Services, who is in effect vice president for human resources. The Vice President, Corporate Strategy & Treasurer, makes the computations of actual achievement of incentive-compensation objectives *versus* the targets.

The LDCC retains and manages NJR's compensation consultants. NJR's compensation-consulting firm is Steven Hall & Partners, which is made up of some former Pearl Meyer & Partners consultants; Pearl Meyer & Partners had been NJR's compensation consultants until 2006. The chart that follows shows NJR's recent payments to compensation consultants. It shows the effect of having switched consultants mid-year.

	FY 2006	FY 2005	FY 2004
Pearl Meyer & Partners	$98,218	$110,330	$37,093
Steven Hall & Partners	86,682		
Total	$184,900	$110,330	$37,093

The cost of compensation consultants is distributed using the method by which NJR Corporate costs are distributed among subsidiaries. The costs of incentive compensation (cash and estimated values of stock-based compensation) are distributed to the company that employs the executive.

3. Conclusions

1. **The method that NJR uses to distributing the costs of the compensation of executives and directors is logical.**

2. **NJR has appropriately limited its expenditures on its compensation consultants in light of their turnover, and the distribution of those costs is reasonable.**

3. **The roles of the LDCC and NJR's executives in administering the company's executive-compensation program are appropriate.**

4. Recommendations

Liberty has no recommendations in this area.

D. Compensation of Outside Directors

1. Background

The workloads and responsibilities the boards of directors of public corporations have been increasing because of well-publicized problems and the resulting pressure from shareholders and regulators. Because of this trend and the requirements of the Sarbanes-Oxley Act, directors have greater time commitments. In response corporations have been increasing the compensation that is being offered to attract and retain them. One survey of director compensation by Mercer, a large international compensation-consulting firm, found that director compensation increased by 6 percent on average in 2005 and by 18 percent in 2004. NJR's compensation-consulting firm (Steven Hall & Partners) found the increase in 2005 to be 8 to 12 percent with the range due to differences in committee memberships.

2. Findings

For calendar-year 2004 the structure and level of directors' compensation was:

- Annual retainer
  - $16,800 in cash
  - $8,000 in company stock
- Additional annual retainer for chairs of the audit and executive committees and the lead director
  - $10,000
- Additional annual retainer for other committee chairs
  - $5,000
- Meeting fee for each audit-committee member
  - $1,500
- Fee for any board or other committee meeting
  - $1,000
- 200 shares of restricted stock upon election
- 1,500 stock options granted annually
- 5,000 stock options granted upon election.

In January 2005 the board of directors increased the annual cash retainer to $25,000 and changed the equity compensation to 800 shares of stock granted annually. No other parts of the compensation package were changed. Directors are reimbursed for their out-of-pocket expenses for attending board or committee meetings. Directors receive no retirement benefits from NJR. They have the option to participate in a deferred-compensation plan.

As noted above, directors used to receive initial and annual grants of stock options, along with full-value stock. Because NJR's stock price increased substantially in recent years those options were quite valuable. Within the past few years, however, there have been serious questions raised about the propriety of giving directors grants of stock options because of the risk of abusive practices that were aimed at increasing the price of stock. In response to these concerns some publicly-held corporations have moved to eliminating options in director-compensation packages. NJR followed suit. NJR now uses only grants of stock, which are valuable but do not have the same potential for extraordinary gains.

NJR judges whether its compensation program for directors is competitive and succeeds in attracting and retaining the people it needs by looking at the compensation offered by peer companies. NJR has not lost directors for reasons of compensation, and has been able to attract the directors it has sought.

NJR's most-recent analyses of the compensation provided to its directors were completed by its compensation consultants in November 2004 and May 2005. The first review compared NJR with 11 other gas-utility holding companies who also had related energy businesses, and thus they were reasonable comparators with NJR, although the majority of the companies were larger than NJR. It was the same group used at the time for analyzing executive compensation, and included South Jersey Industries (SJI), whose director remuneration was consistently less than that of NJR for all parts of director compensation once NJR raised its cash retainer to $25,000.

The consulting firm concluded that the total remuneration that NJR offered its directors ranked it 10th out of the 12. The consultants recommended raising the cash retainer to $25,000 and replacing grants of stock options with 800 full-value shares (the current cash level and stock grant); this recommendation was adopted, as previously described, for 2005 and is still in effect.

The second review was an update of the first and used the same 11 companies. The result of that comparison of NJR's total director compensation ranked NJR at 9th out of 12. Both reviews included tables that clearly displayed the rank of NJR and the other comparator companies for all components of director compensation and substantial text about NJR's compensation program for directors and how it compared with that of the comparator companies and general trends in American corporations.

It is useful to look more closely at how NJR's director-compensation package compares with that of SJI's. In summary, the packages are close (given the recent trading range of NJR's stock), although that may be due to the fact that NJR has not recently increased its package while SJI did so effective for 2007, when it increased it to annual grants of restricted stock worth $35,000 and cash retainer of $30,000. The other fees are equal or slightly less than NJR pays.

The cost of the compensation and expenses of NJR's directors is distributed to the subsidiary companies as part of the process for distributing the costs of NJR Corporate, as described more fully in the chapter on cost allocation methods. This means that in fiscal-year 2006 NJNG bore 76 percent of the cost of the compensation of NJR's directors

3. Conclusions

1. The structure and level of the compensation package for outside directors is reasonable and in accord with industry practices.

NJR's position in the market is reasonable because most other comparator companies are larger than NJR. The split between cash and equity in paying directors' fees is appropriate.

4. Recommendations

Liberty has no recommendations regarding the compensation that NJR provides to its directors.

E. Employment-Continuation Agreements

1. Background

It is common for publicly-held corporations to have employment agreements with senior executives. A primary purpose of these agreements is often the anticipation of the possibility of a change of control in the ownership of the company, *e.g.*, a merger or takeover. Change-of-control agreements provide incentives and protections for the executives to stay with the company during and after a change of control. The incentive for the company and shareholders to offer and execute these contracts is that they provide some assurance that if another entity seeks to buy NJR then the key officers will stay in their jobs through the pendency of the acquisition process and after if the purchase is consummated.

2. Findings

NJR has change-of-control agreements (called Employment Continuation Agreements at NJR) in effect with 10 of its senior executives. NJR started the practice of executing these agreements in 1996 because the LDCC felt that they were needed as the utility industry had and has been undergoing consolidation, and so the agreements could help in retaining executives in a crucial period.

The agreements provide for the protection of the covered employees if their employment is terminated, essentially, at the behest of a new owner or because of a potential or actual change of control, which the agreements define by: ownership percentages of the company's voting securities by an entity; if in a 24-month period the past directors are no longer a majority, or stockholders approve a merger or sale; if a tender offer is made for a specified percentage of NJR's shares; or if the company agrees to a deal, proxies are solicited by anyone other than the company, or the board of directors deems an event to be a potential change of control.

If a defined change of control occurs the executives' compensation and benefits will not change, and if their employment is terminated, other than for cause, or following a defined change of control the executives are entitled to a multiple of their annual salary plus the average of their bonuses for preceding three years. The multiple for NJR's CEO is three times, and for the other executives it is twice their annual salary plus the average of their bonuses.

3. Conclusions

1. **NJR's employment-continuation agreements strike a reasonable balance between the interests of the company's shareholders and its executive management.**

4. Recommendations

Liberty has no recommendations in this area.

V. Planning

A. Background

This chapter addresses strategic planning, according to the following organization:

- Purpose, Mission, Vision, and High-Level Strategy
- Specific Short-Term and Long-Term Goals and Objectives
- NJNG's Business Strategy
- Focus of NJNG's Management and Expertise
- Effects of Diversification on NJNG

Strategic planning commonly embodies the entire continuum from high-level strategy through the detailed action plans, or business plans. This is done by assuring that all segments of the organization are agreed on and committed to the overarching principal objectives along with the means to achieve them through providing a planning framework for appropriate individuals and work units to delineate the detailed action plans, means and resources needed, by assuring that the detailed action plans and means do indeed support the overarching objectives, and by determining how actual performance meets interim targets so that any needed course corrections can be undertaken.

Liberty also examined the short-term and long-range goals of the holding company and all key subsidiaries, paying particular attention to how NJR as a whole and each key subsidiary adapts to market realities, and further examine whether affiliate goals are in conflict with the goals of the NJNG utility, or a drag on the utility.

Important considerations for this kind of examination for any organization include how well the more delineated strategy plans, primarily comprised of short and long-term goals and objectives, serve as reasonable extensions of the purpose, mission, vision, high-level strategy, and financial targeting for overall organization and key subsidiaries. Important considerations include how key subsidiaries address consistency with market environment realities, adapt via prudent contingency planning, include risk assessment and management, and avoid conflicts with each other. Equally important is how key financial and human resources are assigned and whether they are sufficient to support the goals and objectives. Always critical to successful implementation of the goals and objectives for any organization are the various resources that are available to the corporation and its subsidiaries.

B. Findings

1. Vision and Mission Statements

Commonly accepted content for a Vision Statement include:

- Describes the organization's ultimate embodiment or hopes by a target date (Often lightheartedly stated as, 'What do you want to be when you grow up and when will that be?')
- Is often helped by expressing how major constituencies will view the organization by the target date

- Is inspirational and compelling, clear and concise, easy to understand and remember, and stated in the present tense.

Commonly accepted content for a Mission Statement include:

- Says who or what the organization positively impacts (Often expressed as, 'What are you?')
- Refers to an enduring purpose (Often are expressed as, Why do you exist?')
- Can be pursued without permission of outside force (excluding laws, regulations)
- Is inspirational and compelling, clear and concise, easy to understand and remember, and stated in the present tense.

The highest level of NJR's expression of its vision and mission fall within its "Commitment to Stakeholders." NJR expressed its Commitment to Stakeholders during the audit period in its corporate annual reports in a manner that combined mission-like, vision-like and values statements, without distinguishing among mission, vision and values. The focus was on its corporate commitments to stakeholders.

NJR's 1999 "Our Corporate Commitment" emphasized a mission-like statement of "*providing for the energy needs of our customers in our core market"*, and value statements about sensitivity to customer expectations and to stakeholders, careful use of capital, teamwork, wanting to be innovative, and contributing to its communities. The commitment statement reinforces the importance of the core utility market, *"while exploring ways to serve customers in new markets."*

The underlying commitment statements for this year include:

- We will be flexible in our thinking and creative in our strategy. We will grow by providing for the energy needs of customers in our core market, while exploring ways to serve customers in new markets. We will not lose sight of what's important – meeting the needs of our stakeholders.
- We will listen to our customers to ensure we are fulfilling their expectations for value, comfort and reliability. We will constantly assess market changes to anticipate new customer needs.
- We will use our investors' capital wisely by following a disciplined capital allocation process. We will improve productivity by finding innovative ways to manage our business and better serve customers.
- We will build a team-based work environment that succeeds through honest communication and the sharing of ideas. We will strive to create a culture where individual development and continuous learning drive our growth. We will support each other in balancing the needs of work and family.
- We will be proud contributors to our communities and stewards of the environment knowing that our actions today will determine the future for us all.

The 2000 version was identical, but added, *"Our vision is clear – to creatively and responsibly meet our customers' energy needs for value, comfort and reliability."* The 2001 contained three mission-like statements, *We, the employees and leaders of New Jersey Resources, are committed to meeting our customers' energy needs for value, comfort and convenience.", "Provide safe, reliable and affordable service.", "Provide a superior return to our investors."* The latter statement is also a vision-like statement as is *"Use our expertise to grow in new and existing markets; Inspire a culture that sees change as an opportunity to improve quality;"* The remaining comments in the commitment statement are value statements enlarged from the previous two years and focused on listening and responding to customers, integrity, continuous learning, accountability, community support and working with policymakers.

The 2002 version addressed seven specific areas, which have continued to the present: *"Safe, Reliable and Affordable Service; Customer Satisfaction; Growth; Quality; Valuing Employees; Corporate Citizenship; and Superior Return."* The affordable service commitment later changed to *"Competitively Priced Service."*

NJR and the utility have focused on commitments to stakeholders, rather than on developing more traditional statements of vision or mission. NJR had used more traditional mission/vision-type exercises earlier, but decided to change to the commitments statement approach. NJR considers them to provide the framework for making decisions. The company reviews and updates them annually near the beginning of each annual planning cycle.

NJR's strategy documents refer frequently to the seven commitments. Early in the audit period, NJR organized its strategic plan documents by business, for example, the Utility, NJR Energy Services, and NJR Home Service, addressing within a section for each business the seven commitments. Over time, focus on the commitments became more prominent. The most recent strategic plan (for 2007 – 2009) is organized by the seven commitments, with each business's plans and targets listed and discussed under each of the commitments.

NJNG and all the key affiliates use the seven commitments to drive their strategic planning documents and annual reports. The two key non-utility affiliates have been NJRES and NJRHS. It was clear from the strategic planning text that the purpose of NJRES was to serve non-utility wholesale energy services markets throughout the country. It was also clear that the purpose of NJRHS was to serve the local appliance repair and installation market, and recently to serve the small industrial HVAC market. They too have not operated under crisp Mission, Vision and high-level strategy statements. It is nevertheless clear from the context of the seven commitments to stakeholders, and the strategic planning text and financial targets that high-level strategies for each were implicit. Probably the clearest expression of vision for each of the affiliates came in their high-level financial targets.

2. High-Level Strategy Development Process

NJR prepared an integrated three-year strategy/business plan[2] during each year of the audit period. Management presented it to the Board of Directors each September; NJR's fiscal year runs from October 1 through September 30. Typical plan contents include a wide range of financial and non-financial data for the coming fiscal year, a projection of how the current year would close, and financial and other key indicator projections for the next two years. The 2007-2009 plan added projections of key financial indicators for two extra years. The Vice President Corporate Strategy and Business Intelligence facilitated the strategic planning process.

He assigned a leader to each of the seven commitment areas. Each year, NJR reviewed the areas for any changes in their nature and any adjustments in their quantitative benchmarks. Each commitment leader has used a core team of about five people primarily from businesses most related to that commitment, supplemented by individuals from the businesses and corporate support. Each team developed the strategic goal, the company's and businesses' position, environment and competitive overview, and the specific initiatives and measures for each commitment. The Vice President describes the strategic/business planning process as a combination of 'top down' and 'bottom up.'

The three-year strategic plan then cascades down to the business units and finally to the employees as more specific tactics were added. Milestones or objectives formed the 'drivers' to achieve commitments. Employees receive a yearly evaluation of their achievements against their objectives and a mid-year evaluation conference that includes an individual development plan. The businesses reported monthly and the corporation quarterly. Adjustments to Plan or tactics were made on an ongoing basis through the Management Committee, which meets every Tuesday. The Management Committee pulled the businesses into these meetings, if necessary.

The preparation of the strategy/business plans was a shared endeavor among more than one hundred individuals. Two key individuals, the Vice President Corporate Strategy and Business Intelligence and his single subordinate, the Senior Business Intelligence Analyst, are currently responsible for facilitating the process and being its stewards. This Vice President reports to the chairman and CEO. The Vice President has been with the corporation since June 1989, and has progressed through a variety of positions. His broad-based experience throughout the corporation provides a good background and preparation for his role with the strategy and business planning. The Senior Business Intelligence Analyst has been with NJR since 1988, beginning as an auditor.

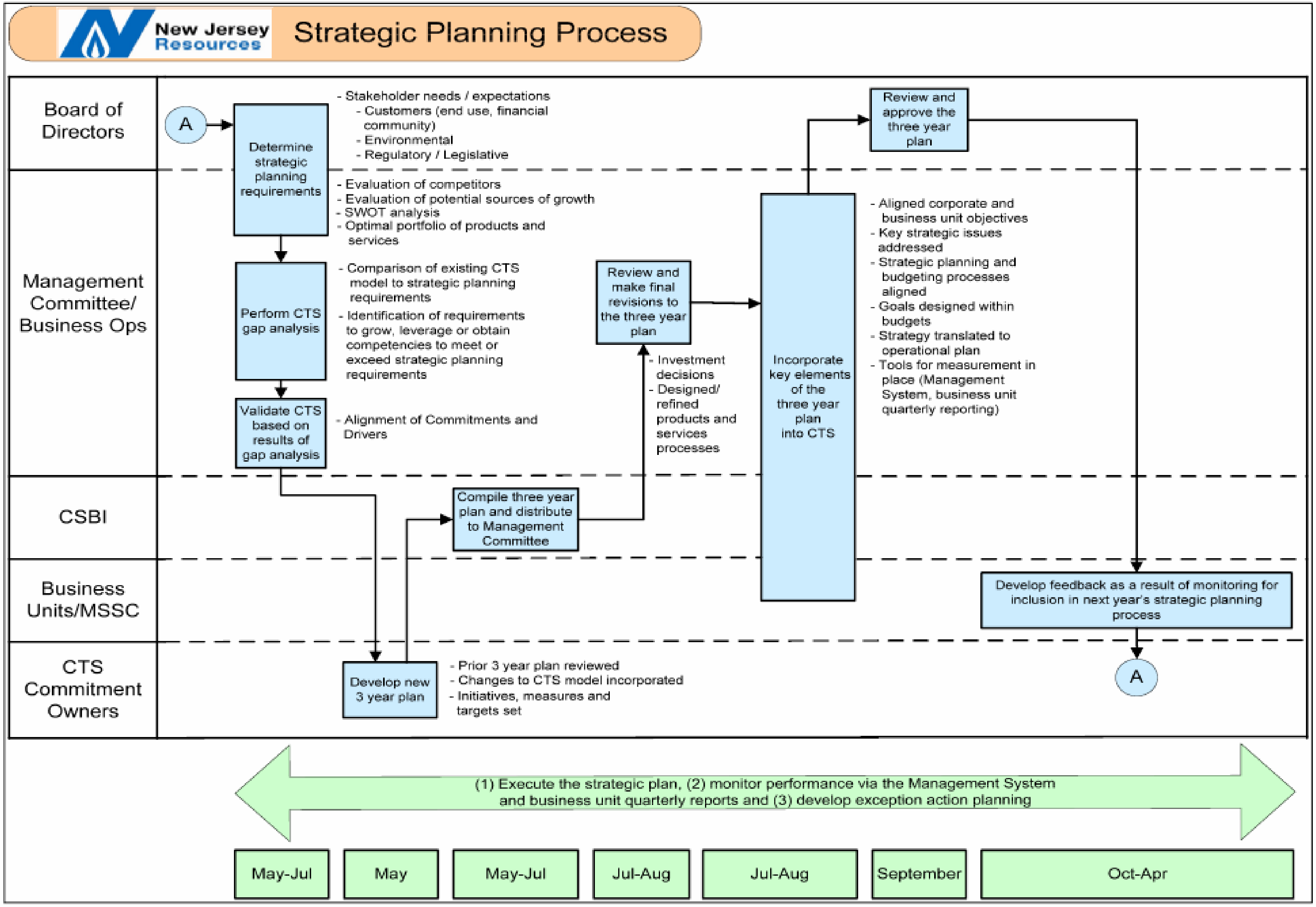
The next chart illustrates the planning process.

The preceding chart depicts that NJR's high-level strategy and drivers (or objectives) result from business unit assessments of their business and regulatory environment, their competition, and their SWOT analyses (strengths, weaknesses, opportunities, threats), from the construct created by the seven commitments to stakeholders. These drivers and their associated strategy form the pinnacle of a pyramid. Key initiatives evolved downward through the organization give further dimension to them. Performance measures, coupled with the NJR management systems reporting, and were tracked through quarterly business unit reports, and tied back to employees through the annual formal performance evaluations and mid-year evaluation conferences.

The next chart demonstrates the planning process flow and schedule. The Board and the Management Committee and Business Operations focus on determining the overarching strategic planning requirements; for example, stakeholder needs/expectations, evaluation of competitors, potential sources of growth, and SWOT analyses, and optimal portfolio of products and services. The Management Committee and Business Operations then perform a gap analysis on the seven commitments to stakeholders and validate or modify the commitments. The process then continues to delineate the three-year strategic/business plans, which include financial targets and capital and expense budgets.

The chart depicts an NJR process that operates as a continuous loop in time, in order to incorporate new intelligence or insights or 'lessons learned' at any point. The formal process kickoff occurs around the May Board meeting. Examples of specific utility areas of concern recently addressed by the Board as part of this meeting include distribution integrity, capital needs, and regulatory initiatives. Non-utility business units have invited experts as well; *e.g.*, NJRES invited Duke Energy and other pipelines to discuss what they were doing. Board meetings throughout the year frequently include an external speaker to supplement the extensive information management provides to Board members routinely.

Exhibit 4 – Strategic Planning Process



Strategic planning documents from during the audit period showed that NJR, the utility, and NJRES and NJRHS assessed their business and competitive environments and considered internal forces as part of their strategic and business planning process. Early in the audit period, the external environmental assessment was less extensive than in was in the latter years, particularly for the last Plan prepared for fiscal years 2007-2009, but always contained meaningful deliberations on the regulatory environment and the more obvious aspects of the residential market and gas supply environment. Interestingly, the attention given to internal drivers was rather constant throughout the audit period, although its emphasis shifted from the early need to add technology and improve work processes to the latter need to develop, train and teach employees while harvesting the benefits of the infrastructure.

Key external environmental drivers in the 2006-2008 Plan included lower than planned customer usage, higher short-term interest rates, increasing compliance and operating costs, the continuation of higher wholesale natural gas prices, and moderating customer growth. The seven commitments to stakeholders continued. For the utility, an additional important driver was recognition that natural gas continued to be the fuel of choice for homeowners and businesses in NJNG's service area. For NJRES, a significant portion of the growth was felt to be attributable to additional storage and pipeline capacity, which was extremely valuable in the volatile pricing environment experience during the past winter. There continued to be the same two principal internal drivers as for the previous Plan, the Excellence in Operations initiative and the work on Sarbanes Oxley.

The 2007-2009 Plan adopted completely new format that more closely aligned focus and future goals with NJR Commitment to Stakeholders. The discussion of NJNG's external drivers included regulatory and supply realities and expectations, and the nature of service region, including Distribution & Transportation. The NJRES external drivers discussed included capitalizing on increased volatility and price differentials in its various trading regions, and developing an expanded portfolio of storage and pipeline capacity contracts in the Gulf Coast, Mid-Continent, Appalachia and Eastern Canada, which are more valuable when prices are changing among these regions. The NJRHS external drivers included successfully completing bargaining unit contract negotiations, implementing a new sales commission program, and improving customer service. Internal drivers focused on productivity, as usual, but with an emphasis on institutionalizing productivity and quality improvements, and increased emphasis on employee development, training and learning, and on corporate citizenship.

3. Compatibility of Parent and Affiliate Plans with Utility Needs

Throughout the audit period, strategy documents show significant consistency in focus on the core utility business as the primary consideration. The documents demonstrated a management appreciation for the regulations governing the utility, a strategy that would not compromise the utility, and a strategy of working with regulators to develop programs that would permit NJR to enter competitive markets. The 2006 fiscal year significantly changed the balance between utility and non-utility contribution to profitability.

Market volatility, a desirable asset portfolio, and successful performance caused NJRES earnings to increase from the prior year by 71 percent, to a total of $28.1 million. NJR's total earnings for 2006 were $78.5 million, which makes the NJRES contribution almost 38 percent. This amount significantly exceeded targeted amounts (20 to 30 percent), and reached levels that caused bond rating agencies to signal some discomfort about such a high contribution from a trading affiliate of what is essentially viewed as a parent whose core business is an LDC.

The Vice President, Corporate Strategy views the clear separation and distinction in businesses, capital expenditure management, lines of credit, and guarantees as protection against diversion to the affiliates of any resources required to provide utility service. Each of the seven, commitment-based teams initially identifies capital and operating budgets and human resources support. Individuals who will be held accountable for delivering on objectives are the ones formulating the capital and operating budgets. NJR's strategy documents show a strong focus on financial management of the bottom line, particularly with reference to:

- Performing well enough financially to support regular dividend increases and to maintain strong debt ratings
- Forming conservative plans, targets and undertakings to allow the company to proceed with reasonable caution
- Cultivating in the minds of the financial community a reputation for performance with stability, in order to enhance attractiveness as an investment
- Identifying and working proactively with the BPU on rate structures and agreements that would provide for recovery of all costs to provide service.

The financial targets and capital budgets set forth by NJR appeared to be reasonably consistent with the high-level strategies, business, economic and regulatory environments that existed and with the underlying assumptions. NJNG has received the overwhelming bulk of the corporation's capital and operating budgets.

2007-2009 Plan Commitments

The most recent Plan (for 2007-2009) sets forth a comprehensive listing of commitments in each of the seven areas, as the following list summarizes:

[redacted]

[redacted]

[redacted]

[redacted]

[redacted]

4. Contingency Assessment and Plan Effectiveness Reviews

NJR addresses planning through the performance of business-continuity planning, asking the financial community "what if" questions that may affect its ratings, and setting aggressively realistic targets and then carefully and closely managing them. Liberty did not find evidence of other kinds of contingency planning in the strategy/business plans, such as setting thresholds related to targets that would trigger contingency tactics if the thresholds were reached.

NJR has developed business continuity plans and field support planning, and did 'table top disaster drills' for events such as a supply disruption from a transmission line break. The key person responsible for this is the vice president energy delivery. A summary of eight drills, from October 2005 through November 2006 showed participation in a variety of safety, security and business continuity drills.

NJR uses a comprehensive and all-inclusive process for developing strategy/business plans, and monitors the results closely, as evidenced by the weekly Management Committee meetings, and monthly and quarterly reports. With this much attention being paid to the environment, to plans and to implementation, Liberty would characterize NJR's approach to contingency planning as paying attention to business and immediately working on any problems that arise. The company responds to the information that these sources provide by making tactical corrections, if needed.

The Vice President, Corporate Strategy stated the corporation does not have a formal post audit process during the audit period, but said the corporation was starting a formal post audit process for 2007.

5. Short and Long-Term Goals

The holding company's long-term goals fall into three principal categories, which are consistent with the overarching strategies, assumptions, and external/internal drivers that guide the operations of the principal subsidiaries:

- Nurture and appropriately grow a stable and reliable utility that can provide cost-competitive services to its customers
- Identify and develop profitable non-regulated businesses not in conflict with the utility
- Provide an efficient infrastructure for all subsidiaries.

NJR's short-term goals have focused on tactical initiatives that support the three long-term goals. With regard to providing an efficient infrastructure, for example, in the first years of this decade, NJR focused on improving its technology, systems and work processes. Later, NJR shifted its attention to developing and training its employees so that they had sufficient skills to use the infrastructure technology, and knew how to improve work processes to improve productivity, quality and customer satisfaction.

NJNG's short-term goals have included the areas one would expect to find at a moderately sized LDC; *i.e.*, reliability, safety, customer service, procurement, quality, and growth. They have responded specifically to the seven stakeholder commitments that form the focus of NJR planning.

The goal to develop non-regulated businesses stemmed from NJR's embracing of the concept of deregulation and open competition, going back to the prior decade. However, their development has taken place in the context of continuing a utility focus. Planning documents have given careful attention to what changing regulations and regulator expectations have permitted.

The documentation also reflects the value of leveraging the corporation's expertise with and understanding of the general natural gas and utility markets and associated services. One example of the tandem development of short-term goals for the utility and a non-utility affiliate can be seen in the area of off-system sales and capacity release. The utility had a well-established program as the 1990s ended. Wholesale market trading (an important element of the business of NJRES) requires a number of skills similar to those needed for successful LDC off-system sales and capacity release programs. NJRES earned very modest margins as it was learning its craft and learning how the financial community would view its activities. In this decade, that affiliate has matured to the point where it has become a very important contributor to earnings, and has commanded its own set of formal financial goals.

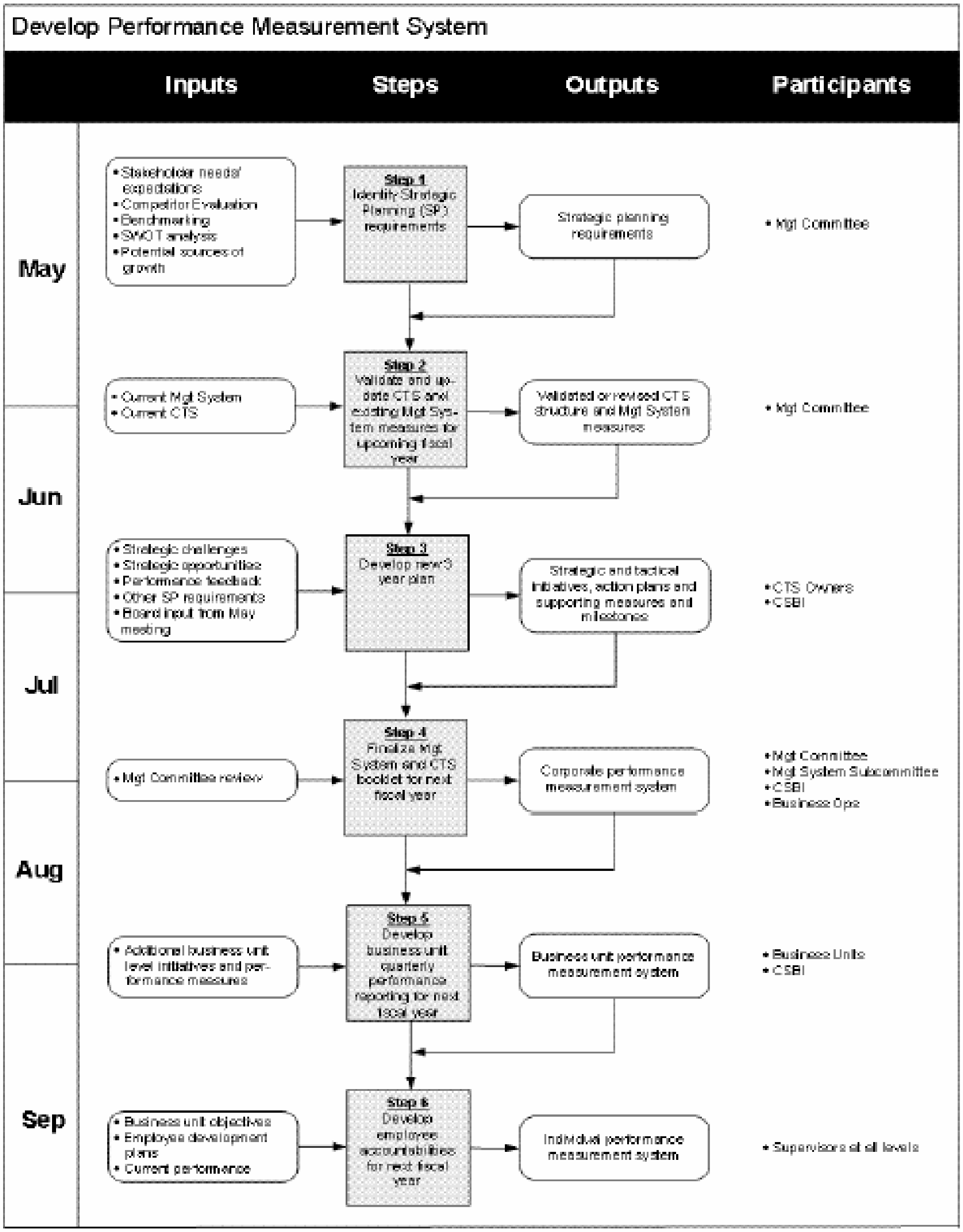
Hedging provides another example of tandem development of short-term goals for the utility along with its trading affiliate. Hedging programs began modestly, and had a different character for each business. In more recent years these activities have matured and expanded, proving successful for both. Utility hedging helps stabilize winter gas costs, and provides an incentive opportunity for shareowners. NJRES hedging has become an integral part of managing the risks that its activities might otherwise require. The utility and the trading affiliate share the same trading floor and share access to market intelligence in carrying out their distinct, but related hedging goals.

6. Performance Against Forecasts

For each year since 1999, Liberty compared the results (forecasted just before the September 30 fiscal-year close) for high-level financial targets and other key measures for the given year and the projected results for that year (made the previous September). The forecasted actual results are essentially consistent with the plan, taking into account the change in the number of shares in 2002. Sometimes results were a bit better than plan, sometimes a bit worse. Especially noteworthy was the close match between forecasted and projected dividend payment and the total corporate earnings.

7. Performance Measurement

The development of a performance measurement system is part of the NJR strategy planning process. The next chart shows the steps in developing that system.



As the chart demonstrates, the metrics by which the corporation and each business unit is measured are developed as an integral part of the overall planning process and cascaded from corporate metrics, through business unit metrics to individual performance measures. Each business metric was identified with a Driver (objective) and Person Reporting, Performance Measure or Initiative, Process Measure/Milestones, Report Date and Status, and Exception or On Target. Using 2005 as an example, the seven commitments produced 73 drivers with associated metrics.

Liberty believes that two major advantages result from the type of strategic planning process used by NJR, the utility, and the key affiliates. The first is that the metrics tend to be particularly relevant to the work and action plans, because the process used links development of strategic requirements with tactical initiatives, action plans, and supporting measures and milestones. The second derives from involving in the planning process a large number of individuals at all levels, including many individuals who would be accountable for implementing the plan. A broader population becomes aware of and takes ownership of what most needs doing and has the opportunity to make the necessary intellectual and emotional commitment often needed for successful execution.

8. Risk Management

NJR considers its principal tool for managing risk to be planning carefully and conservatively, which it defines as including:

- Assessment of potential risks within the annual 'position, environment and competitive overview' component of the strategy/business plan
- Reflecting concern with key items like BGSS rates and the cost of gas
- Disclosure of all risks in the corporation's financial documents
- Conscientious execution
- Use of business continuity planning
- Maintain standard insurances, including adding coverage to contracts.

Liberty's review of the strategy/business and related documents demonstrated that NJR considered these elements. The vice president's and his sole subordinate were responsible for watching risk through the strategic planning process.

The next table shows the high-level capital and cash commitments for the corporation in general and for the utility in specific given in NJR's 10-K reports. Since 2001, the cost of the gas purchases have been about 92 percent of operating expenses, and operation and maintenance have been about 4 percent. Clearly the expenses appear focused where one would expect for a utility with related trading and home services activities. Utility plant capital expenditures have been comparatively modest compared with gas purchase costs. The utility plant's capital expenditures have ranged from $48 million in 1999 to $53 million in 2006, representing from 89 to 80 percent, respectively, of the total capital expenditures. The other minor capital requirements during the audit period have primarily been for the real estate holdings which NJR is committed to liquidate, and for the cost of removal. NJNG's forecasted capital expenditures for 2007 were $66 million or about 94 percent of the total $70 million capital forecasted for the corporation for 2007, and $63 million for 2008 which is about 99 percent of the capital forecasted for the corporation in 2008. These expenditure and capital patterns show considerable consistency over time.

Overview of Cash and Capital Expenditures for NJR ($x1 million)

	2006	2005	2004	2003	2002	2001	2000	1999
OPERATING EXPENSES								
Gas purchases	2,910	2,780	2,213	2,238	1,566	1,783	920	670
Operation and maintenance	121	109	101	101	87	84	80	79
Regulatory rider expenses	29	32	10	5	4	5	4	2
Depreciation and amortization	35	34	32	32	32	33	31	29
Energy and other taxes	59	56	50	47	37	44	35	36
TOTAL	3,153	3,010	2,406	2,423	1,727	1,948	1,071	816
CAPITAL EXPENDITURES								
Utility plant	53	53	60	47	42	44	49	48
Real estate and other	6	2	13	7	1	6	2	1
Investments for sale	0	0	0	0	0	2	0	0
Cost of removal	7	6	5	4	5	5	5	5
TOTAL	66	61	79	58	48	57	56	54

NJR has not undertaken any diversification activities other than connected growth of NJRES and NJRHS; this limitation has avoided the need for large levels of capital to flow to non-utility ventures. NJR reports no diversification on the horizon, although senior NJR management does not rule out what they view as logical extensions of their current activities that could leverage corporate and utility expertise.

C. Conclusions

1. **NJR has used an effective means for expressing commitments to stakeholders, but has not used what one would consider to be traditionally described mission, vision, and values statements.** (*Recommendation #1*)

NJR has consistently expressed its seven Commitments to Stakeholders in corporate annual reports and throughout the strategy/business planning documents in a manner that combined mission-like, vision-like and values statements. In 2002, the Annual Report stated the commitments as follows: *"Safe, Reliable and Affordable Service; Customer Satisfaction; Growth; Quality; Valuing Employees; Corporate Citizenship; and Superior Return."* Liberty interpreted NJR's understanding of NJNG's mission as one of providing safe, reliable and affordable natural gas service. The clearest expressions of vision for NJR, the utility and the two principal non-utility affiliates has generally come in their respective high-level financial targets. The statement of commitments is effectively used to guide and measure performance, but does not reflect the kind of highest level statements that generally define an entity's mission, vision, and values succinctly.

2. **NJR has used a comprehensive process for preparing strategy/business plans for NJNG and its other business operations.**

NJR has been preparing integrated three-year strategy/business plans for a number of years during each year of the audit period. The process appropriately involves the Board of Directors, the Management Committee and Business Operations Committees, the Corporate Strategy and Business Intelligence unit, the Business Units and the Management System Sub Committee, and the team leaders for the Commitment to Stakeholders.

Typically the three year strategy/business plans contained abundant financial and non-financial specifics for the upcoming fiscal year, a projection of how the current year would close, and financial and other key indicator projections for the next two years. The three year plans cascaded appropriately down to the business units and finally to the employees as more specific tactics were added. Milestones or objectives were used as the 'drivers' to drive achievement of the commitments. Employees received a yearly evaluation against their objectives, and also a mid-year evaluation conference. Part of the evaluation was a development plan for the employee. The business units reported monthly and the corporation quarterly. Adjustments to Plan or tactics were made on an ongoing basis through the Management Committee, which meets every Tuesday. The Management Committee pulls the businesses into these meetings, if necessary

3. NJR, the utility and key affiliates used external and internal environmental drivers as part of the strategic planning process during the audit period.

The strategic planning documents show that NJR, the utility, and the other key affiliates like NJR Energy Services and NJR Home Services considered and assessed both internal factors and forces as well as their business and competitive environments as part of their strategic and business planning process. The assessment of the external environment has become more extensive in recent years, but has for some time set forth meaningful deliberations on the regulatory environment and the more obvious aspects of the residential market and gas supply environment. The attention given to internal drivers has remained fairly constant through recent years, although its emphasis has shifted. The earlier focus was on the need to add technology and improve work processes; emphasis more recently has been given to the need to develop, train and teach employees while harvesting the benefits of the infrastructure.

4. The mission and high-level strategies for NJR and each subsidiary have been compatible and internally consistent.

Strategy documents since 1999 have showed significant consistency in focus on the core utility business, while attempting to identify and put appropriate dimensions on opportunities in a less regulated environment. The strategy documents have shown attention to and understanding of public service requirements and a need to:

- Emphasize utility conditions, needs, and projections
- Work with regulators to develop programs that would permit NJR to enter competitive markets.

Strategy documents emphasize the utility's central role, adopt commitments appropriate for meeting public service requirements, and apportion resources in a manner that supports meeting those requirements.

Liberty found no surprising financial targets; all seemed to be reasonably consistent with the business, economic and regulatory environments that existed and with the underlying assumptions made by NJR. Capital and operating budgets were reasonably modest and showed no surprises. As expected, the utility received the overwhelming bulk of the corporation's capital and operating budgets.

These financial targets were also consistent with the high-level strategy. In NJR's strategy for the corporation as a whole and for the utility and other major business units, there was a clear focus on profitability and how all activities related to profitability, with emphasis on protecting credit rating, delivering reliable supply along with safety for customers, actively trying to understand the market and regulatory environment and current realities so that expanded products/services could enhance both the top and bottom lines and all utility costs could be recovered, improving productivity through re-engineering work processes, adding management and information systems, training employees, and envisioning how better to leverage existing intellectual, hard and financial assets to better position the corporation for the benefit of shareholders and customers.

5. NJR has used business continuity planning and 'what if' earnings mix questions to the financial community, but has not used formal contingency planning. (*Recommendation #2*)

Liberty did not find evidence of other kinds of contingency planning in the strategy/business plans, such as setting thresholds related to targets that would trigger contingency tactics if the thresholds were reached. Few organizations have formal contingency plans; the more prevalent method is to use measures such as NJR applies. The advantage to formally addressing contingency plans prior to when they might be needed is the ability to consider adverse consequences in a less charged atmosphere, and when there is time to gather factual information that might be needed or to do related scenario and 'what if' analyses.

6. Long and short-term financial and non-financial goals and objectives of the holding company, the utility and key affiliates reflected reasonable extensions of the strategy and external/internal drivers and assumptions during the audit period.

The NJR long-term goals can be summarized by the following three overarching objectives: (1) to nurture and appropriately grow a stable and reliable utility, NJNG, that can continue to provide cost-competitive services to its customers; (2) to identify and develop profitable non-utility businesses not in conflict with the utility; and (3) to provide an efficient infrastructure for all subsidiaries. These long-term goals are consistent with the overarching strategies and assumptions and external/internal drivers. NJR's short term goals during any period of time were tactically focused on initiatives that supported all of the three long-term goals.

The utility comprises the core of the corporation and the long-term goal is to continue its contribution of about two-thirds of total earnings. Its short-term goals address the areas that one would expect at a utility: reliability and safety, customer service, commodity procurement, quality, and growth. Additional notable goals for the utility centered on developing new regulator-approved programs (called incentive programs), to ensure that all costs were appropriately recognized and passed through and that initiatives involving new ways to help stabilize costs had appropriate 'cost safety nets' and desirable margin sharing. The utility's long and short-term goals were consistent with its overarching strategy and the assumptions and external/internal environmental drivers.

7. Performance compared well with plan for the holding company, utility, and key affiliates during the audit period.

The forecasted actual results for the holding company, the utility and the principal affiliates were consistent with plans, taking into account the change in the number of shares in 2002. Especially noteworthy has been the reliability of the dividend payment and the total corporate earnings. In years like 2000, 2004 and 2006 when the utility's gross margins were less than plan, the non-regulated margins, principally that from the trading affiliate, compensated.

The utility contributed about 96 percent of the corporation's earnings in 1999, but about 75 percent in 2005, and 60 percent in 2006. The average rate of growth for the utility has been 2.9 percent per year over the past seven or eight years. The trading affiliate contributed about 5 percent to total corporate earnings in 1999, about 18 percent in 2005 and almost 38 percent in 2006. Its average change in earnings growth was 47.9 percent per year. The trading affiliate NJRES has achieved its long-term goal of contributing 20 to 30 percent of total corporate earnings. The home services affiliate contributed less than one percent to total corporate earnings in 2000, and about 2.5 percent in 2005 and 2006. Its average change in earnings growth was 46.2 percent.

8. NJR used a performance measurement system compatible with and part of the strategic planning process during the audit period.

The development and use of a Performance Measurement System was part of the annual strategy planning process. Output from the strategic objectives in June/July have been used to develop corporate performance measures in July/August from the Management Committee and its Management System Subcommittee, Corporate Strategy and Business Intelligence, and business operations; business unit performance measures in August/September from the business units and Corporate Strategy and Business Intelligence; and individual performance measures in September from supervisors at all levels.

The attention paid to implementation results in the strategy/business plans coupled with the strategic planning and performance measurement system used was characteristic of an organization that was paying attention to key metrics in order to make needed adjustments in a timely manner. NJR's comprehensive integration of a measures and milestone system, complete with those responsible for managing the information and management systems, into the broadly based strategic/business planning process, is a strength.

9. The utility has received a consistent level of financial support for an extended period of time.

The utility plant's capital expenditures have ranged from $48 million in 1999 to $53 million in 2006, representing from 89 to 80 percent, respectively, of the total capital expenditures. The other minor capital requirements during the audit period have primarily been for the real estate holdings which NJR is committed to liquidating, and for the cost of removal which is related to an old environmental situation.

NJNG's forecasted capital expenditures for 2007 were $66 million or about 94 percent of the total $70 million capital forecasted for the corporation for 2007, and $63 million for 2008 which is about 99 percent of the capital forecasted for the corporation in 2008.

D. Recommendations

1. Add a more traditional articulation of mission, vision, and values statements. (*Conclusion #1*)

A strength of NJR's strategy/business plans is its emphasis on real content, as opposed to business planning jargon. The company does not employ strategic planning terminology in the traditional manner; however, its has strategy/business plans that contain the needed quantitative and qualitative elements. The plans articulated for NJR, the utility, and other key affiliates describe why each existed, what each strove to achieve, and how each would resource, implement, measure, and adjust. Needed links with financial and human resources and with performance measurement existed. Liberty is not recommending that the overall planning process, its general substance, or its implementation be changed.

Liberty is recommending that NJR go through the exercise of formally articulating short mission, vision, and values statements as these are commonly defined. This will help NJR better articulate and communicate its plans, targets and vision. One embodiment of the exercise requires one or two facilitated interactive three-hour group discussions and tasks among the same kind of individuals now engaged in NJR's strategic planning process. The output of the discussion/tasks is usually a prioritized list of values statements, and two to three sets of draft mission, vision, and values statements that a small task team refines and presents back to the larger group for comments/validation. This exercise typically fosters a deeper understanding of what the company and key businesses are all about, precipitates a sharpened focus and a clearer shared understanding of the potential risks, opportunities and goals, makes any modifications to direction, strategy and major tactics less blurred, and gives participants a common language with defined terms for ease in future discussions.

2. Add formal contingency planning to the strategic/business planning process. (*Conclusion #5*)

NJR and the utility now do contingency planning in the form of business continuity planning and 'what if' questions on earnings mix to the financial community. Liberty is recommending NJR add contingency planning focused on key objectives and goals to the strategy/business planning process, in addition to the 'business disruption' or 'what if' questions already used. Contingency planning typically includes defining in more general than specific terms the practical options for changes in approaches and resources that could/should be made when key milestones towards important objectives and goals trigger a threshold of some predetermined plus or minus percentage of the milestone. The benefit from doing this type of contingency planning is having explored various scenarios and their potential solutions during an emotionally neutral period when time would be available for obtaining and assessing relevant input and data. Organizations who do contingency planning often find they use the output of this planning for other situations, like when new opportunities suddenly present themselves.

VI. System Operations

A. Background

NJNG manages its Energy Delivery Department (Energy Delivery) from the Wall Township Company headquarters. Energy Delivery's functions include transmission and distribution management, design, and operations. Energy Delivery has responsibility for all field operations personnel management on a day-to-day basis, and performs engineering functions, construction management, and contracting. Energy Delivery has no responsibility for natural gas purchasing.

The management team for Energy Delivery has significant experience with NJNG, with much of it in their current positions. On average, total industry experience is 22.7 years with virtually all of that at NJNG. Their average time in their current position is 5.7 years.

The Company has experienced slow but steady growth in customers for the last six years. The next table shows the steady increase of approximately 13 percent in residential customers since 2001.

NJNG Residential Customer Growth

	2006	2005	2004	2003	2002	2001
Residential	429,834	418,646	410,005	397,564	390,681	378,803
Total customers	471,705	462,856	454,208	443,840	434,141	423,182
Percent residential	91.1	90.4	90.2	89.6	90.0	89.5

The predominately residential customer base has led management to focus attention on improved operational effectiveness. NJNG has made considerable investments in automated systems that support the efficient management of the field service personnel and of overall system operations.

The next table shows that customer growth has come at locations close to the existing distribution system. Footage of new mains has generally been decreasing since 2002. This type of growth reduces the pressure on the Company to expand the system to accommodate new customers.

System Growth Extension Requirements

Year	New Footage / New Customer	percent Change from Prior Year
2006	36.2	(18.8)
2005	44.6	(2.0)
2004	45.5	4.1
2003	43.7	(13.5)
2002	50.5	n/a

The nature of the growth in the system, and much of the workload for NJNG, results from new development near the existing distribution system.

B. System Planning and Design

1. Background

Liberty evaluated the management approach to system design as it relates to system expansion in this part of the report. This part of the study focuses largely on the functions of the Energy Delivery Department, which typically addresses specific customer expansion projects instead of gas purchasing, which is addressed in another section of this report.

Liberty also addressed the compliance of NJNG with the Federal Pipeline Safety Improvement Act of 2002. Filings for implementation of the Act regarding high consequence areas (HCA) that were due in 2004 and their impact on the program for compliance were also addressed.

Further, Liberty reviewed the overall performance of the Company's program for reducing unaccounted for gas and specifically its leak detection programs.

2. Findings

Summary of System Facilities

NJNG owns and maintains approximately 6,500 miles of distribution mains and 210 miles of transmission mains. The company operates over 6,300 miles of service lines that serve approximately 483,000 metered customers. Nine city gates, with the largest at Jamesburg, provide supply to the system. The majority of the natural gas for the system, other than the Northern Division, comes from the Jamesburg city gate.

NJNG also owns and operates two LNG storage plants in Stafford Township, Ocean County and in Howell Township, Monmouth County. The company uses these LNG facilities for emergencies and for stabilizing the system when pressures drop. The two LNG plants were originally built as peaking units. NJNG can still use them for peaking purposes; however, it has not found occasion to do so frequently in recent years.

The Company owns four service centers located in Rockaway Township, Morris County, Atlantic Highlands and Wall Township, Monmouth County, and Lakewood, Ocean County. These service centers house storerooms, garages, and gas distribution and administration offices.

Productivity Improvement

NJNG's steady growth in customers helps to offset a nationwide decline in usage due to conservation efforts and changing weather patterns, which the next table summarizes.

System Throughput Changes (Bcf)

	2006	2005	2004	2003	2002	2001
Throughput	64.4	72.3	72.3	75.0	62.1	72.5

The absence of major growth opportunities; *e.g.*, large new industrial customers, requires more emphasis on increasing productivity and efficiency to improve margins. The Company's use of information technology to support Energy Delivery Department operations provides an example of the commitment to improved productivity. Other examples of the Company's commitment to improved productivity in field operations in particular will be discussed in the sections which follow. Many of the moves to improve efficiency could be expanded by taking full advantage of existing technology and by better organizing the productivity function within Energy Delivery. These opportunities will also be discussed in the sections that follow.

Unaccounted for Gas

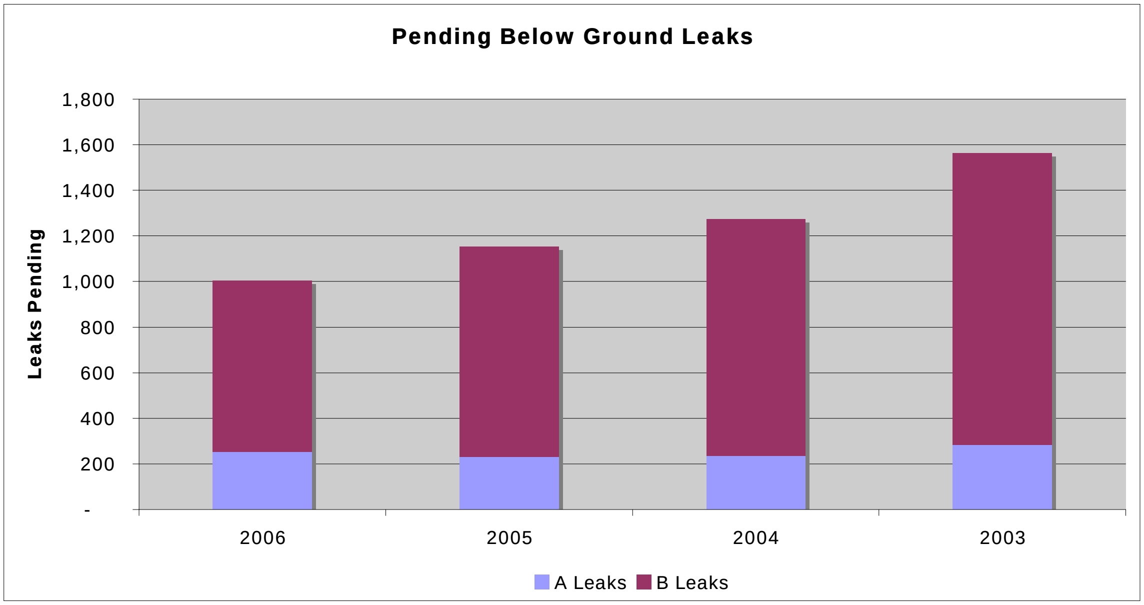
The Company has achieved a very low level of unaccounted for gas as compared to other natural gas distribution companies. At 0.6 percent line losses, the Company compares favorably to the average of 1.6 percent average for companies reporting to the Federal Department of Transportation. The minimum for any company reporting in fiscal year 2005 was 0.3 percent.

When NJNG investigates and confirms a leak, the company classifies it for further tracking and repair using Leak Order form 982. Detail from the form is entered into the JD Edwards Leak Management System (LMS). Leak orders are classified as A, B, C, N, and NI, which have the following meanings:

- **A—**Non-hazardous indications that can reasonably be expected to remain non-hazardous for an indefinite period. Recheck every 12 months.
- **B—** Non-hazardous indications may pose a future hazard. Repair within 15 months of an initial indication. Recheck every 6 months.
- **C—** Hazardous indications representing a threat to persons and/or property, requiring immediate and continuous action. Recheck within 30 days.
- **N—**Non-hazardous nuisance indications located at an *outside* meter set that can reasonably be expected to remain non-hazardous for an indefinite period. No recheck.
- **NI—**Ventilated - No Indication. A recheck was performed on a prior classified leak and no indications were found.

NJNG's LMS monitors and tracks leaks, reports leak history and statistics, schedules leak re-checks on pending leaks and repairs, and automatically generates leak repair orders. Completion of leak repair orders for below ground leaks generates a 30-day recheck. If the company has no indication of a leak after 30 days, it closes the leak order.

The next table shows that NJNG has significantly reduced its pending leak backlog since 2003.



AGA benchmarks (2005 data) place NJNG's leak backlog at the 3rd quartile of performance for pending B leaks. NJNG's ranking for B leak backlog falls below the AGA average which is based on raw data from 50 companies and is not weighted with respect to the miles of pipe involved; however, its AGA ranking based on leaks per mile of service territory compares favorably (2nd quartile for leaks per mile of main and 1st quartile for leaks per mile of service).

Energy Delivery has adopted a system integrity objective to repair all leaks within 12 months of identification. At year-end, NJNG met target with this objective for all leaks going back to 2005. Any leaks pending prior to 2005 remained open due to location or association with a planned or pending renewal project.

Forecasting

NJNG has a flexible gas supply process that does not produce formal, static winter commodity purchase or dispatch plans. The company reviews on a daily basis weather conditions, system requirements, market prices, storage status, pipeline constraints, spot market opportunities and other options are reviewed daily to keep costs as low as possible.

Forecasting for distribution system expansion and improvement is a combined effort of NJNG Energy Services (the department which purchases natural gas) and Energy Delivery. NJNG Energy Services conducts studies on monthly cost data and another on daily system sendout volumes. The design day projections indicate the timing and volume of a planning day for design and upgrade purposes and is the process addressed here.

Design day forecasts start with a regression analysis of the most recent year's daily sendout data to identify the existing customer consumption trends by comparing consumption versus degree days. Degree day based projections by customer are used to project new demands based on customer growth. Customer additions are predicted by the Marketing Department. Marketing's annual forecast identifies the timing and volumes of new load additions. The result is an expected monthly load growth. The design day citygate demand is projected by combining the degree day calculations and the forecast of customer additions. The design day projections are created by Division to isolate the most affected areas.

Systems Needs Analysis

In recent years, the system has been expanded slowly in response to conversions and the growth of residential customers. Major expansions in the capacity of the distribution system have not been a priority; the Company has not experienced design day conditions since January 15, 1994.

NJNG uses data from county and municipal planning boards that identify the size and types of housing developments and other types of growth within the service area as a starting point for system planning. New construction in the Company's service area includes a number of widely different types of residential construction in terms of energy consumption. For example, developments in the most affluent parts of the service area include very large, single-family homes designed in such a way that energy consumption per capita will be relatively high. In some areas, there is an emphasis on relatively small and energy efficient units such as "senior housing" that typically include several, in some cases, hundreds of units. In addition, builders are surveyed to identify their development plans. On occasion, NJNG employs consultants to assist in its customer growth projections.

This overall evaluation of the general growth expectations is augmented by a program of pursuing conversions from other fuels, such as electricity and fuel oil. The Company estimates that approximately 32 percent of its projected customer growth will consist of conversions within the service area.

NJNG identifies system design improvements on two primary bases:

- Forecasts for additions to the system
- Correcting existing low pressure problems.

The Company evaluates the potential for replacement of parts of the system that experience higher leak rates as part of the design process. The Engineering Department evaluates potential system improvements and expansions. NJNG does not use outside firms to assist with system design activities.

The Company uses a hydraulic modeling system produced by Advantica, which is widely accepted in the natural gas distribution industry. The use of Stoner modeling software is routine and is available on a daily basis as needed for evaluation of proposed new customer development and the like. An engineer in the Company's Engineering Department has full-time responsibility for use of Stoner modeling for specific projects.

The steps undertaken annually to evaluate the distribution system include:

- Analyzing actual peak day data
- Modeling the system in flow simulation software (SynerGEE) from Advantica.

- Developing recommended system reinforcements for low pressure and for forecasted customer growth
- Performing individual flow studies are developed throughout the year for larger new business projects and the like.

System Integrity Planning for Transmission

The Pipeline Safety Improvement Act of 2002, signed into law on December 17, 2002, mandates significant changes and new requirements in the way that the natural gas industry ensures the safety and integrity of its pipelines. Each pipeline operator must prepare and implement an "integrity management program," which among other things requires operators to:

- Identify "high consequence areas (HCA)" on their systems
- Conduct risk analyses of these areas
- Perform baseline integrity assessments of each pipeline segment
- Inspect the entire pipeline system according to a prescribed schedule and using prescribed methods.

Companies were required to identify all HCAs by December 17, 2004, and submit specific integrity management programs to the Department of Transportation's Office of Pipeline Safety (OPS). All pipeline segments within HCAs must be inspected and remediation plans (if required) completed by December 17, 2008, while non-HCA segments must be inspected by 2012. All segments must be reinspected on a 7-year cycle, with certain exceptions.

NJNG's Pipeline Integrity group, within System Enhancement, is responsible for NJNG's Pipeline Safety compliance. NJNG has 214 miles of transmission pipeline. In accordance with the 2004 Federal regulations, NJNG inspects its transmission lines using a combination of inline inspection and external corrosion direct assessment. NJNG submitted its initial System Integrity Plan in December, 2004.

NJNG selects outside contractors to perform the work and verifies the results of the data obtained by the outside vendors. Two contractors have been selected to assist with the pipeline assessment: Corrpro Companies and Baker Hughes. Corrpro is providing the ECDA (External Corrosion Detection Assessment) while Baker Hughes is performing an inline assessment using smart pig technology.

As specified by the Act, NJNG is on schedule to have completed half of its transmission pipeline assessments by year-end 2007. NJNG has declared its entire transmission pipeline system as a High Consequence Area (HCA). NJNG is using a risk spreadsheet to identify the 50 percent highest-risk segments, the target of the first 2-year inspection program. The remaining 50 percent will be assessed by 2012.

3. Conclusions

1. NJNG's focus on improving system reliability and efficiency responds well to challenges imposed by its growth patterns.

The Company's focus on improving the reliability and efficiency of its system for existing customers is appropriate in light of its recent history of consistent but relatively slow growth in customers. The absence of large, new industrial customers diminishes the need for any major restructure of the transmission and distribution systems. The extent of the Company's investment and use of automated systems compares favorably to other, similarly sized companies in the industry.

2. NJNG appropriately uses customer-specific data for identifying expansion needs.

NJNG's reliance on a forecasting process that relies on specific data for customer expansion rather than statistical projections is appropriate. An elaborate, statistical forecast is necessary for large customer class projections for which detailed data is not available. Such customer classes typically include considerable diversity in their type of energy consumption. However, NJNG's predominately residential customer base makes it possible to focus on more accurate development plans to identify required changes to the distribution system.

3. Expansion planning requires more accurate customer specific data, particularly in view of increasing emphasis on energy efficiency in new construction and the wide variation in types of residential construction occurring in NJNG's service area. *(Recommendation #1)*

Reliance on customer specific data for expansion needs necessitates the need to accurately track changing energy consumption patterns by type of housing. This is especially important for NJNG which has so many residential customers. Increasing emphasis on energy efficiency for construction of residential units will result in changing energy consumption per household. This variance in energy efficiency for residential customers is more significant considering the types of construction occurring. The differences between energy consumption for large, energy intensive homes with vaulted ceilings and the like is in sharp contract with smaller energy efficient "senior housing" communities with hundreds of units in each development.

4. NJNG's program to reduce its unaccounted for gas has been effective.

The Company's losses of 0.6 percent are less than half the industry average for 2005, the most recent year for which data is available. In fact, NJNG's losses are near the best company's performance of 0.3 percent.

5. NJNG has been actively reducing its backlog of pending leaks.

By the end of 2006, NJNG was on target to repair all leaks in the system within 12 months of identification. In 2003 there were almost 1,600 leaks and in 2006 the number had dropped to less than 1,000. The improvement has been consistent, with significant reductions occurring each year.

6. NJNG continues to meet its federal compliance requirements for its System Integrity Plan for transmission piping.

In compliance with the Federal Pipeline Safety Improvement Act of 2002, NJNG has declared its entire transmission pipeline system as a High Consequence Area (HCA). NJNG is using a risk spreadsheet to identify the 50 percent highest-risk segments, the target of the first 2-year inspection program. The remaining 50 percent will be assessed by 2012. As specified by the Act, NJNG is on schedule to have completed half of its transmission pipeline assessments by year-end 2007.

4. Recommendations

1. **Provide for periodic reviews of the accuracy of customer consumption data.** *(Conclusion #3)*

The Company should periodically review the accuracy of per capita consumption of its customers to reflect the changing nature of new residential construction. Per capita consumption reflects the demographics of the population, which is aging, and therefore less likely to build larger, single family homes with relatively high energy requirements because of square footage of the structure. Newer homes may also be built more energy efficiently, requiring less energy per household. It may be necessary for NJNG to classify new residential customers by size and type of structure to determine per capita changes. A review of this type is probably not necessary annually, but a one time analysis will establish a structure for future reviews, perhaps once every two or three years.

C. Engineering and Construction

1. Background

This section addresses the management of engineering and construction activities that form the basis for system improvement and expansion. Liberty evaluated the processes for controlling construction costs and the use of outside contractors as well as the performance of engineering for construction projects.

NJNG relies on a formal and multiyear alliance with two contractors to perform most construction work. This section discusses the design of the contracts with the two contractors and the motivation behind the contracting alliance. The administration of the contracts is also addressed.

The new contractor management system, referred to as the “Alliance” followed several years of unsatisfactory results with a competitive bidding process in the 1990’s. Administration of the competitive bidding process cost NJNG the equivalent of approximately four full time employees more than it does with the existing system. In addition, the cost of construction was increasing faster that the Company felt was justified.

The Alliance established a continuing working relationship with two contractors which made the contractors responsible for controlling costs and quality within specifications established by NJNG. Incentives were established to promote the effectiveness of the contractors.

Liberty also evaluated the compliance and implementation of Federal Department of Transportation safety standards and New Jersey’s One Call Program. Overall, the Company’s underground facility protection programs are addressed in this part of the report.

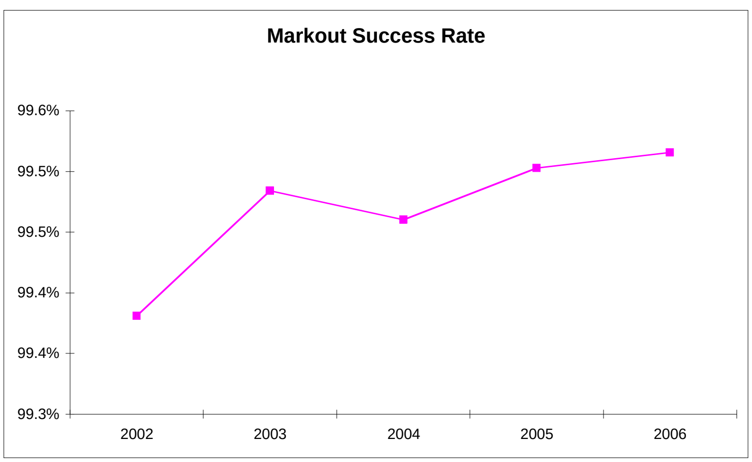
2. Findings

a. Underground Facility Protection

Damage due to excavation activities is the leading cause of pipeline failures and accidents, both statewide and nationwide. The New Jersey One Call program has helped utilities avoid many leaks that would result from excavation damage. New Jersey One Call is a state-regulated, non-profit organization comprised of public utilities and municipalities in the State of New Jersey. NJ One Call Center (NJ1C) functions as a one-call notification system that provides excavators and the general public with the ability to notify owners of underground facilities before proposed excavation. NJ1C handles both routine and emergency calls.

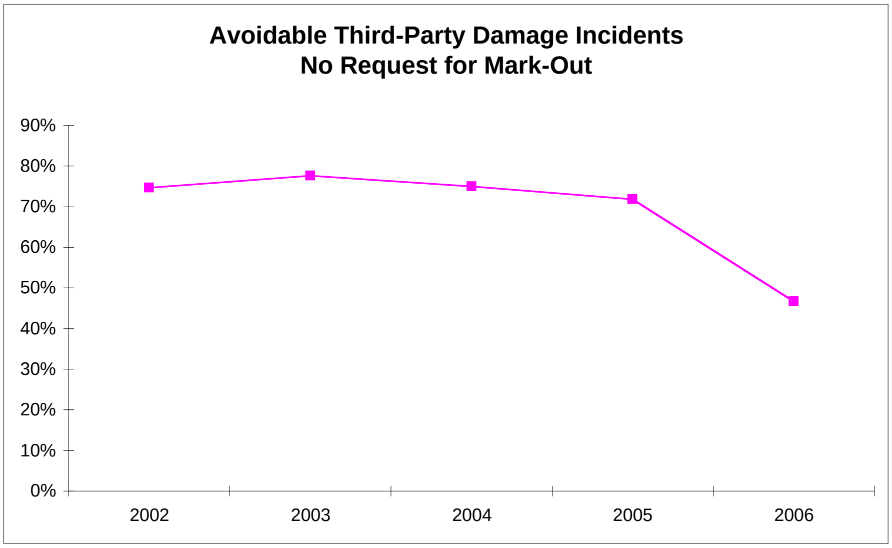
NJNG relies on a locate contractor and its own employees to identify and mark its underground facilities. NJNG's PM&T locate-personnel mark all transmission pipelines outside the company's franchise area. A locate contractor, UtiliQuest, is responsible for marking all transmission and distribution facilities within the company's franchise area, except for emergencies when NJNG employees provide assistance.

NJNG receives close to 150,000 requests for mark-outs each year from customers and excavators. While requests for mark outs have been increasing every year, the Markout Success Rate has been improving since 2002. Markout Success is defined as the total markout requests less damage incidents divided by total number of markout requests. NJNG uses this same calculation as one of its BPU Report Card metrics.



According to *2006 AGA Best Practice Program for Damage Prevention and Marking & Locating*, 45.8 percent of NJNG's third-party damages were due to no-call excavation, 49 percent were properly marked, 5 percent were mis-marked. NJNG ranked slightly below national average for 3rd party damage per 1,000 locates, 3rd party damage per 1,000 miles of main, and third-party damage per 1,000 services (between 2nd and 3rd quartile).

However, not everyone uses the NJ1C notification system. As seen in the table below, the percentage of third-party damage incidents with no ticket (have not called NJ1C to request a mark-out) has been decreasing since 2003, with a significant drop in 2006.



As seen in the table below, the majority of third party damages result from the third party excavator not calling in for a markout or not following proper excavation procedures once the facility was properly marked-out. A small percentage of the third party damages result from either a mismarked facility or the locating contractor marking out the facility past the three day window.

Third Party Damages

	2002	2003	2004	2005	2006	5 yr Avg
% without NJ One Call Ticket	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
% with NJ One Call Ticket	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
% Marked Out & Still Damaged	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
% Not Marked Out & Damaged	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]

In effect, 31 percent of these damages could have been avoided if the NJ One Call ticket had been honored and marked (about 229 hits per year). Additionally, some portion of the 35 percent (up to 348 hits per year), those marked out but still damaged, could also be avoided by more accurate mark-outs or better communication with the excavator.

As a result of an incident at PETCO in Eatonton, NJ on March 4, 2005, the NJBPU issued a Stipulation and Settlement Agreement and ordered NJNG to comply with several requests:

- One-time payment of $200,000 to the Treasurer of the State of New Jersey
- Spend an additional $100,000 on pipeline safety related community assistance or public education projects during 2006 and 2007
- Develop an electronic database of service records
- Provide access to database for locate contractor
- Modify Standards-Operating-Maintenance-Emergency Manual to require creation of service record if necessary on-site

- Expand quality control of markout process to require monthly field quality controls to evaluate each locator at least once quarterly.
- Certify monthly field audits to BPU.

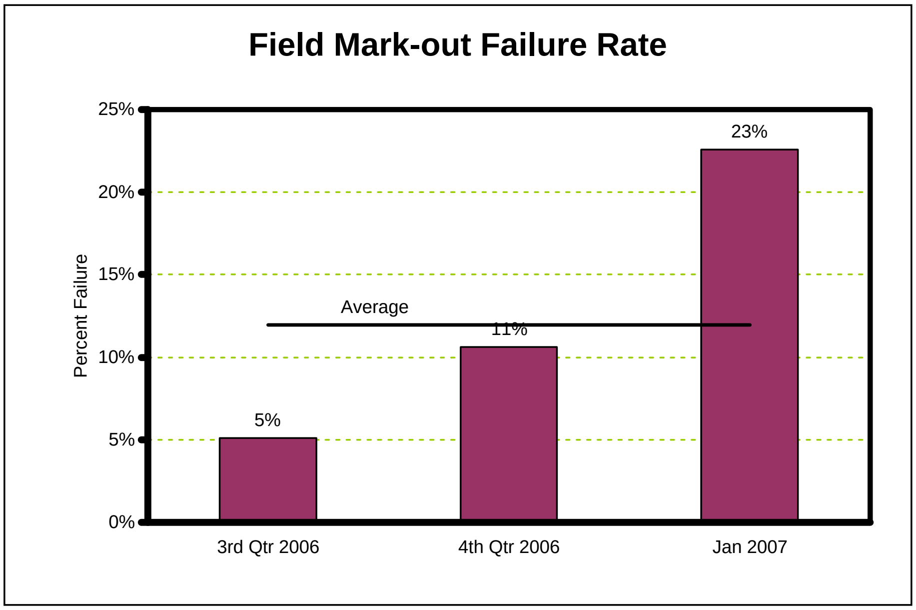
NJNG has met the initial requirements of the stipulation. Access to NJNG's service record database has been developed and deployed, allowing markout contractor access through an Internet browser. Through this web-application, locating personnel can search for service records and add service records if no record is found. The Standards-Operating-Maintenance-Emergency (S.O.M.E) Manual was updated to reflect the requirements of the Stipulation Agreement, and NJNG has been conducting monthly field audits, as specified.

In terms of community assistance and education, NJNG met with the BPU in June 2006 to propose a series of billboards throughout the service territory to promote NJ1C notification. At this meeting, the BPU advised of the impending launch in spring 2007 of the 8-1-1 nationwide underground facility locating hotline. It was agreed that NJNG should plan the billboard launch to support the promotion of the new 8-1-1 hotline, targeted for implementation in March 2007. NJNG executed a contract with CBS Outdoor for $115,000 (plus production costs) to provide billboards during spring and summer 2007 and is waiting for notification from the BPU for go-ahead.

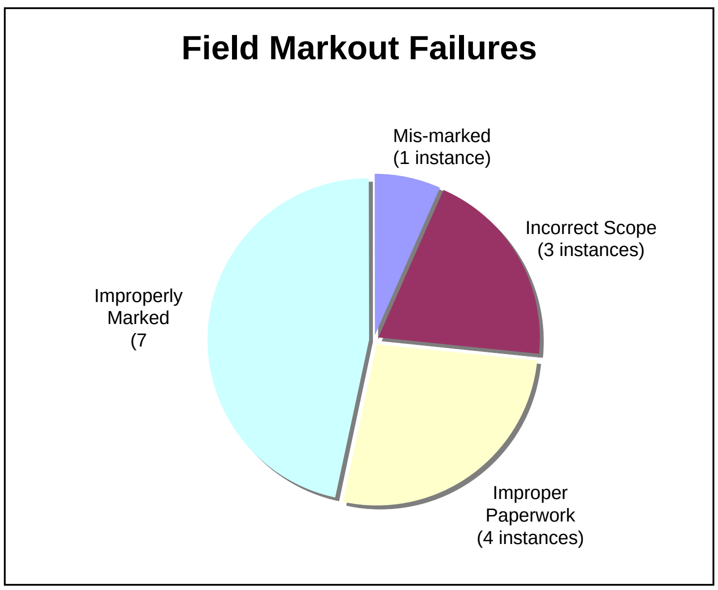
Monthly field audits of markout technicians have been conducted since mid-June 2006, as recommended by the Settlement Agreement. Summary statistics from these audits are presented below:

	Audits Conducted	Passed	Failed	Failure Rate
3rd Qtr 2006	39	37	2	5%
4th Qtr 2006	47	42	5	11%
Jan 2007	31	24	7	23%
Total	117	103	14	12%

NJNG receives, on average, about 37,000 markout requests each quarter. The field audits of markout technician competency are related to approximately 10 percent to 15 percent of total markouts requested. Since the audits began in June 2006, failure rate has increased from 5 percent to 23 percent. Over this time period, an average of 12 percent of mark-outs audited has failed.



Corrective measures have been taken in each of these failures. Failures are broken down by incident in the table below.



Corrective measures have been taken in response to all field audit failures. In most cases, the Contractor was asked to make the necessary corrections on site. In the instance of the mis-marked service, the contractor remarked the service correctly and retrained or terminated its technician. Improper paperwork completion, in which technicians failed to complete the manifest as required by NJNG, occurred in 4 of 14 failures. The contractor warned the technician involved in 3 instances and fired the technician in 1 instance.

Improperly marked services happened with 7 tickets in January 2007. All were marked with paint but not with flags. In all cases, the contractor was called to the correct the markout and the associated technicians were warned.

These audits are intended to review the markout performance of each individual locator at least once per quarter. It's clear that the markout field audits are providing NJNG with a higher degree of contractor oversight. The field audits have uncovered instances in which individual technicians did not follow NJNG specifications and did not mark the service correctly. It appears that the contractor, under NJNG's direction, has been working to remediate these problems.

b. Principal Construction Work Types

Energy Delivery's Engineering Department performs NJNG engineering activities, which include the design and engineering of pipeline projects for system improvement and expansion. The Engineering Department also reviews and makes necessary changes to all applications for new commercial development submitted by developers.

Construction required by new development comprises a principal share of the engineering and construction workload for NJNG. Developers provide Engineering with project applications that provide preliminary information for the size, type of development, and location of a new project. Engineering examines the distribution system serving the proposed development to identify any expansions or improvements that may be required. After a project receives conceptual approval, the Engineering department estimates its costs. The company then discusses the estimate with the developer to secure its acceptance of necessary changes and the required cost. NJNG schedules the work for construction after the developer accepts costs for a project.

Reducing line leaks comprises another significant work type. NJNG has produced strong results through its leak reduction efforts. Calculated gas losses for 2005, the last year for which data is available, were 0.6 percent. This result compares favorably to the average of 1.6 percent that companies reporting to the Federal Department of Transportation provided. The minimum for any company reporting in fiscal year 2005 was 0.3 percent.

c. Construction Contracting Approach

NJNG employs two methods of performing necessary transmission and distribution system construction. The majority of the work is performed under a multiyear working relationship defined as the "Alliance," which pre-qualifies firms that agree to and show the capability to adhere to standards and practices established by NJNG. The Company uses these pre-qualified firms to perform some 90 percent of its construction work. The Alliance firms include two contractors: J.F Kiely Construction Company (Kiely) and Gray Supply Corporation (Gray). NJNG began development of the Alliance approach in 1999. The Alliance contract was approved on August 3, 2001. NJNG also contracts with other, non Alliance firms, on a project by project basis for the performance of construction work.

Kiely works mostly in Morris and Monmouth counties; Gray does most of the work in Ocean and Atlantic counties. Kiely also does virtually all the construction of larger mains, especially those over 12 inches in diameter. The next table shows approximate division of work (in millions of dollars) between the two companies for the last three years.

Alliance Work Levels

Firm	Year 2004	2005	2006	Totals
Kiely Gray	[redacted]	[redacted]	[redacted]	[redacted]

NJNG utilizes in-house service crews for the remaining 10 percent or so of construction work. When dictated by work load, and to test the competitiveness of pricing from Alliance contractors, NJNG will bid certain projects. NJNG has recently undertaken two major two non-Alliance projects, each performed by a different contractor. The company completed the larger of the two projects, the Franklin Line- Middletown replacement, in October 2006 with final restoration scheduled for spring, 2007. The project consisted of the installation of 16,000 feet of 20" steel transmission main. The second non-Alliance project is a distribution replacement project in Asbury Park. NJNG sought in both these projects to make awards to non-Alliance contractors to provide benchmarks for comparing Alliance contractor performance and to reduce cost.

d. Formation of the Alliance

NJNG became motivated to examine other approaches to construction management because of a steady increase in contractor expenses experienced in the early 1990s, during implementation of a competitive bidding program. The company observed that contractor work was costing more and declining in quality. NJNG was also experiencing overhead costs for maintaining an in-house staff to administer frequent competitive bidding processes. The company responded by forming a quality team to review all activities associated with construction. This work eventually led to the adoption of the Alliance approach.

The Company determined that a cost effective solution to its construction cost and quality concerns would be to form with selected firms a relationship that retained NJNG control over design and overall project management, but used contractors to perform specific job site and support functions. An NJNG management and supervisory team evaluated the contract types that would best promote overall quality and cost control objectives. The company decided that an incentive plan for increasing contractor profit in cases of exceptional performance would serve those objectives, given an effective selection process and the resolution of agreement and relationship details

The NJNG management team recommended the establishment of an alliance with one or more contractors, in order to achieve three specific, major goals:

- Allow NJNG to grow while maintaining costs
- Ensure that a reliable contractor with the necessary level of experience and service skills would be available when needed
- Minimization of administrative work related to the bidding process.

e. Alliance Contractor Selection

The evaluation of potential Alliance contractors began in 1999. Discussions with the potential firms spanned several months. While the acceptability of the Alliance concept to local contractors was being negotiated, NJNG retained its practice of awarding projects on a competitive bid basis. The competitive bidding procedure had been in use for most of the 1990s and had not been effective in controlling costs, giving rise to the idea of the Alliance for improving cost control and quality. Gray and Kiely were two of the firms working for NJNG at that time. NJNG also used two to three other contracting firms to perform blanket work.

The company asked potential candidate firms to respond to a request for information. NJNG's initial pool of potential Alliance contractors included six firms considered qualified to perform the work required. The number of firms was limited to six largely on the basis of capability to work with energized gas facilities. NJNG did not include contractors suited only for the installation phase of construction, because the need for Company crews to energize the new mains would reduce efficiency unacceptably.

Initial discussions of the concept with the six candidates reduced the field to four, because of concerns about the willingness of two candidates to implement NJNG's proposed cost controls. NJNG evaluated bids from the remaining four, which included Kiely and Gray (the two eventually selected), Wade Contractor Inc. of Linden, NJ, and Henkels & McCoy Inc. of Burlington, NJ. The contractors made presentations to the NJNG negotiating committee which evaluated each firm based on a structured process to assign values to each committee member's opinion of the firm's ability to adhere to the objectives of the Alliance. The committee assigned numerical ratings to reflect NJNG's experience with each company. The process resulted in an average rating for each company. Gray and Kiely achieved significantly better ratings than did the other two firms.

NJNG formed a team including the two contractors, Gray and Kiely, to develop the structure of the Alliance contract. The new team spent over a year developing the parameters of the alliance agreement. The team identified a "cost plus framework" that contained six performance measurement categories that would affect to the contractors' profit percentages:

- Cost containment
- Productivity
- Customer Satisfaction
- Documentation
- Stores and inventory
- Quality.

f. Performance Measures

NJNG planned to use the performance categories to improve customer satisfaction and quality, stabilize construction expenditures, and reward the contractors for achieving superior results in each category.

Cost containment and Productivity comprise the primary performance categories. Cost containment addresses the ability to meet or beat cost targets prepared by NJNG's Financial Department. It is the major factor in determining the contractors' profit percentages. Periodic reviews by NJNG of the contactors' financial records and consultation with the contractors establishes an acceptable profit percentage. The reviews do not rely on annual, audited records prepared by external auditors. Quarterly profit percentage calculations seek to encourage savings from cost estimates. If there is no material variance between actual and targeted costs, then the contractor profit percentage remains at contractual levels. Cost overruns compared to targets will cause a reduction in profit percentages. There exists a method for increasing profit levels in the event that costs run below estimates.

At the end of each year, a contractor is entitled to improved profit percentages if savings are achieved. The amount of the improved profit, (enhancement) is based on two factors: the savings realized and the point scores accumulated using the five performance categories listed below.

NJNG also measures cost performance through its "Productivity" factor, which considers unit rates (*e.g.*, hours worked divided by units of work performed) as opposed just to total costs. Productivity is the largest of the performance categories and accounts for 30 percent of the performance measurements. While overall cost containment is the primary measure of a contractor's performance, productivity is a more detailed measure of efficiency. Productivity also permits evaluation of unit costs by type of construction.

The annual capital budget process produces expected unit costs, measured in cost per man-hour, for each type of work, which NJNG and the contractors establish jointly. NJNG performs annual comparisons of actual unit rates in relation to the benchmarks established through the capital budget process. These reviews examine differences in the work types assigned to each contractor (*e.g.*, marketing expansion or operations improvement) to assure that unequal work complexity or difficulty has not skewed the observed results for each. Productivity reviews reward performance when productivity has remained the same or improved.

Performance against these two cost benchmarks and the other four measures occurs at the end of each year and profits are altered according to the scores achieved. A contractor can earn increased profits by meeting targets and realizing savings, with the amount dependent upon savings accumulated and the combined performance in the remaining performance categories. Each of those remaining categories carries an individual weighting (shown below) in the evaluation, in order to reflect its relative importance in the overall calculation.

Item	Weight
Productivity	30
Customer Satisfaction	20
Documentation	15
Stores and inventory Control	10
Quality	25

Customer satisfaction is calculated each month based on the previous month's performance. Two surveys provide the relevant measurements: one measures new business activities and the other measures operations projects.

Documentation and paperwork performance is based on a requirement for completed work documentation as determined by NJNG. The fifteen points in this category are divided equally into the following subcategories:

- Daily input of field completions on a timely basis
- Paperwork and as-builts for service orders
- Accuracy of documentation.

Inventory control comprises 10 percent of the performance incentive and is based on the inventory turns experienced. NJNG purchases the materials according to its own specifications and from approved vendors while the Alliance contractors provide storage and handling. Record keeping is performed by the contractors after materials are received.

Productivity is intended to evaluate the contractors' ability to organize, schedule and execute construction activities cost effectively. The unit cost by type of construction is the basis for evaluation. Invoiced man-hours for each project are used to calculate man-hours for each type of construction which is then compared to the previously agreed upon target for the year.

Quality is a measure of welding and overall installed effectiveness of the pipes and other construction projects. Contractors are expected to report quality shortcomings and the reliance of the Alliance contract is on self regulation. The company performs routine spot inspections in the field.

NJNG maintains detailed records of the cost data for each project of each Alliance contractor. NJNG prepares monthly summary reports on the performance of each contractor. Such summary reports evaluate overall performance and compliance with the Alliance contract and are routinely distributed to management.

g. October 2004 Extension of the Alliance Contract

NJNG performed an assessment of the competitiveness of the cost of construction by Gray and Kiley before deciding to extend the Alliance contract in the fall of 2004. Comparisons of costs to other contractors proved problematic; they would not divulge their cost data. NJNG decided to participate in an independent benchmarking study that focused on construction activities and their costs. NJNG's compared performance, and identified best practices in several areas, especially construction management. NJNG used data provided by a panel of utilities selected to provide data to a consulting firm for evaluation of the effectiveness of different techniques and rating of the performance of the member utilities. This effective method for exchanging ideas and evaluating new concepts for management showed NJNG to be a proficient user of contractors for construction. The evaluation placed it in the top tier of responding companies.

After efforts such as this benchmarking convinced the Company that it had experienced competitive costs for construction under the Alliance, it invited the two contractors to discuss their interest in extending the contract. NJNG proposed contract changes that would produce an estimated reduction in annual construction costs of $500,000. The reductions resulted largely from elimination of insurance costs from the profit calculations and from a reduction in profit for sub-contractors and material costs.

The parties agreed to extend the Alliance contract for four years with modifications starting on August 3, 2009. An added termination provision allowed either party to cancel the contract before the full term by giving twelve months written notice.

NJNG did not contact additional firms to determine their interest in joining the Alliance contract at the time of extension. Following the extension NJNG did, however, begin to employ outside firms on specific projects as a means of verifying cost data and to build a relationship with local firms.

The Alliance contract received approval from senior Energy Delivery, Financial, and Legal executives. A standing committee consisting of NJNG and contractor personnel administers the contract. The NJNG committee members are:

Manger, Contractor Administration	Supervisor, Property Records
Manager, Engineering	Senior Buyer, Purchasing
Manager, Energy Delivery Support	Supervisor, Meter Shop and Storeroom
Supervisor, Distribution Construction	Manager, Internal Auditing (now a VP)

h. GIS

NJNG has committed to the implementation of a Geographic Information System (GIS), which will provide digital and very accurate records of the Company's system. NJNG began implementing it in 2005. The system will provide the capability to meet the standards established in the Federal Pipeline Security and Safety Act. The GIS is intended for use by the Company as a whole although its importance to Energy Delivery for engineering and construction will be very significant. The anticipated benefits include accurate and updatable "as built" drawings for all divisions

Implementing the GIS, including obtaining the essential data describing the distribution system, is a multidisciplinary project. Engineering and IT will play central roles in assuring the successful completion of the project, as will the outside consulting firm hired for system design and implementation.

The project was developed with a five-year implementation plan. Some problems have occurred because of staffing by the consultant as well as a lack of NJNG's internal expertise in the technology being used. Since the project was started in 2005, concerns about the cost of the project and its structure have resulted in changes in the approach to implementation.

h. Compliance Reporting

NJNG is required by the Department of Transportation Minimum Federal Safety Standards (Code of Federal Regulations, Title 49, Part 192) to survey exposed and underground piping at periodic intervals to detect leaks and identify segments for repair and/or replacement. The following leakage surveys are required:

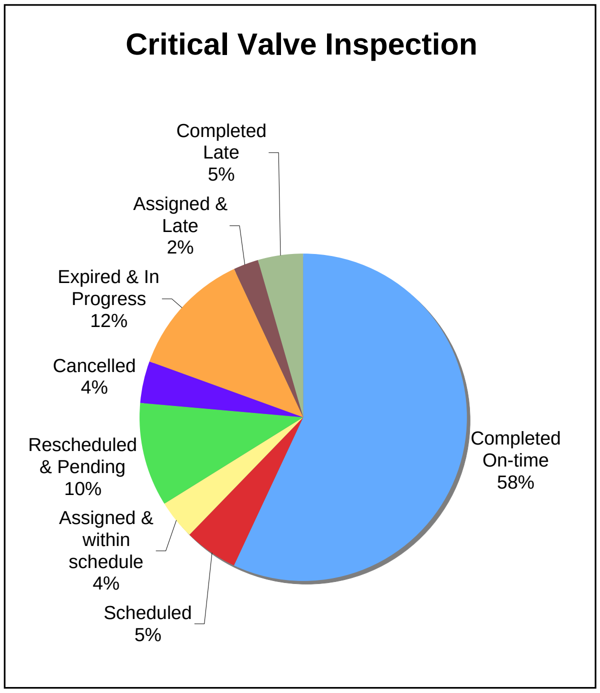
- Exposed piping survey – every 3 years

- Transmission line survey and patrol – Must patrol pipelines two times per year and leak survey annually
- Distribution business district leak survey – mains and services within business districts shall be surveyed each calendar year, with intervals not to exceed 15 months
- Service leak survey – all active and inactive service lines outside of business districts shall be leak surveyed at once every 3 years (not to exceed)
- Distribution main survey – all mains with a MAOP of 60 psig or less – outside business districts.
    - Bare steel, cast iron, and unprotected wrapped steel surveyed annually (not to exceed 15 months)
    - Protected wrapped steel surveyed once every 3 years (not to exceed)
    - Plastic mains surveyed once every 5 years (not to exceed)
- Winter leak survey cast iron main – when frost conditions reach a depth of 15 inches, survey all cast iron mains until frost conditions no longer exist
- Railroad & Highway Crossing Survey – All transmission pipelines crossing highways and railroads must be visually inspected at least 4 times per year (not to exceed 4.5 months)
- Valve Maintenance – each gas valve identified as critical must be inspected annually (not to exceed 15 months)
- Regulator Maintenance – Each district regulator station is required to be inspected annually (not to exceed 15 months)
- Special one-time surveys – following unusual stresses (*e.g.*, earthquakes or blasting)

Since October 2005, NJNG has been tracking Distribution valve maintenance and inspection through its JD Edwards system. Prior to this management and tracking was all paper-based. When a critical valve is due for inspection, a work order is created in the system. Division personnel are assigned these work orders with an objective to complete the inspection within 12 months. By code, critical valves must be inspected annually (not to exceed 15 months).

As of March 2007, of the 148 Distribution valve inspections completed by NJNG, 91.3 percent were completed within the 15-month mandatory inspection window and 9.7 percent were completed late, outside the 15-month window.

In total, NJNG tracks 243 Distribution valves. As of March 2007, the next table describes the status of the required inspections of these valves:



Of concern are the critical valves that have passed their inspection window but have not been inspected. NJNG states that a portion of these valves have been assigned to the field for inspection but have not been inspected due to permitting or accessibility issues (12 percent of total valves). Additionally, 2 percent have been assigned to the field but have passed the 15-month window with no indication of "work in progress". All valves have been reviewed. The only valves not inspected have been due to an inability to access them. This has caused a number of locations to be revised.

In total, 19 percent are late, as compared to the 15-month inspection window (including "Expired & In Progress", "Assigned & Late", and "Completed Late"). Excusing the 12 percent that have permitting or accessibility issues, NJNG was still late in performing the inspection of 7 percent of its critical valves.

PM&T is responsible for all transmission-related DOT compliance inspection and maintenance. Currently, NJNG has 400 critical valves, 400 regulator stations, and 2,500 devices that are tracked for compliance. PM&T uses the JD Edwards Regulator Relief System (RSS) to track inspections and maintenance on all valves, regulators, and other critical devices on NJNG's transmission system.

PM&T is also responsible for all transmission patrols and surveys. PM&T relies on an Excel spreadsheet to track monthly patrol and annual inspection status.

Review of PM&T's compliance and operating reports as well as company databases that track leak repair, regulator maintenance, valve maintenance indicates that NJNG has remained in compliance with Federal DOT regulations.

As of January 2007, NJNG is using the JD Edwards system to schedule and track its mobile and walking leak survey work. Work orders are generated on a plate-map basis. Each NJNG Division works off a master 5/3/1 year schedule, based on type of pipe, by plate map. A work order is created in the system for every plate map to track hours to do this work. In the past, NJNG worked off of hard-copy plate maps with a hard-copy master log to indicate completion status.

NJNG intends to use the JD Edwards systems where it makes sense to schedule and track as much compliance-related work as possible. The company recognizes the limitations of the paper-based map-plate approach and has been actively shifting inspection and survey work into the JD Edwards system.

However, the JD Edwards system has some limitations that should be addressed to ensure that compliance-related tasks can be properly scheduled, tracked, and worked. Currently the JD Edwards work order system does not retain any history of device inspection, rather overwriting the last inspection date with the next. This makes it difficult to review inspection records to detect any trends in NJNG's compliance. Additionally, the system was intended to track individual devices and NJNG has been unable to add all required compliance-related tasks to the database.

For staffing and accountability purposes, it is important to recognize when devices or lines were not inspected or surveyed as required, so the appropriate actions can be taken to ensure schedules and compliance are met in the future. Because NJNG uses a variety of approaches to track compliance activities—manual logs, map plates, and the JD Edwards system—there are many reports that must be reviewed to determine compliance status. In addition, each division is responsible for performing the compliance-related tasks within their division. This complicates overall tracking and management.

3. Conclusions

1. NJNG has to date effectively used the Alliance concept to control construction cost and quality.

The concept of an Alliance or similar arrangement to control costs is an appropriate measure. At the time the Alliance was designed by NJNG management, the Company had been experiencing rapidly increasing construction costs, and identified a need to gain greater control over costs. NJNG was also experiencing a number of problems with construction quality. Use of the Alliance concept back in the 1999 and 2000 time frame represented a forward-looking attempt to improve construction cost and quality.

2. The Alliance contracts and resulting contractor management have been appropriate to date.

NJNG used an appropriate process for identifying candidates, selecting from among them, and developing governing agreements. The contracts with the Alliance contractors are comprehensive; they establish an effective system for managing and evaluating performance and for administering the relationship. The contracts for the two firms are the same. They employ a combined contractor/NJNG committee appropriately to maintain an effective working relationship, while still addressing the kinds of problems and issues that are inevitable in carrying out an LDC construction program.

3. NJNG's benchmarking activities and its ability to secure contract concessions warranted extension of the Alliance contract, but that approach should not be presumed to be effective in the long term.

NJNG took appropriate efforts to judge the effectiveness of performance to date under the Alliance contract. Moreover, elimination of insurance costs and miscellaneous charges from Gray and Kiely brought material improvements to the original Alliance contract. In exchange for reducing the costs of items that could be considered the cost of doing business for Gray and Kiely, NJNG agreed to extend the contract. This was done after more than three years of successfully developing the working relationship envisioned in the original Alliance contract.

4. Continuation of separately awarded contracts and the introduction of a routine data verification program will prove important in assuring that the Alliance approach remains demonstrably superior in meeting cost and quality objectives. *(Recommendation #1)*

The principal element in assuring the continued effectiveness of the Alliance over time is the maintenance of cost effectiveness by both the construction contractors and NJNG. The company has found that local cost data for different types of construction contracts is difficult to obtain in the absence of a "live opportunity" for competitors to pursue. Contractors are in competition with each other and have no motivation to share confidential data. NJNG has started a process of awarding contracts to local construction firms partly to obtain actual cost data which can be used to verify the charges from the Alliance participants. Continuing to do so at a level that will provide meaningful data is important for a number of reasons:

- Benchmarking the performance across the full range of construction work types
- Reinforcing for Alliance participants that they must continue to "win" NJNG's business
- Convincing other providers that NJNG is interested in exploring its alternatives and in making real commitments when it is beneficial for the utility.

NJNG has conducted only limited audits of Alliance-contract cost data necessary for applying contract provisions. Such verification is important for long term maintenance of the cost control provisions of the agreement. Verification provides NJNG with assurance that the relationship originally envisioned for the Alliance is being maintained. Too little verification results in an agreement based too much on trust, which will impose increasing risk as the relationship duration extends.

5. NJNG appears to be in compliance with all the conditions of the March 4, 2005 Stipulation and Settlement Agreement relating to the PETCO incident.

These stipulations have helped strengthen NJNG's underground locating processes and contractor oversight. As a result, third-party damages have significantly declined since 2005 and contractor quality is improving.

6. **NJNG has actively promoted the availability and necessity of using location services prior to construction**.

Every third-party damage incident is a potentially serious public safety issue. As such, the underground locating process should be under continual scrutiny to ensure that all markout requests are properly and timely marked, whether by company personnel or contractor. In addition, NJNG should continue to emphasize the importance of the NJ1C notification system with contractors and customers, in an ongoing basis, in an attempt to eliminate the 69 percent of third-party damage incidents in which no call was made to NJ1C to request a mark-out.

7. NJNG is complying with most DOT 192 patrolling, surveying, and inspection regulations and is improving its inspection records keeping system.

Since October 2005, NJNG has been tracking Distribution valve maintenance and inspection through its JD Edwards system. Prior to this management and tracking was all paper-based. As of January 2007, NJNG is using the JD Edwards system to schedule and track its mobile and walking leak survey work. Work orders are generated on a plate-map basis. Each NJNG Division works off a master 5/3/1 year schedule, based on type of pipe, by plate map. A work order is created in the system for every plate map to track hours to do this work. In the past, NJNG worked off of hard-copy plate maps with a hard-copy master log to indicate completion status.

8 **The Company does not include inspection history in its record keeping procedures** (*Recommendation #2*)

NJNG intends to use the JD Edwards systems where it makes sense to schedule and track as much compliance-related work as possible because of the limitations of the paper-based map-plate approach. However, the JD Edwards system has some limitations that should be addressed to ensure that compliance-related tasks can be properly schedule, tracked, and worked. Currently the JD Edwards work order system does not retain any history of device inspection, rather overwriting the last inspection date with the next. This makes it difficult to review inspection records to detect any trends in NJNG's compliance. Additionally, the system was intended to track individual devices and NJNG has been unable to add all required compliance-related tasks to the database.

9. NJNG has not assigned dedicated, senior leadership to the GIS project. ***(Recommendation #3)***

Management and implementation of the GIS system has experienced a number of delays and similar problems. The GIS project is a requirement of the Federal Pipeline Security and Safety Act and as such vendors may be over extended. NJNG has also experienced some difficulty in providing adequate and accurate data for the project. While a team of NJNG personnel has been designated for implementation, a single project manager who is a member of top management of the Company has not been designated.

4. Recommendations

1. Prepare a structured, comprehensive, documented analysis of effectiveness and alternatives before making any further extensions of the Alliance contract, and develop

through competitive or other measures a sound understanding of likely costs from other potential suppliers. *(Conclusion #4)*

Any further extension of the Alliance contract should be accompanied by a detailed cost benefit analysis documenting not only the reasons for any extension but also the alternatives available. Such a cost benefit study would require as much cost and performance data from regional construction contractors as NJNG can obtain. For that reason, cost data from contractors outside the Alliance should be solicited. NJNG should use measures that demonstrate to other potential suppliers and to the Alliance contractors that contractor decisions are not a foregone conclusion and that providing cost and price information to NJNG is more than a hypothetical exercise. NJNG should also actively solicit additional construction firms to participate in the Alliance approach, if it is to continue past the end of the current agreement.

NJNG should expand its recent practice of awarding contracts to construction firms outside the Alliance, and commit to it on a continuing basis at meaningful levels and across a range of work types, in order to obtain accurate and up to date cost information. Performance by other contractors is important in assuring that NJNG continues to remain capable of evaluating the performance and costs of the Alliance against competitors. Benchmarking and other industry-wide studies have value, but sole or primary reliance on them to keep current about market alternatives becomes increasingly risky as the duration of an Alliance-type relationship lengthens.

2. Improve DOT compliance tracking and reporting. *(Conclusion #8)*

NJNG's DOT compliance reporting is scattered among spreadsheets, paper-based logs, and the JD Edwards system. NJNG has moved a large portion of its required compliance inspection and tracking to its JD Edwards system. This is a good move. NJNG should continue to migrate as much as possible to the JD Edwards system or another suitable work order management system.

However, the JD Edwards system must also be enhanced to deal with its limitations so that compliance-related tasks can be properly scheduled, worked, and tracked. Currently the JD Edwards work order system does not retain any history of device inspection, rather overwriting the last inspection date with the next. This makes it difficult to review inspection records to detect any trends in NJNG's compliance. Additionally, because the system was intended to track individual devices, not all compliance related tasks have been included in the system. NJNG should work to include all compliance related tasks in the system if possible. NJNG should also enhance the system so that it can provide a history of performance for each item.

For staffing and accountability purposes, it is important to recognize when devices or lines were not inspected or surveyed as required, so the appropriate actions can be taken to ensure schedules and compliance are met in the future. Because NJNG uses a variety of approaches to track compliance activities—manual logs, map plates, and the JD Edwards system—there are many reports that must be reviewed to determine compliance status. In addition, each division is responsible for performing the compliance-related tasks within their division. This complicates overall tracking and management.

NJNG does not currently have any summary-level status reporting for DOT compliance. The DOT regulations require many different kinds of inspection and survey tasks that cover much of the physical plant of the company. NJNG should have a way to summarize all compliance activities for the company, across all divisions, to make sure that it's meeting its federal and state requirements.

3. **Designate a member of top management as the project manager for GIS.** *(Conclusion #9)*

This assignment will help to promote cooperation and focus among NJNG departments involved in the implementation. Such a change will also provide greater control over the outside consultant. Finally, top management when involved on a periodic basis and in greater detail will be better able to focus attention on problem areas to get the project on schedule.

D. Operations and Maintenance

1. Background

The efficient and effective use of Energy Delivery's field service personnel formed a major focus of this part of the study. How the Company assigns personnel to its Divisions, the methods of dispatching maintenance crews and first responders are major determinants in the level of personnel efficiency. The effectiveness of the work assignments affects the condition of the distribution system and is a major factor in customer service.

NJNG's evolving customer base, which is heavily reliant on residential customers, requires periodic review of assignments as well as expansion of the distribution system. The manner in which NJNG has addressed these changes and implemented changes is one of Liberty's ways of evaluating productivity of the management of the field service personnel.

The investment NJNG has made in automated systems for producing cost control information and productivity measurement data is extensive. The Company's use of the data and its integration of available systems represent opportunities for further improvement, which Liberty has evaluated.

This section also addresses the SCADA system, which is the responsibility of the Energy Supply Department and the supporting data loggers for obtaining adequate data for the system dispatch. Gas dispatch, like personnel dispatching and control, is supported by significant systems with appropriate backup systems. Liberty reviewed the gas dispatch system to determine its adequacy in terms of procedures for backup and for obtaining enough data to monitor line pressure under varying conditions.

Liberty also reviewed the Company's compliance with the BPU's meter testing and removal standards. NJNG maintains a meter repair facility in Lakewood, which we evaluated in addition to the overall performance of the meter replacement process.

2. Findings

a. Overall Work Locations and Structure

NJNG has located its operations management functions at the four Divisions:

- Bay Division headquartered in Atlantic Highlands
- Ocean Division headquartered in Lakewood
- Central Division headquartered in Wall Township
- Northern Division headquartered in Rockaway.

Some field staff operates on a 24 hour rotating basis utilizing numerous shifts to maintain coverage. Field dispatching operates on a 24-hour basis, utilizing three traditional shifts; load dispatching operates on a 24-hour basis, utilizing numerous shifts.

NJNG assigns its personnel to the Division in which they work. Workers are dispatched either out of their service center or, for Home Reporters, directly from home to their first job depending on their job class. NJNG takes this approach to increase productivity and improve response time by reducing travel time to the first job of the day.

Budgeted workloads by division by specific management objectives form the basis of assignments of personnel to Divisions. NJNG prepares detailed annual budgets for the Energy Delivery Department; they reflect the necessary man-hours for each Division by job codes. For example, NJNG estimates customer premise work, regulatory compliance work and system maintenance work for each job code within each work type. The budgeting process provides a mechanism for evaluating manpower requirements by Division and further by job description.

Historical hours form the basis for evaluating the time necessary for each Division's annual man hour budget. A review with Division Managers identifies the work activities to be changed. Reviews of anticipated leak survey areas, meter exchange programs, and scheduled "B" leak repairs provide just a few examples of the possible reasons for changes in historical workload information.

NJNG has made occasional changes in Division assignments, but not on a routine basis. For example, the company transferred personnel from the Northern Division to the Central Division in light of an increase in workload in the Central Division and a reduction in the Northern Division. The company is now evaluating but has not approved further transfers. NJNG is performing an analysis of the cost benefit ratios, and developing an overall business plan for possible reassignments. Two factors; *i.e.*, identification, through the annual workload budgeting process of shifting workload levels among Divisions and management intentions to reduce overtime initially gave rise to this project. Essentially, Central Division workload growth exceeds that of the other Divisions.

NJNG dispatches First Responders and construction crews (utility service crews) under a fully automated system that uses portable computers in trucks. These portable units (Hammerheads) provide screens for dispatching detail and for reporting work progress. The Hammerheads provide updated data for the voice dispatching system databases, which can be "mined" by J.D Edwards software packages for specific purposes. Mining could be very effective, as an example, for expanding the use of field service productivity. Equipment utilization can be evaluated and RE's can be examined to determine their accuracy.

b. Work Order Flow

Several of NJNG's JD Edwards system modules can support operations management, including the following:

Leak Measurement System	Work Order System	CIS Workbench
Regulator Relief System	Transportation System	Purchasing System
Cathodic Protection System	Customer Information System	Bid Control Package System

Customer Information personnel typically enter service orders for a particular customer account manually into the JD Edwards system. Such workorders usually stem from a customer call to Customer Information. Personnel can also create workorders for non-premises work, not specific to a customer, on a service-order screen. Customer Information personnel schedule prepared workorders. Other orders (typically gas-system maintenance orders) get scheduled on a calendar basis by a robot batch program

After creation, orders flow to the Advantex Dispatch System for assignment to distribution crews by Distribution Supervisors, Dispatchers or the Advantex Work Load Distribution System (WDS). These crews perform the ordered work, and input completion data on the Advantex Mobile Application Completion forms which are programmed on the Hammerhead computers in field service crew trucks. The availability of Hammerheads to input data directly to the Advantex system speeds the input of completion data and enables accurate input of completion detail for each project. Completed data gets transmitted back to the JD Edwards system for recording.

c. Performance Measurement

NJNG produces a number of reports, referred to as "report cards," that measure the productivity of field services personnel and equipment. A directory holds these report cards, to which all managers and supervisors have access. NJNG separates the data by First Responder and Utility Services work groups. Overtime reports distributed weekly and available through the public directory provide an example of the reports that NJNG regularly prepares.

NJNG uses a system of Reasonable Expectations (REs), which set forth workforce standards, for evaluating the productivity of work methods and crews. NJNG's list of RE's contains sufficient detail to provide a tangible basis for monitoring field service employee performance and for scheduling personnel. NJNG does not, however, routinely evaluate the continuing effectiveness of the REs as benchmarks. Changes in personnel reassignment, work methods and new procedures can all result in changes to REs. The hours embodied in some standards would be expected to fall as more efficient tools or methods are introduced, others may need to increase as a result of new codes. An example of the dated nature of some NJNG standards is the company's vehicle utilization report. The company has not run that report in at least five years because empirical evidence indicates that utilization for all types of vehicles is very high.

NJNG has also established broader, key performance indicators for Energy Delivery and for each of the department's work groups. NJNG uses the performance indicators in evaluations of personnel and supervision, and can use the factors in contract negotiations. The key indicators include:

- Leaks per mile of distribution system
- Distribution O&M /expenditures per mile of distribution system
- Cost to install new customer
- Percent of leak calls responded within 60 minutes
- Customer outage information
- Energy Delivery customer satisfaction.

NJNG maintains coordination and communication through regularly scheduled management meetings that collect input from management personnel and allow senior management to direct the entire Energy Delivery team effectively, For example, a weekly Staff Meeting includes all Energy Delivery managers. The Vice President of Energy Delivery controls the agenda. Monthly meetings for all field management and supervisors for all Divisions address any new topics such as codes or work activities. The Manager, Central Operations conducts this meeting. NJNG also uses a Quarterly Business Unit Meeting, conducted by the Vice President of Energy Delivery, to review operating results and new activities. The quarterly meeting is for all Energy Delivery personnel and in general is a '"big picture" review.

d. Dispatching

The NJNG Energy Services Department performs system load dispatching. The dispatch center relies on Energy Delivery to implement the required actions, such as operating the LNG facilities and performing system maintenance, which is accomplished by the Pressure Management and Transmission Department in Energy Delivery.

The dispatching center for gas operations and distribution systems control is located in the Wall Township headquarters building. A SCADA with considerable backup capability is in place. It uses the Telvent OASyS Unix 6.2 system. NJNG also maintains and constantly updates a hot backup site. The main site system consists of two real time servers, two historical servers, three operator workstations, a developer's workstation and peripherals. The capabilities of the Main Control Center (MCC) include the following:

- Dual redundant operations that provide duplicate systems for all major hardware components and software functions
- Real-time data dump services that keep the servers and databases current
- Phone dial backup support that backs up the primary phone connections to remote sensors
- Real-time Hotsite that is kept current at all times.

The backup site has all the capabilities of the primary site, except for dual servers. The SCADA and dispatching systems have not been changed in the last three years. NJNG is considering updating the systems in two to three years to assure that adequate software service and training are available from the vendor.

The SCADA system relies on 215 remote pressure data loggers for input. NJNG has scheduled an additional 15 loggers for installation. The remote data sensors provide dispatching data as well as data necessary for identifying areas with low pressure concerns. Loggers also provide diagnostic information if there is an operational anomaly.

NJNG has LNG facilities within its service to smooth requirements for deliveries at the city gates and for maintaining pressure. Gas Control and NJNG Energy Services discuss gas volumes required from all sources to determine whether LNG unit use will prove necessary. Typically, LNG production runs, when dispatched, take place between 11 pm and 10 am. LNG has never been required more than three days in a row. NJNG only needs to use its LNG facilities between November and March in most heating seasons.

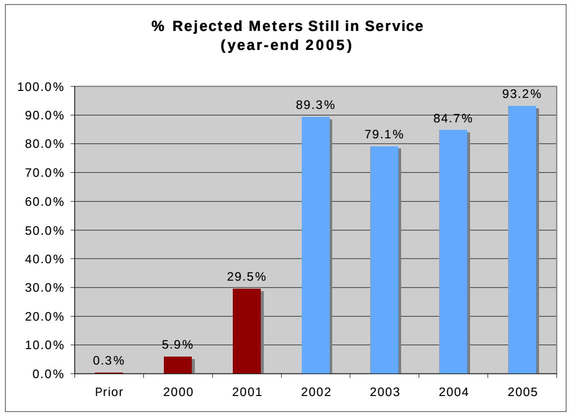
e. Mandatory Meter Removals

Annually, NJNG must test and replace failed meters, in accordance with a NJBPU approved Gas Meter Sampling Test Program. NJNG performs its own testing at its Meter Shop facility in Lakewood, NJ. The JD Edwards system maintains meter testing and repair history until condemned. The system also creates meter-change work orders as needed to meet the requirements of the change-out program, resolve inactive meters (> 12 months), or exchange a failed meter (customer-requested test).

Meter exchanges are the responsibility of each Division. The bulk of the exchanges are done during the summer, through customer appointments. NJBPU requires all utilities to remove groups of meters from service where there has been a failure that exceeds the 90 percent confidence level for the sample selected. The minimum sample size must be at least 200 meters or 10 percent of the total group. As meters are taken out of service, they are tested and the results recorded in the meter history file.

The Gas Meter Sampling Test Program stipulates the removal of poor performance meters from service such that "the required removal is complete within four years from the date such meters were reported as not meeting the performance standards." Following these regulations, for example, NJNG is required to remove all meters rejected on or before March 2001 out of service by March 2005.

As of year-end 2005, NJNG had 20,627 rejected meters still in service (17 percent of total rejected meters). As seen from the table below, the bulk of those rejected meters are within the 4-year removal period. As of December 2005, rejected meters remaining past the 4-year removal period accounted for 3 percent of total rejected meters. The backlog represents meter exchanges that could not be performed on the initial attempt, either due to field obstacles or homeowners who refuse to schedule an exchange.



NJNG created a company-wide spreadsheet in 2006 to track required meter exchanges. Prior to this each division was responsible for tracking and scheduling exchanges. The centralized tracking brings focus to the change-out program, highlighting the need to shift resources to accomplish program removal requirements.

3. Conclusions

1. NJNG uses effective work management systems.

The Company's investment in automated systems for workforce management compares favorably to other utility companies. The automated systems allow for rapid transfer of detailed data about dispatching and work completed by field service personnel. The type of data transferred can be very detailed because of the availability of "Hammerhead" units in the field service trucks. Hammerheads can include such data as layouts of the worksite and very precise locations of actual work completed. The automated dispatch system also provides an effective tool for improved customer response time.

2. NJNG appropriately measures productivity at the worker, work unit, and overall performance-indicator levels.

NJNG can measure performance readily by managers and supervisors for personnel and equipment by use of a series of "report cards" preprogrammed into the automated systems. Managers have ready access to reports simply by entering the parameters they need and by specifying the report required. The ready availability of such report cards is an effective tool in promoting productivity by reducing travel time for field service crews.

3. NJNG is focusing adequately on productivity, but has not maximized the use of its available tools. *(Recommendation #1)*

Productivity is a management priority as evidenced by recent programs to reduce overtime and reassign personnel to Divisions where the workload is increasing. There are additional measures being considered to improve overall productivity through proper geographic assignment of personnel and equipment but the decision is pending development of cost benefit studies and a business plan. These projects are indicative of a continuing commitment to reduce travel time and keep overtime to a minimum.

NJNG has not, however, organized productivity programs in ways that take full advantage of the tools available. Productivity improvement is accomplished largely through implementing projects specifically designed to address programs identified by top management. Reducing overtime is an example that has resulted in personnel reassignments. Productivity improvement as a management process is not organized to assign responsibility to one person. Fixing the responsibility is the basis for starting a continuing program to identify potential productivity opportunities and design projects to address specific productivity improvements. The absence of a formal productivity improvement program limits the ability to find improvements. The Company has demonstrated a willingness to invest in systems to enhance productivity but has not organized to take full advantage of the investment.

Management meetings are routine and well managed so that dissemination of information that affects operations is effective. Meetings range from quarterly discussion of major issues affecting the Company to weekly meeting to control and coordinate daily activities. Such meetings on a predictable schedule facilitate management control and direction while promoting feedback from supervisors and hourly employees.

4. Dispatch and SCADA capabilities are appropriate.

NJNG's SCADA system uses software and hardware that are widely accepted in the gas distribution industry. In addition, the consistently expanding program to install additional data loggers to monitor system pressures assures adequate data for the SCADA and hydraulic modeling used for system upgrades to be effective.

5. NJNG is on-schedule in addressing mandatory meter removals.

The Company is within the BPU's guidelines for defective meter removal. The requirement is that meters must be removed within four years from the date such meters were found to be defective. As of December 2005, rejected meters represented approximately 3 percent of total rejected meters.

4. Recommendations

1. **Establish a focused source of responsibility for productivity programs and expand the use of cost accounting as a tool for identifying productivity improvement opportunities.** *(Conclusion #3)*

Establish personnel and equipment productivity programs as a management responsibility assigned to one person. This would include productivity improvements in RE's and equipment in addition to the existing projects to reduce travel time by reassigning personnel. Productivity priorities should be expanded to include periodic review of the Reasonable Expectations (RE or standards) for work tasks to determine if improved methods have changed the RE's. Potentially, savings resulting from tighter RE's will, over time, result in material savings. This is true since RE's typically remain unchanged for years. In addition, utilization of vehicles by type, by Division, should be evaluated routinely, perhaps annually, to identify savings opportunities.

The Company's investment in automated systems provides the data for analyzing costs by function over time to identify trends. There is also the ability to compare cost performance by

Division. When cost accounting is used routinely, new methods of evaluating cost effective improvements in workforce management can be defined more effectively. As an example, RE's that are appropriate for areas that require significant travel time may be too loose for more densely populated areas in which travel is less material. In most cases, changes in RE's would be relatively small, but the continued use of those RE's over time results in the potential for significant savings.

E. Energy Conservation and Renewable Energy

1. Background

The basis for this part of the study is the BPU's "Strategic Plan for 2005-2008 and Beyond," which was dated January 2005. Revisions to the Strategic Plan (Plan) were being considered at the time of this study, but the January 2005 approved plan determined the criteria for this review.

The Plan establishes a number of policies and objectives for the Board itself and its staff. The plan also includes a number of objectives for certain utilities, mostly water and electric, which have no direct applicability to NJNG. The operational requirements for natural gas utilities are essentially indirect and tend to encourage cooperation with the BPU's Energy Master Plan and references in Section C to the promotion of Renewable Energy and Conservation.

Section 3.1 establishes a target for acceptance of renewable energy by New Jersey residents and businesses. Natural gas companies are not specifically mentioned but are included generally as a New Jersey business. Similarly, Section 3.3 establishes targets for energy conservation through the Clean Energy Program. The Clean Energy Program is a statewide program to promote conservation of several types and is administered by the BPU.

The New Jersey Clean Energy Program (NJCEP) seeks to inform residents and businesses about energy conservation initiatives. The program is administered by the BPU, and utilizes state utilities to help promote the conservation information it produces. Since implementation of the NJCEP, utilities have not maintained their own conservation programs. This is consistent with programs nationally that are developed on the premise that companies that sell energy have little or no incentive to promote conservation.

2. Findings

NJNG anticipates expansion of its conservation effort following BPU approval of a Conservation Incentive Program (CIP). The intent of the CIP is to shift from a passive model for providing information to a more proactive outreach to the company's customers. As part of those efforts NJNG poposed additional programs as part of a June 2007 CIP filing~~.~~ providing residential customers with a customized conservation resource booklet and launched several new programs, including: E-tips, a free, monthly conservation e-mail service; One Price to Upgrade, a competitively bid neighborhood based contractor offer for high efficiency heating system upgrades; and a zero-percent financing offer in the Spring of 2007. In May 2007, NJNG filed documentation with the BPU regarding additional CIP programs to be launched during the coming year. These programs include the launch of the NEXUS Prism system, an electronic interface with the utility billing system, to help residential customers develop a greater understanding of their energy use and how conservation and energy efficiency could help them save money and reduce their greenhouse gas emissions. Through this system, customers can directly access the enhanced level of detail regarding billing information and conservation/energy efficiency opportunities through NJNG's Web site or by calling a CSR. For commercial customers, NJNG will launch a new in-depth resource tool that will provide technical information about conservation and energy efficiency improvements and that provide us with an opportunity to feature program updates. Interested commercial customers will receive monthly newsletters, be able to access technical databases, and be able to pose a specific question to a commercial customer energy expert with an expected 24-hour response period. The company is also reviewing the results of the initial programs.

NJNG does not use renewable energy to support its own operations. Typically, renewable power lends itself to cost effective applications in remote areas where service by the electricity grid is costly or unavailable. However, renewable power has other applications that are cost effective, such as displacement of costly on-peak power and as security for operations that must be maintained even when the power grid fails.

The Company has installed a demonstration solar system at the Maude Service Center. The demonstration system represents a willingness to experiment with renewables, but does not indicate a commitment to the adoption of solar or other technologies for NJNG's own operational requirements.

In the past, NJNG has installed and operated natural gas-fueled electricity generators as distributed generation to augment power to its Wall Township headquarters building. The two units, made by Capstone, were operated as a demonstration. The units were designed and NJNG used them to provide base load power.

The Company had not calculated its electricity costs in a manner that would support an organized energy conservation program for its own operations. An estimate of electricity costs is available from the electricity bills themselves. Compiling energy costs from monthly bills is time consuming and tends to make the evaluation of energy costs too cumbersome to monitor on a regular basis.

Similarly, actual energy consumed is not monitored in a manner that would make it possible to evaluated potential energy projects on a cost benefit basis.

In regard to NJR's own energy usage, the company has been evaluating its own facilities as part of its efforts to match the Governor's commitment to reduce greenhouse gas emissions 20 percent by 2020. Improvements already in progress include upgrades to high efficiency lighting fixtures at several locations, the installation of motion sensors to control lighting, and an update to the air handler system at the Maude Service Center. There will also be an update to the air handler system at the Wall Location. Additionally, NJR now participates in the BPU sponsored Clean Power program. NJR has also retained a consultant to review our energy management system and is committed to a continued focus on corporate energy efficiency.

3. Conclusions

1. NJNG follows the operations requirements of the BPU Strategic Plan

The Company is in compliance with the operations requirements (those reviewed for this part of the management audit) outlined in the January 2005 BPU Strategic Plan. The requirements are largely passive, such as providing information on conservation and renewable power to customers.

2. NJNG has no active energy management program for developing cost saving and conservation programs for its Energy Delivery Department or for the Company as a whole. *(Recommendation #1)*

The basis for such a program is a data base of electricity consumed at each metered location by month. An effective data base requires such data as the account number, location, tariff applied, cost by month and kWh consumed by month. Additional data may be necessary is some cases, such as billing demand (KW) and the use for the electricity at that location. Such a data base provides essential data for monitoring actual costs and consumption and facilitates identifying areas for improvement. For example, a basic data base for electricity would allow the effective cost of power (actual consumption in kWh divided by cost) to be calculated in order to determine which services would provide the highest payback for cost control projects.

4. Recommendations

1. Adopt a policy of evaluating existing electricity consumption. *(Conclusion #2)*

The policy should apply to the entire Company as a basis for promoting energy conservation and possibly the use of renewable energy sources for the Company's own consumption. Such a program is consistent with the BPU's Strategic Plan. It should also identify potential savings. A basic database for electricity costs and consumption for each service connection provides an analytical tool for controlling and analyzing energy consumption to identify cost savings and expand the use of renewable energy. An example of an immediate payback from such a database is the verification that the best available tariffs are being applied to each service connection. Typically, older services have changed in terms of consumer use and the applied tariffs are redesigned, rendering the tariff obsolete for that service. Costs can routinely be reduced simply by analyzing tariffs and consumption patterns.

A program to identify conservation and renewable energy applications for NJNG should be cost justified. A program of evaluating and ranking potential projects based on their cost control and energy savings potential should be designed and documented. The program should establish procedures for evaluating project viability including policies on minimum payback required from electricity conservation investments. Similar guidelines for distributed generation, peak shaving and peak shedding projects should be documented. A policy toward the use of distributed generation in general and renewable generation specifically to support NJNG operations should be documented.

VII. Customer Service

A. Background

NJNG provides most of the functions typically considered to be customer services; *i.e.*, customer contact, billing, credit and collection, and meter reading through its Customer Service & Marketing Service organization. Customer Service & Marketing provides the following specific services:

- Call Center for NJNG and NJR Home Services
- Call Center for Third Party Marketers' customer billing inquiries on transportation services
- Credit and collection services for NJNG
- Customer accounting services for NJNG
- Customer relations services for NJNG

This organization uses three primary groups to perform these functions:

- Meter Reading Process
- Revenue Cycle Services
- Customer Contact Office.

NJNG's more than 470,000 customers account annually for more than 700,000 customer calls, 4.4 million customer payments, 22,000 payment collections in the field, and 222,000 website visits.

The Customer Service & Marketing organization has adopted as its vision, "To create a culture in which employees are encouraged to continually challenge our processes to improve the service we provide our customers by guaranteeing safe, reliable quality service the first time, every time." Business Unit objectives for 2006 include:

- Achieve emergency response targets or better
- Improve customer satisfaction as measured by the customer satisfaction survey and escalated complaints
- Achieve meter reading productivity at target levels
- Manage call volume through the use of technology and self-service
- Control delinquency through various collection efforts
- Participate in and support the EIO process
- Ensure recovery of revenue lost from theft or damages
- Support the overall performance of the Customer Services Department to achieve goals
- Place integrity, communication, diversity, work/life balance, continuous learning and accountability at the core of everything we do
- Support our communities, work with our policymakers and demonstrate sensitivity to the environment
- Achieve operational performance while improving health and safety performance over prior year.

The three areas responsible for customer service operate under the following general structure:

Customer Contact Office
- Telephone inquiries

Meter Reading Process
- Cycle meter reading, off-cycle reads, some field surveys
  - Ocean Division, work locations in Lakewood and Manahawkin
  - Central Division, located in Wall and Atlantic Highlands
  - Northern Division, located in Rockaway

Revenue Cycle Services
- Billing
  - Revenue billing
  - Third-party damage billing
  - Gas transportation billing
- Collections
- Payment processing and reconciliation
- Theft of Service investigations

The following initiatives are underway or were completed within the last year to improve the level of service provided by the Customer Service organization:
- Virtual Hold (automated call backs to customers in wait queue)
- Credit and debit card payment acceptance
- Auto-dialer to make outbound customer service calls
- ZipCheck – web and IVR check payment
- Bottomline Impact to match bad debt with customers
- Upgrade Itron handheld equipment
- Meter reading re-routing
- Covis bill presentation software.

B. Findings

1. Meter Reading & Billing

NJNG currently has 20 billing cycles, and each cycle ranges from approximately 20,000 to 26,000 customers. Generally, meters for customers with odd billing cycles (1, 3, 5, etc.) are read during odd months (January, March, May, etc.) and meters for customers with even cycles (2, 4, 6 etc.) are read during even months (February, April, June, etc.). Residential meters are not read during the summer (typically May 15th to Sept. 15th) for customers, with the exception of residential customers with pool heaters.

Each billing cycle's meters to be read are downloaded from the JD Edwards UCIS to the Itron Meter Reading Application. NJNG implemented its JD Edwards Utility Customer Information System (UCIS) in 1997. Modifications and enhancements have been made over the years.
The expected read date is the target date for the meter readers to complete reading the meters. NJNG assigns meter readers to one of three divisions—the Ocean Division, Central Division and Northern Division. Ninety-six percent of NJNG's meters are located outdoors.

Once meters are read, the read data file is uploaded from the Itron server back to the AS400 server and into UCIS, which calculates bills. Personnel in the IBS Computer Room input monthly therm factors based on information received from NJNG Gas Supply Analyst.

Many of the billing functions are scattered among the Customer Service operation. NJNG is in the process of consolidating these functions in to a Billing group that reports to the manager of Revenue Cycle Services. Revenue Cycle Services is responsible for billing, collections, remittance processing, and Theft of Service. Billing includes cycle billing, gas transportation billing and third-party damage billing. NJNG moved a representative from the Call Center to the Billing group within the last year, and plans to add another to the group. These employees resolve cycle billing exceptions through account review, issuing rereads and manual estimation. Prior to establishing this group, CSRs in the Call Center performed these functions as deskwork, off-phone assignments. The creation of a special group to handle billing exceptions brought more focus and accountability to the work.

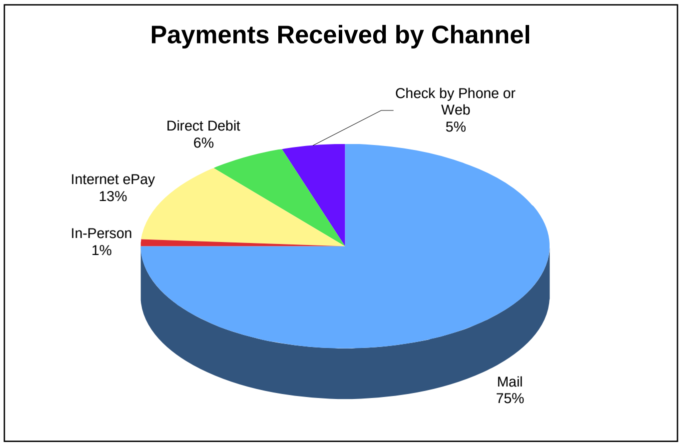
Billing adjustments are made online. Customer service representatives have the power to make account adjustments immediately to resolve a customer inquiry or issue. Any resulting re-bills are printed that night and mailed the next day. NJNG is also moving other work to this group to further consolidate billing-related functions, including non-registering meters and fast-meter refunds.

NJNG has also contracted with Covis for software that will present NJNG bills in multiple file formats (web HTML and Adobe PDF) as they are printed, on the screen for CSR and even customer review. This will help CSRs discuss account status and resolve billing inquiries. The software also streamlines the bill printing process.

2. Payment Processing

NJNG customers can pay in cash, by check, with a credit or debit card, or through a check draft (ACH payment). NJNG introduced credit and debit card payments in 2005. Customers may pay by credit and debit card online or by phone only, not in person. Payments may be made by mail, by phone, by Internet, or in-person at one of four company locations.

The majority of NJNG customer payments are received through the mail. However, Internet payments represent a sizeable percentage of payments received in 2006.



NJNG's Remittance group is responsible for processing mail payments. Seventy-five percent of payments received are processed by this group using Opex openers and BancTec processing equipment.

3. Credit & Collection

NJNG requires a deposit from all customers applying for service that do not satisfy credit requirements. Businesses and homeowners with a good payment history will have the deposit requirements waived. Customers are asked to pay the deposit within 5 days of their application for service. The deposit amount will appear on the first bill if not paid within 5 days. Deposits are refunded to residential customers' accounts after 12 months of good payment history, 24 months for commercial accounts.

Problems in receivables are, naturally, related to the customers' ability and willingness to pay their bills. Outstanding accounts receivables are subject to a variety of collection actions depending upon the status of the account and the customers' credit history. Customers have 20 days to pay their bill. If they haven't paid when the next bill is issued, a reminder notice will be printed on the bill. At 61 days, a disconnect notice is mailed notifying the customer that the account is "subject to termination" in 10 days. A collector will visit the premise on all accounts owing more than $450, to collect or cut service. If the account is not reconnected within 10 days it's moved to "final" status. A pre-collect letter is sent at 30 days and then the account is turned over to one of five collections agencies at write-off, usually 90 to 120 days after the account is finaled. Accounts owing more than $1,000 are sent to an outside law firm for legal action. Any subsequent payments received are credited back to the write-off.

NJNG's field collectors, whose primary responsibility is to collect payment, also turn-off meters, and talk to customers about the status of their account. During the winter moratorium, which lasts from November 15th through March 15th, NJNG will not terminate residential customers that are receiving assistance or have qualified for some form of assistance for non-payment, rather requiring customers to agree to a deferred payment schedule to pay off any arrears. NJNG does not terminate service for non-payment if the temperature falls below freezing or on Fridays, weekends, or the days prior to a holiday.

Field collectors report to the Customer Service organization. Field collectors work out of division offices and perform field collection functions that result in receipt of payment, satisfactory payment arrangements, or termination of service. Most collectors start the day from home. All orders to be worked are delivered by FODS directly to their laptop at home. The information on the FODS equipment enables the collector to communicate with each customer about their account, print receipts, as well as any notices to be left at a premise. It also tracks work order status and collector performance. At the end of the day the collectors report to a division office to turn in any cash payments received. Collectors are assigned special reads instead of collection work orders on some of the days that NJNG does not terminate service for non-payment.

Collectors work on a point system, earning points for collecting dollars. The points form the basis for the incentive bonus. Other components of the incentive include customer satisfaction and customer complaints. Most collectors have been with the company for many years and are very familiar with the territory and accounts to be worked.

4. Complaints and Inquiries

Customers can call NJNG's Customer Contact Office (CCO) between the hours of 7:00 a.m. and 8:00 p.m., Monday through Friday. On the weekends, 2 customer service representatives (CSRs) staff the CCO, to handle emergency calls. After hours, emergency calls are routed to the Dispatch Center.

Customers contact the CCO for issues related to new-service connections, service disconnection, gas leaks, billing-related issues, credit- or collection-related issues, or general customer-relations questions. NJRHS customers also call the center to schedule service appointments and sign up for services.

Calls are routed to the call center from the PBX. The company name "NJNG" or "NJRHS" and whether the call is related to billing, service, or collections appears on the agents' telephone display. If a customer has entered the account number, that will also appear on the telephone display. Calls are routed to Virtual Hold if the wait time for an agent exceeds 2 minutes. Virtual Hold technology gives the caller the option of requesting a callback and not waiting in the queue. If they choose the callback, Virtual Hold keeps the caller's place in the queue and then calls the customer back at the appropriate time, when an agent is available to handle the call. NJNG implemented Virtual Hold technology in November 2006.

Approximately 5 percent of calls received are completely handled, without agent assistance, in NJNG's IVR. These are primarily account balances inquiries and payments.

NJNG's goal in responding to customer inquiries is to answer 70 percent of calls within 30 seconds. It has another goal to make customers wait, on average, no more than 80 seconds to reach a customer-service representative. NJNG manages that goal by using the information produced by its Avaya Call Management System to monitor call-answering performance hourly, daily, *etc.*, and by managing its representatives' workload to meet service level. NJNG has another goal to keep abandoned calls under 6 percent.

NJNG also strives to achieve an 87 percent first-call-resolution rate.

Customers who have complaints about a bill, hardship-status determination, or payment arrangement contact customer-service representatives at the phone center. Complaints are first handled by the customer service representative. If a call cannot be resolved, it is referred to any supervisor or manager available to handle the call.

5. Theft of Service

Traditionally, meter readers and other field employees have been relied upon by utilities for the identification of meter tampering and energy diversion. This is also the case at NJNG. All new meter readers are trained on NJNG's Theft of Service (TOS) process and how to identify potential theft situations. NJNG has indicated an initiative for 2007 to offer TOS refresher training to Meter Readers in all Divisions.

NJNG has a standard operating procedure (SOP) for Theft of Service that outlines responsibilities and provides guidelines for reporting, coordination of investigation, accounting, prosecution, record keeping and reporting, and employee incentives.

Organizationally, the Supervisor of System Security is responsible for NJNG's Theft of Service process, including: investigation, billing and collection of theft, documentation, and testimony. This individual spends about 15 percent of his time on TOS. The Supervisor of System Security reports to the Manager of Customer Services – Revenue Cycle.

NJNG's TOS procedures indicate, "All employees of NJNG have an ongoing responsibility to be on the alert for service locations where TOS is suspected, and for reporting those locations."

NJNG offers an incentive to non-salaried employees to report suspected TOS. A $50 incentive is paid at the time the theft is confirmed. NJNG also pays an additional incentive of 10 percent for recoveries in excess of $500, to a maximum of $2,500. All suspected incidents are tracked using NJNG's Theft of Service Report Form 733. This provides a record of each incident as well as tracks status determination regarding incentives.

NJNG uses its bill inserts, website, and other media to cover TOS for the general public, including details of successful prosecution. Additionally, each meter installation includes a warning sticker discouraging tampering and theft. All new customers receive literature explaining the illegality of tampering and the availability of NJNG's Theft of Service informant line—a toll-free hotline available so the public can report suspected cases, anonymously. Callers are asked to leave details as a recorded message or contact an investigator directly. Calls are logged and investigated by the Supervisor of System Security. NJNG estimates that at least four confirmed thefts or diversions have been reported through this hotline since 2004. The Theft of Service hotline phone number is also printed on the back of every bill.

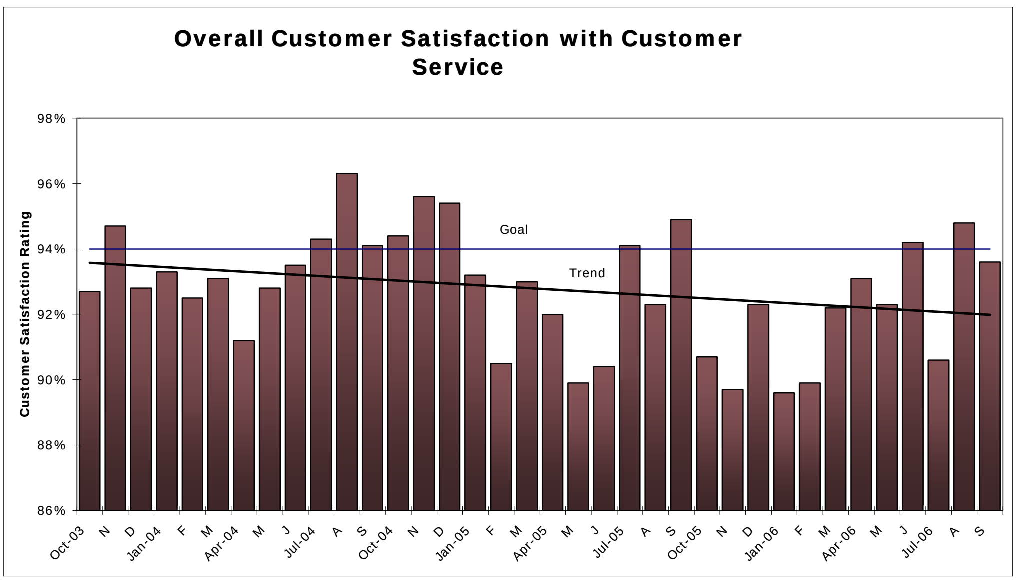
Twenty-seven cases have been identified in the past two years, as seen from the table below. Recoveries averaged 21 percent of billed for this period. An average incentive of $94 was paid out during this period.

	Cases Opened	Cases per Customer	Billed	Collected	Incentives	% Recovered
2005	10	0.002%	$ 72,390.86	$ 14,332.59	$1,424.48	20%
2006	17	0.004%	$ 18,265.55	$ 5,001.36	$1,113.15	27%
Total	27	0.003%	$ 90,656.41	$ 19,333.95	$2,537.63	21%

C. Conclusions

1. NJNG's customer satisfaction has declined since 2003. *(All Recommendations)*

NJNG ranked second, overall, and first in New Jersey, in the East Region of the J.D. Power and Associates 2006 Gas Utility Residential Customer Satisfaction Study, and first within Customer Service, of the sixteen utilities participating. NJNG measures customer satisfaction monthly, through recent-contact transactional surveys. Since late 2003, NJNG's Overall Customer Satisfaction, as measured by customers who have contacted Customer Service has been declining, as indicated by the trend line in the table below.

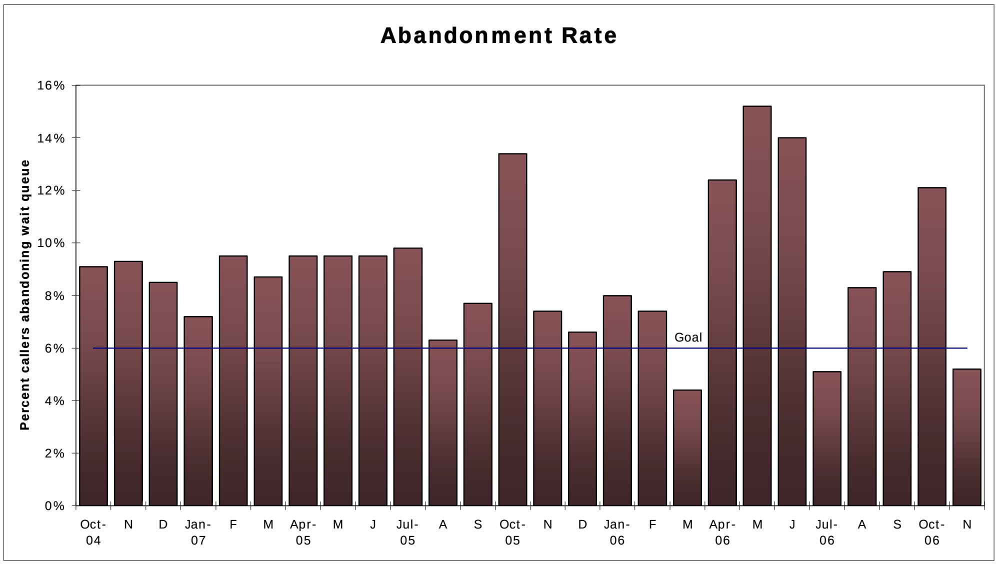


Similarly, Overall Customer Satisfaction with CSR performance has also declined since 2003, although more gradually.

NJNG experiences the lowest BPU complaints of any major New Jersey utility; however, formal complaints have been rising (includes BPU, Chairman's Office, Consumer Relations, and Customer Advocate). Complaints specifically relating to Customer Service functions—Meter Reading, Customer Services, and Collections—have also been increasing.

2. NJNG's telephone customer service response is below standard. *(Recommendations #1 and 2)*

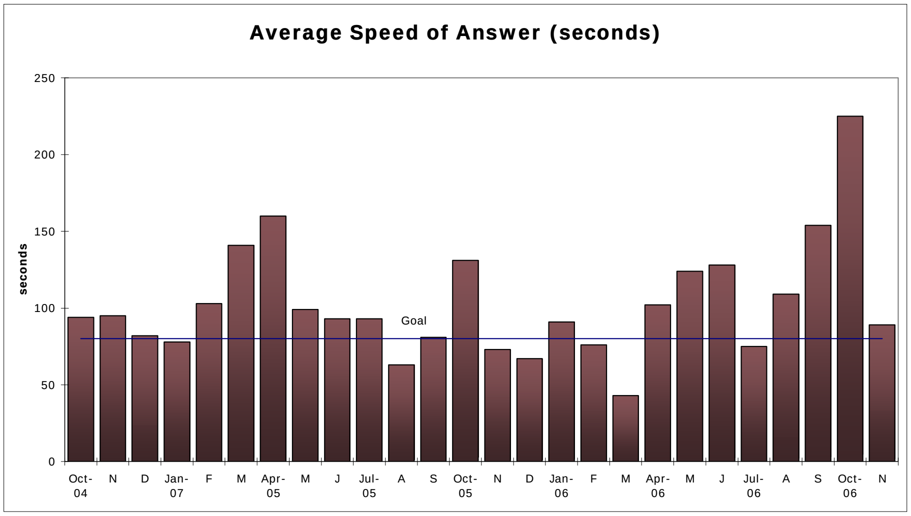
NJNG's abandoned call rate—the percentage of callers abandoning while in queue, was quite high during 2005 and 2006. The CCO only met its goal in 3 of 26 months (11.5 percent).



Higher abandonment means more customers are calling back, more often, because they haven't been able to get through to the company.

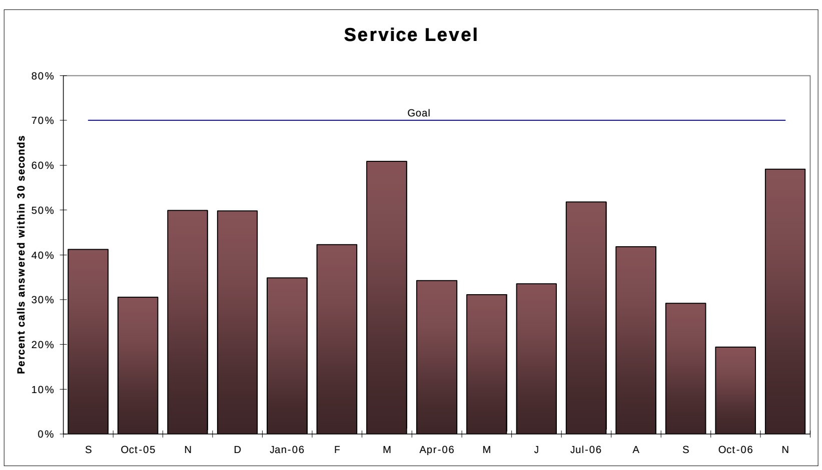
In addition to abandoned calls, NJNG routinely blocks calls with a courtesy message when its trunks are full. During the period October 2005 though March 2007, NJNG blocked 241,676 calls—approximately 17 percent of total calls initiated by customers—twice as many calls blocked as abandoned. At peak, NJNG blocked 37 percent of its inbound customer calls. In total, 30 percent of calls initiated by customers are either blocked or abandoned. Such a high level of blocked calls normally indicates inadequate trunk capacity and insufficient staffing to handle incoming calls. Such a high number of blocked or abandoned calls certainly reflects negatively on customer satisfaction.

Of those that do get through, most have had to wait several minutes—an average of 2.6 minutes in 2005 and 2006. NJNG's CCO has experienced higher Average Speed of Answer (ASA) during the past two years. NJNG only met its goal 26 percent of the months measured in fiscal year 2005 and 2006. Particularly troublesome, ASA peaks in October 2006 at 225 seconds. Customers, on average, waited at least 3.75 minutes to speak with a representative during October 2006.

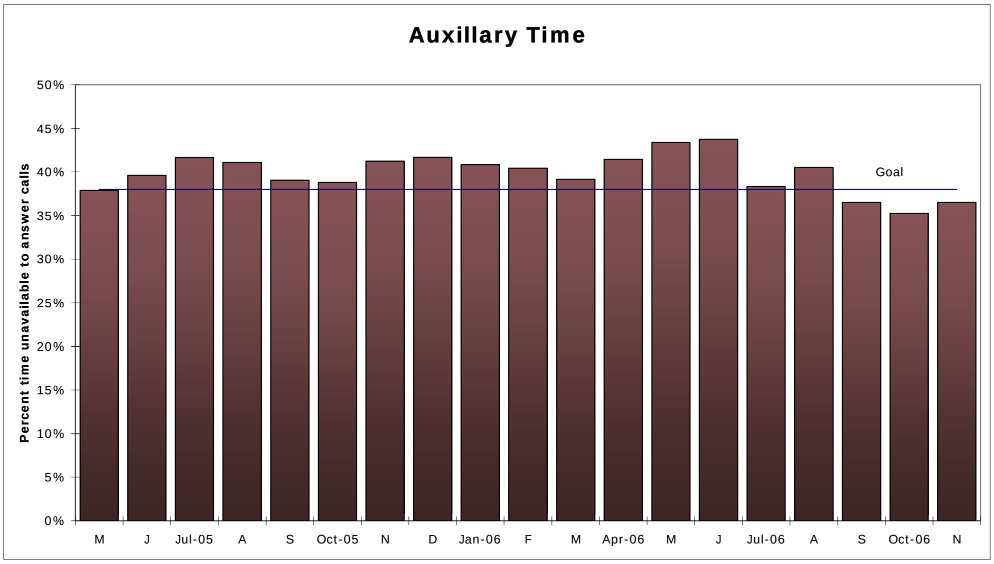


NJNG's Service Level performance was also far below goal for 2006, as the next table shows. The CCO has a goal of answering 70 percent of all calls within 30 seconds. NJNG's best quarterly performance was below goal in every month. NJNG's monthly service level conformance for 2005 and 2006 was 0 percent (percent of times NJNG met its service level goal).

Service level provides the clearest indication of what callers are experiencing. In this case, NJNG's actual service level average for 2006 was 40.9 percent of calls answered in 30 seconds, 59.1 percent were not answered within 30 seconds.



Auxiliary Time; *i.e.*, the time spent performing off-phone tasks, was also higher than NJNG's goals during 2006, in all but 3 months. AUX time represents the time when a call center representative is not-handling calls, including such activities as clerical work, break time, lunch, after call wrap-up, personal time, meetings, and training. On average 43 percent of a CSRs day is spent in AUX activities. AUX time is a key driver of call center performance, especially Average Speed of Answer and Service Level. Lower AUX time increases time spent on a call or available to answer calls.



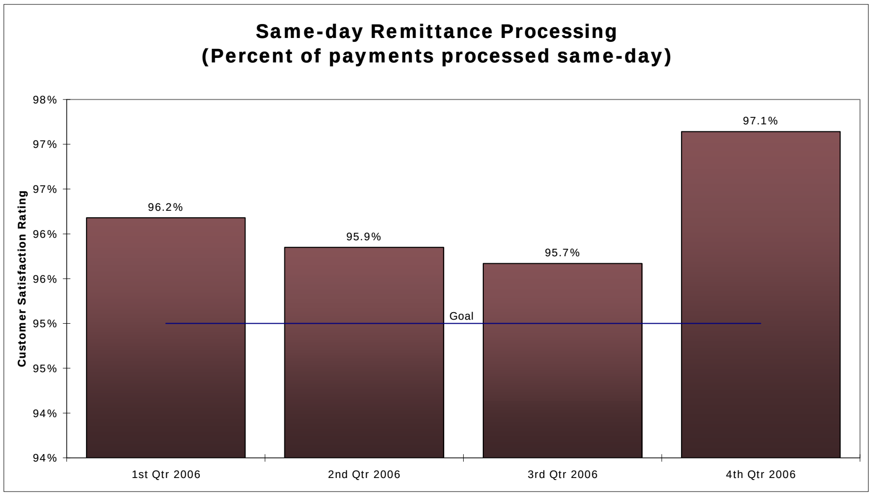
A Team was assigned to study AUX time in early 2005, as a recommendation of another earlier improvement team "Serve the Customer". As a result of this investigation, NJNG created a Resource Coordinator position in mid 2005, originally intended as a part-time position. This position is now staffed full-time. This individual is responsible for overseeing call management, specifically matching available resources to incoming call volume. This includes directing resources off the phones to handle non-phone tasks (AUX).

The AUX Team also found, after a sampling of calls, that about two-thirds of the time charged to AUX was unnecessary—generally could be addressed through training, coaching, supervision, and access to CCO information. The AUX Team also found, after reviewing 30 weeks of data, that CSR time-in-training, a valid AUX time charge, was the smallest component of AUX time (less than 1 percent). Unfortunately, when resources are limited, training is often the item that is neglected, in an effort to meet service level or keep ASA low.

Overall, NJNG has a significant opportunity to improve its customer service delivery through its phone center.

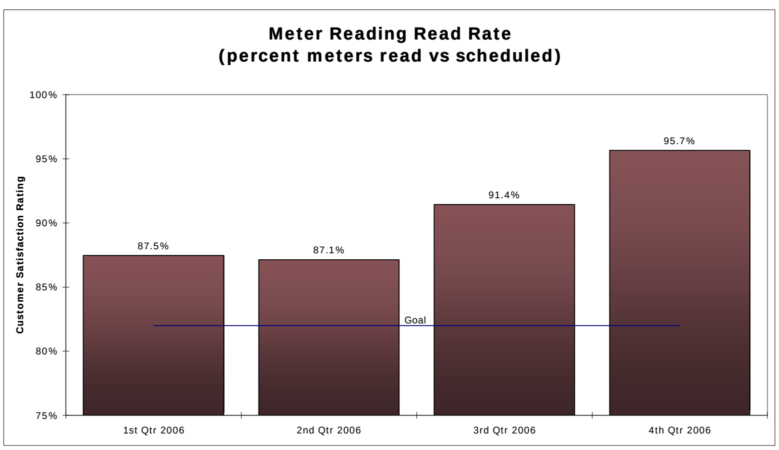
3. NJNG is adequately processing customer payments.

NJNG's Remittance Operation processes all mailed customer payments, representing 75 percent of payments received by the company. Typically, NJNG has less than 5 percent carry-over, payments that are not processed the same-day as received. For 2006, an average of 95.6 percent of payments were processed and deposited in time to receive same-day availability.

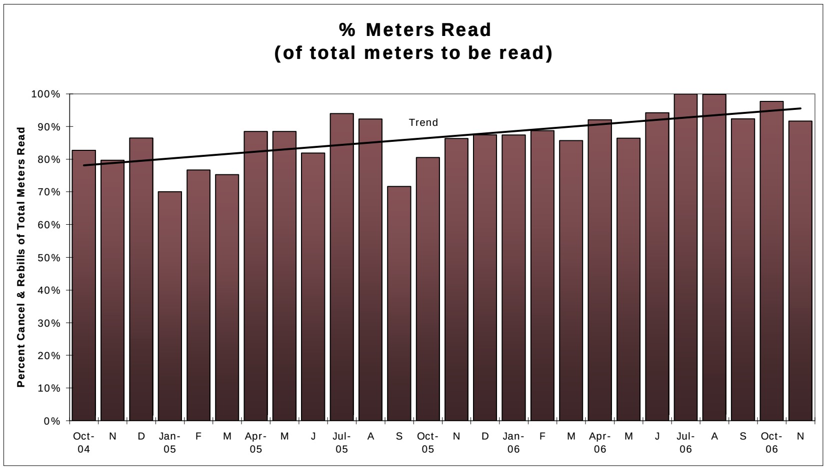


4. Meter Reading performance is improving, however NJNG's bi-monthly read schedule leads to more customer calls, billing and meter-related complaints, and rebills. *(Recommendation #3)*

NJNG reads meters on a bi-monthly schedule from September through May. On average, residential meters are read 3 or 4 times per year, if the meter is accessible. Of the meters to be read each month (roughly half), NJNG has been reading above goal for all of 2006, as the next table shows.

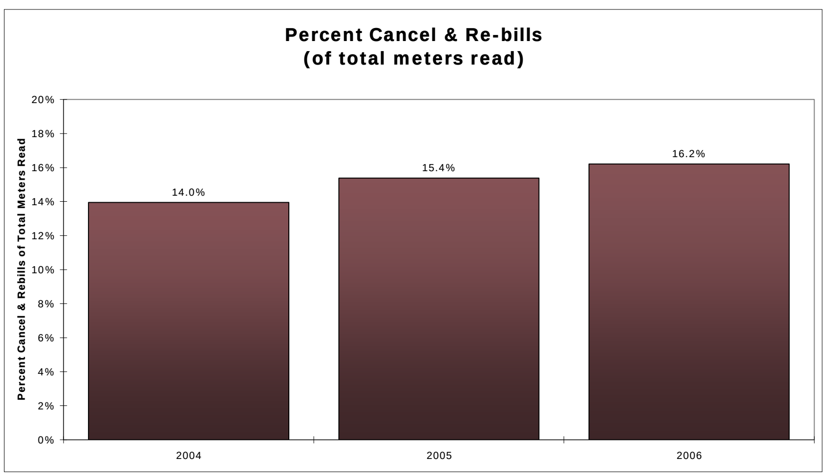


Since late 2004, NJNG has gradually improved its read rate percentage, as indicated by the trend line in the next table.



Forced completions of routes (estimate instead of read) due to weather or insufficient staffing further limits the number of times that a meter is physically visited each year by a NJNG employee. While NJNG has been improving its read rate, it is still considered below industry averages of 98 percent.

Failing to obtain actual readings forces a utility to issue bills based on estimated usage. Traditionally, utility customers are not satisfied with estimated bills. This creates more calls to the utility, more complaints, and usually more re-bills being issued to adjust a bill. Since 2004, the percentage of meter reading or billing related calls has escalated from 6 percent to 20 percent. The percentage of cancel and re-bills has also climbed, as seen in the next table.



NJNG has just instituted a process for tracking meter reading accuracy, and has begun tracking data in order to establish a goal. The UCIS system is being modified to more easily indicate the meter reader responsible for any errors, as found by the Billing group or the Call Center. Ultimately, the level of re-bills issued to customers is indicative of meter reading or billing errors, or poorly estimated bills.

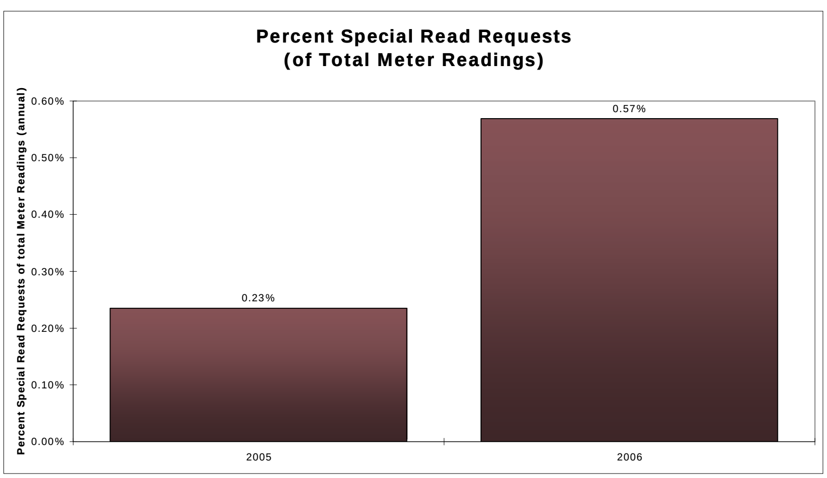
Because NJNG reads bi-monthly, and not during summer months, for residential customers, its ability to obtain actual meter readings for each meter is diminished. This means NJNG is estimating some accounts more than just every other month, in some cases estimating consecutively for several months. NJNG's Special Read Team recognized this and subsequently, NJNG has formalized a process to prioritize previously unread routes (partial and whole routes that were estimated) to be read first the next cycle, hoping to reduce the number of consecutive estimates.

Meter reading hand-held devices contain typical usage ranges to help meter readers identify misreads, over or under readings, while at the meter so the meter reader can quickly recheck the reading. Consecutive estimates make it harder to identify misreads, and in some cases, meter readers are alerted to an over/under read when it's actually correct. This has basically rendered the over/under checking useless for NJNG. In fact, NJNG's Meter Reading Alternatives team, a quality improvement team looking at ways to improve the meter reading process, recommended that the high/low range be dropped from the handhelds because of this problem. It was not providing much guidance and negatively affecting meter reader productivity.

> *"Meter Readers have to key in the meter # and the read, again, if a Hi2/Lo2 failure appears on the handheld. Due to estimation and incorrect est. factors, these failures occur at an alarming rate, resulting in lost productivity. We want to change the option to 'acknowledge failure only' when the Hi2/Lo2 failure occurs."*

Unfortunately, dropping an error checking routine does not address the root of this problem. The error checking routine works as designed. It is the data that form the basis for the error checking routine that are incorrect. The bi-monthly estimates, summer estimates, and estimates as a result of forced route completions, insufficient staffing, or meter inaccessibility are throwing off the data. Dropping the requirement to re-enter any readings exceeding the high/low error alert has the potential to degrade meter reading quality, increasing the error rate.

Bi-monthly reads and estimates also increases the number of requests for re-reads, creating more field visits to obtain an actual reading. Special read requests, or re-read requests, requested through UCIS more than doubled from 2005 to 2006, as seen in the next table.

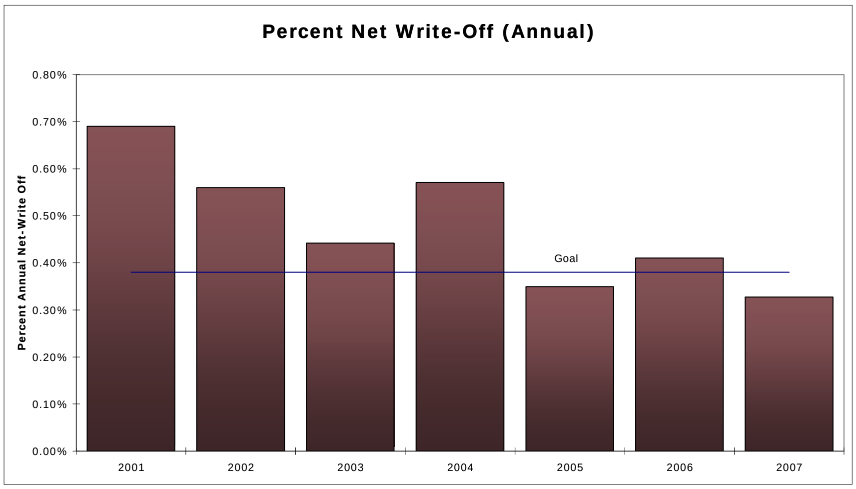


NJNG also recognized this trend and asked its Special Read Team to look for ways to reduce re-reads. One of the team's recommendations was to encourage CSRs to tutor customers to read their own meters in lieu of a field request to re-read the meter.

Bi-monthly readings, combined with a poor read rate also exacerbate other problems, such as non-registering meters and the identification of theft of service or tampering.

5. NJNG's collection performance is effective.

NJNG's write-off performance is very good, net write-offs, as a percentage of total revenue, have declined considerably since 2001.



NJNG actively advises customers of the availability of financial assistance and works to establish payment arrangements to bring accounts current prior to winter.

NJNG purchased an outbound dialer in September 2006. The dialer will be used to deliver reminder notices to delinquent customers, prior to disconnection notice.

NJNG also contracted with Bottomline Impact in September 2006 to utilize a data-mining tool to match any likely bad debt to existing customers, using a predictive modeling tool. This service should assist NJNG in the recovery of bad debt in the future, helping keep write-offs down.

D. Recommendations

1. Reallocate resources or increase staffing to answer inbound customer calls. *(Conclusions #1 and 2)*

NJNG call-center performance has been declining over the past two years, in just about every category measured. The CCO recently implemented Virtual Hold technology, providing customer the option of having their place in queue held by technology such that they can receive a callback when an agent is available. This technology is a proven winner for customers. It also helps to smooth out spikes in call volume during the day. However, this technology is not intended to consistently bridge the gap in a call center that is not staffed appropriately to meet its service level goal.

NJNG is not meeting its service level goal. In fact, NJNG has not met its monthly service level goal in the last two years. This indicates insufficient staffing. NJNG has not made the appropriate number of customer service agents available to handle its incoming call volume. As a result, waiting times have climbed, abandoned calls have increased, and customer satisfaction is declining.

NJNG has correctly identified that much of the available time of a customer service representative is spent on non-phone tasks or in unproductive time (AUX time), as much as 40 percent. While NJNG has instituted efforts to manage AUX time, its efforts have not had much impact, staffing levels remain unchanged, and service continues to decline.

NJNG needs to add customer service center representatives to the CCO or reassign non-phone duties so it can consistently meet its service level goals. Improving the level of service provided by the CCO will have a positive impact on customer satisfaction.

2. **Undertake a study to determine the appropriate telephony infrastructure to accommodate customer calls.** *(Conclusions #1 and 2)*

NJNG consistently delivers a "call us back later" message to 15 percent of its callers. This high level of call blocking indicates that NJNG's telephony infrastructure is under-capacity. While some level of blocking might be expected during extreme peak calling periods, routinely blocking 10 to 15 percent of callers is unacceptable.

NJNG should evaluate its telephony infrastructure to determine the appropriate number of inbound trunks and ports for the IVR that will ensure that it meets its service level goals with a minimal amount of call blocking.

At the same time, if NJNG expands its telephony infrastructure, it must also re-evaluate staffing requirements so that it has the right number of representatives available to handle any increased call volumes.

3. **Reallocate resources or increase staffing to improve the meter reading read rate.** *(Conclusion #4)*

While meter reading performance has been improving slightly in recent months, NJNG continues to deliver a sub-standard read rate, as compare to the industry. NJNG's tariff states that "The Company will use reasonable efforts to read the meters so that there will not be estimated bills for consecutive months." NJNG's bi-monthly reads and summer-off approach means customers on average see a bill based on an actual read only 4 to 5 times a year. This means many customers are seeing consecutively estimated bills during the year.

Estimating customer bills seven to eight times per year brings a heavy burden on a utility. Customers do not like estimated bills. The mere indication on a bill that it has been estimated is likely to generate a call to the utility. Seasonal variations and weather changes will wreak havoc on most estimation algorithms, further increasing the likelihood that more customers will call to complain about a "high bill".

Having such few actual reads also makes it difficult to error-check meter readers, because the high/low checking routine has no firm basis for comparison. As NJNG has found, meter readers are overriding the error checking alerts so much that it has lost its usefulness. This can lead to an increase in meter reading errors and billing errors.

To complicate matters, NJNG also routinely estimates entire routes when it does not have sufficient staff to read them. In fact, NJNG's UCIS automatically estimates all accounts in which the meters haven't been read at the close of each cycle.

NJNG should be achieving a much higher read rate, especially since it's reading meters so infrequently. A 98 percent or higher read rate would minimize consecutive estimates, reduce call volume, and provide more data for its meter reader error-checking routines and estimation algorithm. Physically seeing the meter more each year will also minimize tampering and theft of service risk.

NJNG's low read rate is due to insufficient resource availability to read the meter. NJNG recently rerouted all its routes so it has in-effect already achieved any productivity gains associated with rerouting. Ultimately, NJNG may move to Automated Meter Reading (AMR) technology to collect meter readings on-demand. In the mean time, NJNG should allocate more resources to meter reading so that it can guarantee a high-nineties read rate and provide more accurate bills for customers. Billing accuracy is one of the biggest determinants of customer satisfaction. Improving the meter reading read rate facilitates more accurate bills thereby increasing customer satisfaction.

VIII. Finance

A. Background

The financial structure of the NJR holding company has evolved along with the company's strategy regarding its diversified activities. In the early 1990s, NJR owned an exploration and production company, a real estate company with around $100 million of assets, and was considering entering the merchant power business. The real estate venture financed its assets with 90 to 95 percent debt, and produced little reported earnings and cash flow for the consolidated company, even though it was successful. Eventually, the company changed its strategy, and began to move out of its previous diversified activities. The holding company became significantly conservative financially and also sought to carry less business risk, focusing on the gas utility and complementary businesses. One of the primary objectives was to build a strong financial profile for the company, with a strong balance sheet to protect against unexpected business problems. Access to capital at all times is an important goal of the company.

B. Financial Policies and Strategies

1. Background

NJR has developed financial policies and strategies to grow the earnings and valuation of the holding company through the gas utility and selected non-utility businesses. While NJNG provides a solid earnings foundation and low-but-steady-growth, NJRES has been developed as the growth engine for NJR.

Another high-level financial policy for NJR is the consolidated tax allocation policy. The NJR tax allocation policy is important in that the utility entity must be protected from cross-subsidizing the unregulated activities of affiliate businesses.

2. Findings

a. Growth and Valuation

NJR's plans for future earnings growth include a long-term goal for diversified businesses to provide 25 to 30 percent of consolidated earnings. The 2006 fiscal year brought weaker NJNG earnings due to warmer weather and lower gas sales caused by higher prices. NJRES, on the other hand, substantially increased its earnings in natural gas trading. NJRES contributed almost 45 percent of consolidated fiscal 2006 earnings. However, the company notes that feedback from Wall Street analysts is that continuing to increase the percentage earnings from non-utility activities could have some negative aspects from a stock valuation standpoint. The credit ratings agencies also often express concern about such increases. The debt raters have particular concern with the risk, volatility and increased leverage associated with the marketing and trading businesses. Standard & Poor's put the NJR companies on its negative watch within the last year due to volatility in working capital. The rating agencies have had questions and concerns regarding increases in short-term debt, especially to finance the marketing and trading business.

The working capital volatility issue exists because the asset levels of gas marketers tend to vary greatly. Very large 2005 increases in natural gas costs brought a corresponding increase in the borrowing capacity required to finance inventory. NJRES stores gas for delivery for heating load in the winter and for electric generation use in the summer. Normally, NJRES would store gas in the spring, sell gas for electric generation in July and August, store gas again in the fall, and sell gas for winter peaking load in the winter. The sharp increase in natural gas prices caused a peak in short-term borrowing of over $200 million for NJRES in December 2005, while NJNG borrowing was also peaking. On the other hand, NJRES profited greatly in the volatile gas markets by buying flowing gas cheaply and reselling at other locations at a profit. This caused the company to hold and finance more storage gas during the peak season for the past two winter seasons. NJR is not planning the same strategy for the 2006/2007 heating season or throughout 2007. Borrowing levels at NJRES and the holding company have declined significantly as a result.

The company's strategy takes into consideration the potential impact on NJR's price/earnings ratio with higher levels of non-utility earnings. For instance, strong utilities commanded a P/E ratio of about 17 times in late 2006; trading businesses were valued at only 8 to 10 times earnings. NJR's valuation at 17 times earnings demonstrates that investors still view it primarily as a utility business. The company believes that it probably needs another non-trading, non-marketing "growth engine" to maintain its high stock price high valuations. Investment in midstream gas assets presents one possibility.

NJR's consolidated businesses have produced a return on equity of between 15 and 16 percent in each of the last five years. The company manages to maintain consistently high regulated earnings levels with a utility rate base that has not been updated since 1993. NJR has been able to increase its returns in two primary areas: (a) NJNG regulatory incentive programs and (b) high NJRES profit levels, with correspondingly low equity investment in this business.

b. Tax Consolidation

The NJR companies consolidate their federal income tax filing. The company's Service Agreement calls for NJNG to contribute income taxes as if it were a stand-alone business. In the Service Agreement, NJNG consents to be included in the consolidated return. The primary goal of the tax allocation method is to allocate to NJNG (or any other subsidiary) the tax liability or savings for the consolidated group which are generated by NJNG.

The process was agreed upon in the Service Agreement. The agreement applies to all tax years beginning with 1999. The steps of the agreement are:

- NJNG will compute its tax liability on a stand-alone basis solely by reference to its respective items of income, gain, loss, deduction, and credit
- If NJNG generates a net tax liability on a stand-alone basis, it will pay the amount of such separate return liability to NJR
- If NJNG incurs a net operating loss, alternative minimum tax prepayments, or tax credits on a stand-alone basis, NJNG shall receive the tax savings to the extent such savings can be utilized

- The tax allocation procedures are administered by the Tax Department of NJR Service Corp
- All tax payments or refunds, including estimated tax payments, as calculated by the tax department, shall be paid by NJR to NJNG or by NJNG to NJR no later than the date payments are made or received by the taxing authority
- Adjustments to consolidated federal income tax liability or refunds made by the IRS on audit of the consolidated return will be determined in accordance with Nos. 1 through 3 above.

Each subsidiary company receives a statement quarterly; NJR debits the subsidiaries' account if the company owes taxes to NJR. Payments for operating losses are made to subsidiaries by the holding company. The company notes that the non-utility businesses have been positive taxpayers for the last 10 years.

The NJR income tax process begins with a quarterly tax provisioning process to estimate federal and state tax requirements. The tax manager prepares estimated tax schedules by subsidiary company and for NJR consolidated; they mimic the entries on corporate tax returns.

The NJR Tax Department prepares the consolidated tax return on Form 1120 with all supporting schedules. They also prepare a "true-up" that compares tax provision estimates to the actual filed tax return information. The true-up reconciles the differences between the tax provisioning schedules and the actual tax liability.

3. Conclusions

1. The NJR tax allocation process is fair and equitable to NJNG.

The tax allocation process performed by NJR provides the utility with a consolidated forum for ensuring that its tax payments are the same as if it were a stand-alone company. The NJR Tax Department performs quarterly tax provisioning, annual consolidated tax returns, and reconciliations of the provisioning vs. the actual tax liabilities. Each of these processes breaks the tax liabilities down by individual NJR subsidiary responsibility, adding to the net consolidated total.

2. NJR is not allocating a portion of tax benefits generated by stock options to NJNG, which is inconsistent with its allocation policies for executive expenses. *(Recommendation #1)*

Review of the NJR consolidated tax returns, tax provisioning estimates and tax reconciliations disclosed entries for the exercise of stock options. "Permanent adjustments" that reduce corporate taxable income were recorded by NJR in fiscal 2004 and fiscal 2005, and were estimated in the tax provisioning for fiscal 2006. However, the entire amount of the tax deduction for stock options is recorded under "NJR Parent;" and none is included for the account for NJNG or any other subsidiary. The next table summarizes the magnitude of the tax benefit to NJR. The 2006 amount represents an estimate.

Stock Option Tax Benefits

Item	2004	2005	2006

NJR Stock Options “Permanent Adjustments”	$2,687,244	$5,317,652	$16,528,592
Tax Benefit @ 41.1% Composite Tax Rate	$1,104,357	$2,185,555	$6,790,607

NJNG’s share of allocated NJR corporate costs has been around 80 percent during the past few years. NJR consistently does not seem to be “pushing down” the tax benefits of the stock options to NJNG or other subsidiaries. This approach does not conform to NJR's general practice, which is that:

> *all expense types, i.e., interest, director fees, officer salaries, other expenses, etc., are allocated based upon the same methodology (the method used for distributing the costs of NJR corporate to the subsidiaries)*

4. Recommendation

1. **Allocate the tax benefits of stock options and all other corporate expenses to subsidiaries using a consistent method.** *(Conclusion #2)*

NJNG has not had a full revenue-requirements rate case since 1993. Corporate expenses and their allocations therefore currently and in recent years have no impact on current NJNG customer rates. However, the omission of allocating to NJNG a portion of the tax benefits generated by stock options should be corrected so that earnings surveillance reports are accurate, and that the appropriate level of after-tax revenue requirement is included in the next NJNG rate case.

C. Credit Ratings and Capital Structure

1. Background

Credit ratings offer an important indicator of the financial health of a company. The ratings and related company reports can also offer warning signals when the financial operations of the utility holding company and affiliates are affecting or have the potential to affect utility finances and credit.

Both Moody’s and Standard and Poor’s upgraded the credit ratings of NJNG in September 2003. NJNG’s earnings, cash flow and credit measures had increased, and were consistently stronger than most of its gas distribution peers. Currently, Moody's rates the utility at Aa3, Standard & Poor's at A+, and the utility's commercial paper is rated A-1/P1, the highest rating level. Company management notes that they are comfortable with these rating levels, and see little economic advantage to obtaining higher ratings. Overall, the credit rating target for the utility is to be “A” rated, and the company targets credit ratios that are well above the minimum levels to attain “A” ratings.

2. Findings

a. Credit Ratings

The strong credit ratings for NJNG reflect the company’s attractive service area, its strong financial coverage ratios, the regulatory environment in New Jersey, and a moderate financial risk profile. Standard & Poor's rates NJNG’s business risk profile at “two.” This rating qualifies as excellent with utility business profiles categorized from one as the highest to 10 as the lowest.

NJNG's customer growth rate is expected to be around two percent annually, benefiting from strong residential construction in Ocean County, New Jersey. The regulatory oversight by the NJBPU is considered supportive of credit quality because of weather normalization and remediation adjustment clauses, as well as margin sharing on off-system and capacity release sales. NJNG's gas supply portfolio is also considered well diversified. Moody's also notes NJR's emphasis on two separate internal cash systems to manage regulated and non-utility operations.

NJNG's overall credit profile is very strong; however, Standard & Poor's notes concern with the growth of NJR's non-utility businesses. Standard & Poor's takes a consolidated view of utility credit ratings, emphasizing a utility holding company's ability to support more risky non-utility operations by tapping utility financial resources. S&P believes that NJRES' wholesale energy services related to gas-pipeline transportation and storage pressures the consolidated business profile, and that utility cash flows are more reliable and predictable than non-utility cash flows. S&P expressed its concerns in June 2006, when it changed the credit outlook on NJNG from stable to negative, although it did affirm the utility's A+ corporate credit rating level.

Moody's treats the utility's credit profile on more of a stand-alone basis, and tends to show somewhat less concern with non-utility affiliate earnings and liquidity requirements. Moody's continues to rate NJNG at Aa3 with a stable outlook.

The next table shows the three key credit metrics for NJNG and NJR for the three-year period from fiscal 2003 through fiscal 2005. The table also provides S&P's benchmark ranges for attaining the "A" credit rating level targeted by the company.

NJNG and NJR Credit Rating Metrics 2003-2005 Average

Credit Metric	NJNG	NJR	S&P "A" Benchmarks
Adjusted FFO Interest Coverage	6.6X	6.8X	2.0 – 3.0X
Adjusted FFO/Total Debt	18.9%	19.5%	12.0% - 20.0%
Total Debt/Total Capital	48.9%	56.6%	52.0% - 58.0%

b. Dividends

NJR's dividend policy to its shareholders is not guided by specific target percentages of consolidated earnings. Rather, the company tries to be consistent in its year-to-year dividend increases. The NJR dividend payout ratio has been reduced to about 50 percent over a period of years, as dividend percentage increases have not matched the growth in NJR earnings. The most recent dividend increase in 2006 was 5.6 percent year-over-year, reducing the payout ratio to about 51 percent.

NJNG funds 100 percent of NJR's dividends to shareholders. The non-utility businesses do not provide dividends to NJR, and there exist no plans for these affiliates to do so. NJNG has a restriction on dividends in its mortgage indenture; the utility could dividend as much as $176 million of its retained earnings as of September 30, 2006. The next table recaps dividends to NJR and from NJR to shareholders for the past five years.

NJR Dividends and Funding Sources

	FY2002	FY2003	FY2004	FY2005	FY2006
NJR Dividend Payments	$32,047	$33,245	$35,270	$37,164	$39,446
Dividend Source					
NJNG	$32,047	$33,245	$35,270	$37,164	$39,446
NJRES	0	0	0	0	0
NJHS	0	0	0	0	0

Thousands of dollars

c. NJNG Capital Structure

NJR has a capital structure target of about 50 percent equity and 50 percent debt for the consolidated holding company. Utility targets call for an equity percentage in the low fifties with about 40 percent long-term debt. The seasonal need for short-term debt to finance gas purchases causes the annual average percentage for short-term debt to be around 10 percent for NJNG. The utility does not have a minimum equity level that is required by the BPU. NJNG's capital structure averages for the last five fiscal years are shown in the table below. The table uses annual averages of quarter-end figures.

NJNG Capital Structure

	2002	2003	2004	2005	F006
Common Equity	54.23%	54.59%	53.98%	56.64%	54.76%
Preferred Stock	0.04%	0.00%	0.00%	0.00%	0.00%
Long-term Debt	37.96%	34.47%	34.28%	36.61%	35.72%
Short-term Debt	7.77%	10.94%	11.74%	6.75%	9.52%
Total	100.0%	100.0%	100.0%	100.0%	100.0%

3. Conclusions

1. NJNG maintains very strong credit ratings as a result of strong cash flow and conservative financial management.

NJNG maintains credit ratings of Aa3 from Moody's and A+ from Standard & Poor's. The credit profile for NJNG includes a strong service territory, supportive regulation and very strong cash flow. The company's conservative financial management produces a very healthy balance sheet for the utility that contributes to utility credit strength.

2. NJNG's substantial dividends to the parent are appropriate and necessary to maintain the utility capital structure.

NJNG funds 100 percent of the NJR dividend to its shareholders, with no dividend support from the non-utility affiliates. NJR requires this approach in order to keep the utility equity position from growing to extreme levels. The historic levels of dividends from NJNG to NJR are appropriate and necessary, and supporting dividends from the non-utility affiliates are not required by NJR.

3. The NJNG capital structure maintains equity levels that are more than adequate to maintain a strong credit rating. *(Recommendation 1)*

NJNG's average equity ratio has been between 54.0 and 56.6 percent in each of the past five years. Standard and Poor's benchmarks for the "A" rating target of NJNG requires equity/total capital of only 42 to 48 percent. NJNG equity ratios have also been running higher than the "low fifties" percentage expressed by the company as its target to maintain an "A" rating.

4. NJR's non-utility energy trading business and its related volatile leverage requirements have had a slight negative impact on utility credit standing.

Standard & Poor's has specifically described the impact of NJR and NJRES on the consolidated credit rating and that of NJNG:

> *The negative outlook revision primarily reflects the effect of higher natural gas prices, which have lowered customer usage at the utility, and the increased resulting contribution from unregulated cash flow at parent New Jersey Resources, as well as related liquidity demands. Unregulated income contributed about 45% of New Jersey Resources' total income for the six months ended March 31, 2006, which is significantly higher than previously expected. This figure is expected to moderate to around 30 to 35% on an annualized basis. Nevertheless, together these factors exert pressure on the business profile of the consolidated entity, which may precipitate lower ratings. … The greater proportion of unregulated utility earnings at parent New Jersey Resources detracts from the consolidated entity's credit quality. At the same time, higher natural gas prices have heightened working capital needs and lowered customer usage at the utility.*

5. NJNG is not subject to NJBPU-authorized minimum equity levels that would enhance the utility's credit insulation. *(Recommendation #2)*

In the absence of specific measures that insulate the utility from the holding company and non-utility affiliates, NJNG credit may be affected by the results and operations of these affiliates. Utility measures such as a minimum equity level, backed by the regulatory authorization of the NJBPU, are very effective insulation tools recognized by the rating agencies. For example, South Jersey Gas Company has a minimum equity level set as part of its most recent rate settlement approved by the Commission.

4. Recommendations

1. Consider the slightly higher than required equity percentage in the context of earnings reporting and the filing of the next rate case. *(Conclusion #3)*

An equity percentage of 50 percent of total capitalization will provide sufficient equity support for NJNG to maintain a strong "A" credit rating, especially when combined with strong cash flow metrics and the favorable business profile of the utility.

2. Require that NJNG maintain a minimum level of equity as a utility credit insulation measure. *(Conclusion #5)*

Minimum equity levels that are included in NJBPU decisions, such as 45 percent of total capitalization or the dollar amount of equity in a rate case capital structure, act as an effective utility insulation tool while not causing additional cost to implement.

D. Cash Management

1. Background

The cash management operations of NJR and NJNG are separate but jointly-run operations that meet the liquidity needs of the utility, holding company and affiliates. Cash management systems, bank concentration accounts and bank lines of credit create opportunities for the co-mingling of funds between regulated and non-utility operations, and care must be taken by holding companies to clearly segregate systems, accounts and funding sources.

NJR has established cash management operations for the utility that are a stand-alone process designed to meet the liquidity needs of NJNG only. NJR has a separate cash management process and lines of credit that handle the liquidity needs of the parent and each of NJR's non-utility subsidiaries.

The company emphasized and demonstrated that two separate and distinct cash management systems are in place. The utility and NJR each use the PNC Pinnacle cash management workstation, and each has their own concentration account at PNC. Operation of the two cash management systems is clearly segregated, and each have separate sign-ons and release forms required for access.

2. Findings

a. Bank Line Syndication

Prior to 2000, the short-term borrowing needs of NJNG and NJR were funded by individual credit agreements with several banks. Most of the consolidated borrowing needs were generated by NJNG at that time. In about 2000, NJR decided to engage in syndicated bank lines of credit. Several banks were contacted to gauge their interest in syndicating lines of credit, and at least four made proposals. J.P. Morgan, Wachovia, BONY, and PNC Bank were among the bidders. PNC Bank was selected as the lead bank.

In late 2004, new syndicated lines of credit were arranged for both the utility and NJR. PNC Bank was again selected as the lead bank, although the Company does not recall checking with or soliciting bids from other banks. The covenants in the 2004 line of credit agreements were identical to those of the previous agreements, according to the company. Interest coverage and maximum leverage requirements are based on utility earnings and balance sheet information in the NJNG agreement, and consolidated information in the NJR agreements. All of the banks participate in lending on a pro-rata basis in accordance with their commitments to the syndicate. The utility agreement is a five-year agreement through 2009, and the NJR agreement is for three years through 2007. Originally, the bank lines were $275 million for NJR and $225 million for the utility. These commitments have expanded in November 2005 to $325 million for NJR and $250 million for the utility.

b. NJNG Lines of Credit/Commercial Paper

NJNG uses a $250 million commercial paper program to borrow funds for the working capital needs of its utility operations. The commercial paper program, which is administered by J.P.

Morgan Chase as agent, carries a rating of A1/P1 by Standard and Poor's and Moody's, respectively. The utility also has a $250 million line of credit syndicated by PNC Bank. This line serves primarily as a market-required liquidity backup for the commercial paper program. A highly-rated commercial paper program can save the borrower 50 basis points or more when compared with bank line-of-credit borrowing. NJNG therefore rarely borrows directly from the line of credit.

NJNG initiated its commercial paper program over twenty years ago. Each business morning, the NJNG cash desk determines the borrowing level required for that day, and calls the Smith Barney and Merrill Lynch commercial paper dealers to solicit borrowing for that day. These two commercial paper dealers compete for the utility's borrowing business daily.

NJNG established its current revolving credit facility on December 16, 2004 for a maximum value of $225 million. PNC Bank served as the lead arranger and administrative agent for the facility, with JPMorgan Chase, Fleet Bank, Bank of Tokyo-Mitsubishi Trust and CitiCorp as committed participants. Only NJNG may borrow from this credit facility. Two amendments to the governing credit agreement came on August 31 and November 15, 2005; the second amendment increased the level of lending commitments from the banks to $250 million.

c. NJNG Cash Forecasting

NJNG uses a one-page cash flow forecast prepared by the Treasury Manager and updated monthly. Receipts, operating expenses, payroll, taxes and gas payments provide the key inputs to the forecast. The utility forecast estimates the utility's cash position as of the end of each month. The NJNG model does not forecast daily or weekly cash positions. The forecast includes up to two years of monthly cash information; however, it focuses on the end of the current month, as well as month-end cash position estimates for the rest of the current year. NJNG updates actual cash positions for previous months, and rolls them into the calculations for future months. Cash forecast information for the second year of the forecast is not regularly updated or utilized by NJNG Treasury.

d. NJNG Daily Cash Management

The company provided a demonstration of the daily cash management process for NJNG on December 6, 2006. The company's treasury analyst, who performs cash management operations for both NJNG and NJR, provided the demonstration. The treasury analyst noted that the utility cash management activity takes place first each morning; the commercial paper markets used by NJNG must fill borrowing orders by around 10:30 or 11 A.M. The utility's cash management operations take place first in order to meet this deadline.

The following daily NJNG cash-management activities take place:

- Call the two NJNG commercial paper dealers to solicit rates for overnight, one, two and three week maturities, and longer maturities up to four months
- Review the previous day's ending concentration account balance and add remittance processing receipts from the previous day
- Add the morning sweep of funds from investment accounts
- Check the balance of commercial paper outstanding and maturities due today

- Review the folder of major disbursements for the day, such as bond interest payments, Federal and State tax payments, and payroll and interest payments (pipeline payments on the 20th and gas purchase payments on the 25th of each month are of the greatest magnitude and require the most planning)
- Check with Accounts Payable for any large checks written
- Use the cash worksheet to determine the net borrowing or investment required for NJNG
- Sign on to the Pinnacle cash management system, NJNG account. Check sweeps, receipt deposits and Zipcheck/internet debits
- Call the commercial paper dealer to arrange the selected net borrowing and maturity
- Make major wire transfer payments to vendors (two employees must sign as a safety measure)
- Print and review the Pinnacle Daily Summary sheet of the day's activity for NJNG.

Daily reports provided to senior management display the NJNG cash and borrowing levels.

PNC serves as the cash concentration bank for both the utility and NJR. The utility remittance processing system takes place in-house, and deposits into a lockbox. Daily deposits are made into the PNC account from this process, and funds are available to the utility at 11 a.m. each business morning. NJNG is currently considering changing from the lockbox process to an automated account debit.

e. NJNG Borrowing Levels and Peaks

The next table presents annual information on NJNG's commercial paper program from fiscal 2003 through fiscal 2006. NJNG's peak borrowings in December 2003 of $187.7 million and December 2004 of $171.2 million approached the limits of their liquidity sources. The revolving line of credit was increased in December 2005 in response to greatly increased natural gas pricing in the second half of 2005.

NJNG Commercial Paper Borrowings

Fiscal Year	Average Balance	Interest Rate	Peak Amount	Peak Date
2006	$51,474	4.71%	$151,500	9/30/2006
2005	$69,435	2.33%	$171,200	12/28/2004
2004	$88,607	1.16%	$187,700	12/1/2003
2003	$86,743	1.38%	$160,800	9/25/2003

Thousands of dollars.

f. NJR Lines of Credit

NJR funds the needs of its non-utility businesses and the holding company through a $325 million line of credit arranged by PNC Bank acting as the lead bank of the syndicate. NJR taps the bank line to meet the cash needs of the non-utility affiliates, and then making the necessary loans to its subsidiary businesses. Credit advances to NJR also help meet the liquidity needs of the holding company. Cash is swept daily from each of the affiliates to NJR, and loans from NJR to the affiliates take place daily.

NJR established the current revolving credit facility on December 16, 2004 for a maximum value of $275 million. PNC Bank served as the lead arranger and administrative agent for the facility, with JPMorgan Chase, Fleet Bank, Bank of Tokyo-Mitsubishi Trust and CitiCorp as committed participants. The lead arranger and participant banks were identical for the NJR and NJNG lines of credit. Similar to the utility line of credit, only NJR may request advances from its credit facility. However, the non-utility subsidiaries of NJR each serve as guarantors of the line of credit, and constitute "loan parties" under the NJR credit agreement. An amendment to the governing credit agreement, signed on November 15, 2005, increased the level of lending commitments from the banks to $325 million.

g. NJR Cash Forecasting

NJRES prepares a cash flow forecast for the trading and energy services subsidiary. The NJRES cash flow forecast provides estimates of the cash position and liquidity needs of this subsidiary, which is the primary user of funds from the NJR line of credit. NJRES prepares its own cash forecast each month, and sends it to NJR treasury. The NJRES cash forecast is a 12-month rolling forecast, estimating month-end cash position balances.

Changes in natural gas prices can cause a strain on liquidity resources from the increased borrowing required to finance gas purchases, as well as from potential margin calls on futures contracts held. NJRES prepares sensitivity analyses as part of the cash forecast by varying estimated gas prices and projecting the resulting impacts on cash positions. For instance, the fiscal 2007 cash forecast included the impact of $3.00 per MCF increases and decreases in the assumed market price of natural gas to measure the effect on cash margin calls or return of margins previously posted. NJR Treasury uses NJRES' worst-case price scenario in its cash planning for NJR and non-utility affiliates in order to remain conservatively funded.

As with other gas trading companies, NJRES has a maximum 60-day window for its cash needs. The purchase or sale of natural gas will cause a delivery starting the first of the following month, with payment on the contract will be settled around the 25th of the delivery month. The cash position as of the natural gas settlement day is the key cash requirement. Settlement day generally is the peak borrowing day for both NJNG and NJRES. NJR has arranged for contingency access to short-term bank borrowing and margin call borrowing in addition to the line of credit for one or two months, if necessary, or until settlement occurs on NJRES trading contracts.

h. NJR Daily Cash Management

Cash management for NJR and its non-utility subsidiaries take place after completion of NJNG daily cash management activities; *i.e.*, usually after 11 a.m. each business day. The treasury analyst logs into the Pinnacle cash management programs for NJR using a different password and user identification from that of the utility.

The following daily cash management activities take place for NJR and its non-utility subsidiaries:

- The account summaries from the previous day's activities are run and printed from the Pinnacle system. The account summary includes information on six separate concentration accounts: one for NJR and one each for CRR, NJRES, Home Services, Plumbing, and NJR Services Co.

- Record the previous day's activities in Excel spreadsheets for each company, which are referred to as the Cash Book
- Print and review the current day summary, which is today's payroll and accounts payable disbursements for NJR and the non-utility companies
- Print and review the working cash sweep report for the sweep of investment funds;
- Calculate the net borrowing requirements, in total, for NJR and the non-utility subsidiaries that for the day (NJR will borrow from the line of credit or invest 2 p.m.; generally, the deadline for daily borrowings from the line of credit is at 2 p.m.)
- Prepare an NJR bank borrowing request sheet to be faxed to PNC Bank with borrowing directions (NJR must allow three days in advance for draws that are priced based on LIBOR rates; another option for NJR borrowing is the "swing line" portion of the line of credit, which is at about 200 basis points less than the prime rate; swing line funds may be borrowed on an overnight basis only)
- Following the receipt of funds from the NJR line of credit, transfers are made to and from the non-utility subsidiaries in the amounts required by each entity
- Wire transfers are performed for each NJR and the non-utility subsidiaries as required
- Print out and review the current day detail report for NJR and each non-utility subsidiary.

i. NJR Borrowing Levels and Peaks

The next table presents annual information on NJR's borrowing from its line of credit from fiscal 2003 through fiscal 2006. NJR had peak short-term borrowings in December 2005 of $242.0 million and in October 2004 of $232.5 million. At these times of peak borrowing for NJR, the holding company's line of credit maximum borrowing was $325 million and $275 million, respectively. The NJR revolving line of credit was increased in December 2005 in response to greatly increased natural gas pricing and volatility in the second half of 2005. NJRES borrowings from the parent represented the vast majority of NJR's requirements at the time of the peak borrowings; 90.3 percent in December 2005 and 86.2 percent in October 2004.

NJR Line of Credit Borrowings

Fiscal Year	Average Borrowing	Peak Amount	Peak Date	NJRES Share of Peak
2006	$142,066	$242,000	12/29/2005	$218,172
2005	$127,130	$232,500	10/27/2004	$200,497
2004	$95,939	$167,375	12/22/2003	$103,305
2003	$94,811	$166,413	12/23/2002	$86,368

Thousands of dollars

3. Conclusions

1. NJNG and NJR have appropriately separate and segregated cash management systems, bank accounts, accounting, and funding sources.

The cash management of NJNG is distinct and separate from that of the holding company parent and non-utility affiliates, as demonstrated by the company through Liberty's observation of the daily operations, systems and reports. The systems, processes and accounts are distinctly separate, and no co-mingling of utility and affiliate funds will occur in the parallel cash management systems as they are currently operated.

2. The NJNG commercial paper program and backing line of credit effectively meet the liquidity requirements of utility operations.

The $250 million NJNG commercial paper program is of sufficient size to meet the liquidity needs of the utility, as proven by its ability to cover the effects of greatly increased pricing in natural gas leading up to the 2005-2006 winter heating season. The A1/P1 commercial paper program efficiently provides short-term funding on a very low-cost basis, and includes an appropriate backup facility in the NJNG revolving line of credit.

3. The cash forecasting for NJNG does not provide daily intra-month cash information for the utility operations. *(Recommendation #1)*

The volatile natural gas markets of the past few years have caused additional challenges for utility treasury managers in planning for cash needs. NJNG's cash forecast estimates the utility's cash position at month-end only. Gas utilities should have cash forecasts for each day of the month, so that planning for specific liquidity needs such as large seasonal tax, pipeline and gas supply payments may occur well in advance. Accurate daily cash forecasts are also an important information tool for senior management in efficiently managing the utility.

4. The cash management systems and processes for NJR and the non-utility affiliates do not currently inhibit NJNG's access to liquidity funds.

The company has specifically segregated the cash management of the non-utility affiliates under the parent. These affiliates borrow and repay funds from NJR as needed, which the parent funds from its line of credit. Neither NJR nor the affiliates have access to the utility line of credit or its stand-alone cash management process. The utility line of credit agreement also is not subject to any cross default, material adverse change clause, or collateral requirements of the holding company or affiliates.

5. The joint syndication of the NJR and NJNG lines of credit could potentially cause cross-subsidization of the non-utility businesses by the utility. *(Recommendation #2)*

The joint solicitation and negotiation of lines of credit and private placement debt financings provides the opportunity for common lenders of the utility and holding company/non-utility businesses to treat the consolidated company as "one credit" in negotiating debt terms, covenants and structures. Since the utility entity is almost always the stronger credit in these situations, the incentive for common lenders is to restrict the utility further than if it were presented on a stand-alone basis. Liberty identified several clauses in both the NJR and NJNG credit agreements that restrict the utility and that may not have been included if the utility were presented on a stand-alone basis. We do not consider these restrictions to have negatively affected utility operations or pose a threat to the utility, except if the NJNG faced extreme financial difficulties. However, we consider the joint solicitation and negotiation of utility and holding company credit agreements to be inconsistent with insulating the utility from non-utility risks and effects.

4. Recommendations

1. Develop and utilize daily cash flow forecasts that project at least 90 days of cash positions. *(Conclusion #3)*

2. Use separate NJR and NJNG solicitation processes and separate lead banks in soliciting lines of credit and private placement debt. *(Conclusion #5)*

The NJR revolving credit agreement expires in December 2007, and the NJNG agreement in December 2009. NJR should use the opportunity in 2007 to separate the processes for acquiring revolving lines of credit. To the extent that NJR expects to work on a long-term basis with the same lead bank, it should select a different lead bank to arrange the syndication of the banking group to finance the holding company and non-utility business liquidity needs. By choosing a separate lead bank, the negotiation of the NJR agreements should be on more of a stand-alone basis than is the case currently. A new NJNG revolving credit agreement should have a different lead bank than that of NJR when a new facility is acquired in 2009 or any time prior to the expiration date. Other banks making credit commitments to NJR or NJNG may be included in the syndicates of both, if they should choose to do so. However, the solicitation of a lead bank and the negotiation of terms and covenants should segregate the utility from non-utility risks and effects. Alternatively, if NJR makes the solicitation of lead banks for NJNG and for non-NJNG financing truly competitive and separate on a recurring basis, the same effective separation can be achieved.

E. Financing and Covenants

1. Background

The debt financing of NJR and NJNG is an area that can present substantial risk for utilities. The debt of the holding company or an non-utility affiliate may be tied to the utility entity in either direct or indirect ways. Of primary concern are any encumbrances on utility assets from affiliate entities, cross-default provisions in debt documents, or interlocking “material adverse change” clauses that could affect the utility.

2. Findings

a. NJNG Financing Documents

Liberty reviewed several of NJNG’s debt financing documents to determine if the terms and covenants were out of the ordinary or posed substantive risk to the utility. The review included NJNG’s revolving credit agreement, a private placement note agreement, a Master lease, and the headquarters building sale/leaseback.

The NJNG Revolving Credit Agreement (NJNG RCA), originally dated December 16, 2004, is the most important debt document as well as the utility document of most concern regarding covenants. The RCA does not include any cross-default provisions from the holding company or non-utility affiliates. In addition, in 2005, NJNG negotiated an amendment with lenders to revise the requirement in the NJNG RCA that NJNG renew all of the closing date representations and warranties each time NJNG borrows money under the NJNG RCA to limit such representations and warranties to certain statements regarding Litigation, Financial Statements, and Environmental Matters. The RCA contains a number of other positive and protective aspects:

- NJNG is the sole borrower under the agreement
- Interest pricing is based specifically on NJNG's credit rating

- The maximum debt leverage and interest coverage covenants specifically measure only the utility's financial results for compliance.

The NJNG RCA was negotiated in conjunction with, dated as of the same date, and has identical lenders as the NJR revolving credit agreement. The two revolving credit agreements were also amended at the same time, on November 15, 2005, to increase the size of the revolving credit commitments of each of the agreements.

The NJNG RCA does contain a few provisions that raise concern about protection of utility interests. For example, Section 8 .1 .11 appears to restrict the utility's hedging policies to those of NJRES regarding hedging contract policies. The clause at issue states:

> *The Borrower and each Subsidiary of the Borrower shall comply with the hedging contract policies (notwithstanding that such policies only refer specifically to NJR Energy Services Company) as if such policies were the stated policies of the Borrower in each of its Subsidiaries.*

In addition, Section 8.2.7 regarding affiliate transactions restricts NJNG from transactions with affiliates unless a transaction is made with respect to “Permitted Related Business Opportunities” or a transaction that is not otherwise prohibited by the NJR RCA, is entered into in the ordinary course of business upon arm’s-length terms and conditions, and is in accordance with all applicable law. “Permitted Related Business Opportunities” are defined as “the management and marketing of storage, capacity and transportation of gas and other forms of energy, the generation, transmission or storage of gas and other forms of energy, or the access to gas and energy transmission lines, and business initiatives for conservation and efficiency of gas and energy.”[259] Section 8.2.8 regarding affiliate partnerships and joint ventures restricts NJNG from investments in affiliates, with the exception of partnership interests, limited liability company interests or joint venture interests in Permitted Related Business Opportunities. This restriction on the utility’s investments does not appear to have any positive function for NJNG.

b. NJR Financing Document Review

In the wake of affiliate relations and financial management problems at NUI Corp. in late 2003 and early 2004, NJR reviewed a number of its own financial practices to determine if the company met requirements set forth in the NUI case. The company performed an internal review of the financial protections for NJNG, and hired an outside counsel to review specific financial documents and practices. A recap of the company's findings was presented to the NJR Board of Directors in May 2004.

The main focus of the outside legal review was on the NJR and NJNG credit agreements. The outside counsel specifically reviewed NJR and NJNG's revolving credit facility agreements in place in early 2004, as well as NJR and NJNG’s very recent issuance of senior notes which were both dated as of March 15, 2004. The $25 million NJR senior notes mature on March 15, 2009, while NJNG's $60 million senior notes are due March 15, 2014.

NJR's outside counsel noted that the then-existing revolving credit agreements included several restrictions on NJNG that could be challenged by the BPU. Of most concern were restrictions giving lenders veto rights over changes in existing NJNG debt documents, and maximum leverage ratios and minimum interest coverage ratios which were measured on a consolidated basis. In the senior note agreements for each of the entities, restrictions are placed on NJNG in Sections 10 of the agreements that constrain additional debt, liens, disposition of assets, off-balance-sheet transactions, and additional businesses. While some of these restrictions would normally be included in utility credit agreements, the restrictions are basically the same in both agreements, and some are not specific to NJNG lender requirements.

c. NJR Revolving Credit Agreement (NJR RCA)

NJR and NJNG entered into new revolving credit agreements in December 2004. The two credit agreements were structured and negotiated in parallel with the same group of lenders for each of the agreements. The new agreements rectified most of the potential problems identified by outside counsel with the previous revolving credit agreements. Liberty reviewed the NJR RCA with a specific focus on covenants that tie or restrict NJNG within the NJR agreement, to which the utility is not a party.

The NJR RCA does not include any encumbrances on utility assets or cross defaults and material adverse change clauses that would affect the utility. On the other hand, Section 8.2 of the agreement includes numerous tie-ins of NJNG to this agreement, which place loose restrictions on the utility:

- Section 8.2.1 restricts additional indebtedness of NJNG with numerous exceptions (this clause is very similar to the parallel clause in the NJNG RCA)
- Section 8.2.3 restricts guarantees of NJNG with several exceptions
- Section 8.2.6 restricts “Subsidiary” (including NJNG) sales or disposition of assets, with numerous exceptions
- Section 8.2.14 does not allow “Subsidiaries” to enter into agreements that restrict dividends unless they are no more onerous than those in the NJR RCA and the NJNG Mortgage indenture.
- Section 8.2.17 restricts to some extent “Subsidiary” off-balance sheet financing
- Section 8.2.18 restricts “Subsidiaries” from entering into amendments, modifications, restatements, or the like more restrictive than the NJNG Note Purchase Agreement.

d. NJR Note Agreement

Liberty reviewed the NJR note purchase agreement for senior notes, dated March 15, 2004. This agreement’s Section 10 (negative covenants) is similar to Section 8.2 in the NJR RCA described above. The note purchase agreement also places constraints on the liens, investments, dividend restrictions, asset sales, mergers, joint ventures and the financing instruments of "Restricted Subsidiaries." NJNG is specifically identified as a Restricted Subsidiary.

e. Capital Budgeting Process

The capital budgeting process at NJNG includes financial requirements and limits from senior financial management and project requirements and prioritization from company engineers. NJNG’s financial management sets an overall capital expenditure target that the company will be able to fund through free cash flow, the master lease for gas meters, and tax-exempt borrowing for expenditures in the Northern division.

The engineering department simultaneously prepares a list of projects and related dollar amounts that they believe are required from an operational standpoint. Expenditures for new customers are analyzed to be self-supporting from an economic standpoint, and are included in their own category. The engineering department prepares a prioritized list of system replacement, system improvement, facilities and other capital expenditures for the first draft of the budget.

The Vice President, Energy Delivery and the Chief Financial Officer review the preliminary budget and compare it to the top-down financial requirements. The financial and cash flow needs are set as target levels by financial management, and have been $60-$70 million in recent years.

After capital budget approval by senior management and the Board, the NJNG construction committee meets monthly to review and discuss project variances and specific actions to take. The company has spent within one or two percent of its budgeted amount in recent years.

f. Capital Budgeting Levels

NJNG develops and approves capital budgets annually that are consistent and healthy as a percentage of embedded plant and equipment. The table below provides the gross and net cash capital expenditures for NJNG. The amounts for 2004 and for 2005 are actuals. The amounts for 2006 are forecasted. The amounts for 2007 through 2009 are per the current plan.

NJNG Capital Expenditures

	2004	2005	2006	2007	2008	2009
NJNG Construction/Removal	$60,793	$58,599	$66,663	$71,399	$69,133	$70,673
Less: Lease Acquisitions	$ 5,242	$ 4,780	$ 5,288	$ 5,746	$ 5,833	$ 5,622
Net Cash NJNG CapEx	$55,731	$53,819	$61,375	$65,653	$63,300	$65,051

Thousands of dollars.

Due to its strong cash flow, NJNG internally financed 100 percent of its net capital expenditures in 2004 and 2005, and estimates that the company will do the same in the plan years.

g. Alternative Financings

NJR has explored and implemented alternative financing methods for the utility business over the last 10 to 15 years. The utility has a large program of about $97 million of tax-exempt debt that is issued through a New Jersey Economic Development Authority. The company meets all of its capital needs in its Northern Division by issuing tax-exempt economic development debt.

NJNG also entered into a master lease for acquisition of its gas meters approximately five years ago. The master lease is considered a capital lease for book purposes. When implemented, the master lease called for a sale/ leaseback of about $20 million of existing meters. Approximately $5 million of new meters are added to the program each year.

NJNG also entered into a sale/leaseback of its headquarters building through a leveraged lease in 1996. The headquarters building was built by the CR&R real estate affiliate. The lease agreement called for the utility to lease 75 percent of the building for its own needs. The non-utility real estate affiliate is responsible for sub-leasing the other 25 percent of the building. The economic advantage of this lease was calculated and split with NJNG customers on a 50-50 basis. Since utility credit strength was relied upon to strike the deal, making a 50-50 split of the economic benefits was approved by the BPU.

3. Conclusions

1. The NJR debt financing agreements do not have major potential effects on NJNG; they do not provide for asset encumbrances, cross-defaults or exposure to affiliate financial problems.

The NJR agreements do not include covenants or provisions that would allow higher degrees of harm to the utility from affiliate sources. The company has examined its documents in the past few years to ensure that major exposures for the utility are not included.

2. The NJNG financing agreements provide appropriate stand-alone terms and covenants for the utility.

With a few minor exceptions, the NJNG financing agreements are favorable for the protection of the utility. The exceptions are restrictions on hedging policies and utility investments in sections 8 .1 .11, 8.2.7 and 8.2.8 of the agreement.

3. The NJR RCA includes several minor restrictions of NJNG that should not be part of the parent's financing agreements. *(Recommendation #1)*

Section 8 of the NJR RCA includes restrictions on NJNG's additional indebtedness, guarantees, sales of assets, and off-balance sheet financing. These restrictions will generally not cause problems for the utility in its everyday operations, and would come into play only if the company substantially changed its financing, dividend or established asset sales stances. These clauses are very similar to those in the NJNG RCA, and are probably indicative of parallel utility/parent financial document drafting, whereby one set of document covenants are altered slightly for each party's agreement.

While Liberty does not see imminent harm to the utility from these covenants, it is inappropriate to include any restrictions on the utility in the parent company financing agreements.

4. The 2004 NJR note purchase agreement also includes minor restrictions of NJNG as a "Restricted Subsidiary." *(Recommendation #1)*

The NJR and NJNG note purchase agreements were also signed as of the same date with common lenders. As a result, minor restrictions on NJNG liens, investments, asset sales, dividend restrictions, mergers, joint ventures and financing are part of the NJR agreement. These restrictions are generally common to both of the agreements; many of the restrictions could be included in a utility stand-alone agreement. Again, while no imminent harm is expected, no restrictions on NJNG should be included in NJR financing agreements.

5. The NJNG capital budgeting process and policies appropriately link to financing activities.

The utility capital budgeting on process includes system and engineering requirements as well as financial discipline. The process ensures that high priority system projects will be funded.

Historically, NJNG NG has been able to finance its capital expenditure levels internally with its strong cash flow, a trend that is expected to continue.

4. Recommendations

1. **Specifically exclude NJNG from restrictions included in the "negative covenants" sections of future NJR revolving-credit and private-placement agreements.** *(Conclusions # 3 and 4)*

NJNG is specifically identified and included in several restrictive covenants in the NJR RCA and Note Purchase Agreement, which Liberty finds to be inappropriate, if not substantively harmful. Future NJR financing agreements of all types *should specifically exclude NJNG from negative and restrictive covenants* on NJR subsidiaries to provide improved insulation of the utility from potential effects of non-utility and holding company activities.

F. Tax Considerations and Use of Depreciation

1. Background

All four volumes of Liberty's audit address a variety of aspects of the non-utility businesses of NJR. This section is limited to addressing the question of the extent to which tax considerations have driven investment decisions.

2. Findings

In recent years, NJR has made no new investments in new non-utility ventures. Its major investments have been in NJRES and NJRHS. Those investments have clearly been driven by the goal of producing positive margins without significant reliance on tax benefits. Those decisions have been accompanied by sound consideration of expected revenues and expenses.

3. Conclusions

1. **NJR has focused its non-utility investments on core strengths, and has appropriately limited their size and risk.**

The company has limited itself to wholesale energy marketing, home services, and real estate investments. As to the latter, it has steadily been reducing its inventory of assets, without adding new ones. The wholesale energy marketing business focuses on asset-based investment opportunities and operates under a risk management structure that mitigates exposure to market fluctuations. Its growth in assets has been properly controlled and the Company has managed it effectively to produce routinely positive margins. The home services business was a mature one when it was transferred from the utility. Its results have been more modest, but it poses small risk to the overall financial position of the Company. Moreover, NJR measures its performance on the basis of its business fundamentals.

2. **Tax considerations have not played a major role in investment decisions in recent years.**

During the years examined by Liberty, it has been clear that business fundamentals have driven investment and operational decisions about non-utility activities. NJR has kept non-utility investment and risk low, and has consistently measured performance on the strength of customers, revenues, and expenses. Income tax considerations have not driven investment decisions or performance measurements.

3. Utility asset depreciation has not funded non-utility investments or operations.

As other chapters of this volume discuss, NJNG has a growing system that has required significant capital expenditures. The utility has made appropriate expenditures to replace and add to utility infrastructure. Utility cash flow and financing reasonably correspond to utility expenditures. Non-utility cash flow and financing reasonably correspond to non-utility expenditures.

4. Recommendations

Liberty has no recommendations in this area.

IX. Human Resources

A. Organization and Staffing of HR

1. Background

NJR Service Corp.'s human-resources (HR) department has a total of 10 employees divided into two units that report to the vice president, corporate services, in NJR Service. This officer serves effectively as the head of human-relations functions, and handles HR's relationship with NJR's board of directors, officer development, and some aspects of executive compensation. The employment, labor relations, and payroll functions fall under by the manager, employee relations, whose subordinates comprise two HR generalists, an HR administrative analyst, a payroll supervisor, clerical assistant, and an administrative assistant. The benefits & leadership development unit reports to a manager, and has a training coordinator and a benefits coordinator.

2. Findings

The department is responsible for NJR's compensation and benefits programs, employment and employee relations, employee development, and the company's payroll. The responsibility for compensation and benefits programs includes the administration of wage and salary programs and incentive compensation (with the exception of incentive compensation for executives) and the administration and compliance of benefit plans, including the 401(k), pension, medical, dental, life insurance, and disability insurance. The employee-relations function handles employee and labor relations, affirmative-action and equal-employment-opportunity (EEO) compliance, compliance with NJR's HR policies, and maintenance of HR files. The employee-development function is responsible for NJR University (NJRU), which is the name of the umbrella for all training.

The payroll unit creates and distributes payroll checks, and has responsibility for maintaining NJR's human-resources information system (HRIS), through which transactions are made and reports on which the HR department depends are generated. The unit picked up responsibility for payroll from the accounting function about eight years ago, and views the physical proximity of payroll in the HR department as being advantageous for processing transactions.

The two human resources generalists have extensive experience in HR matters at NJR and other companies. They work with the manager on recruiting, maintaining the company's affirmative-action plan and complying with equal-employment opportunity regulations, and in employee relations coordinate employee activities such as the six cultural-diversity celebrations done every year and the children's holiday party. The also handle other administrative tasks, such as scheduling the hearing of grievances from members of NJR's bargaining unit, and the short- and long-term disability programs, compliance with the Family and Medical Leave Act, and workers' compensation laws.

The manager of the benefits & leadership development department has been in HR for about one year, but previously had responsibility for leadership development when that function was located elsewhere. The manager has one subordinate, with benefits responsibility, who also has one year of experience in HR, and the other subordinate, the training coordinator, has 15 years of experience in HR and handles the administration of non-technical training.

The benefits function is responsible for selecting vendors, reviewing their rates, and paying their bills, and so is responsible for the budget line item for medical benefits. The vendors handle claims, but HR handles open enrollment, answers benefits questions, and provides help in resolving problems with claims. The training coordinator’s role includes scheduling, tracking, and record-keeping. The benefits & leadership development unit relies on Buck Consultants, a large consulting firm, as its pension actuary. Buck provides retiring employees with the information they need on the benefits to which they are entitled, interpretations of the provisions of the plans, and does valuations and government filings.

3. Conclusions

1. NJR has done substantial and frank analysis of the functioning of the HR department and its organization, as described in later sections of this chapter. *(Recommendation #1)*

Liberty commends the management of the HR group for recognizing that with the changes resulting from the recent retirement of the vice president of HR and another veteran HR manager that it would be valuable to have an independent appraisal of the effectiveness of HR. That said, NJR has yet to take the major steps to address the problems and improvement opportunities that have been identified.

2. NJR, like other companies, has some staff members who are not HR professionals by training or background. *(Recommendation #1)*

It is not unusual to find an organization that puts people who are not experienced in HR in that department, and also to not have an officer whose only responsibility is HR, which is now the situation. Neither situation presents flaws that cannot be overcome by assiduous attention to HR matters by committed employees, which appears to be the case here. Nevertheless, these are not preferred practices. It is better to have the right organization in place; however, there are no indications of serious problems in HR.

3. The placement of the payroll function in the HR department is anomalous, and is likely a distraction from the main job of HR. *(Recommendation #1)*

Payroll is traditionally a function that is placed in an accounting department, for reasons of control, work balancing, and relationship to other accounting functions. Having the payroll function in HR department gives HR better control of payroll transactions; however, the important trade-off is that HR managers have to divert their attention to their primary responsibility to make sure that the payroll system runs smoothly.

4. Recommendations

1. Implement major changes to the structure and functioning of HR. (*Conclusions #1, #2, and #3***)**

The results of the surveys and consulting study of HR, described in more detail below, lay out a map of what HR needs to do to provide better service to its clients. There are a number of issues to be addressed, and it would make sense to first address the organizational issues that Liberty has highlighted (placement of the payroll function, lack of an officer for HR, and for the future, whether it is appropriate to have HR-management positions filled by people without prior HR experience) as well as those that were observed by NJR's consultant. The reason to address organization first is to help assure that managerial resources are focused on solving problems and making improvements, and because the people who make the changes should be the ones who then manage the organization. NJR should make the decisions needed by the end of 2007.

B. Training

1. Background

The HR department has responsibility for NJR's non-technical training. Virtually all technical training is provided by operating units; *e.g.*, NJNG's Energy Delivery unit provides technical training to its own employees, as does NJR Service Corp.'s Information Technology (IT) department. A business technology consultant provides training to employees outside of IT on the company's JD Edwards integrated financial system. NJR Home Services is developing its own training capability, as the Energy Delivery trainers have not trained Home Services personnel since 2004. Liberty's examined the non-technical training and the technical training provided in Energy Delivery.

2. Findings

a. Non-Technical Training

NJR uses the term *leadership development* to mean a philosophy of continuous education and development for increased performance and leadership skills for all employees. Leadership development's primary focus is non-technical training. HR's umbrella term for training and development is NJR University (NJRU). NJRU's course offerings and programs include:

- Tuition reimbursement
- Seminars on work-life issues (*e.g.*, college savings, elder care, insurance), offered before and after hours
- The general non-technical training curriculum (*e.g.*, skills in communication, writing, and time-management)
- The *On-the-Road* program, which is taught mostly by NJR's management, and provides information about the company
- Technical training, including skills for personal and the mainframe computer, and courses for NJNG and NJRHS technicians (thus, NJRU nominally includes the training functions of NJNG and NJRHS)
- *NJRU Days*, which are conducted during the summer, and includes a session with NJR's CEO and other short courses taught mostly by NJR's management
- Continuing-professional-education courses
- Required curricula for supervisors and managers on quality.

In addition, the programs that NJRU provides to increase the effectiveness of NJR and its own effectiveness in determining the training needs of employees are:

- The 360°-review process, which involves all officers, directors, managers, and supervisors, includes a self-evaluation process by supervisors, peers, and direct-reports, with the objective of helping management personnel understand the perceptions of others, and is used to identify needs in training and development
- The required manager curriculum (described in more detail below), the topics of which are determined using information gathered by reviewing the results of 360°-review process and development plans.

The training personnel in HR prepare an annual training plan that is a schedule showing what courses will be offered, to which business unit or to all employees, the type of training (*e.g.*, computer use, technical, leadership, and mandatory), the trainer, number of course hours, schedule, frequency, intended audience, and delivery method (*e.g.*, lecture, video, computer, hands-on). Employees receive an NJRU Training Calendar every year so that they can schedule their attendance.

The curriculum, or *course catalog*, of NJRU's offerings in non-technical training changes annually to address training needs that are identified through HR's analysis of the results of employee-development plans. For 2006 and 2007 that analysis identified the need to offer courses in *soft skills* (communications, time management and organization, coaching, leadership, and presentation, and others, mostly on personal-computing skills). In addition, HR conducts focus groups on training.

Through these methods of identifying training needs NJRU developed changes to the mandatory director/manager curriculum in March 2006, amendments to a curriculum that started in 2004. The program is comprised of seven courses, including process management, situational leadership, *influencing*, positive confrontation, and presentation skills. The mandatory curriculum for supervisors started in 2001. It includes 26 courses that have been offered over the past several years, including courses on coaching, safety, legal issues in the workplace, HR policies and procedures, making presentations, conflict-resolution skills, political skills in the workplace, and customer relations.

Yet another tool for identifying training needs, and coordinating training programs throughout the company, is a quarterly meeting called the NJRU Training Forum, whose membership includes:

- The manager, benefits & leadership development, and the training coordinator
- The members of the training unit of Energy Delivery
- An engineer in Environmental Services
- The manager of service & field operations of NJRHS
- A senior technical support specialist in IT
- A technician for pipeline integrity in the system enhancement unit in Energy Delivery
- The business technology consultant noted before
- The safety administrator in Environmental Services

- A supervisor, customer inquiry, in the customer contact office of Marketing & Customer Services.

Topics discussed at these meetings have included details of plans and operations in training on safety, dealing with hazardous spills/environmental emergencies, customer service for NJHRS employees, data access, pipeline safety, operator qualification, using personal-computer software, and NJRU courses and programs.

Virtually all of NJRU's formal training courses are provided by vendors who come to NJR to offer their courses. The benefits & leadership development unit asks its students to evaluate the courses they attend, and in effect, the instructors who deliver the training. To facilitate analysis of student's evaluations of courses, the unit prepares Course and Instructor Synopsis forms, which summarize the results of the surveys as numerical ratios and samples of open-ended comments. Liberty reviewed 35 of the forms prepared in the period 2004-2006 and found that students mostly scored the instructors and courses as good to excellent.

The following table shows the main indicators of NJRU's efforts in the last three years.

NJRU Training Activity, 2004-2006

Course Category		2004	2005	2006
Computer	Number of courses	9	18	15
	Hours	100	130	242
	Attendees	92	200	384
General development	Number of courses	16	16	12
	Hours	109	124	84
	Attendees	623	939	403
Miscellaneous	Number of courses	23	20	21
	Hours	35	41	32
	Attendees	3,838	2,447	3,636
Quality	Number of courses	5	2	1
	Hours	69	16	16
	Attendees	329	9	16
Technical	Number of courses	25	18	30
	Hours	186	134	143
	Attendees	566	313	1,173

The HR department's approach to determining what courses it will offer is to put on the top in-demand courses, up to the budget for training. The chart that follows shows the budgets and actual expenditures for training for the most-recent completed three fiscal years and the latest fiscal year.

NJR's Expenditures for Training

	FY 2004	FY 2005	FY 2006	FY

	Budget	Actual	Budget	Actual	Budget	Actual	2007 Budget
NJRU	279	230	269	286	252	194	252
Quality	75	58	50	3	25	7	25
Tuition reimbursement	81	66	81	65	85	73	85
Supplies/books	8	3	6	0	5	7	5
Total	443	357	406	354	367	281	367

Thousands of dollars.

NJR has not compared its spending on non-technical and technical training with that of other employers.

b. Technical training

NJNG's technical training in the Energy Delivery business unit is the responsibility of the manager, training & support and two technical training consultants. This small department's primary responsibility is the training of the field personnel in Energy Delivery. The manager has worked at NJNG for more than 20 years, including work as a distribution manager, and has headed Energy Delivery training for more than six years. One technical training consultant was an HVAC plumber before joining NJNG, and then progressed through what is now NJRHS to a supervisor position, and has been in the training unit for five years. The other consultant has been in the training department for less than a year, but has about 25 years of experience in NJNG's operations and construction. The expenditures of the unit are the salaries of its three employees and the materials it uses, and the staffing level has been constant for years.

The NJNG technical-training unit's facilities in Lakewood are:

- A distribution lab
- A classroom
- An appliance-service lab, which has appliances and a meter set.

The unit uses the methods of training delivery of computers, books, classes, and DVDs.

The technical-training group is responsible for the training of all field personnel in energy delivery, including utility technicians, first responders, distribution technicians, and pressure-measurement technicians, and also provides some technical training of meter readers (who are in the Marketing & Customer Services department).

With the exception of training that is provided by equipment vendors on new equipment, all training is conducted internally by the training unit, and most of training is scheduled to meet the needs of new employees for operator qualification and continuing training for operators, as required by federal regulations. This training is referred to as operator qualification (OQ), and it is the major job function of NJNG's technical-training unit.

NJNG's OQ plan became effective in April 2001 for all employees and contractors who do certain tasks on the gas-delivery system. When the requirement to offer OQ training was starting NJNG worked with four gas companies as a consortium to develop the OQ curriculum; October 28, 2002 was the official start of the OQ program. NJNG decides on the curriculum, and was responsible for writing its own OQ plan.

NJNG's OQ curriculum consists of a total of 41 training modules, with different combinations used for the different job titles in Energy Delivery; the most modules are required for distribution technicians (40), compared with only 7 modules required for a meter reader. The 49 videos that are used are provided by the Midwest Gas Energy Training program that NJNG bought from the Midwest Gas Association in the mid-1990s, and which is the core of the training program. The training unit tracks the qualification and re-qualification status of all applicable employees, as continuing education is mandatory for re-qualification every 3 years; some re-certification is done yearly, for example, for welders, of whom there are 3.

The unit's other main program is for apprentices, which was established in the 1989 union contract. It is a 4-year program. The apprentice programs for the distribution and pressure, measurement & transmission (PM&T) departments spell out what courses are required in the 3 weeks of training that are given in the first 6 months of employment, then the plans for the next 2 weeks of training in the subsequent 6 months, and the 6-8 weeks of training for employees with more than 12 months of service, depending on whether they are in distribution or PM&T. Apprentices are assigned to qualified operators for on-the-job training and associated evaluation. Employees who complete the apprentice program are qualified to become crew leaders. Supervisors and managers in Energy Delivery also receive OQ training.

Two types of training make up most of the classes outside of OQ and apprentice training, which are training on new equipment and changes to codes. This training accounts for about 10 percent of all training. In addition to the OQ and apprentice programs the NJNG technical-training unit schedules or conducts several other kinds of training. NJNG's vendors are periodically asked to conduct an on-site review course for NJNG's employees on the use of the materials and equipment they use, typically on a 2-years cycle.

The Energy Delivery training unit has not performed any significant training for personnel outside Energy Delivery since 2005 with the exception of some training for meter reading noted before. The training for meter readers is on atmospheric corrosion, using seven modules of the Midwest Gas Energy Training program, which enables the readers to do atmospheric-corrosion surveys.

The source of feedback from the field to headquarters about what refresher courses and new-equipment training is needed comes from supervisors. The same information source is used to track the effectiveness of Energy Delivery technical training; evaluation of employees is a responsibility of supervisors, and specific evaluation of training programs is not a formal process.

3. Conclusions

1. NJR offers its employees appropriate technical and non-technical training and manages both types in a way that is reasonable and appreciated by employees.

The Company's approach to training is well structured, comprehensive, and integrated with performance management.

2. HR has not compared its expenditures on non-technical training with other employers. *(Recommendation #1*)

NJR does not know whether its training expenditures are more or less than what similar employers spend. NJNG benefited from cooperating with other utilities in developing its OQ training program. There may be similar benefits that could accrue to NJR if it extends that approach to non-technical training.

4. Recommendations

1. Start a program of working with other, similar companies on comparing programs in non-technical training. *(Conclusion #2)*

NJR is not a large company, and because of that there are some functions that it cannot afford, like having a large training staff that can do extensive research. Thus, as a way of learning more about how it may improve programs that already well-received, HR should put a program in place to take advantage of the opportunities that may be available in working with other employers on non-technical training, starting with comparing expenditures by category, and gradually moving to exploring cooperative ventures.

C. Productivity

1. Background

There is no department or function with specific responsibility for monitoring or improving NJNG's productivity. Instead, productivity is the responsibility of individual operating units.

2. Findings

There is no unified program to improve productivity; NJNG has, nonetheless, increased its productivity as measured by the indicator of customers per employee, as the next table below shows.

	2005	2004	2003	2002	2001
NJNG's customers	462,856	454,208	443,840	434,141	423,182
NJNG's employees	518	539	551	547	542
Customers/employee	894	843	806	794	781

The increase in the ratio of number of customers per employee, as shown above, was 14 percent over the 4-year period. Staffing at NJR has been flat, at about 780, for the past three years, even as its workload has increased.

The HR department contributes to staffing control by producing a monthly-complement report as a tool to help ensure that the staffing levels, and indirectly the productivity, of NJR, are maintained. The report is produced using a module of the JD Edwards financial system; HR provides the report to the business-unit heads.

The report provides data by department on current staffing, with summary information on planned complement, total during the period, new positions allowed, and then detailed information on employees (name, number, and status). It was evident from Liberty's review of the reports that HR takes seriously the responsibility of maintaining the accuracy of information.

NJNG tracks the amount of overtime that it incurs. For calendar year 2004 there were 84 thousand hours of overtime out of 1.2 million total paid hours, or 7 percent; the most was in one group of union workers, who worked 75 thousand hours out of 590 thousand paid hours, or 13 percent.

Another part of HR's work in supporting productivity improvement is its role in managing the performance-planning process. The process uses a thick package of forms whose planning section most be done by the end of October and the employee-development section is to be completed in March. There is provision for a mid-year review, which is due in May, and a year-end section. NJR started using this latest version of the system in fiscal-year 2004, and HR tracks the process to make sure that the required forms are completed when due; in fiscal-year 2006 95 percent of the mid-year evaluations and 97 percent of the year-end evaluations were completed on time. HR continues to work with management on assuring that the process is meeting managers' requirements.

3. Conclusions

1. Overall productivity has been increasing.

Staffing has remained flat as customers have increased in recent years. Overtime has not reached levels that indicate the existence of problems. The annual performance planning process, which is accompanied by a mid-year review, supports effective staff management.

4. Recommendations

Liberty has no recommendations in this area.

D. Safety

1. Background

The centralized staff responsibility for safety resides with the safety administrator, who works in the environmental services group in the Corporate Affairs department of NJNG. The safety administrator provides certain training and personal-protection equipment. To be specific, the technical-training unit in Energy Delivery trains in the use of equipment and the administrator conducts environmental and other safety training that is required by regulation.

2. Findings

NJR compares its performance in safety with that of other utilities. NJNG compared its performance in reportable and preventable motor-vehicle accidents as a function of total miles driven in calendar year 2004 with 11 other local-distribution companies (including South Jersey Gas) of similar size (525 to 1,350 employees). For that year NJNG had the lowest rates of the companies in the survey group.

NJR also has compared its performance in workplace safety with other companies, and tracks its performance against itself over time. The table displayed below shows that NJR has generally improved in both recordable and lost-time incident rates over time and has also generally been close to that of an average of companies in data compiled by the American Gas Association.

NJR's Experience in OSHA Incident Rates

	Recordable Incident Rate	Lost-Time Incident Rate
NJR		
2006	5.61	4.38
2005	4.14	3.87
2004	5.77	4.06
2003	6.02	4.81
2002	7.68	4.18
2001	8.12	4.80
NJR Average (2004-2006)	5.17	4.10
AGA Large LDCs Average (2003-2005)	6.73	2.99
NJR Goal FY 2007	5.25	3.50

3. Conclusions

1. NJR's approach to managing its safety function, and its corporate performance in safety, is reasonable.

There is senior level responsibility for safety administration and training incorporates appropriate safety modules. The Company regularly compares its safety performance with peers; the results show a competitive level of performance, improvement over time, and the use of stretch goals to induce further improvements.

4. Recommendations

Liberty has no recommendations in this area.

E. Employee Relations

1. Background

As of the middle of 2006 NJR had 760 employees, 455 of whom were in its bargaining unit. These figures have not changed significantly over the most-recent 3-year period. NJR's workforce's average age is 45, has an average tenure with the company of 15 years, and is 68 percent male.

Over the period 1994-2005 NJR's employee turnover has averaged six percent annually, with an average of 49 people leaving the payroll each year, 15 of whom have been retirees. The variability of total separations has been relatively large in absolute terms, but as a percentage of NJR's workforce the separations have not been so high as to be a concern.

NJR hired a total of 117 people in 2005 and 2006. The departments or job types that accounted for the greatest hiring activity were meter reading (15), customer inquiry (21), NJRHS (21), and financial services (13). This experience is to be expected as these positions or departments typically have the most entry-level jobs, and entry-level jobs are just that, a way into the company.

2. Findings

HR did surveys of NJR's employees in 2001 and 2003. More recently, in 2005 HR conducted mini-surveys of NJR's employees, by business unit, and reported the results to the managements of the business units. The following summarizes the results of some of these surveys (a score of 1 means *strongly disagree*, and 5 means *strongly agree*; these are responses to questions that are phrased in a positive way):

- A survey of Corporate Affairs with a 95 percent response rate with 14 questions on job satisfaction, and management of each sub-unit and the company, yielded a total average of 4.
- The survey of Energy Delivery had an 81 percent response rate to 14 questions. The responses were separated between union and non-union employees. The union average was 3.4, and the average of non-union employees was 4.2.
- The response rate to the Energy Services group was 93 percent to 9 questions. The average response in the gas supply area was 3.7 (although the response to the statement "The people in my work group/area get along well with the people in the other work groups/areas within the Energy Services business unit" was a score of 1.8.). The business-unit average was 4.3.
- There was a 100 percent response rate to the survey of employees in the Financial and Administration unit. There were 9 objective questions and several opportunities to add opinions. The ratings were 3.8 on communications and meetings, workload was scored at 2.6, performance evaluations at 2.8, promotions and advancement opportunity at 2.6, and diversity rated a score of 3.6.
- The survey of the HR department received a 100 percent response rate. Some of the average scores included 3.9 on technical applications, 4.5 on technical support, 4.2 on sufficiency of tools, 3.2 on consistency of applications of HR policies and procedures, 4.2

on training opportunities, 3.6 on other departments valuing HR, 3.4 on the organizational structure of HR addressing resource gaps from early retirements, 3.9 on understanding my role after HR restructuring, 3.3 on communication within HR, and 4.0 on acting on results of last survey.
- The results of the survey of the Information Technology department yielded results on operate as a team 3.2, workload balanced 2.9, service to internal customers 4.1, understand my role 4.4, establishing priorities 3.2, and reorganization 3.2
- The response rate to the survey of the employees of the NJR Home Services business unit was 99 percent. The ratings from the respondents included communication improvement 3.7, communication of goals and results 3.8, communications committee 3.4, training committee 3.4, 3.5 on training, 4.0 on handling leads, 4.1 on various changes, 3.7 on marketing programs, and stores committee 3.3.
- The survey of employees in Customer Services & Marketing had a 100 percent response rate, which included an average response of 3.4 on the department's recommendation program, a 4.0 on e-mails on meeting results, and a rating of 3.4 on the process for dealing with construction issues.

The HR department administered a company-wide survey in 2006. Some of the results, of the survey (whose results are available by department), again on a scale of 1 to 5, where a 5 is complete agreement with a positive statement, were:
- Understand the Commitment to Stakeholders – 4.6
- Understand my goals and their relationship to the Commitment to Stakeholders – 4.6
- Business unit's policies and procedures are current – 4.1
- Supervisor's feedback – 4.0
- Commitment to safety – 4.4
- Resources to be safe – 4.4
- Quality initiatives – 4.2
- High level of customer service – 4.3
- Understand the Code Of Conduct – 4.7
- Know what to do if there is a Code of Conduct violation – 4.5
- Aware of hotline for reporting misconduct – 4.4
- Company supports diversity – 4.4
- My manager helps balance work/life priorities – 4.3
- Satisfied with job – 4.4.

The area of succession planning at NJR is largely handled by NJR's chairman & CEO, who is most involved with succession planning at the level of officers and directors. He also looks at levels below for potential, and asks his direct reports for information on employees with high potential in their areas. For employees below that level the manager, employee relations has annual meetings with business-unit heads on their plans for their complement.

In 2006 NJR engaged the services of the executive-search and assessment firm to perform an executive assessment that it presented in May. The report is a 150-page evaluation of all of NJR's executives that exhaustively and candidly describes the strengths, weaknesses, development needs, and promotion potential of all, and should serve as a valuable tool for NJR's CEO and board of directors as they approach this important topic in the future.

3. Conclusions

1. NJR's extensive use of surveys is a robust practice and provides valuable information.

The surveying provides a strong source of information for managing employee relations.

2. The surveys show that employees in HR specifically, and NJR generally, are reasonably happy, which squares with NJR's low rate of turnover.

Turnover is not at levels indicating concern and the results of surveying do not disclose any endemic problems that require remedial action.

3. NJR's approach to succession planning is sufficient for a company of its size, and the acquisition of an independent evaluation on occasion, as NJR did in hiring an outside consultant, was a responsible action.

There is ongoing attention to succession planning, the CEO considers it a personal priority, and senior management has a sound understanding of important needs, the capabilities of incumbents, and approaching separations.

4. Recommendations

Liberty has no recommendations in this area.

F. Functioning of the HR Department

1. Background

As described before, two of the three senior managers of the HR function are relatively new to the function. To better understand how HR's internal customers (the employees of the NJR companies) view the service that they receive, HR conducted its own survey NJR's employees. In addition, HR hired a management consultant to independently study the department and also perform its own survey of its internal customers.

2. Findings

The Human Resources department performed its own survey of the satisfaction of its internal NJR customers in 2005. Liberty's summary of the results is shown in the table that follows.

2005 HR Survey Results

Topic	Positive (%)	Negative (%)
Overall General development	[redacted]	[redacted]

courses		
PC/technical training	[redacted]	[redacted]
Field training	[redacted]	[redacted]
NJRU	[redacted]	[redacted]
Employee performance issues	[redacted]	[redacted]
Payroll	[redacted]	[redacted]
Benefits administration	[redacted]	[redacted]
Employment/hiring	[redacted]	[redacted]
Labor relations	[redacted]	[redacted]
Courteous	[redacted]	[redacted]
Flexible/creative	[redacted]	[redacted]
Knowledgeable	[redacted]	[redacted]
Timely	[redacted]	[redacted]
Consistency	[redacted]	[redacted]
Comfort level	[redacted]	[redacted]
Availability	[redacted]	[redacted]
Average	[redacted]	[redacted]

Liberty reviewed the open-ended comments in the survey responses and found them to have substantial variability in their positive and negative references.

In November 2006 the firm of Mercer Human Resource Consulting (Mercer – the largest HR consulting firm in the world) presented its *HR Assessment Report*, to NJR in the form of a 99-page PowerPoint report, along with an executive summary of 42 pages.

Mercer observed that the core cost in 2006 for the HR department's labor cost was $1 million. With this expenditure level the HR department covered the following functions, with the associated distribution of time to each of the functions:

Function	Time (%)
Payroll	[redacted]
Non-retirement benefits	[redacted]
Staffing	[redacted]
Organization development	[redacted]
HR-department management	[redacted]
Compensation	[redacted]
Employee relations	[redacted]
Training	[redacted]
Retirement benefits	[redacted]
Non-human-resources	[redacted]
Labor relations	[redacted]
Time and attendance	[redacted]
HRIS/HR applications	[redacted]

Mercer's main observations with respect to the distribution of time of the HR department's personnel included the points that:

[redacted]

[redacted]

The Mercer consultants interviewed all levels of HR management and users of HR's services in NJRHS, NJNG (Customer Service and Energy Delivery), and Finance and Accounting. Mercer also conducted a survey of employees, with 82 of 98 forms sent out being returned. Mercer's observations about HR from its work included:

[redacted]

Mercer's evaluation of the HR department included the following:

[redacted]

Mercer provided several pages of recommendations; some of the highlights were:

[redacted]

With respect to the payroll function, management in the HR department does not believe that the two people assigned are sufficient for doing the payroll work for all of NJR, which in fact is half of the staffing level of four that once was the case. The difficulties of this situation are exacerbated because the HRIS on which HR depends is a subset of the JD Edwards enterprise financial system on which all NJR business depend for most of their financial and related transactions and report. It is not a specialty HRIS; the compromises inherent in such a system do not necessarily meet the needs of the HR department as it might like.

3. Conclusions

Please see the conclusions in section A. Organization and Staffing of HR, above.

4. Recommendations

Please see the recommendation in section A. Organization and Staffing of HR, above.

G. Benefits

1. Background

Because of the increases in the costs of benefits–especially health benefits, Liberty assessed how NJR has been addressing this area that is important to cost control as well as ensuring that NJR continues to be an attractive employer.

2. Findings

NJR offers a full suite of benefits to its employees. It is well known that the costs of such benefits, especially those for medical care, have increased greatly for all employers in the United

States over the past two decades. For that reason HR functions and the companies they serve have increased their focus on this area, which is of great interest to employers and employees because of the large and unceasing increases in costs. For the same reason Liberty's audit work in HR focused on the area of benefits.

NJR's costs for employee benefits have increased substantially in the past few years. The chart below shows trends in NJR's budgeted and actual costs for employee benefits, excluding payroll taxes provided to active employees, as categorized by NJR.

NJR's Recent Experience with Benefits Costs

	FY 2004		FY 2005		FY 2006		FY 2007
	Budget	**Actual**	**Budget**	**Actual**	**Budget**	**Actual**	**Budget**
Life/ADD/TBD/LTD	560	526	640	576	672	592	609
Medical/BCBS	6,003	5,589	6,260	6,215	6,600	7,169	7,734
Dental/Delta	632	589	641	579	718	599	684
Savings-Plan Match	1,101	1,013	1,114	1,076	1,075	1,060	1,098
Total	8,296	7,717	8,655	8,446	9,065	9,420	10,125

Notes: 1. Dollars are in thousands.
2. Life is life insurance, ADD is accidental death and dismemberment insurance, TDB is temporary-disability benefits, LTD is long-term disability insurance, BCBS is Blue Cross/Blue Shield, and Delta is the Delta dental plan.

The increase in NJR's total costs for these benefits from 2004 to 2006 was 22 percent (28 percent for medical alone), and is likely to be as much as another 7 percent more if the projection of the 2007 budget is correct. HR management's understanding is that the increases in benefits costs have been in line with the experience of other employers and that the benefits offered to its employees are similar to the benefits offered by employers with whom NJRC, NJRSC, and NJNG compete, or are somewhat more generous. That latter opinion is supported by the work that the consulting firm Aon recently did (more on that below), because Aon concluded that NJR's plans are generous, because of company contributions to medical premiums and relatively low health-plan deductibles and co-payment requirements.

In the interest of reducing the increase in benefits costs NJR has undertaken some cost-control measures. For example, for its current retirees' health coverage NJR eliminated a health-maintenance-organization option because it was too expensive.

While the incentive-compensation program for executives of NJR's differ from those of non-executive employees (described in more detail in the chapter on executive management and corporate governance), the benefits received by NJR's executives are not different from those of other employees, with the exception that in retirement the spouses of executives continue to get the medical benefit on the death of the retired executive, and they also receive travel and accident insurance while employed and receive two extra weeks of vacation during their first 22 years of employment.

a. The August 2006 Study

In August 2006 HR's consultants reported to HR management on the results of what was called the *Total Rewards Project* (some interim work products were also provided late in calendar

2005). The study was the result of the decision of the vice president, corporate services and the and manager of benefits & leadership development, who wanted to look more closely at benefits-costs increases, and who knew that the area had not been reviewed or benchmarked for several years. They determined that it would be valuable to hire a consultant to look at the area and make recommendations.

Before choosing the consulting firms that won the engagement, which was originally planned to be, and started as, a medical-plan "optimization" study, HR, with the assistance of the purchasing department, received bids from the eventual winners (Aon and Buck) and two other firms, one of which is also a prominent HR-consulting firm. As the project evolved into the Total Rewards Project, the firms chosen were Aon (revenues of $9 billion and 53,000 employees) and Buck, NJR's actuarial firm. Aon submitted a thick and comprehensive proposal for the benefits portion of the project, and NJR hired Buck to do the other side of what became the total-rewards analysis (a compensation study). The results of the compensation analysis are described in the next section of this chapter, as is the concept of *total rewards*.

The product of this work was extensive documentation of analysis of the structure of NJR's employee-benefits package, including how it compares with those offered by other employers, and options for changes to reduce further increases in its cost in the future. Most of the rest of Liberty's presentation here on NJR's employee benefits relied on that documentation.

Aon observed that in the area of medical benefits most employers are migrating to preferred-provider plans and are asking their employees to share more of the costs of their health care, through, for instance, raising required co-payments and deductibles. Aon also concluded that NJR's medical coverage was generally at or above average of similar or competing employers in the level of the medical benefits that it provides because its plans' out-of-pocket maximums, employee contributions, and deductibles (cost-sharing provisions) in the indemnity (in simple terms, traditional Blue Cross/Blue Shield program) and point-of-service (POS–again, in simple terms, network of approved doctors and hospitals) programs are at or below the average, sometimes substantially so.

The following tables show Aon's summary of the provisions of NJR's two approaches to medical plans and their total and per-capita costs.

Current Medical Plan Design

		POS	
Feature	**Comprehensive Indemnity**	**In-Network**	**Out-of-Network**
Deductible ($, employee/ family)	300/600	n/a	500/1000
Hospital expenses	80% after deductible	1000/2000	70% after deductible
Emergency room			70% after deductible
Physicians' office visit	80% after deductible		70% after deductible
Routine physical	100%		70%
Well-baby care	Not covered		Not covered
Chemical dependency/mental health	Inpatient 80% after deduct, Outpatient 50% after deduct with some		Inpatient 70% after deduct, Outpatient 70% after deduct with some

	maximums		maximums
Vision	One annual exam, $45 frames, $100/yr lenses	One annual exam, 90% no co-pay; frames and lenses $150 every 2 years	One annual exam, 70% after deduct; frames and lenses $150 every 2 years
Lifetime maximum	$2 million	unlimited	$1 million
Prescription drug co-payments		6/13 generic/brand retail 5/10 generic/brand mail order Formulary: none	

2006 Medical Cost Summary

	Total Cost (millions)	Lives	Per Capita
Active			
POS	$5.8	569	$10,185
Indemnity	1.7	143	11,957
Total	7.5	712	10,541
Retirees	1.7	212	8,033
Grand total/average	9.2	924	9,966

Aon also found several aspects of NJR's medical plan that present opportunities for improvement in cost control, because Horizon Blue Cross/Blue Shield, NJR's plan administrator, has fees that are high, and the structure of the services that Horizon provides do not lead to the best arrangement for controlling costs, including the structure of the premium arrangement (which is cheaper than the traditional arrangement, and puts some risk on NJR) between NJR and Horizon and the services and incentives in Horizon's program. Aon calculated that the annual savings opportunities from the implementation of its various recommendations could amount to several hundred thousand dollars.

Aon's observations and recommendations about NJR's drug and dental coverage were similar to those regarding medical coverage. For example, the employee co-payments for prescription drugs that NJR requires are significantly below the average of other employers, and other utilities require some dental-plan premium sharing with employees, while NJR's coverage is free.

Aon also analyzed NJR's retirement benefit programs and presented its observations and recommendations for aligning the programs with recent trends in program changes being made by other employers. The main retirement plan that NJR offers its employees is a final-pay defined-benefit plan that acts as a salary-replacement program which uses a formula whose variables include final average compensation (to a maximum that considers Social Security benefits) and years of service. NJR's management has been considering possible changes to the formula.

Because the costs of pension/retirement plans have been increasing, Aon noted the well-known trend among American employers in changing from defined-benefit to defined-contribution plans, and even that the defined-contribution plans are being changed. The net effect is that what had been the standard retirement package of a defined-benefit plan with an addition of a 401(k) plan is being replaced by new defined-contribution plans.

In doing its analysis and assembling its recommendations on retirement packages Aon relied in part on its analysis of what competing employers are offering; these other employers were American Water Works, AGL Resources (Elizabethtown), FirstEnergy (JCP&L), Meridian (includes Jersey Shore Medical Center), PNC Bank, PSEG, SJI, and Verizon. One of Aon's important findings was that its analysis of the salary-replacement ratios (considering the total value of the defined-benefit and defined-contribution plans and Social Security), showed that the value of NJR's total program was exceeded only by three of those competitors or similar employers. In sum, Aon found that NJR's retirement package is competitive and slightly generous.

3. Conclusions

1. **NJR's recent actions in studying its benefits package by engaging the services of a consultant were appropriate, and should provide the HR department with a useful blueprint for making changes in benefits while ensuring that NJR continues to be an attractive employer.** *(Recommendation #1)*

The Company has done an effective job of looking at the comparability of its benefits, their costs, and the available provider options. It offers benefits that are competitive overall. To the extent that it benefits are marginally more generous in comparison to other, NJR has developed the information necessary to tailor them as employee needs and cost conditions change.

4. Recommendations

Liberty has no recommendations in this area.

H. Salaries and Wages

1. Background

The pay that NJR offers its employees is either in the form of wages and incentives, prescribed by job category in NJNG's and NJRHS's contracts with the company's union local, for represented employees, or salaries and incentive compensation for all other employees. The section that follows, on labor relations, also discusses wages.

For non-union employees NJR has about 190 job titles, but in 2007 had only 19 salary grades, only 12 of which apply to salaries below $164 thousand. HR management finds the structure of small number of wide salary bands (and many job titles) to be useful from the standpoint of providing opportunities to increase employees' salaries as they accept more responsibility. NJR has made no significant changes to its salary structure and job classifications for several years.

2. Findings

NJR's objective as an employer is to pay at the 60th percentile of the relevant market, which it defines as other local employers and other utilities, considering base and cash incentive compensation. NJR has periodically had Mercer (the firm described previously) or others look at the competitiveness of its pay.

While the company's objective to pay at the 60th percentile, HR does not believe that it pays up to that level, but is closer to the median, while still competitive. NJR has generally not had trouble attracting and retaining the people that it wants, but it has lost some employees because of pay.

NJR increased the midpoints of the salary ranges by a weighted average of 2.7 percent for 2007. The weighted average increase to the salary midpoints in 2003 was 1.9 percent, 3.1 percent in 2004, and 2.7 percent in 2005 and 2006.

NJR introduced incentive compensation for union and non-represented personnel in the 1990s. In designing the incentive programs for both union and non-union employees, the objective was to make them similar so that supervision and bargaining-unit employees would share business targets. There has been no formal study of the effectiveness of the incentive compensation; however, HR management is aware that the productivity has been increasing and that employees who lose eligibility for the bonus care about that.

The incentive plan for non-union, non-executive employees in NJNG, NJR, and NJRSC is considered by NJR to be self-funded because it only pays out if the company's earnings target is met. It combines that corporate objective with business-unit performance objectives, and also depends on the performance of employees meeting their individual goals (employees' performance ratings, as approved by their supervisors, must be at least at the higher end of "needs development"—a *par performer*—and meeting or exceeding performance expectations). The factors that determine the size of the potential incentive payout are corporate and business-unit performance around the set targets, and individual performance.

The computation of the bonus takes the employee's salary and multiplies it by the target-incentive percentage applicable to the salary grade, as shown below:

Employee Group	Salary Grades	Target Incentive (%)
1 - General office (GO)	1-4	4
2 - Some GO, mostly S&P	5-7	7
3 - S&P	8-12	10

Note: S&P means supervisory & professional.

The product of that calculation (the salary-grade mid-point dollar amount and the target incentive percentage) is multiplied by the factor for the company's performance (a range of 80 to 120 percent) and then the employee's business unit's performance (also a range). Employees have the opportunity to receive 100 percent of that product. The product is then distributed to the employees within the business unit using the allocation factors described above, *i.e.*, 60 percent of the product to performers at par or higher, an additional 20 percent to those employees whose performance is rated as exceptional, and the final 20 percent is awarded by the exercise of discretion, presumably to the best performers and some employees whose performance is rated at par.

The company-performance factor for 2006 was 0.75 and the business-unit adjustment factors in 2005 ranged from 0.5 to 1.2. The total actual award pool for all of NJR was $841 thousand in 2005. In 2006 the company-performance factor was 1.0, the range of the business-unit adjustment factors was tighter at 0.95 to 1.2, and the total actual award pool increased to $1.285 million. The total cost of the incentives averaged 6 and 8 percent of the business units' payrolls in 2005 and 2006, respectively.

Liberty reviewed the 2006 fiscal-year-end report on union incentive-performance in Energy Delivery. The performance goals are disaggregated by sub-unit of Energy Delivery, and there were 30 in total. In 2006 Energy Delivery's performance was equal to, or better than, the goals in 22 instances, or 73 percent, which indicates that earning the bonus is not assured, even if NJR meets the earnings threshold.

a. Consultant Compensation Analysis

NJR's recent engagement of Buck to conduct a compensation study provides some useful information on the competitiveness of NJR's pay. As noted in the section on benefits above, Buck was engaged as part of the Total Rewards Project, where the idea was to look at pay and benefits together as the main parts of employees' total rewards, which is the combination of perquisites, benefits, variable compensation, and base cash compensation. The result of Bucks work was substantial analysis with supporting documentation. As was the case with part of the background discussion on benefits, the rest of Liberty's presentation here on pay relied on Buck's reporting to NJR

Buck's analysis of where NJR's total expenditures on rewards to employees showed that, despite the increasing costs of benefits, almost ⅔ of NJR's costs in this broad category is for base pay.

Reward Component	Cost ($ 000)	% of Total
Cash Compensation		
Base pay (includes vacation & holiday pay)	48,860	64.7
Bonus	4,542	6.0
Overtime (prior year actual)	3,988	5.3
Subtotal	57,390	75.9
Active Non-Cash		
FICA	4,043	5.3
Active medical and dental	6,994	9.3
Other active (sick pay, disability, life insurance)	1,198	1.6
Subtotal	12,235	16.2
Retirement		
Savings plan	1,131	1.5
Pension plan (service cost)	3,044	4.0
Post-retirement health and welfare (service cost)	1,772	2.3
Subtotal	5,947	7.9

Total	75,572	100.0

Buck also showed that the costs of the other, controllable and variable components of pay–bonuses and overtime–have changed little over the past four years, as demonstrated in this table.

Bonus and Overtime ($000)

Fiscal Year	Bonus	Overtime
2003	3,572	4,875
2004	3,425	4,881
2005	3,912	4,695
2006 estimated	3,988	4,542

Buck found that NJR's compensation program appears to be consistent with its philosophy: "… base salaries, on average, will be maintained at the median competitive level; *i.e.*, the 50th percentile of our competitive labor market," and performance-based incentive compensation targets the 60th percentile of the competitive labor market when superior performance is realized. To be specific, Buck reached its conclusion because:

- All employees are eligible to earn performance-based incentives
- Incentive opportunities target the above-median level, *i.e.* the 60th percentile of the competitive labor market for above-average return
- Base-compensation practice matches the policy
- Bonus-compensation practice properly bases bonuses on performance goals within the control of employees because it is not directly related to shareholder return.
- The program has succeeded because NJR's total shareholder return has been above Standard &Poor's Utility index and its peers.

Buck also found, however, that:

- Based on the 2006 target and actual incentive-plan payouts (below the executive level), the compensation program is not achieving goals for total cash compensation (TCC)
- "… actual TCC levels should be consistently at the 60th percentile level or higher, rather than at median or below"
- The total compensation of non-represented employees is below the 50th percentile; bonuses at target should bring compensation to the 50th-percentile level.

Buck based its conclusions on its own Competitive Compensation Analysis, which it conducted in 2006. Buck's approach was to take a representative sample of positions and compare the aggregate pay for the non-represented and represented positions and benchmark (compare) them to the pay levels of other employers. The positions that Buck used were:

<u>Non-Represented</u>

- Marketing Manager
- Manager, Gas Control
- Manager, General Accounting
- Manager, Engineering

- Manager, Distribution
- Supervisor, Gas Dispatch
- Manager, Customer Inquiry
- Business Technology Consultant
- Supervisor, Distribution
- Senior Accountant
- Lead Auditor
- Customer Dispatch Supervisor
- Senior Engineer
- Supervisor, Customer Inquiry

Represented
- Load Dispatcher
- Distribution Crew Leader
- Pressure, Measurement & Transmission Crew Leader
- First Responder
- Utility Service Technician
- Distribution Mechanic
- Customer Service Representative
- Meter Reader

Buck used the American Gas Association's Management, Supervisory, and Professional Survey, and surveys conducted by the Southern Gas Association and Mercer that were done in February, March, and April 2005, with adjustments for the age and location of the surveys. When available, Buck compared NJR's numbers with those of other employers whose revenues were about those of NJR's figure of $3.1 billion.

Results of Aggregated Comparisons ($ 000)

		Market Percentile		
	NJR	**25th**	**50th**	**75th**
Non-Represented Salary	1,138	941	1,150	1,254
Represented Salary	436	303	405	443
Non-Represented Target Total Cash	1,246	1,029	1,252	1,383
Represented Target Total Cash	445	318	417	457
Non-Represented Actual Total Cash	1207	1029	1252	1383
Represented Salary Actual Total Cash	445	318	417	457

Liberty's analysis of these results is that the difference between the market median (50^{th} percentile) and NJR for all six measures of competitiveness was in the range of -1 to 7 percent, which means that was effectively at the median. The difference between NJR and the 75^{th} percentile ranged from -3 to -15 percent (average of -7 percent), which means that NJR's pay could also be said to be about at the 75^{th} percentile. In contrast, the difference between NJR and the 25th percentile was in the range of 15 to 31 percent (average of 23 percent), which means that NJR's pay was definitely above the 25th percentile of Buck's survey data.

The consultant's conclusions on its results generally agreed with those of Liberty. Buck concluded that NJR's base salaries for both represented and non-represented positions are almost exactly at the market median, but noted that salaries for 10 individual positions vary from median levels, and are at the 25th to 75th percentiles, and that target total compensation (base salary plus bonus at the target level) and actual total compensation also, on average, were at median with the exception of only 2 non-represented and 1 represented positions.

Buck's summary conclusion on the topic of NJR's competitive position with respect to the *Total Rewards* it offers its employees was that the package is slightly above the 50th percentile when bonuses are paid at the target level. Buck's support for this conclusion was that:

- Base compensation is at the 50th percentile
- Total compensation is at the 50th percentile when incentive are targets achieved
- Medical/prescription and dental benefits are currently above 50th percentile, and with recommended changes would still be slightly above the 50th percentile.

3. Conclusions

1. NJR's salaries and wages are adequately competitive without being overly generous.

They are supported by adequate analyses and comparisons, which show salaries and wages to be generally at the 50th percentile.

2. Making comparisons with other employers using NJR's revenues of $3.1 billion is misleading. *(Recommendation #1)*

NJR reported that revenue figure for fiscal-year 2005, but it presents a misleading indicator of NJNG's size. For fiscal-year 2000 NJR reported revenues of $1.1 billion; NJR has not tripled in size in the intervening time. A simple comparison shows the flaw in using revenues: Aon recently had revenues of $9 billion and 53,000 employees. An argument that Aon is only three times larger than NJR would be hard to make.

3. The incentive-compensation program for non-executive employees is appropriate.

It is not overly generous and it is appropriately tied to performance.

4. Recommendations

1. In future analyses of compensation, use companies closer in size. *(Conclusion #2)*

NJR should use comparison groups including employers close to its actual revenue numbers and employee levels.

I. Labor Relations

1. Background

NJR has one bargaining unit (the International Brotherhood of Electrical Workers, Local 1820) and two contracts. The term of NJNG's contract is December 8, 2003 through December 7, 2008. It covers all of NJNG's employees excluding those in NJNG's General Office category (management and associated employees), confidential secretaries, superintendents, guards, and cadet engineers. NJRHS's agreement with Local 1820 started on April 3, 2003, and ends on April 2, 2007. The primary differences between the contracts are in wages, because of different wage classes/positions, and work rules.

The management of HR characterizes NJR's labor-relations climate as positive. That evaluation squares with the results of the surveys of employees described above. During negotiations in 1997, several issues arose that could have led to a strike, but there have been no strikes since 1973.

The negotiation of contracts was last handled by NJR's now-retired vice president of HR, and the head of the Energy Delivery business unit represented the operational management of NJNG. The manager, employee relations handles labor relations for NJR now. In negotiations in this decade NJNG established the medical-insurance premium contribution for retirees and increased the contribution for active employees, and eliminated the health-maintenance-organization option. During this time frame the union incentive pay program was started and improvements to benefits were made.

2. Findings

NJNG's contract provides for annual wage-rate increases of about 3.6 percent from December 4, 2003 through December 8, 2007. The lowest hourly wage rate for schedule A employees, after the December 8, 2006 raise, was for an apprentice gas mechanic at $17.51, and the highest was for a load dispatcher with maximum experience of $33.58; the lowest rate for Schedule B employees after the December 8, 2006 raise was for a beginning clerk I at $14.10, and the highest was for a senior clerk (data) with maximum experience of $29.76. The contract between NJRHS and the local is similar to that with NJNG but is less detailed and has different job classifications, with hourly pay ranges in 2006 from $15.12 for a helper to $27.93 for a service tech.

NJR has not done any wage comparisons lately because negotiations were some time ago, but generally has found that PSE&G is the highest payer and SJG is next, and NJNG was generally below them. NJNG finds that it is competitive in hiring new people for union jobs and keeping them because its pay and benefits are competitive and it is the local employer for blue-collar jobs.

The union-incentive (bonus) plan pays 2 percent of base pay at the target level of performance, and is only paid if both NJR and NJNG exceed the *triggers* of 3 percent growth in earnings. The threshold level of performance for each of the three measures that are used is 80 percent of the performance objective, the target level is 100 percent, and the maximum available is 120 percent.

The measures are NJNG's earnings growth, business-unit achievement of initiatives, and department/unit productivity.

NJNG's contract delineates the benefits for which members of the bargaining unit are eligible, including life insurance and health insurance. With respect to health insurance:

- For active employees, who choose either the indemnity or point-of-service plans, the employee contributions are 17 percent and 10 percent of premiums, respectively
- For retirees:
  - There are no contributions for those who retired before 2004
  - When current employees retire they will pay 10 percent of premiums
  - New hires will pay 10 percent of premiums if they have 30 or more years of service; those with 25-29 years of service will pay 15 percent of premiums, and those with less then 25 years of service will pay 20 percent.

NJNG matches 50 percent of employees' contribution to a 401(k) savings plan, up to the first 6 percent of base wages; their accounts vest 100 percent after 5 years of service.

Members of NJNG's bargaining unit also receive sick days that increase from 6 per year to 7 and then to 8 with more service, and then a temporary-disability benefit starts. There is also a long-term disability benefit that is roughly 60 percent of base pay to a maximum of $2,000 per month.

With respect to work rules, NJNG may not use contractors for the purpose of laying-off employees who customarily do that work. The contract also, however, provides for voluntary home reporting for first responders and utility service technicians, who use company vehicles to go to their first job of the day from home. In addition, NJNG has some flexibility in assigning first responders to do utility service work, and senior utility service technicians can be assigned to leak-response work. Recently, NJNG and the union negotiated a change in the gas-control unit, which was the institution of a new 12-hour shift schedule for the bargaining-unit employees after two senior gas controllers retired, which NJNG reports has improved morale and decreased absences.

As is typical for a company with a labor union, NJNG's contract with Local 1820 has a system for progressive discipline. The contract provides for a first step, which involves the grieving employee's immediate supervisor, with or without a union representative except if it involves more than one employee. If the union is dissatisfied with the decision then it can be either taken to the optional second step or the third step. In the optional second step the grievance is reduced to writing on a form and submitted to a vice president or general manager, and then a meeting is held of the supervisor, the union president, and the vice president or general manager who decides the grievance. If the grievance is not settled then the union can refer it to the next level of management, who has a meeting with all of the union's senior representatives. If that decision is not satisfactory either party can submit the grievance to arbitration, with each party bearing its own costs.

Current practice differs a little from the steps described in the contract. The progressive discipline for a performance problem is: verbal warning, letter, first suspension, second suspension, and termination. The union grieves the disciplines typically when the disciplinary action passes the verbal stage. At the first step the attendees are the shop steward, supervisor, and grievant. At the second step the attendees are manager - employee relations (the official company spokesman on LR), the manager of the affected unit, and the supervisor, and for the union it is the president, steward, employee, and unit chairman. (Local 1820 has three units, each of which has a chairman.)

An objective measure of the state of a company's labor relations is frequency of the filing of grievances by members of a bargaining unit. In the 2-year period 2005-2006 members of the bargaining unit have filed a total of 35 grievances, 8 of which were from NJRHS's employees, so the number of grievances filed by NJNG's employees during the period was 27, or about 1 each month. The resolution status of the grievances is that 8 were settled, 24 were denied, and 3 are still open. No grievances went to arbitration in 2005 and 2006.

3. Conclusions

1. **NJNG's labor-relations climate is favorable for the continuing efficient operation of the company.**

The Company has a sound understanding of what its local competitors for workers offer. The benefits and incentive compensation for covered workers are competitive. The Company uses an appropriate structure for progressive discipline. Grievances are at low levels and arbitrations have been non-existent in the last two years.

4. Recommendations

Liberty has no recommendations in this area.

J. Affirmative Action and Equal Employment Opportunity

1. Background

The HR department is responsible for the administrative work of NJR's compliance with regulations regarding affirmative action (AA) and equal employment opportunity (EEO). NJR's managers have the responsibility for hiring, promoting, and retaining employees so that NJR has a diverse workforce, and HR helps them by providing them with data about the composition of their employee bodies and the areas in which they have deficiencies.

2. Findings

To evaluate NJR's performance in the area of EEO/AA, Liberty used NJR's latest affirmative-action plan (AAP) and presentations made to NJR's board of directors. The contents of all of these documents are described below, and key information from them is shown.

NJR's latest AAP is about 100 pages long and covers the period October 1, 2005-September 30, 2006, or fiscal-year 2006. It includes the CEO's Statement to all Employees, which states that:

- All employees have the right to equal employment and career opportunities
- Employment decisions are based solely on requirements and qualifications
- NJR recruits, trains, hires, and promotes without regard to race, religion, national origin, sex, marital status, sexual orientation, age, handicap status, *etc.*
- All personnel actions are taken without regard to race, religion, national origin, sex, *etc*.
- There will be no sexual harassment.

Employees who encounter discrimination or other problems are directed to report them to the vice president, corporate services.

The AAP further states that it is NJR's policy to seek full utilization of minorities and women at all levels of the company and that NJR is committed to making personnel decisions based on merit alone, while goals and timetables are to be pursued with good-faith effort and are not to be construed as quotas. In monitoring the efficacy of its efforts, NJR's auditing and reporting includes workforce and applicant-flow analysis, and results in hiring, promotions, transfers, and terminations are checked quarterly for progress against EEO goals.

The table that follows shows NJR's report on the federal EEO-1 form, as included in the latest APP.

Workforce Analysis by EEO-1 Job Category

		All Employees			Male				Female				Total	Summary	
	Job Category	**Total**	**Male**	**Female**	**B**	**H**	**AI**	**A**	**B**	**H**	**AI**	**A**	**Minority**	**Minority**	**Female**
1A	Officials & Managers	34	22	12					1				1	3%	35%
1B	Officials & Managers	73	55	18	3	2		2	6	2			15	21%	25%
2A	Professionals	105	62	43	1	1		1	7	2		1	13	12%	41%
2B	Professionals	34	9	25				1	4	1		1	7	21%	74%
3	Technicians	19	13	6	2	1							3	16%	32%
4	Sales Workers	17	15	2	1								1	6%	12%
5A	Office & Clerical	52	4	48					15	3			18	35%	92%
5B	Office & Clerical	43	7	36	1	1			5	4			11	26%	84%
5C	Office & Clerical	18	2	16	1				5	2		1	9	50%	89%
5D	Office & Clerical	30	9	21		1		1	4	2			8	27%	70%
6A	Crafts (skilled)	42	42	0	6	5		1					12	29%	0%
6B	Crafts (skilled)	53	53	0	9	3							12	23%	0%
6C	Crafts (skilled)	76	76	0	12	8							20	26%	0%
6D	Crafts (skilled)	118	108	10	17	8		1	1				27	23%	8%
7A	Operatives (semi-skilled)	44	33	11	8	9				1			18	41%	25%
7B	Operatives (semi-skilled)	5	3	2									0	0%	40%
8	Laborers	11	11	0	2	3							5	45%	0%
	Total	**774**	**524**	**250**	**63**	**42**	**0**	**7**	**48**	**17**	**0**	**3**	**180**	**23%**	**32%**

Note: B = black; H = Hispanic; A = Asian or Pacific Islander; AI = American Indian or Alaskan native.

NJR's evaluation of its utilization status and plans for improvement, as reported in the AAP include:

- Officials & managers: underutilized in female and minority; anticipate one opening and will target both

- Professionals: about 11 below availability on females; minorities are well-represented
- Technicians: underutilized in minority; no openings anticipated
- Sales: underutilized in female; anticipate no opening but if there are will target both females and minorities
- Office & clerical: for the subcategories a, b, c, and d, the status is acceptable
- Craft workers: some problems in categories a, b, and c on the availability of females and under-utilization because of union-contract requirements on filling jobs from within the bargaining unit and because of seniority rules
- Laborers: there are no females but the workforce in that category is 45 percent minority.

HR made three comprehensive presentations on the subjects of affirmative action and diversity to NJR's board of directors or a committee of the board in 2004 and 2006. Liberty reviewed all three and found them to be substantive and useful. Each is described in turn.

In May 2004 HR gave an "Affirmative Action 2004 Activity & Update" presentation to the board of directors. In that presentation HR started by showing that "[c]ompared to sample group [from 2002 comprised of these utilities: Central Hudson, Con Ed, Energy East, Keyspan, Niagara Mohawk, NUI, Orange &Rockland, Pennsylvania Power & Light, and PSE&G] NJR is ahead of the curve with its percentage of females and minorities in the workforce." The details of the comparison for females are shown in the next table (the last column is Liberty's calculation):

EEOC Category	Sample Group_Less NJR (%)	NJR (%)	NJR compared to sample group (% difference)
Officials & managers	14	26	46
Professionals	28	49	43
Technicians	12	37	68
Sales	30	9	-233
Office & clerical	63	86	27
Craft workers	2	4	50
Operatives	6	25	76
Laborers	10	0	n/a

The details of the comparison for minority employees was:

EEOC Category	Sample Group Less NJR (%)	NJR (%)	NJR compared to sample group (% difference)
Officials & managers	10	11	9
Professionals	14	15	7
Technicians	16	11	-45
Sales	17	9	-89
Office & clerical	26	32	19
Craft workers	13	21	38
Operatives	27	37	27
Laborers	20	56	64

HR described the key elements of the company's philosophy regarding affirmative action, which include trying to hire and promote minorities and females where there are disparities between "availability" (established using demographic information) and "utilization" (the company's actual employment in those categories), but without using quotas and always trying to find the "best-qualified candidate" to fill openings. Some of the difficulties that NJR faced in creating a diverse employee-body include losses of current employees, reorganizations of departments, and difficulties in recruiting, especially in closing the gap in females in the categories of officials and managers, professionals, and sales personnel.

With respect to the latter, HR noted, based on U.S. census data, that that the executive jobs held by women dropped from 31.9 percent in 1990 to 18.8 percent in 2000, and women in management jobs fell from 37.2 percent to 36.5 percent, but the percentages of minority employees in management positions increased from 13 percent in 1990 to 16.7 percent in 2000.

The presentation also laid out the company's accomplishments in the period June 2003 through March 2004 against its plans in hiring female and minority employees.

Females

Category	Plan	Actual
Executives and managers	1	1
Professional	2	5
Technicians	0	0
Sales	1	0
General office/clerical	0	3
Mechanics	2	0
Meter readers	1	1
Laborers	1	0
Total	8	10

Minorities

Category	Plan	Actual
Executives and managers	0	0
Professional	2	3
Technicians	1	0
Sales	0	0
General office/clerical	0	0
Mechanics	1	0
Meter readers	3	2
Laborers	1	1
Total	8	6

The presentation described some "Next Steps" that essentially said that NJR would continue with its efforts on affirmative action and diversity.

The next presentation, on "Diversity in Action at NJR," was made in September 2006 to the to Leadership Development & Compensation Committee of NJR's board of directors. It reviewed the activities that company undertakes in diversity, including training, cultural-diversity events, the use of a diversity council, and most particularly, the results of a diversity survey and follow-up focus groups in 2005.

The results of the diversity survey included the important findings that the employee body felt that the company workforce is racially diverse and that "[r]ace is valued and respected at NJR", but that the company could improve in some areas, including seeking opinions from people of varied backgrounds and experiences. The results of the focus groups held on diversity included several positive findings about working at NJR. The negative findings included the perceptions of favoritism and that management positions did not have conspicuous racial, ethnic, and language diversity. The presentation delineated 13 new steps or program changes and enhancements that would be taken to respond to the results of the survey and focus groups, including adding a Spanish-language class to the offerings of NJRU and setting the goal of having qualified women and minority candidates available for every job opening.

At that same September 2006 meeting of the Leadership Development & Compensation Committee of the board of directors, HR presented its "Affirmative Action Plan Update." The Update reiterated the affirmative-action philosophy that was delineated in the presentation given in 2004, as described above, and noted some new obstacles to success in hiring minorities and females, including the company's low rate of turnover and competition for qualified applicants.

The presentation showed, for females in 2006, that NJR's employment exceeded their availability in the categories of professional, office & clerical, and craft, but was below the availability level for the other categories. For minorities the situation was essentially the opposite, *i.e.*, for only two categories (professional and sales) were the actual employment percentages lower than availability as measured by regional demographic statistics.

HR also presented its analysis of opportunities for improving utilization in 2006 with targets of adding 5 minorities and 9 females, targets that HR characterized as "aggressive." HR also showed that the company was substantially ahead of its plans for hiring females and minorities in 2006 (apparently because of unexpected openings in the office & clerical category).

HR also updated the Leadership Development & Compensation Committee on how NJR compared with the same peer group of utilities against whom NJR compared itself in 2004, but this time with 2004 data. It showed that NJR had greater availability of females and minorities than the peer group average and that NJR's employment percentages for females and minorities was better than the other utilities, and especially for females in the three highest categories, and higher in all others with the exception of sales personnel. For minority employees the picture was not quite as bright, as NJR's percentages were higher than its peers in 5 of the 8 categories but lagged behind the average of the peer group in the other categories.

3. Conclusions

1. **NJR's approach to, and performance in, the area of EEO/AA is reasonable, and the HR function does a good job of apprising management and the board of directors of the company's status, problems, and progress.**

There is a comprehensive plan for addressing EEO/AA matters; it includes specific and detailed goals. The Company reports progress at a detailed level and the board has been briefed on plan details three times in the past three years. Those presentations have included comparisons with a peer group of utilities (showing overall strong performance in female and minority employees), and the results of a focused survey of employees on diversity issues (identifying 13 specific actions to improve on what were generally favorable overall employee perceptions).

4. Recommendations

Liberty has no recommendations in this area.

X. Support Services

A. Facilities

1. Background

NJNG's facilities (buildings, offices, garages, and associated plant) include the service centers at Asbury Park, Atlantic Highlands, Manahawkin, Lakewood, Rockaway, Wall (the W. L. Maude service center/garage/records center), and the Wall General Office, which serves as NJNG's main offices as well as the corporate offices of NJR and its other subsidiary companies.

2. Findings

No specific organization has responsibility assignment for designing, maintaining, and managing NJNG's facilities. NJR's non-utility real-estate development subsidiary (Commercial Realty & Resources–CR&R) provides some advisory services to NJR/NJNG on an informal basis. Two NJR Service Corp personnel perform building maintenance in the Wall office building, reporting the Vice President, Corporate Services. Over the past several years NJNG has spent as much as $1.3 million in a year on facilities and structures, or as little as half a million dollars. It plans to spend less than $1 million per year in the near future.

3. Conclusions

1. **The management of NJNG's facilities is not organized appropriately.** *(Recommendation #1)*

CR&R is a small organization that will cease operations in a few years. Moreover, it is not in business to support NJNG's facilities. The planning, maintenance, and other management of NJNG's dispersed and diverse facilities are an integral part of the operation of the utility, even if a small one, and the capital-expenditure levels are significant.

4. Recommendations

1. **Formalize and centralize the responsibility for managing NJNG.** *(Conclusion #1)*

The function of managing NJNG's facilities is sufficiently important to deserve focused attention. NJRHS has its own, non-NJR facilities; therefore, the logical organizational placement for the function is in the Energy Delivery Support unit, which already is in charge of managing NJNG's stores and vehicle functions, and thus already has daily contact with, and responsibilities for, supporting NJNG's field organization.

NJNG should study the requirements of the function, as it may not warrant devoting the full time of one management person to the job. A sharing of responsibility with another job function for NJNG may prove efficient and effective.

B. Fleet Management

1. Background

The Fleet Services unit in Energy Delivery Support acquires vehicles for NJNG, and maintains vehicles for NJNG and NJRHS. It also arranges for the pool cars (supplied by Hertz and used on a casual basis) used by some office employees of NJR Corp., NJR Service Corp., and NJNG. The activities of Fleet Services includes all aspects of the vehicle cycle, including repairs, preventive maintenance, spare-parts procurement, acquisitions, and disposals. The unit reports to the Manager - Energy Delivery Support, and is led by the Manager - Fleet Services, whose complement includes a senior operating clerk, nine fleet technicians, and two garage mechanics.

Fleet Services works with the purchasing function in NJR Service in acquiring NJNG's vehicles through a leasing program. Fleet Services' main role is to specify the vehicles (Purchasing handles the leases) in consultation with NJNG's field managers and supervisors and some bargaining-unit personnel.

For fiscal years 2005 and 2006 NJNG's fleet-leasing expense remained constant at about $1.4 million and below budget for both years. NJNG's O&M costs for vehicle fuel increased from fiscal year 2005 to 2006, as prices increased, totaling about $900 thousand in fiscal year 2006. About two thirds was bought using fuel cards; the balance was fuel that was pumped from company-owned tanks. Except for fuel costs and the costs of tires, NJNG's O&M expense for its vehicles has not been rising.

In 2006 NJR's fleet had about 430 units. As NJNG's staffing level has declined over the years, so has its stock of vehicles. Most of NJNG's vehicles are light trucks, but Energy Delivery also has medium trucks, and cars are provided for collectors. Most of the technicians and mechanics work a first shift (8 a.m. - 4:30 p.m.). NJNG uses a second shift that works into the night.

The configuration of garage facilities in the NJNG system is:

- In Rockaway NJNG uses vendors for repairs; an Alliance construction contractor's garage (Gray Supply) performs preventive maintenance
- The Lakewood service center has two bays, in which all vehicles can be serviced
- Vehicles assigned to Manahawkin are served by the Lakewood facility
- The Bay service center has one lift that can handle cars and light trucks; medium trucks are serviced at the Wall service center
- The Wall service center has four bays capable of maintenance work for all vehicles.

NJNG uses vendors to perform complicated engine work and transmission repairs, and dealers do vehicle work that is covered by warranty. As noted before, most fueling is done with fuel cards; the Wall service center has the only fuel tank in operation.

Fleet Services relies on the JD Edwards system for reporting on costs and as its work-order system, and uses reports from GE Capital (see below) on the vehicle stock. Between these two systems, management does not believe that it needs a specialized fleet-maintenance package.

2. Findings

1. Vehicle Acquisition

NJNG has had a fleet-lease program in effect since 1997. The lessor is GE Capital. The lease covers all vehicles, trailers, and trailered equipment. Old vehicles are generally turned in on a regular schedule according to the terms of the lease. The budget for acquiring new vehicles and trailerable equipment is essentially determined by the need to replace vehicles.

The exception to the provision of vehicles by leasing is the use of pool cars, which are provided as rentals when needed. The switch from using leased cars came because user surveys indicated that leased pool cars were not clean, and were not as available as needed.

2. Scope of Vehicle-Maintenance Activities

The kind of repair work that Fleet Services can do includes preventive maintenance and repairing and replacing brakes, tires, axles, engines, electrical systems, and exhaust systems. The technicians and mechanics can fix vehicles other than trucks and cars (*e.g.*, backhoes), but not the hydraulic systems and some ancillary-equipment repairs.

The work usually done by vendors is typically certain specialty work, such as warranty repairs, air-conditioning systems, transmissions repairs, front-end alignments, and most body work. The vendors for vehicle maintenance are acquired through a competitive-bidding process.

NJNG does not do the maintenance of vehicles in the service center in Morris County because the previous facility that the company had in Dover did not have a garage. Since that time NJNG has continued to be satisfied with Gray Supply, even after checking into other options. As a result, when the Rockaway building was built NJNG decided not to build a garage.

3. Performance Management

Fleet Services' tracking of the completion of preventive-maintenance work *versus* its fiscal 2006 goal of performing 92 percent of maintenance as scheduled showed that it was able to meet the goal in 9 of the 12 months. The fiscal 2005 goal was not met in 5 months, but the annual average was at the target, which was the same as the target for 2006. In 2004 actual performance was the best of the last 3 years, with only 2 months below the (lower) target of 91 percent. Actual performance for the year was 94 percent.

NJNG does not track vehicle downtime, but does track preventive-maintenance work status, which is defined as the number of maintainable vehicles whose maintenance status is current divided by the total number of maintainable vehicles. In fiscal-years 2005 and 2006 the target was 92 percent. The target was met in 2005 and was exceeded in 2006, at 93 percent.

The incentive-compensation program for members of NJNG's union (explained in the chapter on human resources) requires that performance exceed certain goals to allow union employees to qualify for the bonus. Fleet Services uses two measures, *i.e.*, the percentage of preventive-maintenance tasks completed as scheduled and a fleet-satisfaction rating from internal customers. The 2006 fiscal-year goal for Fleet Services was 92 percent and, as noted above, actual performance was at 92 percent. The goal for the satisfaction rating was 95 percent, which was also achieved.

In addition to these measures, Fleet Services monitors the cost and quality of preventive-maintenance work using reports of cost by job code (differentiating between cars, light trucks, and medium trucks, and NJNG or NJRHS), and for the quality of work Fleet Services reviews monthly reports on the unscheduled downtime of vehicles, which has generally been low or non-existent. The direct and indirect costs of the garages and the costs of vehicles are distributed to users by work location and job function.

Fleet Services used to have a vehicle-utilization report produced by the J.D. Edwards system, but as the results showed that NJNG was close to the standard of optimum utilization that report is no longer used.

There was a *quality* study done of the processes used in Fleet Services some time before 1999; that study is no longer available. NJNG also did a fleet-maintenance study about seven years ago; it addressed the required employee complement. The company cannot now locate the study.

There have been two relatively-recent internal audits involving Fleet Services. An audit conducted in 2002 found that no major problems. An audit done in early 2004 on the use of fueling cards by field personnel found controls to be adequate.

In 2004 NJNG studied the option of *outsourcing* fleet maintenance to a contractor. Liberty's review of that study, which included bids from several vendors, showed that it was cheaper for NJNG to continue to do the maintenance itself, compared with the most-experienced prospective vendor.

4. Surveys of Internal Customers

Fleet Services surveyed its internal customers in November 2003 and November 2006. The customer-satisfaction survey went to all employees who use Fleet Services. The results of the latest survey showed that, of about 110 employees who responded (union and supervisory personnel in meter reading, collecting, and Energy Delivery, and users of pool cars), more than half were "very satisfied" as measured by:

- That the number of vehicles was sufficient
- That the types of vehicles available met their needs
- How the vehicles ran
- The vehicles' safe performance and appearance
- How Fleet Services responded to breakdowns, performed preventive maintenance without affecting customers, and had effective administrative support.

The percentages of respondents who were "slightly satisfied" or "not satisfied" ran from 7 to 16 percent. The results of the survey conducted in 2006 yielded more-positive results than the 2003 survey.

3. Conclusions

1. The fleet function is managed in a reasonable manner.

The company has adequately studied and chosen from among its options for managing the fleet. There are adequate benchmarks and performance against them has been acceptable.

2. Fleet has not re-examined its staffing in a long time. *(Recommendation #1)*

NJR has changed, albeit not radically, since the last formal analysis of the staffing of the fleet-management function. It is a reasonable management practice to check on the level and distribution of staffing and how it matches against workload with greater frequency than the Company's practice.

4. Recommendations

1. Study the staffing of the Fleet department. *(Conclusion #2)*

NJNG can undertake this study with its own personnel or use a consultant. Either method should not entail a significant expenditure of internal resources or expenditures for the services of a consultant.

C. Information Technology

1. Background

The Information Technology (IT) department operates as part of NJR's Service Corp. The head of IT, the Manager, Information Technology, who reports to the Vice President of Corporate Services. IT's clients are NJR's subsidiaries; IT provides all of NJR's computer and telecommunications systems. IT's reach is far, including, for example, the printing of customers' bills, responsibility for the company's supervisory control and data acquisition (SCADA) system, and the hand-held meter-reading units. NJR's business units cannot outsource their IT needs.

In 2006 IT had 25 full-time employees, organized with the Manager, Information Technology at the head and three departments with the following positions:

- IT - General
  - 1 Oracle Zai*Net database specialist
  - 1 project specialist
  - 2 AS/400 report-writing and data-access specialist
  - 1 internal-controls and business-process specialist
- IT - Application Programming
  - Manager
  - 3 full-time and 1 part-time AS/400 programmers
  - 2 full-time business-unit support
  - 1 PC programmer, primarily for the gas-management system
  - 1 eBusiness support specialist

- IT - Technical Support
  - o Operations (1 supervisor and 2 computer operators)
  - o 5 full-time specialists in technical-support services
  - o 1 full-time specialist in voice/radio support
  - o 2 full-time help-desk specialists.

IT's staffing level and organization have not changed from 2005. The Manager, Information Technology has 30 years of experience with NJNG, 10 years of which have been in IT. Low turnover has caused most of IT's employees to have at least 10 years of experience in different areas.

IT has responsibility for the management of a large array of computing and telecommunications hardware and software, including the following:

- Two IBM AS/400 mid-range computers, one of which is used for production and the other for testing. NJR's JD Edwards software, discussed below and referenced in other chapters, runs on the AS/400.
- 275 radios and leased space on 5 towers.
- 480 cell phones and about 300 pagers.
- 486 computers that use the Microsoft XP or Windows 2000 operating system and Office suite.
- The laptop computers in NJNG's and NJRHS's trucks.
- Telephone sets and switching equipment.
- A local-area network (LAN) that connects nine company locations and two contractor locations. It was installed in 2002.
- 50 server units in the Wall headquarters building, and two servers in another location.
- The remittance-processing system, which has software that runs on its own network and communicates with the customer-information system that runs on the AS/400.

IT's capital expenditures have generally averaged about $ 2-3 million per year, but are likely to increase by several hundred thousand dollars annually because of the multi-year geographic-information system (GIS) project discussed below.

IT has responsibility for the management and maintenance of many systems that are fundamental to the operations of NJR's business units. The list that follows shows the names, or vendor names, of most of the major systems, when they were installed, and also whether they have been subject to substantial work in 2006 (** indicates activity in 2006).

- Zai*Net (risk management) - 1999**
- Remittance processing - 1999
- Fixed assets - 2003**
- Gas-management system - 2000-2001**
- Financial/statistical modeling - 2005
- JD Edwards (includes accounting, materials management, human-resources information system, customer-information system [CIS], and work-order system) - 1994-1997
- TUBIS (pipe risk assessment) - 2003
- Itron (meter reading) - 1999

- Field dispatching (FODS II) (Advantex) - 1999 (preceded by FODS I)**
- SCADA and gas-operations system/network analysis (Telvent)
- Paisley (for compliance with Sarbanes-Oxley - to be implemented)
- Remittance-processing – (Banktech)

2. Findings

a. The JD Edwards System

The JD Edwards (JDE) system includes 24 applications, such those noted above. Most of the major applications were originally installed in the period 1994-1997; all were upgraded twice before the CIS was installed in 1997. IT's view is that NJNG has not yet outgrown the CIS.

IT suspended the purchase of upgrades and support for the JDE system because of successive changes in the ownership of JDE since NJR bought the system. NJR is, however, now considering an upgrade path because the current owner of JDE (Oracle) has shown interest in supporting the system. JD Edwards World version 9 is now available but NJR is using version 7.2. The option of upgrading the JDE software with the new release will entail studying the requirements of the new system and the new solutions that the release will offer. NJR expects to stay with the AS/400 - JDE combination for the foreseeable future.

IT uses IBM RS/6000 server computers to run the Field Order Dispatch System (FODS II), which is comprised of three parts: dispatching, mobile pen application (tablet PCs), and the interface to the JDE CIS work-order system. FODS II uses 260 wireless devices connected through a vendor's data network.

FODS II was implemented in 1999-2000, replacing FODS I, which was not Y2K compliant. In 2005 NJR had to move the system to a new wireless network. It therefore replaced the modems on the wireless devices. More recently IT decided to upgrade the system's software at a cost of $1.5 million. With the new software, IT will be able to make changes to the system instead of relying on a vendor. It includes a better algorithm for scheduling and a mapping feature, and because the software is not customized to NJR, the company will be able to get upgrades in the future more easily. IT did not need the help of users to define the upgraded system because it is a turn-key project, and has the same functionality as the previous version.

The costs for the upgrade are originally included in IT's budget, but then they are distributed, including to NJRHS. IT tracked which equipment went to NJNG and which went to NJRHS.

b.. SCADA System

NJNG's SCADA (supervisory control and data acquisition) system monitors gas flows on the distribution system. The software for the SCADA system runs on servers, and was installed in 2003. NJNG is evaluating a conversion to a newer version of the software in fiscal year 2007 or 2008 at a cost of over $1 million.

c. GMS System

IT also recently finished the re-write of the gas-management system's (GMS) software, a 1½-year project that was paid for by the Energy Services business unit. The project was completed on schedule and budget, starting in May 2004 and finishing in August 2006. The total amount paid to contactors was $1.1 million. The total cost of the project was $1.25 million, was split 50:50 between NJRES and NJNG, and was capitalized.

The GMS runs on a server. It tracks nominations to pipelines, gas and paper deals, and interfaces to bulletin boards. The system was originally developed in the 1990s and re-written in 2000-2001 by NJR and a contractor.

d. Meter Reading System

The vendor for the field units of NJNG's meter-reading system is no longer making the units. NJNG is considering a replacement for the system at an estimated cost of about $0.5 million The Customer Services department is working with IT in studying its options. IT will handle the management of the project. The report chapter addressing customer service discusses this topic.

e. GIS System

NJNG is in the middle of a multi-year, eight-phase project of implementing a geographic-information system (GIS). The total identified cost of the project is about $4 million, which is substantial for a company of NJNG's size. This amount may understate the full cost the company will ultimately incur for implementing the system and integrating it into all of the operations for which it will be useful. NJNG does not have a quantified estimate of the benefits it will realize from having a fully-functional GIS. It did, however, produce a 14-page document called a "Benefits Catalog" that describes the many benefits, large and small, for several important processes in NJNG.

So far only the first phase of the GIS is completed, even though the project started in 2004, after planning began in the middle of 2003. The first module implemented was the transmission system, in 2005. NJNG is now working on the tool that is useful for managing the transmission system. IT is working on the plan for the next, larger phases of putting the data on NJNG's gas-distribution system into the GIS. The work on the data conversion needed for putting the distribution system into the GIS is now in progress. NJNG plans on spending $1 million annually on this conversion for the next three years.

A frank appraisal of the status of the project, prepared recently by the GIS project manager, who is a senior business technology consultant in IT, described how the project has been a challenge for NJNG almost from the beginning. The appraisal noted that major changes are needed.

f. Other Projects

Some of the systems, projects, and activities undertaken by IT include:

- Replacing 300 old desktop and laptop computers with new ones.
- Adding a new depreciation system that runs on a server and connects to the JD Edwards system.

- Implementing and maintaining TUBIS, a risk-assessment tool for studying sections of pipe including the consideration of costs and leak history.
- Installing and upgrading the Zai*Net risk-management system that runs on a server; it has been upgraded 4 times and a fifth upgrade is under study.
- Developing and maintaining NJR's Web site, which was re-designed in 2000 and may again be re-designed. The Web site provides customers with options to pay their bills, enter meter readings, and review their accounts.
- Implementing a financial-reporting and budgeting system on a server in 2005.
- Maintaining the remittance-processing system, which includes two mail sorters and three workstations; it was bought in 1999.

g. Disaster Recovery

For disaster recovery of IT systems and business continuity NJR has a contract with Sungard, a leading vendor in that business, who has a facility in Carlstadt, New Jersey. NJR also has a back-up site for the LAN in its Lakewood facility. The contract with Sungard started in 2002, and includes the AS/400 for the JD Edwards system and RS/6000 systems. Tests of the disaster-recovery plan are conducted annually. NJR's Wall headquarters building also has a battery and a natural-gas-powered generator for electricity supply when grid-supplied power is out.

h. Planning Process

IT does not create a unified multi-year IT plan. The components of the equivalent of a plan are:

- The agendas and minutes of meetings with business units
- An "Information Technology Plan" which is a three-year list of projects, with associated budget estimates
- The IT Baseline Report, which is the basis for an annual presentation to the audit committee of NJR's board of directors
- An annual presentation to NJR's IT Leadership Forum.

The focus of the planning process is annual meetings with NJR's business units. These meetings produce capital and expense budgets; the budgets are reviewed semi-annually. The latest Information Technology Plan and capital budget describe initiatives for 2007-2009, with the most detail for 2007 and progressively less for the subsequent two years.

i. Performance Improvement and Monitoring

IT management does not compare itself with the IT departments of other utilities, nor does it regularly visit other utilities. Members of the IT staff do attend conferences and have discussions with other utilities in New Jersey on compliance with BPU initiatives. IT conducts surveys of users twice a year. The surveys have questions that elicit quantitative scores, and also allow written open-ended comments. The ten scored questions include topics such as the timeliness of access to computerized information, reliability of systems, responsiveness of JDE support, responsiveness to needs in end-user computing, telecommunications, Microsoft Office, AS/400 reports, and general support in doing jobs. The table presented below shows the quantitative results of the last eight surveys.

Question / Date	March 03	Sept 03	March 04	Sept 04	March 05	Sept 05	March 06	Sept 06	Average
1	4.0	3.8	4.3	4.3	4.2	4.3	4.3	4.3	4.2
2	4.0	4.0	4.4	4.3	4.3	4.3	4.3	4.3	4.2
3b	4.0	3.7	4.2	4.2	4.2	4.3	4.4	4.2	4.2
3c	4.0	4.0	4.2	4.4	4.3	4.3	4.5	4.3	4.3
3d	3.8	3.6	4.2	4.1	4.1	4.0	4.2	4.1	4.0
4	3.8	3.6	4.0	4.2	4.1	4.2	4.1	4.1	4.0
5	3.6	3.3	4.0	4.1	4.1	4.2	4.2	4.2	4.0
6	3.7	3.8	4.2	4.3	4.1	4.3	4.3	4.2	4.1
7	3.7	3.5	4.2	4.2	4.1	4.2	4.3	4.2	4.1
8	3.7	3.8	4.3	4.2	4.2	4.4	4.4	4.3	4.2
Average	3.7	3.8	4.3	4.2	4.2	4.4	4.4	4.3	

Note: the survey stopped asking question 3a because other questions covered it, but the question numbering was maintained for consistency over time. A score of 5 means *very satisfied*, 4 is *satisfied*, and 3 is *partially satisfied*.

Liberty's review of the collected written responses to the surveys showed that they generally agreed with the quantitative scores. Liberty also reviewed IT's monthly one-page reports of its achievements against performance measures and business initiatives, and expense-budget performance, for the period January 2004 – September 2006. The reports provide useful management information for monitoring performance on both day-to-day operations and on projects, and also show that IT has generally met its commitments to users.

j. Results of Internal Audits

IT has been subject to periodic scrutiny by NJR's Internal Audit department. The systems for which IT is responsible are fundamental to the operations of the NJR business units.

A 2002 internal audit of computing controls found that they were generally sufficient, but noted: incomplete documentation of system-development methods, some contracting and procurements that were not done properly, the absence of a tailored user manual for the JDE system, and the lack of comprehensive security and network control policies. A separate audit on Web and network security, also done in 2002, recommended some improvements, but generally found that security was reasonable.

Internal audits on controls over access to the JDE system (reported in 2004 and 2006) indicated both times that increases in their robustness were needed. IT's documentation of its last review of its compliance with Sarbanes-Oxley Section 404 shows that it has done a comprehensive job of assessing its own performance regarding controls.

3. Conclusions

1. IT generally manages its resources on behalf of its internal customers appropriately.

NJR has a complete and modernized suite of applications that match reasonably with its business and size, and users are satisfied with the support they receive.

2. The GIS project is moving too slowly. *(Recommendation # 1)*

GIS projects are more-labor intensive and complex than most system work and therefore are prone to encountering problems. That said, they have benefits and ultimately have to be finished. The longer it takes to get GIS projects done the longer it takes to start realizing their benefits, so finishing sooner makes sense as long as speed does not increase total cost.

3. IT does not actively benchmark its operations against the experience of peers. *(Recommendation # 2)*

The IT function does not suffer from insularity, but it does not work as assiduously as it could to learn what other, similar companies, and especially utilities, are doing.

4. IT has not devoted sufficient attention to controls and documentation. *(Recommendation # 3)*

NJR's internal auditors have repeatedly called out the need to improve in this area. In light of the centrality of the systems that IT manages, documentation and controls can literally be critical to the smooth and correct functioning of IT systems on which NJNG depends.

4. Recommendations

1. Put more focus and resources on the GIS project. *(Conclusion # 2)*

IT should put into place the management and other any other resources needed to ensure that the GIS project moves expeditiously to full completion.

2. Develop and put in place a program for frequent visits to other IT departments. *(Conclusion # 3)*

IT should identify IT departments in New Jersey and neighboring states that are worthy of visiting to learn how what problems they are encountering and the solutions they have found helpful. Two obvious and early topics that could be included would be GIS systems and controls and documentation.

3. Devote more attention to controls and documentation. *(Conclusion # 4)*

The importance of controls and documentation is so high that it warrants specific and focused work to ensure that they are current and robust. To properly address this issue IT may have to consider adding to the existing staffing of one internal-controls and business-process specialist and putting the function in a separate sub department of IT.

D. Purchasing

1. Background

The Purchasing department is in NJR Service Corporation's Corporate Services unit. The Manager, Purchasing, reports to the Vice President, Corporate Services. The Purchasing department is placed in NJR Service and not in NJNG, like the stores function (covered in the next section of this chapter) because Purchasing serves NJRHS as well as NJNG. The opinion of the Manager, Purchasing, is that this aspect of the organization structure has no effect on the integration of procurement with related business processes.

The Purchasing department is responsible for most of the purchasing done by NJNG and the non-utility business units, with the exceptions of the buying of natural gas (the responsibility of NJNG Energy Services), legal and certain HR services, and small purchases (further described below). The involvement of Purchasing depends on its level of expertise, but even if it does not do the buying, it is, with the exception of natural gas, generally is involved in some part of the procurement process. The buyers in Purchasing are responsible for getting material ordered to warehouses, including for NJRHS. The buyers are also responsible for expediting deliveries but are not responsible for receiving.

There are five buyers in Purchasing. Each has a specialization or organizational focus and most have experience at NJR and some elsewhere. The Manager, Purchasing has seven years of experience in purchasing at NJR.

Purchasing relies on the JD Edwards system, which it finds to be sufficient to meet its needs.

Generally speaking, the cost of the Purchasing department’s labor is distributed through the use of time sheets to charge time to NJRHS and manufactured-gas plant (MGP) projects. Otherwise, buyers’ time is charged by default to NJNG. Labor hours for procurement support for NJRHS is charged by the assigned buyer at the estimated rate of one hour per day.

The Office Services department also reports to the Manager, Purchasing. The head of Purchasing has responsibility for Office Services because Purchasing does work on behalf of NJNG and other business units. In addition, Purchasing buys the goods that Office Services uses, including their printing equipment; Office Services used to be in IT, but its association with Purchasing provides it with more support. Office Services includes the Supervisor, Office Services, a senior document specialist, an offset press operator, and two office assistants.

The functions that Office Services provides include:

- Delivery of mail
- Courier services between NJR buildings
- Print shop, which includes, for instance, bill inserts and document retention using the “Keyfile” electronic-storage system
- Receptionist.

Office Services is located in the Wall headquarters building, but document retention is located across the street in the Maude service-center building. Office Services also has copiers and a postage machine for mailings.

2. Findings

a. Assuring Competitiveness

Purchasing prepares specifications, solicits bids, and evaluates bids, and pushes requisitioners to get as much competition as possible in procurements. Purchasing tries to be involved in specifying before the requisition and before the request for bids is issued. The vendor is chosen by the user and Purchasing, applying the objective of getting the best value.

Liberty asked NJNG to provide documents that show the degree to which NJNG relied on sole-source procurements. The documents that NJNG provided showed that Purchasing keeps track of sole-source purchases. Liberty's analysis of NJNG's data showed that half of the sole-source purchases in fiscal-year 2005 were accounted for by five purchases. Those cases were unlikely to have produced competitive vendors because of the proprietary or unique position of the vendor. More generally, for the two-year period of fiscal years 2005 and 2006, Liberty found that about half of the sole-source procurements were made from only four large proprietary vendors.

b. MGP Support

Purchasing supports the team responsible for remediating MGP sites by handling procurement and providing cost information. Purchasing has day-to-day involvement for the Long Branch and Manchester sites in soliciting bids for construction contractors and negotiating those contracts. Purchasing keeps track of the savings it has captured through its efforts in managing the procurement of contracted services for NJNG's MGP program. There have been 18 initiatives that have produced total savings of $2.5 million, some of which are described below:

- Replaced a construction firm in 2001 for a savings of $0.5 million
- Re-negotiated an air-monitoring contract for a reduction of $40 thousand
- Denied payments of $100 thousand to a construction engineer by reviewing invoices for change orders
- In fiscal-year 2004 reduced the cost of the engineering and oversight construction-management firm after it asked for an increase, saving $350 thousand
- Negotiated discounts of $0.6 million
- Eliminated a subcontractor who had been hired on a sole-source basis and found a new contractor, for a saving of $160 thousand
- Negotiated a reduction of $160 thousand with another contractor.

c. Controls

The controls for which buyers are responsible are primarily executed by following the purchasing-approval process. The JD Edwards system has approval tables tied to expenditure levels and the business unit's criteria. The approval levels are reviewed annually. Field personnel have the ability to place minor purchase orders, *i.e.*, less than $1,000. Field employees and others are also able to use procurement (credit) cards for purchases of less than $1,000, but supervisors can lower the limit. Purchasing checks for improper use of cards (*e.g.*, making many purchases under the threshold), doing three audits of this a quarter to ensure that the cards are being used as intended, and there are merchant restrictions and monthly caps.

A 2002 internal audit of procurement cards found no major problems, but suggested that the guidance on documentation and approvals be enhanced and that more vendor types be blocked. A 2004 internal audit of procurement found the function to be effective but made recommendations, including internal-control improvements, an increase in the use of competitive bidding or documentation of why it was not done, a reduction in open purchase orders, and procedures for service contracts.

Another internal audit, on MGP spending, was completed in February 2005. The emphasis was on financial controls and the purchasing process. There were no major deficiencies, but there were several recommendations on processes and procedures, including budgeting, and model information for contracting (approved contractors, terms and conditions, procedures for purchase orders, approval process, process for change orders, and the process for reconciling invoices).

d. Performance Improvement and Management

Purchasing has explored opportunities to reduce costs by purchasing jointly with other utilities. It tried purchasing meters jointly with South Jersey Gas, but found no savings from doing so. It also is trying to standardize welding tests with PSE&G but there have been obstacles. NJNG has, however, developed a common specification for a type of plastic pipe with PSE&G and Yankee Gas, and completed a joint purchase in 2004. That effort resulted in a success in finding a better product at the same cost. NJNG hopes for savings in the future as more utilities adopt the new specification.

Purchasing has compared NJNG's costs for certain items with PSE&G's costs. On $3 million of NJNG purchases of over 250 items used in distribution operations, using PSE&G's costs, Purchasing found that the difference was only $45 thousand. Further analysis showed that, with some anticipated changes NJNG's costs would be more than $10 thousand lower. A comparison of NJR's costs for office supplies with PSEG's, focusing on the top 48 items by volume, found that NJR's costs were 1 percent higher.

Purchasing makes quarterly reports on savings initiatives and the participation of minority- and women-owned business enterprise (M/WBE) suppliers in NJR's procurements. In fiscal-year 2005, Purchasing identified total savings of $1.3 million, mostly in capital expenditures, and in fiscal-year 2006 total savings of $0.5 million were identified.

With respect to the staffing level of Purchasing, the department had tried working with four buyers after a retirement and found that its customers could not be served properly. To improve productivity NJR has moved low-value and frequent transactions to credit cards, which reduced cycle times and transaction handling.

NJR uses vendors extensively in Office Services, especially for printing, usually for more-elaborate jobs. The delivery courier for Manahawkin and Rockaway is a contractor.

In 1999, NJR examined the option of outsourcing Office Services. Actions that resulted from that study were reducing personnel and doing some cross-training. Purchasing has continued to check the cost of printing, finding that over the two fiscal years of 2005 and 2006 that it had saved $90 thousand in printing costs compared to using vendors. The Manager, Purchasing, measures productivity and workload in Office Services by observing how many impressions are made by the print shop and the use of overtime.

Purchasing has annual meetings with business units to review purchasing plans. Liberty reviewed one analysis that Purchasing provided to the Pressure, Measurement & Transmission department of NJNG. The analysis resulted in a change in some vendors and other favorable changes. Purchasing also works with Stores and NJNG's engineers on the demand they foresee, so that Purchasing can work with suppliers on agreements.

e. Purchases from M/WBE Vendors

NJR has a policy that encourages purchases from M/WBE vendors. Purchasing keeps detailed statistics on M/WBE procurement activity, using extractions of data from the JD Edwards system. The program has grown over the past five years, increasing from 2 to 8 percent of purchases. NJR judges that it has been successful in retaining M/WBE vendors.

NJR has to regularly report to the BPU on its M/WBE activity (the BPU Report on Supplier Diversity Development). The BPU report for 2003 noted that NJR had tripled purchases with M/WBEs over the immediate three-year period and in the past year the company retained 85 percent of its M/WBE vendors, increased the number of participating companies by 25 percent, and increased expenditures with M/WBEs to 6 percent. For 2004 NJR had retained 83 percent of its M/WBE vendors, increased its participants by one-third, and total M/WBE expenditures had risen to 7 percent. The 2005 report (the latest issued during audit field work) showed M/WBE retention at 86 percent, that NJR had added 12 new suppliers, and that M/WBE expenditures had risen to 8 percent.

The tables below show statistics for the last three fiscal years on purchases from M/WBE vendors as a percentage of all purchases.

M/WBE Activity in 2004

	All Vendors	M/WBE	Percent
POs, vouchers, third parties (less contractors)	$36,823,572	$2,733,807	7.4
Fuel-card payments	186,823	0	0.0
Pro-card payments	2,618,634	224,894	8.6
Total	$39,629,029	$2,958,701	7.5

M/WBE Activity in 2004, by Business Unit

Business Unit	WBE	MBE	M/WBE Total	All Total	M/WBE (%)
Customer Services	$0	$0	$0	$288,591	0
Energy Delivery	1,220,964	191,364	1,412,328	14,761,925	9.6
Energy Services	82,445	3,828	86,273	593,096	14.6
Finance & Administration	275,295	600	275,895	1,855,657	14.9
General Counsel	0	0	0	8,329	0
Human Resources	18,364	66,081	84,445	135,084	62.5
IT	118,476	422,121	540,598	5,650,656	9.6
Marketing Services	66,397	0	66,397	1,886,456	3.5

NJR Corp	0	0	0	91,007	0
NJR Home Services	237,181	0	237,181	3,842,753	6.2
NJR Service Corp	43,999	0	43,999	172,085	25.6
President's Office	0	0	0	2,194	0
Regulatory Affairs	49,321	162,265	211,586	10,339,388	2.1
	0	0	0	1,807	0
Total	$2,112,442	$846,259	$2,958,701	$39,629,029	7.5

M/WBE Activity in 2005

	All Vendors	M/WBE	Percent
POs, Vouchers, 3rd Party (less Contractors)	$43,847,149	$3,422,906	7.8
Fuel Card Payments	$232,270	$0	0.
Pro-Card Payments	2,746,048	125,508	4.6
Total	$46,825,467	$3,548,414	7.6

M/WBE Activity in 2005, by Business Unit

Business Unit	WBE	MBE	M/WBE Total	All Total	M/WBE (%)
Customer Services	$0	$0	$0	$374,683	0
Energy Delivery	1,766,959	125,568	1,892,527	18,025,364	10.5
Energy Services	137,272	1,073	138,345	923,204	15.0
Finance & Administration	155,441	29,940	185,380	1,587,665	11.7
General Counsel	0	0	0	10,901	0
Human Resources	62,827	137,416	200,243	277,226	72.2
IT	359,228	372,374	731,602	6,491,870	11.3
Marketing Services	178,403	0	178,403	1,744,452	10.2
NJR Corp	0	0	0	357,562	0
NJR Home Services	159,927	26,240	186,167	5,105,203	3.7
NJR Service Corp	4,461	0	4,461	201,674	2.2
Regulatory Affairs	15,285	16,000	31,285	11,725,662	0.3
Total	$2,839,804	$708,610	$3,548,414	$46,825,467	7.6

M/WBE Activity in 2006

	All Vendors	M/WBE	Percent
POs, Vouchers, 3rd Party (less Contractors)	$38,583,041	$3,265,877	8.5
Fuel Card Payments	$300,622	$0	0
Pro-Card Payments	$3,851,706	$254,309	6.6
Total	$42,735,368	$3,520,186	8.2

M/WBE Activity in 2006, by Business Unit

Business Unit	WBE	MBE	M/WBE Total	All Total	M/WBE (%)
Customer Services	1,478	0	1,478	370,703	0.4
Energy Delivery	1,857,792	68,641	1,926,433	20,861,287	9.2
Energy Services	92,534	1,440	93,974	599,997	15.7
Finance & Administration	188,138	0	188,138	1,945,080	9.7
General Counsel	0	0	0	3,829	0
Human Resources	12,100	124,485	136,585	234,883	58.2
IT	443,199	248,809	692,008	5,920,014	11.7

Marketing Services	55,496	0	55,496	1,186,590	4.7
NJR Corp	46,963	0	46,963	196,259	23.9
NJR Home Services	313,621	6,644	320,266	5,184,649	6.2
NJR Service Corp	18,987	0	18,987	235,302	8.1
Regulatory Affairs	26,857	13,000	39,857	5,996,634	0.7
Total	3,057,166	463,020	3,520,186	42,735,368	8.2

3. Conclusions

1. The management of the Purchasing department is appropriate.

The organization and staffing are appropriate and the department has performed in finding savings opportunities and working to ensure that purchases are made through competitive procurements

2. NJR has continuously improved the participation of M/WBE vendors in the Company's procurements.

4. Recommendations

Liberty has no recommendations in this area.

E. Stores

1. Background

The Stores department is part of the Energy Delivery Support group in NJNG. Stores is headed by the Supervisor, Meters & Material, who reports to the Manager, Energy Delivery Support. Stores uses a decentralized approach of serving NJNG's operations through storerooms; it does not use a central warehouse. The facilities of Stores consist of the Northern Storeroom (staffed by a storekeeper), a storeroom that serves the Bay & Central operating centers (staffed by a storekeeper), and the Ocean operating center (the largest storeroom, has a yard for storage, and is staffed by two warehouse-persons and a storekeeper). No vendors are used for stores functions. The Alliance contractors have their own storerooms to which NJNG issues materials. NJNG does its own delivery of materials.

The Purchasing department's focus in materials management is on keeping inventory balances low. The objective of Stores is on issuing, receiving, and returning material so that NJNG's field forces have the material to do their work. Field personnel fill out stores order forms for material they need, and maintain their own truck stock. Storekeepers make sure that their storerooms have adequate supplies of consumables and goods that are used in large quantities, such as rags, pipe dope, soap, small pipe elbows, etc.

The Stores department uses the JD Edwards system module that supports materials management and finds it sufficient to meet its needs.

2. Findings

a. Performance Improvement and Management

Stores and Purchasing do not use management reports on stock-outs and minimum quantities. Instead, Stores uses re-order points, which are calculated using data on average daily usage and the lead time between placing orders, and economic-order quantities, which are determined using the factors of the cost of issuing a purchase order, the cost of carrying inventory, and the annual dollar value of each item. Stores also uses these reports in managing the function:

- Monthly Inventory Reconciliation Report of all NJNG storerooms. The report is run by the accounting function, and Stores will do variance analysis if needed. (Emergency stock–low-turnover material and equipment–is specifically not included).
- Monthly Turnover Ratio Report. Run by Stores using the JD Edwards system.
- Cycle Count Report, which can be run on demand for any period using the JD Edwards system, and is used, for instance, for audits. These reports can also be run on contractors' storerooms, for which Stores has oversight responsibility.
- There is a periodic report on slow-moving and obsolete inventory.

The turnover of NJNG's inventory as measured in the monthly turnover-ratio report (the total value of inventory transactions over the year divided by the average value of the inventory during the year), was 3.3. The inventory-turn information is segmentable by storeroom.

As is the case for all of NJR, unionized employees in Stores are eligible to receive incentive compensation that is tied to performance. For the storeroom the two measures are inventory-turnover ratio and a storeroom-satisfaction rating. The 2006 fiscal-year goal for the former was 2.9 and, as just noted, the actual ratio was 3.3, and the goal for the satisfaction rating was 95 percent, which was achieved. The customer-satisfaction survey on Stores is similar to the one done on Fleet Services that was described above. The Stores survey has eight numerical-score survey questions and provision for open-ended comments.

NJNG no longer participates with the American Gas Association on benchmarking in materials management. There was a "quality" study that was done of the stores process and of staffing in the function that was performed before 1999. More recently, some limited work in analyzing staffing requirements was conducted.

b. Controls

An internal audit conducted of stores in 2003 consisted of a physical count of the inventory of two storerooms; no problems were found.

NJNG uses cycle counting to ensure that its information on its stock is accurate. The cycle counting is done weekly at the Lakewood storeroom, and through 2006 there was only one week in which the variance was not zero, and in that instance it was $76. The NJR accounting function makes adjustments to the general ledger to reflect any changes that are needed after the physical inventory is reconciled against its book value with a monthly inventory-reconciliation report. The report run at the end of fiscal-year 2006 (September) indicated a variance between the general ledger and the stores report of $486 out of $3 million, or 0.02 percent. When that difference was netted against the reconciliation of the previous two months, the difference was reduced to $39. There have been no recent write-offs of inventory.

3. Conclusions

1. **Stores is meeting the needs of its internal customers in a manner that is appropriately controlled.**

2. **Stores has not recently compared its operations with other companies or studied its own operations for improvement opportunities.** *(Recommendation # 1)*

There are no specific problems that Liberty believes need addressing. On the other hand, the amount of time that has elapsed since the Stores function has been studies is too long. The function is also suitable for comparison with the materials-management functions of other utilities to find possible areas for improvement.

4. Recommendations

1. **Study the operations and staffing of Stores and embark on a program of learning about the materials-management departments of other utilities.** *(Conclusion # 2)*

A study of the Stores unit can be done by NJR employees or a consultant; the effort need not be more than a modest one. In addition, comparing functions and learning about what others are doing is an appropriate management practice that might benefit the Stores department.

XI. Legal Services

A. Background

A General Counsel heads the NJNG legal function, which also includes Right of Way & Claims. Three other attorneys provide counsel to NJNG. Right of Way & Claims falls under the senior litigation counsel, who manages an ROW & Claims Representative and a paralegal. The NJR General Counsel's group also includes two administrative assistants.

B. Findings

1. Organization and Staffing

The same person serves as Vice President and General Counsel for NJR, supported by the same two administrative assistants. The NJR Corporate Secretary reports to the NJR Vice President and General Counsel. Three senior counsel positions report to the General Counsel.

Staffing has grown by one senior attorney since 2003. Right of Way and Claims and administrative personnel numbers have remained the same.

The current General Counsel has been with the company since the end of 2005. Her predecessor served both as General Counsel and Corporate Secretary. The positions have been split, with the Corporate Secretary now reporting to the General Counsel.

One of the new General Counsel's main priorities was to achieve closer direction over outside counsel, given the growth in costs, which was in major part being driven by MGP litigation. She also has brought a more structured approach to managing litigation through a tracking system, which uses a "Litigation Log" used regularly to assure that the required steps get taken when required. Responsibility for insurance falls within the General Counsel's authority as well, but NJR plans to move that function to the new treasurer as policy renewals approach.

The General Counsel does not manage legal services provided under Regulatory Affairs, whose attorney does not report to her directly or indirectly. The attorney assigned to Regulatory Affairs provides much of the day-to-day advice about BPU matters that have legal implications. There is regular communication between Regulatory Affairs, however, and a lawyer in the NJNG General Counsel's office does handle some customer complaints before BPU. The General Counsel does provide senior executives with general legal advice that has regulatory implications.

NJR and NJNG have used a number of outside firms for a variety of matters. The number of outside firms (more than fifteen in 2005 and 2006) show the Company's efforts to match particular legal needs with firm capabilities and experience and the impact of significant legal work associated with MGP remediation (addressed in more detail in Volume II of this report) recently.

The General Counsel has sought to identify opportunities to bring in-house certain kinds of work that she believes present an opportunity to gain economy without sacrificing quality. Securities and corporate governance and FERC work comprise two areas of focus in this regard. The

General Counsel also occasionally makes assignments of new work types to an existing outside firms, in order to benchmark the performance of the firms that have traditionally handled such work types for the Company.

Much of the work that the Company assigns to outside counsel is recurring. Corporate governance, securities, and tort defense work provide examples. Not all of the outside work is of this nature, however. The Kemper litigation related to insurance recovery for MGP remediation represents a dramatic example of recent significant and unusual legal needs for the company. Not only was the work of a very substantial magnitude, but the Company also had to retain new firms because of the potential for the firms already working on the matters to be called as witnesses in the litigation against the Company's insurer.

2. Management of Outside Counsel

All billing is by matter, and generally monthly (small firms may be an exception to the monthly rule). The General Counsel or an attorney scrutinize all bills and sign off on each invoice as to payment approval and accounting. Liberty's review of invoices confirmed that accounting is reasonably complete, and takes advantage of input from client groups in many cases to assure designation of the correct beneficiary.

C. Conclusions

1. Internal legal staffing is effective in assuring cost effective provisioning of quality legal services.

NJR uses a higher number of internal legal resources than Liberty has seen at a number of other LDCs. The General Counsel, an experienced litigator, has appropriately examined areas where there exist sufficiently large bodies of particular work types to justify in-house resources. The use of an in-house lawyer to support regulatory affairs is a particularly effective approach, from the cost perspective and, more importantly, from the perspective of assuring effective communications and relationships with the BPU. Assigning this lawyer directly to the regulatory affairs group is not particularly common, but is effective at least in the short run, given that the General Counsel is new to the utility industry. There is effective communication between this lawyer and the General Counsel's office.

2. Management of outside counsel is effective.

The General Counsel has restructured the alignment of outside counsel to match current and emerging needs, and makes outside-counsel assignments in a way that will allow comparisons of costs and service quality relative to other outside and internal options. Billing is strictly by matter, and invoices showed consistent attention to billing details.

3. Accounting for outside counsel costs receives regular attention and is sufficient to assure proper cost segregation.

Liberty's examination of invoices showed attention to segregating costs between utility and non-utility activities, with NJRES and NJNG gas supply showing the most significant area of overlap. Law firm invoices related to MGP remediation and litigation have undergone routine review by Environmental and legal personnel. Costs for such invoices have routinely been assigned to individual sites where appropriate. The invoices and their accounting will not support a sub-classification by activity type (e.g., personal injury claims).

D. Recommendations

Liberty has no recommendations in this area.

XII. External Relations

A. Background

External relations falls under a Corporate Affairs group, which a Senior Vice President leads. Corporate Affairs comprises four principal sub-groups:

- Regulatory Affairs, led by a Vice President and including:
  - Director, Conservation and Affordability, supported by a Manager, Regulatory Affairs and a Regulatory Analyst
  - Director , Rates and Tariffs
  - Director, Regulatory Affairs Counsel
- Government Relations, led by the Chief of Staff to whom the Manager, Corporate Affairs reports
- Customer & Community Relations, led by a director and including:
  - Manager, Customer Advocacy & Volunteerism
  - Manager, Community Outreach
  - Senior Customer Relations Consultant
- Environmental Services, led by a director and including:
  - Two senior engineers
  - One engineer
  - One Safety Administrator

The NJR Corporate Services group's Corporate Communications function falls under a Director Communications, and includes two communications specialists, a publications coordinator, and a senior graphic artist. Professional staffing has remained the same since 2003.

This chapter of Liberty's report addresses all but the Environmental Services group. Volume I of this report, which addresses MGP remediation discusses the operations of Environmental Services.

B. Findings

The Vice President Regulatory Affairs has been with the Company since early 2005. Before that time, he had over 13 years of regulatory management experience with PSE&G and 11 with the BPU. He has a bachelor's degree in accounting and a master's degree in finance. He has five direct reports, in addition to an administrative assistant who supports the group's activities:

- A Director, Conservation & Affordability (formerly Director – Regulatory Affairs), who in this new position will direct activities related to the BPU's newly adopted conservation mechanism and who will handle Universal Service Fund requirements
- A recently-hired Director, Rates & Tariffs, who has significant regulatory management experience with PSE&G
- A Senior Regulatory Affairs Analyst, who takes the lead in performing analytical work associated with a variety of regulatory measures, including the BGSS and customer usage, for example
- A Regulatory Analyst, whose work has focused on supporting analytical work related to MGP remediation and various adjustment clauses, for example

- An attorney who serves as Director, Regulatory Affairs Counsel, handling BPU filings and serving as NJNG's regulatory counsel.

This list includes a recent addition of one person, compared with 2003 levels. This addition reflects the added needs imposed by the settlement agreement covering the new conservation incentive just adopted and the need to examine revenue requirements, given the more than ten years since NJNG's last base rate case.

Almost all of their work involves the state regulatory issues and interaction with the BPU and Rate Counsel. Secondarily and indirectly they have some involvement with New Jersey Department of Environmental Protect (to the extent that DEP matters affect rates and service regulated by the BPU). They do not have a major FERC role; NJRES takes primary responsibility for managing FERC issues. Their main points of contact for coordinating the Company's positions on policy matters are the Senior Vice President, Energy Services, the head of Corporate Affairs, the Senior Vice President and CFO, and other Finance personnel.

They perform most of the BPU-related work in house. Most of the issues they have encountered have been settled; therefore they have not been involved in administrative litigation frequently. On an occasional basis, they have used an outside lawyer from Washington, D.C., a Massachusetts consultant (on the Conservation Incentive Program, tariff, and cost of service and rate design issues), and a firm with expertise in conducting depreciation work. Regulatory Affairs uses an Access database to track all of their pending cases. They have a meeting scheduled every week, although in practice it is held about every other week.

C. Conclusions

1. Staffing of the regulatory and governmental affairs groups and of communications and community relations functions is appropriate.

The organizations have had fairly stable staffing levels and operate under a structure that provides for an appropriate division of responsibility. Consolidating them under a single senior executive provides for appropriate coordination of their activities.

2. Regulatory affairs appropriately manages its work.

The group makes only moderate use of outside resources, and its recent staffing growth is consistent with recent regulatory changes and emerging regulatory requirements (particularly the question of base rates, which have not changed for many years. The group uses an effective means for planning and tracking its work assignments and proceedings.

D. Recommendations

Liberty has no recommendations in this area.

XIII. Accounting and Property Records

A. Background

Accounting records and financial statements must be maintained through a set of processes that provide adequate confidence about completeness and accuracy to those who rely upon them. Maintaining adequate internal controls and reporting measures allows those who rely upon the books and records and financial reports to have reasonable assurances that they can use them to form opinions and make judgments about the company in financial, regulatory, and operational contexts.

NJR's corporate business unit structure includes the following major units: NJNG, NJRES, NJRHS, CR&R, and NJR Service Company. The Service Company provides as a common service to all the other entities the accounting functions and activities that this report chapter addresses. The Service Company has two divisions that perform the accounting and property records services addressed in this chapter. The Service Company also has four other divisions: Corporate Affairs, Corporate Services, Corporate Strategy, and General Counsel.

NJR Service Company Financial Services has six departments: Tax, Treasury Services, Financial Planning & Analysis, External Reporting & Accounting Policy, Accounting, and NJRES Finance departments. The Senior Vice President & Chief Financial Officer oversees the department's functions. The Controller has subordinate responsibility for all but the Treasury Department, which has a separate treasury manager. The general services of each of the six Financial Services departments, which include 29 employees, comprise:

- Tax - matters related to federal, state, and local corporate income taxes.
- Treasury Services - cash management, etc.
- Financial Planning & Analysis - Budgeting, Financial Planning & Analysis.
- External Reporting & Accounting Policy - Financial Transactions, Financial Statement Reports, and Accounting Policy.
- Accounting – Maintenance of books and records, accounts payable, construction and capital costs, and consolidation and parent company accounting; and, accounting for intercompany services and related charges/payments.
- NJRES – Maintenance of books and records and related finance and accounting transactions for NJRES.

The Service Company's Internal Audit Division operates separately from the other divisions and its six members report directly to the Audit Committee of the Board of Directors. Internal Audit performs audits of all NJR entities, including NJNG. The Vice President of Internal Auditing heads the group; his current staff includes of four auditors with one now unfilled auditor position.

NJR Service Company has formal accounting controls that provide the financial policies and procedures for accounting and continuing property records processes, including affiliate transactions. Internal Audit applies or monitors these controls and procedures internally; the independent accountants do so externally. The principal applicable documents that Liberty reviewed include:

- Current formal financial policies and procedures.
- Cost Allocation Manual.
- NJR Service Company Internal Audit Reports.
- External Auditors Review of Key Accounting Controls.
- Outside independent regulatory review and controls prior to Liberty engagement.
- NJR Service Company accounting system.
- NJR Service Company financial statements and underlying supporting documents and reports.
- NJR Service Company continuing property records and underlying supporting documents and reports.

B. Findings

1. Accounting Systems

NJR and its affiliates rely primarily upon one general accounting system. It consists of a fully automated and integrated JD Edwards, which has a 1994 vintage, and which NJR operates on an AS-400 system. The JD Edwards system's general-ledger module serves as the central one for financial reporting purposes. A number of accounting interface modules; e.g., payroll and accounts payable, link to this general ledger module. NJR uses the JD Edwards fixed asset system module for NJNG utility-plant accounting and for NJRHS non-utility fixed-asset accounting. These two subsidiaries account for the major portion of all of NJR's fixed assets. NJR, NJRES, CR&R, and the Service Corporation, which have only a small portion of total assets, use an accounting system called "IntelliPlant" for recording and tracking fixed assets. IntelliPlant also serves as the primary accounting system for calculating depreciation. The results of those calculations feed the JD Edwards general-ledger module, which provides complete financial statement reporting.
The JD Edwards accounting system as currently maintained has sufficient capabilities to provide for the necessary data base for financial reporting purposes. The accounting system provides for cost-center or responsibility accounting. The system is user-friendly. Trained personnel can perform queries based upon a number of various parameters, either to obtain information, develop reports for regulatory reporting purposes, or perform internal analysis. The accounting system and its individual modules provides for brief descriptions, dollar values, or cross reference information for drilling down into the accounting system to sample and verify data on an account by account basis.

The JD Edwards system allows users to query detailed general-ledger information by year on an account-by-account basis. NJR was able to provide Liberty with sufficiently detailed general ledger information related to intercompany transactions. Liberty conducted a number of working secessions with the Assistant Controller in charge of the general accounting system and the manager of the continuing property records section to explore and test the accounting system.

2. Accounting Policies and Procedures

NJR Service's External Reporting & Accounting Policy department maintains a formal set of accounting policies and procedures, which NJR and all of its affiliates follow. Many of these policies and procedures have undergone revision or updating as part of Sarbanes-Oxley testing.

NJR also has Cost Allocation Manual (*CAM*) policies and procedures. They provide for maintenance of the CAM, approved methods for costs assignment and allocation, identification of the departments responsible for developing charges and allocations, and applicable effective dates. Many of the CAM policies and procedures rely upon the accounting policies and procedures. The accounting systems and their maintenance are fundamental elements of the policies and procedures.
Liberty recommends that NJR Service Company adopt a revised and effective policies and procedures which require that the open monitoring reports provided for within Financial Procedure 133 be forwarded to senior level management such as the Controller and/or Assistant Controller for review and necessary action.

3. Accounting Data Collection

The JD Edwards system operates on the basis of collecting accounting information from various feeder groups. In general, these feeders consist of information groups such as accounts payable, payroll, and inventory. These groups feed information through an interface into the review and journal-entry process, in order to collect and transfer accounting data within the general ledger. Some feeder groups collect data through distinct accounting functions and process the information through specific computer program modules. For example, the accounts payable, inventory, and human resources groups use their own specific accounting collection system or module. These modules can download information into the general ledger to support closing of the books. Data collected within the general ledger module then undergoes review, followed by the making of appropriate journal entries and posting them to the general ledger at or before accounting-period close. The general journal serves as the primary central collection process for the development of routine financial statement reports. The general ledger can also support special queries for data or analysis, and generate routine and special reports and analyses. However, the level and detail of inquires and reports hinges upon uniform and consistent collection processes for collecting, processing, and maintaining data.

NJR and its other affiliates use the JD Edwards system as their primary collection facility; however, some small affiliates use IntelliPlant for plant accounting and all use it for the calculation of depreciation. NJR and its affiliates also rely upon a number of other personal computer based programs for the collection, analyzing, and reporting of data.

The collection process relies upon the proper coding and classification of expenses gathered within the feeder groups and general ledger system. NJR has adopted a chart of accounts that is based upon the FERC Uniform System of Accounts (*USofA*). NJR's implementation of the USofA includes other relevant codes that support its cost center accounting. The NJR coding system provides for each company/entity activity in a manner that is both useful, and inclusive of the tools necessary for reviews, oversight, and control. For example, particular codes exist to allow for the tracking of project and expense actives such as intercompany services; they support tracking by company/entity, account, and by cost center.

4. Reporting Structure

The journal operates under the control of the NJR Service Company Accounting Department, and serves as the primary central collection process for the development of routine financial statement reports. Examples of these reports include the monthly Balance Sheet and Income Statement on a consolidated and unconsolidated (standalone) basis. The Accounting Department also has responsibility for preparing the intercompany bills and for maintaining and reconciling the intercompany payable and receivable balances. This section addresses the adequacy of the accounting reporting process and reports. More specifically, this section looks at the adequacy of the following reports and special inquiries: financial statements, detail general ledger report, payroll report, cost center reports, and, project and activity expense reports. This section also addresses the adequacy of intercompany payable and receivable reporting on such financial stations and special reports; however, a later section will address their detail transactions and reconciliation process.

The Service Company's External Reporting & Accounting Policy department has responsibility for the external financial reporting function, reporting business activity on a consolidated basis. Such reporting would exclude intercompany accounts payable and receivable balances. NJNG, however, operates as a regulated utility under the jurisdiction of the BPU. The BPU requires regulated gas utilities to use the FERC Uniform System of Accounts prescribed for Natural Gas Companies subject to the provisions of the Natural Gas Act. NJNG must file with the BPU an annual report similar to the FERC Form 2. This report captures a wide variety of financial and operational statistical activity for the current reporting year and the one immediately preceding it.

5. Internal / External Audits

NJR Service Company's seven-person Internal Audit Division operates separately from the other divisions within NJR Service Company. In general, Internal Audit conducts specific targeted reviews of various departments and business functions. It also conducts specific project activities to test compliance with accepted and approved company policies and procedures. NJR also engages external independent accountants to perform routine annual audits on its books and records, and on occasion requests them to perform specific reviews of compliance issues. Some of the internal/external audits are discussed elsewhere in Liberty's report; this section addresses those that relate to the various accounting functions, such as policies and procedures and continuing property records.

Liberty reviewed the internal audit reports issued by NJR's Internal Audit Division. They addressed a wide range of financial and accounting topics within all of the NJR entities. For example, some internal audits would deal with specific cash, purchasing, expense, and accounting functions encompassing the entire company as a whole. Some internal audits addressed a specific department, such as a review of continuing property records. The Accounting Departments Construction & Capital Costs area is in charge of utility plant assets. Other audits have examined specific capital projects overseen by the department responsible for construction. Liberty found the reports it reviewed to reflect a clear discussion of the task and of finding, recommendations, and the supporting rationale. The reports provided the general comments received from the department or group audited, and clearly indicated their agreement or disagreement. By way of example, the internal audit department noted that the Accounting Department Construction & Capital Costs area in charge of continuing property records was adequately preparing the necessary open work order monitoring reports but that no signatures from the responsible personnel were provided on the reports. Internal Audit recommended a change in accounting policies and procedure; the department agreed, and has complied with the recommendation by formally implementing changes.

Liberty requested and also reviewed a sampling of audits by the independent accountants. Outside audits in recent years have focused significantly on Sarbanes-Oxley financial oversight and accounting controls. For example, Liberty reviewed a September 2005 report that found overall compliance, with some minor outstanding issues. Liberty's interviews with company personnel demonstrated that these issues had been resolved.

6. Work Order Procedures & Continuing Property Records

Liberty examined how NJNG manages its accounting and reporting of plant asset through use of continuing property records for the tracking and recording of new and existing projects, the appropriate identification of the business unit, project identification number, budget amount, reason for project, and appropriate approvals. Liberty evaluated internal controls to determine whether NJNG has established and used adequate policies and procedures to assure that the books and records reasonably report the value of the utility assets. Liberty sought to verify that work-order processes have provided sufficient controls on the commissioning of utility work and on monitoring its performance quantitatively. Financial Service's Accounting Department, more specifically its Construction & Capital Costs (CCC) area, maintains the property records for NJNG utility assets, which encompass well over 90 percent of construction activity. It also maintains the property records of the other business entities. The NJRES finance group of Financial Services maintains the financial records for that affiliate. This section addresses NJNG's work order procedures and continuing property records. Liberty sought to determine whether plant-asset accounting and associated capital asset plant facilities are reasonably separated between utility and non-utility entities and operations. Liberty also sought to verify that appropriate capitalization policies are in place, and that they conform to regulatory requirements for the tracking and recording of new and existing projects.

NJR has formal corporate wide capitalization policies addressing capital projects:

- Construction and Capital Budgeting Procedure Financial Procedure 132
- Utility Plant / Fixed Assets Procedure Financial Procedure 133
- A policy for the transfer of company property between affiliates, "Inter Company Asset Transfers" Financial Procedure 130.

NJNG Construction and Capital Budgeting Procedure and Utility Plant / Fixed Assets Procedures provide for a monthly review process of capital expenditure authorization charges for inactive and over-expended authorizations and for the status of CWIP projects.

Work-order control begins with the use of the FERC Uniform System of Accounts. This system provides detailed guidance for the classification of assets during the construction work-in-progress (CWIP) phase and for in-service classification of assets. Work orders are used for construction for both new business activities and for normal capital projects. Work orders for new business activities are generally treated as open blanket orders, because they generally have shorter construction durations, and are routine and recurring in nature. Non-blanket or specific projects with work order authorizations have their own asset identification numbers and are readily identifiable. Liberty also found the process for specific project work orders to be well defined and monitored throughout the construction process. Annual budgets are approved and costs are tracked and compared on a routine basis. In addition, appropriate forms and controls are maintained for increases in both blanket work order and specific project authorizations. The review and tracking process provides for analysis, and permits assurance that assets are timely placed into service. As prescribed by the USofA, partially completed projects are classified as construction work-in progress (CWIP).

CCC must prepare monthly monitoring reports under Procedure 133. The procedure requires signature by the supervisor and the head of NJNG Energy Delivery Engineering department. The CWIP Aging Report provides the current, prior 3, 6, 12, and 24 month balances for each applicable work order whose current balance exceeds $25,000. Liberty's review of the January 31, 2007 CWIP Aging Report showed a current balance of over $31 million, of which $8 million and $4 million was over one and two year old. These amounts reflect, respectively, 25 and 12 percent of the total.

In early November 2006, Liberty asked the NJR Service Company Controller and Assistant Controller about the status of CWIP projects shown in an October 2006 Aging Report. That report identified a number of major projects that had showed little, if any progress over a 12 and 24 month period. The total expended amounts shown in earlier years about equaled those in the current period. The Controller was aware of some of the time delays, and explained that some were tied to regulatory and permitting issues. Liberty examined the matter further during an interview with the supervisor of CCC. The supervisory cited the same reasons with regard to a new generator project. Further discussions revealed that a number of projects involved new residential and commercial development transmission and distribution gas mains that NJNG was constructing in phases.

FERC guidelines address projects, such as mains, that can provide service for two or more units (phases) but are constructed at different times. Liberty understands the guidelines to call for the expenditure common to the first unit to be placed into service when completed and ready to serve; an LDC should not wait until all phases of the developments have been completed. Taking the latter approach leaves assets used to serve customers still accounted for as CWIP. They therefore continue to accrue additional costs, such as allowances for funds used during construction (AFUDC). Therefore, after entering service, the assets continue to grow in value, rather than to depreciate.

By way of illustration, Liberty's review of the January 31, 2007 CWIP aging report showed that one of the large projects for a new generator had a current accumulated cost of $1.8 million dollars and that 12 months earlier the balance was $1.7 million and 24 months prior had a balance of $1.5 million. Liberty selected from this CWIP aging report 14 projects that showed little activity over the past 24 months. Liberty sought to determine when entered use in providing service to the public. The generator actually began providing service in June 2006; however it still continued to be classed as CWIP until it was finally closed and reclassified as completed and in-service in March 2007. Liberty also observed a 10" main that had a CWIP value of $142,924. It began providing service to the public in December 1999, but still remained open as of March 2007. The table below provides a summary by year of first-service of the 14 projects. They total almost $6.4 million in CWIP. This amount represents 21 percent of the January 31, 2007 CWIP aging report balance.

Year	Projects	Dollars
1999	1	$ 142,924
2002	2	474,951
2004	4	524,654
2005	1	151,492
2006	6	5,081,572
Totals	*14*	*$6,375,593*

The NJR Service Company capital-asset work-order process uses a detailed project status code list to identify where a project stands at certain points in time. However, this data does not make it into the CWIP aging report. Had such information been provided, it may have instigated questioning about the current status and thereby highlighted inactivity under various work orders.

CCC's accounting department also records plant asset work through the work order reporting process. This process includes the recording of appropriate Allowances of Funds Used During Construction (AFUDC) to provide for the proper mix of capitalized interest at appropriate debt rates and equity cost rate as set by and approved by the BPU. The addition of AFUDC ceases when the CWIP work order is properly closed out and reclassified as in-service. The previous concern about in-service determinations highlights the concern that assets not timely classified as in-service result in overstated asset values for BPU regulatory purposes. In addition, the failure to timely classify such assets results in the under reporting of deprecation expense and net income on the income statement. The balance sheet also overstates plant assets values by understating the accumulated reserves for deprecation understated.

NJR's current accounting policy charges AFUDC based upon only debt cost rates rather than the prescribed debt and equity cost rate method. This convention produces a lower AFUDC rate than that typical of more common methods.

Liberty also reviewed the monthly closing procedures by the accounting department. The procedures are adequate to provide for the entry of cost, including the booking of AFUDC and related overhead charges. Liberty also reviewed detailed work orders for completeness and adherence to approved policies. Liberty's review of a sample of work orders showed that NJNG performs an analysis of new business work order projects to determine if anticipated revenues to be gained from prospective customer additions will be sufficient to justify the investment by NJNG in lieu of contributions from the requestors of gas service. Liberty selected the month of March 2007 for review. The work orders examined contained the necessary supporting information when costs exceeded budget by 10 percent.

C. Conclusions

1. **The JD Edwards accounting system is adequate and sufficiently reliable for the general accounting system process.**

The system is automated, comprehensive, suitably linked, user friendly, and capable of providing adequate reports and analysis. It is operated by personnel with sufficient capabilities and experience.

2. Accounting and auditing functions have been appropriately organized to promote efficiency and maintain sufficient independence.

Staffing is sufficient and the group and department structure adopted by NJR supports the effective and independent performance of accounting and controls functions.

3. Accounting policies and procedures are generally complete and appropriate.

The procedures are comprehensive, provide an adequate description of work processes and activity flows, and address controls needs appropriately.

4. NJR's Financial Procedure 133 for Utility Plant /Fixed Assets does not formally provide for or require that important monitoring reports related to open CWIP work orders be provided to senior level management. *(Recommendation #1)*

As will be discussed in more detail in the continuing property record section of this report, Financial Procedure 133 Utility Plant/Fixed Assets provides for the approval, opening, monitoring, and closing of CWIO work orders related to utility assets, including final closing of completed work orders and reclassification as completed and in-service. The policy provides for three detailed monitoring reports.

Prior NJR Internal Audit reviews have recommended that such reports be signed by the appropriate managers and supervisors within the continuing property record and engineering department. Management has agreed and complied; however, the procedure does not require that such reports be further disseminated to senior level staff, such as the Controller or assistant controller. While the procedure does not include a formal requirement to forward such reports to senior management, interviews with the Controller and Assistant Controller revealed that they did have such reports, and were aware of the projects.

The importance of adding such a requirement will be discussed in more detail later in this report; specifically, Liberty found that a number of high-value CWIP projects have remained open past the time when they should have been reclassified as completed and in-service.

5. NJR's USofA code classification is reasonable and adequate to provide to provide for cost center and project activity reporting.

The NJR accounting structure defined in accounting policies and procedures is generally appropriate. Liberty also found it to be well documented and testing showed it to be consistently and effectively applied. Liberty found that the accounting system was effectively utilized to track intercompany payables and receivables with but minimal variances and that routing reconciliations to quantify and adjust for such variances were done in accordance with required policies and procedures.

6. The NJR Service Company financial statement reporting process adequately and reasonably discloses the reporting of intercompany payable and receivable balances on a standalone basis.

The FERC Form 2 reports provide for the disclosure and reporting of intercompany and associated accounts receivable and payable balances in financial statements. Liberty reviewed NJNG's FERC Form 2 reports, and found intercompany receivable and payable balances to be reasonably and adequately reported. Liberty also reviewed independently audited financial statements. For financial statement presentation purposes, intercompany receivable and payable balances are included in accounts receivable and accounts payable balances on the balance sheet.

NJR Service Company appropriately tracks and reconciles intercompany payable and receivable balances. Liberty's review of intercompany payables and receivable transaction testing is discussed in more detail in other sections of this report. However, a review of the process related to the timely tracking and reconciliation of intercompany payables and receivables was conducted within the accounting review section.

7. NJR Service Company internal audits are adequate and reasonable, but high-value areas should be the focus of additional effort. *(Recommendation #2)*

Liberty notes that some department areas have not been audited particularly frequently, despite having responsibility for major expenditures. The primary example is the Construction & Capital Costs area that has responsibility approximately $60 million of capital addition projects. There have been audits of a number of high-value capital projects in the past few years. The functional area, however, has not undergone a direct focused audit since January 2005. The company indicated that such audits are on a three-year cycle, although the prior audit was performed in June 2003. As discussed below, Liberty has a a concern about the timely reclassification of CWIP work orders to the completed and in-service status. The two previous internal audits of this functional area did not address the lack of such timely reclassifications.

8. NJNG does not timely close out CWIP work orders as completed and in-service. *(Recommendation #3)*

The FERC USofA provides for as follows with regard to the timely closing of CWIP work orders.

> *107 Construction work in progress--Gas.*
> *A. This account shall include the total of the balances of work orders for gas plant in process of construction.*
> *B. Work orders shall be cleared from this account as soon as practicable after completion of the job. Further, if a project, such as a gas production plant, a compressor station, or a transmission line, is designed to consist of two or more units which may be placed in service at different dates, any expenditures which are common to and which will be used in the operation of the project as a whole shall be included in gas plant in service upon the completion and the readiness for service of the first unit. Any expenditures which are identified exclusively with units of property not yet in service shall be included in this account.*

C. Expenditures on research, development, and demonstration projects for construction of utility facilities are to be included in a separate subdivision in this account. Records must be maintained to show separately each project along with complete detail of the nature and purpose of the research, development, and demonstration project together with the related costs.
Note A: This account shall include certificate application fees paid to the Federal Energy Regulatory Commission as provided for in gas plant instruction 15.
Note B: Unsuccessful exploration and development costs incurred on leases acquired after October 7, 1969, shall be transferred to account 338, unsuccessful Exploration and Development Costs. (emphasis added)

Interviews with the Company, detailed reviews of CWIP aging reports, and responses to Liberty data requests show that a substantial portion of capital projects continued to be classified as CWIP significantly after they have begun to be used in providing service to customers. Some projects may well have been related to phased construction to serve residential and commercial developments. Nevertheless, the facilities relied upon for customer service should have been timely declared as completed and in-service, consistent with FERC accounting requirements.

9. **The CWIP Aging report does not provide sufficient information to assist management in evaluating the actual age, status, and or reasons related to age and or vintage of major work order projects.** *(Recommendation #4)*

The CWIP aging report contains the work order number, a brief project description, and the current and prior 3, 6, 12, and 24 month accumulated cost values. The report does not provide enough relevant information to the ultimate decision makers. Liberty has also addressed the need to change the current accounting policy and procedure to include the requirement that the CWIP aging report be formally sent to appropriate upper level management for review. From a practical stand point it is important that such report be revised to provide clear and concise information for the decision maker.

D. Recommendations

1. **Revise Financial Procedure 133 to include language that open work order monitoring reports are sent to senior level management.** *(Conclusion #4)*

This change will conform requirements to general existing practice and it will provide a sounder basis for assuring effective financial and accounting management of capital work orders.

2. **Implement more frequent focused audits by the NJR Service Company Internal Audit Division on the Accounting Department's Construction & Capital Costs Area.** *(Conclusion #7)*

The NJR Service Company Internal Audit Division should conduct audits of the Accounting Department's Construction & Capital Costs Area, which is responsible for over $60 million of annual capital project additions, more frequently. This functional area is high value in terms of total annual dollar commitments and has not been audited since January 2005. Future audits should also include in their focus the timely reclassification of CWIP projects as completed and in-service.

3. Direct NJR Service Company to follow FERC guidelines for timely closing work orders as classified as completed and in-service. *(Conclusion #8)*

NJNG should follow FERC guideline for the timely closing of work orders to be classified as completed and in-service. The following of the rules will assist in the accurate presentation of the impacts of such assets on the financial statements, as well as the proper reporting of original cost, accumulated deprecation, and annual deprecation expense values.

4. Revise the CWIP aging report to provide for additional information sufficient enough to assist upper level management in its review and decision making process as it relates to major long outstanding work orders. *(Conclusion #9)*

The CWIP aging report should be revised to provide meaningful information as it pertains to the rational and reasons why major work orders continue to remain open for extended periods of time so as to provide clear and concise information for the decision maker.