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Governor

Kim Guadagno
Lt. Governor

STATE OF NEW JERSEY
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Post Office Box 350
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Kristi Izzo
Secretary to the Board
(609) 292-1599

July 23, 2014

Mark R. Sperduto
Senior Vice President
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Regulatory and External Affairs
1415 Wyckoff Road
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Stefanie A. Brand, Esq., Director
Division of Rate Counsel
140 East Front Street, 4th Floor
Post Office Box 003
Trenton, NJ 08625-0003

Re: In the Matter of an Audit of the Affiliated Transactions between New Jersey Natural Gas Company and its affiliates and a Comprehensive Management Audit of New Jersey Natural Gas Company Pursuant to N.J.S.A. 48:2-16.4, 48:3-49, 48:3-58 and N.J.A.C. 14:3-12.1 – 14:3-12.4, 14:4-3 et seq.
Docket No. GA13010008

Dear Mr. Sperduto and Ms. Brand:

At its July 23, 2014 Agenda meeting, the New Jersey Board of Public Utilities ("Board") voted to Accept "for filing purposes only" the NorthStar Audit Report ("Audit Report") in the above referenced matter. The Board also approved the release of the Audit Report to the public. The Board determined that comments on the report should be filed with the Board and the Division of Audits by September 26, 2014.

If you have any questions regarding this matter, please contact Arthur Gallin at (609) 292-1664.

Sincerely,

Kristi Izzo
Secretary to the Board

/ac

In the Matter of an Audit of the Affiliated Transactions between New Jersey Natural Gas Company and its affiliates and a Comprehensive Management Audit of New Jersey Natural Gas Company Pursuant to N.J.S.A. 48:2-16.4, 48:3-49, 48:3-58 and N.J.A.C. 14:3-12.1 – 14:3-12.4, 14:4-3 et seq.
Docket No. GA13010008

SERVICE LIST

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AUDIT OF AFFILIATED TRANSACTIONS BETWEEN NEW JERSEY NATURAL GAS COMPANY AND NEW JERSEY RESOURCES AND AFFILIATES

PURSUANT TO N.J.S.A. 48: 3-49, 48: 3-55, 48: 3-56, 48: 3-58 & N.J.A.C. 14:4-5 ET. SEQ.

AND A

COMPREHENSIVE MANAGEMENT AUDIT OF NEW JERSEY NATURAL GAS COMPANY

PURSUANT TO N.J.S.A. 48:2-16.4 & N.J.A.C. 14:3-12.1 – 14:3-12.4
DOCKET NO. GA13010008

PREPARED FOR THE
NEW JERSEY BOARD OF PUBLIC UTILITIES DIVISION OF AUDITS
JUNE 26, 2014

FINAL REPORT

NORTHSTAR CONSULTING GROUP
MANAGEMENT CONSULTANTS

SANTA MARIA, CA • LAS VEGAS, NV • WILMINGTON, DE • NEW ORLEANS, LA

TABLE OF CONTENTS

CHAPTER I. EXECUTIVE SUMMARY

This Chapter provides an overview of New Jersey Resources (NJR), New Jersey Natural Gas Company (NJNG) and its affiliates and summarizes the results of our audit. Chapter II provides background on NJNG and an overview of the scope, objectives and audit methodology. Chapters III though XVIII provide detailed findings and conclusions for each audit area.

A. Background

In February 1999, the New Jersey Legislature passed and Governor Whitman signed the Electric Discount and Energy Competition Act, New Jersey Statutes Annotated (N.J.S.A.) 48:3-49 *et seq*. (EDECA) into law, partially deregulating the electric and gas markets with the goal of creating competition, giving consumers more choice, and reducing prices.

In response to EDECA, the new Jersey Board of Public Utilities (BPU or Board) adopted the "Affiliate Relations, Fair Competition and Accounting Standards and Related Reporting Requirements" (Competitive Service Standards or Rules) that govern the interactions between the New Jersey utilities and their affiliated companies. These Rules were originally adopted by the Board pursuant to an Order dated March 15, 2000 in Docket No. EX99030182, and were codified in Chapter 4 "Energy Competition Standards" of the New Jersey Administrative Code (N.J.A.C.) Title 14. (The Affiliate Relations, Fair Competition and Accounting Standards and Related Reporting Requirements and the relevant sections of the N.J.A.C. are collectively referred to as the Competitive Service Statutes.) In general, the Statues are designed to promote fair competition in retail markets where regulated utilities deals with their affiliates. Simply stated, NJNG's affiliates should not gain any unfair competitive advantage as a result of their relationship with NJNG.

NorthStar was retained by the BPU to perform an Audit of the Affiliated Transactions between NJNG and its affiliates and a Comprehensive Management Audit of NJNG in response to RFP 13-X-22139. The scope of the audit included the fiscal years 2009 through 2013. The objectives of the audit were to assist the BPU in determining whether NJNG is in compliance with EDECA as specified in N.J.S.A. 48:3-49, N.J.S.A. 48:3-58 and N.J.A.C. 14:4-3 et seq. both in a retail and wholesale capacity and the Board's Affiliate Standards, and to determine if the management practices, functions, operational procedures, and other internal workings of NJNG are effective.

B. NJNG Overview

NJNG is a local natural gas distribution company that provides regulated retail natural gas service to approximately 500,000 residential and commercial customers in central and northern New Jersey. It is the principal subsidiary of NJR, a Fortune 1000 Company. NJNG owns approximately 6,860 miles of distribution main, 6,810 miles of service main, 228 miles of transmission main and approximately 519,000 service meters. Additionally, NJNG owns and operates two Liquefied Natural Gas (LNG) storage plants in Stafford Township, Ocean County, and Howell Township, Monmouth County. NJR is a New Jersey corporation formed in 1981 pursuant to a corporate reorganization. It is an energy services holding company providing retail and wholesale energy services to customers in states from the Gulf Coast and Mid-Continent regions to the Appalachian and Northeast regions, the West Coast and Canada. NJR's other subsidiaries and businesses are all non-regulated, and include:[1]

- NJR Service Corporation (NJRSC) which provides the NJR family of subsidiaries with shared support services, including communications, financial, administrative, auditing, legal, human resources and technological expertise.

- NJR Clean Energy Ventures (NJRCEV) which invests in, owns and operates renewable energy projects that generate clean power and provide low carbon energy solutions, including commercial and residential solar projects, as well as on-shore wind projects through a 19.9 percent ownership interest in OwnEnergy.

- NJR Energy Services (NJRES) an energy trading company which provides wholesale energy services to customers in New Jersey, and in states from the Gulf Coast to New England, and Canada. NJRES maintains and transacts around a portfolio of physical assets consisting of natural gas storage and transportation contracts. NJRES also provides wholesale energy management services to other energy companies and natural gas producers.

- NJR Retail Holdings (Retail Holdings) which consolidates NJR's unregulated retail operations. Retail Holdings consists of the following wholly-owned subsidiaries:

    - NJR Home Services (NJRHS) provides home-appliance service, sales and installations to customers in Ocean, Monmouth, Morris and Middlesex counties, New Jersey.
    - NJR Plumbing Services (NJRPS) provides plumbing repair and installation services. NJRPS operates as part of NJRHS.
    - Commercial Realty & Resources (CR&R) holds and develops commercial real estate.

- NJR Energy Investments (NJREI) which consolidates NJR's unregulated energy-related investments. NJREI includes the following wholly owned subsidiaries:

    - NJR Midstream Holdings Corporation (formerly NJR Energy Holdings Corporation). NJR Midstream primarily invests in energy-related ventures through its subsidiaries, NJR Steckman Ridge Storage Company, which holds NJR's interest in Steckman Ridge, a natural gas storage facility and NJR Pipeline Company, which holds NJR's ownership interest in Iroquois. Steckman Ridge and Iroquois comprise the NJR Midstream segment.

[1] NJR 10-K Annual Report filed 11-29-2012 for the period ending 9-30-2012

- NJR Investment makes and holds certain energy-related investments, primarily through equity instruments of public companies.
- NJR Energy Corporation (NJR Energy) invests in energy-related ventures.

NJNG's primary interfaces are with NJRSC which provides shared services to NJNG, NJRHS for which it provides billing and payment processing services, NJRCEV for which it provides billing services and NJRES. NJNG executes trades with NJRES as discussed in further detail in the Gas Supply Procurement Chapter.

C. Summary of Findings and Conclusions

Key findings and conclusions are summarized below. Detailed findings and conclusions for each audit area are provided in Chapters III – XVIII.

Executive Management, Governance and Planning

NJR is governed by an eleven-member Board of Directors (BOD): ten independent directors and Mr. Laurence Downes who serves as the NJR Chief Executive Officer (CEO) and Chairman of the Board. The CEO and BOD members are well-qualified and have extensive experience in both public and private enterprise. Six of the Directors (including Mr. Downes) are former utility and energy industry executives. Other Board members provide expertise in government relations, human resources, auditing and financial services. The NJNG BOD comprises five members including Mr. Downes. The Boards of the subsidiaries (including NJNG) meet concurrently with the NJR BOD. Prior to November 2011, the NJNG BOD met separately but changed to concurrent meetings because the directors found they were repeating presentations and discussions at the NJR-level that had just occurred at the NJNG BOD meeting.

All planning for the utility and its affiliates occurs at the NJR-level. NJNG does not conduct strategic planning. The NJR planning process, and resulting plan, is based on the corporate Vision and Mission and "Commitment to Stakeholders" (CTS). The CTS is a corporate-wide initiative that embodies the NJR corporate values and provides focus for employee actions and goals. The CTS applies to all subsidiaries. Although the CTS has been embraced by the organization and provides an appropriate vehicle for measuring performance and ensuring commitment, improvements are possible in NJR's strategic planning process. In a number of respects, the corporate planning process results in an annual plan that is primarily operational, rather than strategic, in nature. NJNG management generally sees little need for NJNG-specific long-term planning, believing future operations will continue "business as usual".

NJR's mission and vision have been effectively communicated throughout the organization. Employees understand the vision and are committed to the success of the organization; however, employees do not generally distinguish between NJR, NJNG and its affiliates. The organization operates more as one entity than separate regulated and unregulated companies. NorthStar found limited recognition that the regulated utility might have different goals and management needs than its unregulated affiliates. NJNG also shares officers with certain of its affiliates, which is prohibited by the affiliate rules.

Affiliate Relationships and Transactions

NJNG provides and receives a variety of products and services from its affiliates and NJR. These include shared services, customer service, billing, leases, external contracts and corporate taxes. In a typical year, there are in excess of 5,000 transactions between NJNG and its affiliates. These transactions range from a few cents to as much as $3 million. EDECA requires that the assignment or allocation of costs should not result in utility subsidization of the non-regulated businesses. The process by which costs are assigned to the various NJR entities is outlined in the Cost Allocation Manual (CAM). NJR has an extensive and well-written CAM that has been updated twice during the audit period. The CAM contains a great deal of detail and explanation on how cost allocations are performed.

NorthStar tested a number of transactions between NJNG and its affiliates to assess the validity of accounting information and the assignment or allocation of costs. In the great majority of cases, costs were appropriately assigned or allocated to the correct affiliate. The allocation methods used were consistent with the procedures outlined in the CAM and were reasonably causally-related. NorthStar's review identified some errors in time charges and insufficient controls over the time-keeping process. NorthStar also found the method used to determine affiliate lease costs results in a potential subsidy as it is inconsistent with lease terms and not market-based..

Finance

NJR displayed consistent, strong financial performance during the audit period. In 2013, NJNG achieved its 22nd consecutive year of improved financial performance. Credit rating agencies and lenders generally praise NJNG's financial management, citing conservative management of financial resources, a diverse service area that has experienced higher than average growth with lower than average volatility, and a supportive relationship with the BPU. As a result, both Standard and Poor's and Moody's Investor Services have rated NJNG as stable investment grade credit. NJNG and NJR are not separately rated.

Despite its strong financial performance, NorthStar is concerned about the effects of NJR's reliance on variable rate debt and its business diversification on NJNG's credit rating which could, and may already have had, a detrimental effect on ratepayers. Lower credit ratings increase a utility's cost of financing. To date, NJNG's decision to use a relatively high proportion of variable rate debt has saved significant amounts of money; however, rating agencies have indicated that additional reliance on floating rate debt could result in a ratings downgrade. Rating agencies have also indicated that an increase in NJR's non-regulated affiliate business above the current level could lead to a reduction in NJNG's credit rating. NJNG currently contributes about 65 to 70 percent to NJR's net financial earnings. It is likely that the current credit rating is already lower than it might be absent these factors.

NJR manages its cash effectively and no funds belonging to any affiliate are comingled with NJNG funds at any time. NJNG handles cash from affiliates in only limited circumstances; however, the associated processes could be improved. NJNG's processes for handling NJRHS billing and receivables results in a subsidy to NJRHS.

Gas Supply Procurement

NJNG supplies approximately 50 million dekatherms (dths) of gas annually to its Basic Gas Supply Services (BGSS) sales customers at a delivered cost of approximately $400 million in fiscal year (FY) 2013. NJNG transports an additional 10 million dths each year for aggregation and large commercial/industrial customers who have contracted for their gas supply through independent Third Party Suppliers (TPSs). NJNG recovers the cost of gas (both demand charges and commodity costs) from its ratepayers through the BGSS process. On an annual basis, NJNG files its forecasted sales and projected costs of gas and other fees and credits with the BPU. The resulting annual BGSS rate is a levelized cost of gas that is applied to consumption on residential and small commercial customers' bills to recover the cost of gas supply. As a result of the BGSS process, NJNG ratepayer bills are not directly impacted by short term fluctuations in the market price of gas.

NJNG's gas supply procurement activities have a strong short-term bias and are conducted in a highly informal manner. There is little analytic rigor, limited oversight and management attention, and weak documentation of capacity and procurement decisions. The organizational placement of the utility's gas supply function does not provide sufficient visibility and executive attention for this key function. NJNG's ratepayers have been largely insulated from adverse impacts of the informal gas supply management processes by a combination of the BGSS gas cost recovery process and a delivery portfolio with considerable storage capacity, particularly with the relatively low gas prices and mild weather over the audit period. The existing processes likely would be insufficient to assure best cost gas supply under less favorable market conditions.

NJNG's gas procurement and hedging transactions are subject to review by the Risk Management Committee (RMC). The RMC was established by the BOD through its Audit Committee and charged it with oversight of risks and risk management associated with gas trading, counterparty credit risk and overall hedging activities. The RMC oversees transactions for both NJRES and NJNG, operating through a single bi-weekly meeting with one agenda and reviewing a single consolidated monitoring report covering both entities. The concurrent oversight by the RMC of both NJNG and NJRES gas transactions is not in the best interests of NJNG ratepayers or stockholders. Transactions between NJNG and NJRES are not covered by the BPU's Affiliate Relations guidelines or by Federal Energy Regulatory Commission (FERC) requirements. However, the potential exists for self-dealing between the affiliates, and existing RMC processes and controls are insufficient to assess whether transactions and other interfaces between the two entities are appropriate. NJR's corporate internal audit function does not provide sufficient independent review of the gas procurement activities.

Distribution and Operations Management and Contractor Oversight

During FY 2009, NJNG implemented an Accelerated Infrastructure Program (AIP) to enhance the reliability of its gas distribution system and to support economic development and job growth in New Jersey. Since inception of the program, the BPU has approved total infrastructure investments of $131 million, including $70.8 million related to the initial phase of construction projects (AIP I) and $60.2 million related to the second phase of construction projects (AIP II). On March 20, 2012, NJNG filed a petition with the BPU seeking to implement a Safety Acceleration and Facility Enhancement (SAFE) program, whereby NJNG would invest up to $204 million over a five-year period to replace portions of NJNG's bare steel and cast iron gas distribution infrastructure. NJNG entered into a stipulation with the BPU Staff and Rate Counsel to include a four-year incremental investment program of $130 million, exclusive of Allowance for Funds Used During Construction (AFUDC) accruals.

In FY 2012, NJNG committed or spent capital expenditures totaling $120.1 million. In fiscal 2013 and 2014, NJNG has estimated capital expenditures of $119.3 million and $119.9 million, respectively.

The vast majority of NJNG's construction work is performed by two contractors, under an "Alliance" agreement. The Alliance contracts were initially established on August 3, 2001 with a non-competitive-bid contract. They have been amended a number of times and currently span 20 years, terminating August 3, 2021. The most recent amendments extending the contract end dates were the result of a negotiated rather than competitive bid process. Although the contracts were initially signed in 2001, Kiely and Gray have provided pipeline construction services to NJNG since 1952.

The Alliance contractors do not compete against each other or internal NJNG resources for construction jobs. Although NJNG believes the Alliance contracts have resulted in a high degree of responsiveness and construction quality, the Alliance contractors bear no financial risk and there is an absence of a baseline against which to determine the relative cost-effectiveness of the arrangements. The Alliance contractors are reimbursed for all reasonable actual direct and indirect project costs (i.e., direct labor and labor-related expenses, materials, equipment, general and administrative overheads, and annual wage adjustments) plus an initial profit margin currently set at 13 percent. While the use of "Alliance" agreements is common to the utility industry, NorthStar has not previously encountered such a heavy reliance on alliance contractors. Despite numerous prior audit recommendations requiring competitive analysis of the agreements, no such analysis has been performed

D. Recommendations

Exhibit I-1 provides a listing of NorthStar's audit recommendations.

Exhibit I-1
Recommendations

Ch.		Recommendation
Executive Management and Organization		
III	1.	Develop a policy on the separation of the roles and responsibilities of the CEO and Chairman of the Board. The policy should address whether the positions should be separate or combined by design, and whether the Chairman should be selected from the non-employee directors or be an employee.
III	2.	Establish a culture from the BOD and throughout the organization that stresses the need for separation of duties and responsibilities between NJNG and its affiliates, and clarifies the different goals, objectives and constraints associated with operating a regulated utility. Establish processes that ensure the BOD and executive management clearly differentiate their roles and decision-making responsibilities for the utility.
III	3.	Clearly differentiate the administrative and functional responsibilities of NJNG officers and senior management from its affiliates by developing a set of functional mission statements for NJNG along with formalized roles and responsibilities for management.
III	4.	Comply with N.J.A.C. 14:4-3.5(q), regarding corporate structure and reorganize or reassign the officers currently in violation of the rules.
III	5.	Consider using an executive search firm in addition to current processes to fill future BOD positions.
III	6.	With the assistance of outside experts, restructure the Internal Audit Department (IAD) processes to improve the depth of analysis, encourage a broader view of potential control, risk and affiliate matters, widen the scope, and vary the topic areas addressed in the audit plan. Establish a culture of responsibility and accountability for the implementation of recommendations, regardless of the audit source.
Strategic Planning		
IV	7.	NJNG should develop a strategic and business planning process for the utility that incorporates the elements of successful strategic planning. The NJNG planning process should be under the direction of the NJNG Management team, and the planning and analysis should be performed by NJNG personnel. The NJNG planning process should provide for the following planning elements: • Reflect a planning horizon of seven to ten years. • Include a Strength, Weaknesses, Opportunities and Threats (SWOT) analysis, including employee and technology resource assessments, updated annually to reflect changing conditions and performance expectations. • Consider whether adjustments to the NJR Vision or Mission would provide improved clarity or focus for NJNG's planning or operations. • Identify market and technology trends that could impact any of the aspects of NJNG's business – supply, infrastructure, customer demands. • Identify and explore a range of possible opportunities for achieving the NJNG Vision, including creative ideas that might come from outside the utility industry, consistent with the NJR corporate strategic direction and the CTS elements. • Identify risks and uncertainties around business operations and future programs, and develop options to mitigate or manage the risks and reduce uncertainties. • Include analysis of ratepayer impacts under a range of economic, market and gas supply assumptions, creating alternative scenarios. • Identify preferred strategies and appropriate mid- and short-term action plans to achieve the strategies. • Assess NJNG's financial performance and the impact on ratepayers under the desired plan and under alternative scenarios. • Include goals, objectives and performance targets for NJNG based on its strategic plan that may be in addition to those included in the NJR Plan.

Ch.	Recommendation
IV	8. The NJR business planning process should be modified to explicitly include corporate-level elements from the NJNG Strategic Plan (Recommendation 1). In the revised process, the NJR Executive team and BOD would continue their current roles to establish the overall corporate strategy and objectives, provide guidance to NJNG on assumptions and approach, and approve the NJNG Strategic Plan along with the NJR Plan.
IV	9. The NJR planning process should be modified to incorporate elements of longer-term strategic planning. The revised process should include the elements identified in Recommendation 1 for the NJNG planning process, applied at the corporate level and for other affiliates. At a minimum, the NJR planning process should be expanded to a seven to ten year planning horizon, include assessments of the risks associated with the plan, and quantification of those risks through scenario analyses.
Affiliate Relationships	
V	10. Classify CR&R and NJRCEV as related competitive business segments.
V	11. Review and improve the current Affiliate Compliance Plan to include policies and procedures that are applicable to all NJNG affiliates.
V	12. Ensure that the information contained in the Affiliate Compliance Plan is correct, complete and includes the following: • Policies and procedures that deal with affiliate relationships. • Ensure that all affiliates are recognized as part of the Affiliate Compliance Plan. • Ensure that there are no violations of nondiscrimination rules or polices.
V	13. Develop service agreements between NJNG and affiliates that comply with the Competitive Service Statutes and are consistent with organization structure and the CAM, and reflect actual services provided. • Ensure that service agreements among affiliates are consistent with the CAM. • Correct allocation models that are used in billing between regulated affiliates and service providers. • When completed, seek approval by the BPU.
V	14. Comply with N.J.A.C. 14:4-4.5, which requires NJNG to obtain competitive bids for services provided by its affiliates. Alternatively, perform a benchmarking study of services provided by affiliates to demonstrate to the BPU's satisfaction that the charges and quality of services are competitive with other commercial providers and comply with N.J.A.C. 14:4-4.5.
V	15. Cease providing extended payment options to NJRHS customers.
V	16. NJNG should perform its own Marketing and Communications functions exclusively and discontinue any services sharing with its affiliates.
V	17. Develop, maintain and control access to NJNG databases and systems and which employees have access to systems. Report a list of employee access to databases and systems to the BPU on a semi-annual basis.
Accounting and Cost Allocation	
VI	18. Revise the CAM to reflect the actual organization and procedures used to allocate costs.
VI	19. Revise the instructions for using "Work with Time Sheets" to include more information on the circumstances that would lead an employee to enter charges to affiliates.
VI	20. Implement a validity check for its time inputting to verify the appropriateness of work orders.
VI	21. Modify the leases with affiliates to reflect current market conditions and thereafter follow the terms of the leases. The BPU may want to consider whether the terms of the existing leases should be applied retroactively.
VI	22. Revise the method of charging space-related costs to NJNG's affiliates in accordance with revised lease contracts. Alternatively, NJNG should modify the leases to reflect current terms.
VI	23. If NJNG continues to allocate lease costs based on occupancy square footage, it should use correct round off procedures in calculating allocation factors and amounts.

Market Conditions	
VII	24. Improve the Energy Choice information on NJNG's website, and develop a process and schedule to review and update these pages at least quarterly. Specifically, the website should include: • A link to the competitive supplier section of the website should be placed in a highly visible location on the home page, and made more visible on both the "My Home" and "My Business" subpages. • The list of suppliers should include only active suppliers, or at least an indication of which suppliers are currently accepting new customers. • The current BGSS rate for comparison with TPS offers should be readily available and kept up to date, for both residential and commercial and industrial (C&I) customers. • There should be a simple, user-friendly explanation of the charges that would continue to come from NJNG and a schedule of the current NJNG distribution, customer, and other fees and charges. • NJNG should develop an on-line calculator that allows customers to input TPS offers and estimate the changes in either their bill (using their account number to access historical usage data) or a typical bill (for residential customers). Usage patterns for C&I customers are sufficiently variable that the use of a "typical bill" would not be appropriate.
VII	25. Reinforce TPS neutrality among the call center representatives, ensuring they remain neutral and do not disparage competitors while continuing to provide customers with accurate information and assistance.
Gas Supply Procurement	
VIII	26. Elevate the Gas Supply group to an NJNG officer-level Department, headed by a Vice President reporting to the NJNG Chief Operating Officer (COO). Specifically, The VP Gas Supply should: • Have appropriate experience in the management and procurement of gas capacity and supply for regulated utilities. • Be physically located adjacent to the Gas Supply personnel to facilitate collaboration on all matters, including daily transactions as well as long term planning, analysis of pipeline and market trends, oversight of transactions and controls, and regular department management.
VIII	27. Develop or obtain additional analytic tools and training to support the long-term supply portfolio planning process and include the assessment of risks and ratepayer impacts in planning decisions. These resources can come through a combination of in-house personnel and outside entities. Specifically, NJNG needs the capability to: • Examine the impacts on ratepayers of uncertainties and risk factors associated with the current portfolio. (This can be accomplished through the use of Monte Carlo simulation tools with Excel™ spreadsheets.) • Identify and assess a wider range of contracting alternatives, supply options and pricing considerations. • More directly monitor trends and opportunities in the market and evaluate the potential roles and impacts on NJNG's portfolio and ratepayers.
VIII	28. Improve the documentation of all aspects of gas supply planning and management decisions. All documentation should be maintained in files within the Gas Supply Department in an orderly manner. The minimum required documentation should include: • Hard copies (scanned or pdf) of all spreadsheets and other analytic tools that were used to support decisions. • Hard copies (scanned or pdf) of all contemporaneous market pricing and other market intelligence used in the analysis and in support of decisions. • A written discussion of the decision process including a summary of the options considered, assumptions and sources of data, results of the analyses supporting the recommended option, and an outline of the decision and approval process, noting the individuals and committees involved. • Any memorandum, letters or presentations associated with the decision.
VIII	29. Extend the planning horizon for capacity needs to a minimum of seven years to ensure timely identification of future needs consistent with typical pipeline expansion planning horizons.

Ch.	Recommendation
VIII	30. Retain an outside firm to conduct a comprehensive analysis of the current hedging strategy, Storage Incentive Program (SIP), and Financial Risk Management program to assess their appropriateness and value to ratepayers in light of current and anticipated natural gas market conditions, the BGSS rate structure and other regulatory considerations, and NJNG's vision and strategy. Based on the results of the study, NJNG's hedging strategy should be adjusted, and appropriate procedures established for the execution of the strategy through the RMC and regulatory processes. The study and recommended adjustments and improved procedures should be presented to the BOD for approval and provided to the BPU for appropriate regulatory action.
VIII	31. Enhance the oversight by the RMC of NJNG's trading and procurement activities to address the gaps identified in this audit. The RMC Guidelines should be reviewed and revised to formalize the necessary policies, guidelines and procedures. At a minimum, the enhance oversight and guidelines should provide for: • Review of NJNG's procurement and trading transactions separately from those of NJRES. • Specification of timing, approval and documentation of all SIP and FRM transactions, including setting of the SIP benchmark as discussed in Conclusion 17 and the results of the hedging study specified in Recommendation 4. • Minimum standards for the review and approval of portfolio and major procurement decisions, along with improved documentation requirements specified in Recommendation 3. • A comprehensive review of the hedging strategy at least biannually. • Specific guidelines as to what constitutes acceptable and unacceptable affiliate transactions and how that will be determined. • Reporting and analysis of transactions (both affiliate and non-affiliate) to monitor for potential risks arising from opportunistic trading in general.
VIII	32. Address the matter of NJRES users with access to NJNG Gas Management System (GMS) files and data. At a minimum: • Review all dual user GMS access to NJNG files and remove NJNG access unless there are compelling reasons for such access. • Implement appropriate procedures for dual user authorization, including explicit approval by the Gas Supply group of such access and requiring written documentation of all dual access justifications.
VIII	33. Either cease sharing analysis results and support activities that have been conducted by NJNG personnel with NJRES, or implement a process and methodology, to be approved by the BPU, to allocate the fully loaded costs associated with these activities to NJRES. At a minimum the methodology should: • Clearly delineate what activities supporting both entities are authorized. • Ensure that NJNG personnel accurately identify the time spent supporting NJRES alone, and performing tasks that support both entities. • Base the cost charged to NJRES on the cost NJRES would incur were it to acquire the services independently.

Ch.	Recommendation
VIII	34. Improve IAD's oversight of the Gas Supply group's activities. At a minimum: • Relocate the Internal Auditor from the trading area. • Contract for an outside internal auditor with appropriate experience in energy trading and derivatives to conduct a comprehensive audit of NJNG's gas trading policies, procedures, activities, reporting, controls and related matters. The results of this focused audit should be reported to the CEO and the BOD within nine months of completion of this NorthStar Management audit. The final report on the focused audit should be submitted to the BPU within 12 months of the completion of the NorthStar audit. • Implement audit work plans for the gas supply area that ensure the audits cover activities in greater detail and with greater depth, and move beyond verifying calculations and data entry to, for example, consideration of areas where existing controls may be insufficient. • With the assistance of the outside internal auditor, develop a list of internal audit topics in the gas procurement and trading areas for implementation by IAD, resulting in the audit of key risk areas on a rotating basis over a three-year rotation. • Rotate internal auditors for Gas Supply audits such that no auditor conducts the same or significantly similar audit for more than two years in a row. If necessary, contract every third year for an outside internal auditor to conduct the audit and report to the CEO and BOD. • Develop specific professional development plans for auditors in the IAD to increase their understanding of energy procurement and trading, so that within four years there can be an internal rotation of IAD staff for the gas procurement function audits. The development plans should be filed with the BPU and update with progress annually.
VIII	35. Enhance the customer forecasting process by corroborating NJNG's market intelligence-based forecast with a regression model utilizing econometric variables such as population, personal income, economic activity and inflation. At the same time, expand the customer forecast to a ten-year horizon to be in line with the Design Day and Send out forecasts. Consider new and different types of construction in the service territory, including a separate forecast of multi-family dwellings.
VIII	36. Continue with plans to obtain the current version of Nostradamus and to reinstate the maintenance service contract to assure timely incorporation of software updates, corrections and enhancements.
Finance and Cash Management	
IX	37. Evaluate the benefits of the continued use of variable rate debt. Consider the warnings of the credit rating agencies and avoid increasing the proportion of variable rate debt unless the savings are compelling even if the rating agencies lower their rating of the company's other borrowing.
IX	38. Observe the limit established by credit rating agencies regarding the proportion of non-regulated business activity NJR engages in. Additionally, consider backing away from the existing level to ensure that borrowing costs are not increased at the expense of ratepayers
IX	39. NJR should seek to be rated separately from NJNG in order to clarify the effects of the additional risk carried by NJR and to ensure that the credit rating of NJNG is not adversely affected by actions of NJR or its other affiliates.
IX	40. Update the comparison panel used by NJNG and NJR. The panel should have more members who are higher performers to give NJNG something to strive for.
IX	41. Consider having an NJRCEV employee (rather than an NJNG employee) handle NRJCEV checks received in the mail room from the point they are opened to the point they are deposited in NJRCEV's bank account.
IX	42. Perform a detailed analysis of the receivables process to ensure that the discount factor applied to NJRHS appropriately reflects the costs and bad debt write offs associated with the service NJNG provides.
IX	43. Either pay NJRHS for the bills NJNG sends out on NJRHS's behalf on the same average payment cycle under which NJNG receives payments, or analyze the effects of carrying the extra working capital necessitated by the early payments to NJRHS and adjust the discount factor to ensure that NJNG ratepayers do not subsidize NJRHS.

Ch.	Recommendation
IX	44. NJNG should enhance its OpEx budget procedure to incorporate a more zero-based approach and document the process to insure that all areas of the utility follow the same procedures.
Previous Audit Recommendations	
X	45. Demonstrate the implementation of each recommendation accepted by the BPU in this audit. The demonstration and associated documentation should include: • An initial timeline and designation of an individual accountable for implementation of each recommendation. • Delineation of the specific steps to be taken to implement each recommendation. • Periodic status reports and/or meetings with the BPU. • Written policies, procedures, reports, operational proof or other demonstration of the recommendation's implementation and sustainability. Any ambiguity regarding terminology or the scope of audit recommendations should be agreed upon with the BPU and not allowed to delay or hinder implementation.
X	46. Demonstrate the implementation of each recommendation called for in the Liberty audit and addressed in NorthStar's audit to the satisfaction of the BPU. • Reporting on the status of implementation based on the acceptance and interpretation of NJNG has been shown to be problematic. • Demonstration should include written policies, procedures, reports, operational proof of their ongoing implementation, and sustainability.
X	47. Recommended improvements to the IAD process are discussed in NorthStar's Executive Management, Corporate Governance and Organization Chapter and in its Gas Supply Procurement Chapter (as relates specifically to the oversight of the gas supply procurement activities).
Distribution and Operations Management:	
XI	48. Develop a comprehensive program to address the leak backlog and mitigate excavation damages.
XI	49. Develop a system planning function within NJNG. This function would be responsible for integrating all infrastructure planning and developing an effective and comprehensive long-term system plan.
XI	50. Remediate each of the pipeline documentation deficiencies noted in Conclusions 8 through 10 contained in NJNG's Standards, Operating, Maintenance and Emergency (SOME) Manual Volumes 3 and 4, the Transmission Integrity Management Program (IMP) and the Distribution Integrity Management Program (DIMP), and report on their individual completion to BPU Staff. • Procedures for handling abnormal operations for transmission lines (responding, investigating, and correcting the cause of incidents including, but not limited to, unintended closure of valves or shutdowns, increase or decrease in pressure or flow rate outside normal operating limits, loss of communications, operation of any safety device, and any other foreseeable malfunction). • Make SOME Manual construction records, maps, and operating history available to appropriate operating personnel. • Demonstrate that the manual has been reviewed and updated by the operator at intervals not exceeding 15 months, and at least once each calendar year.
XI	51. Complete all Sandy Lessons Learned action plans and activities prior to the next storm season.
XI	52. Develop and formally document an organized storm response liaison program.

Ch.	Recommendation
XI	53. Conduct pipeline construction in a competitive manner. • Limit the Alliance program to half of NJNG's construction work (or other proportion as agreed to with the BPU) until the Alliance program costs and benefits can be independently verified by the BPU. • NJNG resources could be used to perform comparable pipeline construction as a benchmark against Alliance contractors. • Use contractors other than Alliance contractors to competitively bid and perform pipeline construction work as a benchmark for comparison. • Annually document, through relevant benchmarking comparisons, the installed cost of mains and services for various types of work and service territory geography of work performed by the Alliance contractors and other contractors. The analysis should be performed by an external third-party that is not one of the Alliance contractors, with the results provided directly to the BPU.
XI	54. Improve oversight of the cost and quality of the work performed by the Alliance contractors. See the Contractor Performance Chapter for additional discussion.
Contractor Performance	
XII	55. Complete the ongoing effort to standardize the reporting of mark-out inspection results to consistently classify results.
XII	56. Improve processes and procedures to perform independent quality inspections of the Alliance contractors' work. • Discontinue the practice of allowing contractors to self-inspect work before it is inspected by NJNG inspector. • Improve the rating guidelines for the inspection reports so that all instances of non-compliance are rated "warning" and all unsafe practices are rated "unsatisfactory".
XII	57. Identify potential opportunities for Alliance contractor productivity improvements. • Compare Alliance contractor construction unit rates to AGA data. • Perform productivity trend analyses to determine and correct the cause of any declines in productivity.
XII	58. Document the process to determine the results of the contractors cost containment performance measure.
XII	59. Confirm that NJNG is not paying duplicative overheads, profit or other mark-up on equipment purchased by its Alliance contractors from subsidiaries of the Alliance contractor and then billed to NJNG. (Refers to Conclusion 10 and NorthStar's review of audit work papers.)

Ch.	Recommendation
XII	60. Expand the current Alliance contractor cost testing procedure to include the following. Audits should continue to be performed by individuals with an understanding of the nature of the construction work performed. • Testing of all categories and subcategories of costs including direct costs and compensation-related costs and adders (e.g., union expenses, and office and yard salaries). • Criteria for selection of transactions for detailed testing. • Coverage of all subcontractors or professional services providers retained by the Alliance contractors. NJNG can continue to select costs associated with subcontractors whose charges it has questioned in the past, but it should also ensure that all recurring vendors are eventually subject to review and one-time or atypical professional services/subcontractor costs are reviewed. • Criteria for supporting documentation requirements and the level of documentation support necessary to verify that cost are related to NJNG work. NJNG should drill down to a sufficient level to understand the nature of the charges and whether they were NJNG-related. For example, a summary level invoice from an office supply or hardware store that provides no detail on the items purchased or even the locations of the store is insufficient supporting documentation. Similarly a monthly insurance invoice providing a lump sum amount but no listing of covered employees is insufficient to ensure all costs should be charged to NJNG. • Criteria for and categories of allowable and disallowable Alliance contractor costs. Allowed categories of costs should be consistent with NJNG policies, laws, Internal Revenue Service (IRS), Generally Accepted Accounting Principles (GAAP) and other applicable state and federal regulations. Disallowed cost categories should be communicated to the Alliance contractors, who should discontinue charging these costs. Items to be considered include types of allowed vehicles or vehicle allowance amounts, charitable donations, dues and subscriptions, memberships, certain categories of entertainment expenses, meal policies, flowers, and upgrades to facilities that may benefit companies other than just NJNG.
XII	61. Consistently Track all Alliance Agreement performance measures.
Human Resources	
XIII	62. Continue to examine benefit costs and take steps as appropriate to bring benefits in line with other utilities.
XIII	63. Develop a more robust succession planning process that includes succession plans for all executive-level and key management positions and appropriate plans to back fill their positions. Develop more formal training and development plans for identified personnel.
XIII	64. Improve processes for monitoring and minimizing leave and other non-productive time, to increase efficiencies and reduce non-productive time. Continue to monitor for abuse and other trends. Pursue automated systems for Family Medical Leave Act (FMLA) and other leave processing and tracking (in process).
Customer Service	
XIV	65. Track and report BPU and Executive complaint response times.
XIV	66. Perform a detailed assessment of meter reader staffing levels and the relative costs and benefits of further Automated Meter Reading (AMR) deployment.
XIV	67. Develop targets to assess NJNG's performance against reported billing metrics.
XIV	68. Include an explanation of the conversion factors from hundreds of cubic feet (CCF) to British Thermal Units (BTU) on the back of the customer bill.
XIV	69. Include the State recommended disclosure, "Under applicable tax law, the State sales and use tax, corporate business tax, and Transitional Energy Facility Assessment are imposed upon the energy which you have used. To obtain the exact amount of tax included in your billing, please contact the utility at the telephone number listed on your bill", on the customer bill.
XIV	70. Perform a detailed cost-benefit/economic justification analysis for the addition of more field collectors. At a minimum, the analysis should consider projected available workload, the full-loaded cost of the collector and the anticipated dollars collected. Add field collectors if anticipated benefits exceed costs.

Ch.	Recommendation
XIV	71. Develop a written action plan for addressing call center service levels. The plan should include consideration of the following: • Outsourcing (but not off-shoring) a portion of utility calls, after discussions with the BPU Staff. This would also provide potential benefit during emergencies as an outsourced call center may be able to respond more quickly to an increase in call volume. • Outsourcing NJRHS calls. • Improved forecasting and staffing (underway). • Use of cross trained personnel (likely from revenue cycle services) to answer phones during times of high call volume (e.g., Mondays, extreme weather, seasonal turn-ons/offs). • Part-time agents and work-at-home agents. • The call center issues noted in Conclusion 12 through training and process improvements. Note: NorthStar is not recommending the purchase or development of a new CIS/Billing System.
XIV	72. Closely monitor call handle times for NJNG and NJRHS. If NJRHS handles times prove to be materially longer than NJNG calls, the cost allocation methodology may need to be adjusted. NorthStar recognizes that under the current methodology, as long as the calls are classified correctly the longer NJRHS handle time may be offset by the fact that NJRHS currently pays for any "joint" calls.
XIV	73. Continue to reinforce separation between NJRHS and NJNG as it relates to the customer service function. Perform an analysis of the cost of outsourcing NJRHS calls. The analysis should consider the cost and staffing impact to NJNG in addition to NJRHS.
XIV	74. To avoid customer confusion, do not include NJRHS marketing materials in NJNG customer bills.
Clean Energy and Related Programs	
XV	None
Remediation Costs	
XVI	75. Require that remediation work by all contractors go through the competitive bid process specified in NJNG's procedures.
XVI	76. Develop a procedure for the selection of OECs that requires issuance of an RFP and a formal, documented comparison of the technical and cost attributes of proposals.
External Relations	
XVII	77. Develop a formal storm communications strategy that address the issues identified in the Superstorm Sandy Lessons Learned Report. The plan should continue to ensure that NJNG speaks with one voice during a major event, providing customers, employees, emergency responders, state and local officials, the media and other stakeholders with consistent, accurate, timely information. As part of the plan NJNG should explore the use of text messaging.
Support Services	
XVIII	78. Assign facilities and real estate management responsibilities within Energy Delivery Support Services. Policies, procedures and measures of effectiveness should be formally developed along with this reorganization.
XVIII	79. Use NJR/NJNG employee communications media to inform employees of relevant legal guidelines and issues.
XVIII	80. Implement a formalized and documented inventory management process which uses management reports to manage inventory including the following. • Stocking levels • Minimum ordering and stocking quantities • Blanket orders • Just in time ordering to improve costs. • Insure critical components do not run out.
XVIII	81. Develop a training program to ensure employees understand and adhere to the document management policies and retention schedules.
XVIII	82. Update the Corporate Retention policy to address the 2012 Internal Audit findings.

Ch.	Recommendation
XVIII	83. Implement a cohesive consolidated set of IT function policies, procedures, and operating controls including: • Help Desk • Systems development • Software selection • Testing.
XVIII	84. Formalize the annual review of IT requirements with stakeholders as part of the yearly planning exercise.
XVIII	85. Implement a formal asset management program including written asset management policies, procedures and technology refresh cycle.
XVIII	86. Develop a cohesive set of security policies and procedures, taking the collection of current documents and combining them into a policy and procedure manual covering all aspects of security.
XVIII	87. Consider addition of a resource with law enforcement background or additional training for the existing employee.

CHAPTER II. BACKGROUND AND AUDIT APPROACH

This audit provides a unique opportunity to gain valuable insight into NJNG's operations and management and the relationship with and transactions between NJNG, its parent and affiliates. The audit has been conducted in a constructive manner, characterized by frank and open discussion of findings, conclusions and recommendations. NorthStar's final report provides a comprehensive, independent and objective evaluation of current performance.

A. Background

New Jersey Resources (NJR)

NJR is a New Jersey corporation formed in 1981 pursuant to a corporate reorganization. It is an energy services holding company providing retail and wholesale energy services to customers in states from the Gulf Coast and Mid-Continent regions to the Appalachian and Northeast regions, the West Coast and Canada. NJR's subsidiaries and businesses are all non-regulated except NJNG and include:[2]

- NJNG, a local natural gas distribution company, provides regulated retail natural gas service to approximately 500,000 residential and commercial customers in central and northern New Jersey.

- NJR Service Corporation (NJRSC) provides the NJR family of subsidiaries with shared support services, including communications, financial, administrative, auditing, legal, human resources and technological expertise.

- NJR Clean Energy Ventures (NJRCEV) invests in, owns and operates renewable energy projects that generate clean power and provide low carbon energy solutions, including commercial and residential solar projects, as well as on-shore wind projects through a 19.9 percent ownership interest in OwnEnergy.

- NJR Energy Services (NJRES) provides wholesale energy services to customers in New Jersey, and in states from the Gulf Coast to New England, and Canada. NJRES maintains and transacts around a portfolio of physical assets consisting of natural gas storage and transportation contracts. It also provides wholesale energy management services to other energy companies and natural gas producers.

- NJR Retail Holdings (Retail Holdings) consolidates NJR's unregulated retail operations. Retail Holdings consists of the following wholly-owned subsidiaries:

  - NJR Home Services (NJRHS) provides home-appliance service, sales and installations to customers in Ocean, Monmouth, Morris and Middlesex counties,

[2] NJR 10-K Annual Report filed 11-29-2012 for the period ending 9-30-2012

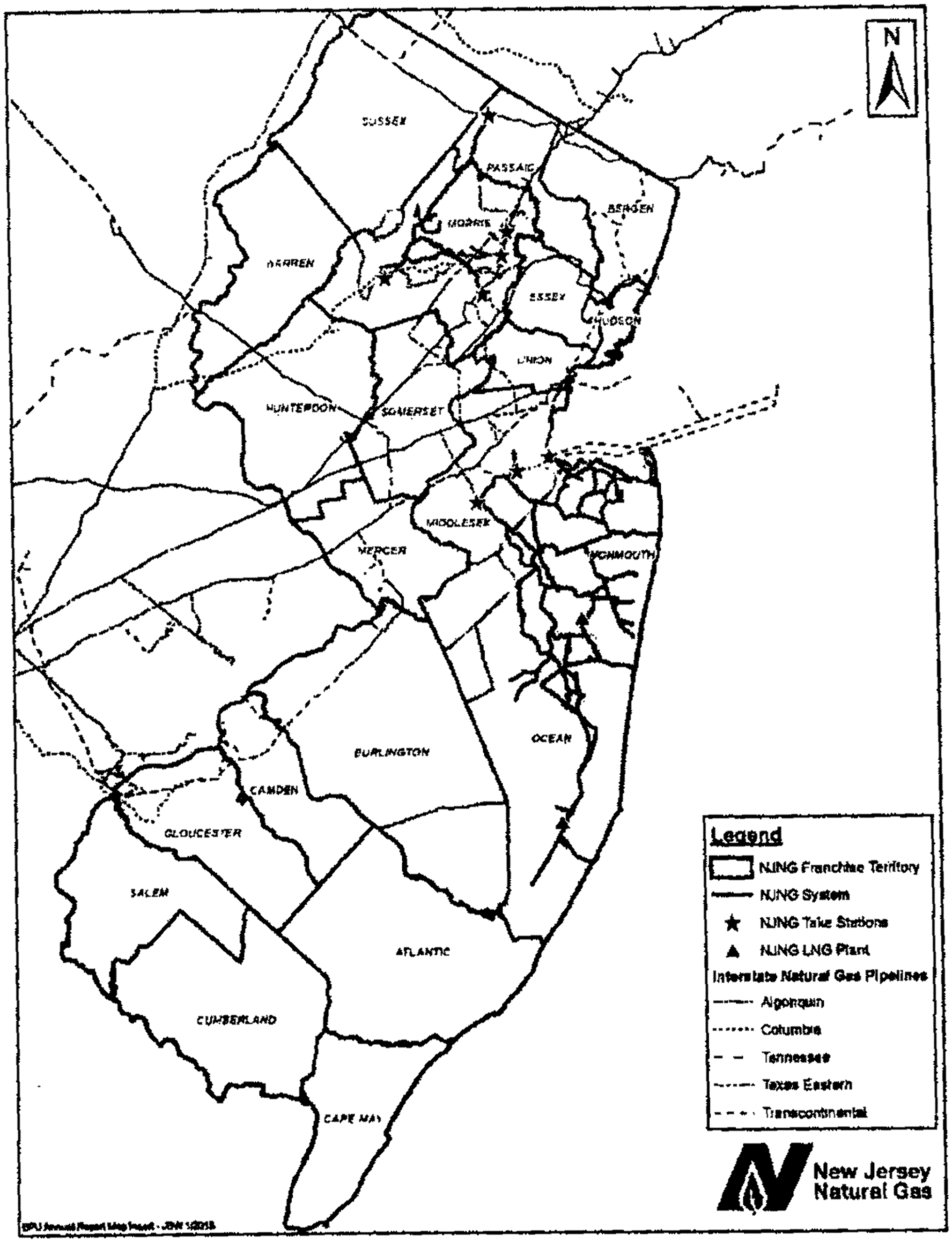
New Jersey. NJRHS offers comprehensive appliance service contracts and related products and services.
- NJR Plumbing Services (NJRPS) provides plumbing repair and installation services. NJRPS operates as part of NJRHS.
- Commercial Realty & Resources (CR&R) holds and develops commercial real estate.

- NJR Energy Investments (NJREI), consolidates NJR's unregulated energy-related investments. NJREI includes the following wholly-owned subsidiaries:
  - NJR Midstream Holdings Corporation (formerly NJR Energy Holdings Corporation). NJR Midstream primarily invests in energy-related ventures through its subsidiaries, NJR Steckman Ridge Storage Company, which holds NJR's 50 percent combined interest in Steckman Ridge, a natural gas storage facility and NJNR Pipeline Company, which holds NJR's 5.53 percent ownership interest in Iroquois. Steckman Ridge and Iroquois comprise NJR's Midstream segment (formerly Energy Holdings segment). On November 7, 2013, NJR Energy Holdings Corporation changed its name to NJR Midstream Holdings Corporation.
  - NJR Investment makes and holds certain energy-related investments, primarily through equity instruments of public companies.
  - NJR Energy Corporation (NJR Energy) invests in energy-related ventures.

NJNG

NJNG is a local natural gas distribution company that provides regulated retail natural gas service to approximately 500,000 residential and commercial customers in central and northern New Jersey. NJNG supplies approximately 50 million dekatherms (dths) of gas annually to its Basic Gas Supply Services (BGSS) sales customers. NJNG transports an additional 10 million dths each year for aggregation and large commercial/industrial customers who have contracted for their gas supply through independent Third Party Suppliers (TPSs). NJNG owns approximately 6,860 miles of distribution main, 6,810 miles of service main, 228 miles of transmission main and approximately 519,000 service meters. Additionally, NJNG owns and operates two LNG storage plants in Stafford Township, Ocean County, and Howell Township, Monmouth County. **Exhibit II-1** (page following) provides an overview of NJNG's service territory.

Exhibit II-1
NJNG's Service Territory



Key Regulations

In February 1999, the New Jersey Legislature passed and Governor Whitman signed into law the Electric Discount and Energy Competition Act, N.J.S.A. 48:3-49 *et seq.* (EDECA), partially deregulating the electric and gas markets with the end goal of creating competition, giving consumers more choice, and reducing prices.

In response to EDECA, the BPU adopted the "Affiliate Relations, Fair Competition and Accounting Standards and Related Reporting Requirements" (Competitive Service Standards or Rules) that govern the interactions between the New Jersey utilities and their affiliated companies. These Rules were originally adopted by the Board pursuant to an Order dated March 15, 2000 in Docket No. EX99030182, and were codified in Chapter 4 "Energy Competition Standards" of the N.J.A.C. Title 14. The Affiliate Relations, Fair Competition and Accounting Standards and Related Reporting Requirements and the relevant sections of the N.J.A.C. are collectively referred to as the Competitive Service Statutes. The Statutes are designed to promote fair competition in retail markets where NJNG deals with its affiliates. Simply stated, NJNG's affiliates should not gain any unfair competitive advantage as a result of their relationship with NJNG. Key requirements are provided below.

Affiliate Relations, Fair Competition and Accounting Standards and Related Reporting Requirements (Competitive Service Standards)

The Competitive Service Standards set forth standards of conduct between an electric or gas public utility and a related competitive business segment (RCBS). In general terms, an RCBS is defined as any business venture of an electric or gas public utility or its public utility holding company (PUHC) including, but not limited to, functionally separate business units, joint ventures, and partnerships, that offers to provide or provides competitive services.[3] Competitive services are defined as any services the BPU has determined (or will determine) as competitive pursuant to Sections 8 or 10 of EDECA, and include electric generation services (Section 8) and the following service related to gas industry deregulation (Section 10):

1) Metering, billing and related administrative services that are deemed competitive by the BPU;
2) Services related to safety and reliability of utility businesses;
3) Competitive services that have been offered by any electric or gas public utility since prior to January 1, 1993 or that have been approved by the board prior to the effective date of EDECA to be offered by any electric public utility or gas public utility;
4) Services that are substantially similar to competitive services that are permitted; and,
5) Competitive services to non-residential customers using utility employees and assets.[4]

A gas public utility or an RCBS of that gas public utility may provide other services that are offered for nominal or no consideration to existing non-residential customers in the ordinary course of business. A gas public utility shall not offer any competitive service to retail customers without the express prior written approval of the BPU. The BPU may require that a gas public utility file and maintain tariffs for competitive services, which tariffs shall be subject to review and approval by the BPU.[5]

- Section 1 of the Standards establishes the scope of the Affiliate Rules. Section 2 provides definitions of terms used.

[3] Competitive Service Standards, Section 2
[4] EDECA Section 10
[5] EDECA Section 10

- Sections 3 through 5 set forth standards related to non-discrimination, information disclosure and separation.

- Section 6 sets forth standards related to competitive products and services offered by a utility or an RCBS.

- Sections 7 through 9 address regulatory oversight, dispute resolution, violations and penalties.

In implementing the Standards, the Board reserved the right to promulgate any additional interim standards as may be required to effectuate the intent of the Act.

The standards provide for a limited exemption. A New Jersey electric and/or gas public utility, which is also a multi-state electric and/or gas public utility and subject to the jurisdiction of other state or federal regulatory commissions, may file an application, requesting a limited exemption from these standards or part(s) thereof, for transactions between the electric or/gas public utility and its affiliate(s) solely in its role of serving its jurisdictional areas wholly outside of New Jersey. The applicant has the burden of proof to establish the appropriateness of the requested exemption.

New Jersey Administrative Code

The Standards were codified in N.J.A.C. Title 14, Chapter 4. Key regulations are summarized below.

N.J.A.C. 14:4-3 addresses affiliate relations:

- N.J.A.C. 14:4-3.3 through 3.5 set forth standards of conduct applicable to transactions between an electric public utility or gas public utility, including an RCBS of an electric or gas public utility, and an RCBS of the electric or gas PUHC providing or offering competitive services to retail customers in New Jersey or the PUHC itself providing or offering competitive services to retail customers in New Jersey. Section 14:4-3.3 covers Non-Discrimination, Section 14:4-3.4 covers Information Disclosure and Section 14:4-3.5 addresses Separation.

- N.J.A.C. 14:4-3.6 (Utility RCBS Standards) sets forth standards of conduct applicable to electric and/or gas public utilities and the RCBS of each electric public utility and gas public utility, as well as the transactions, interactions and relations between an electric and/or gas public utility and an RCBS of an electric and/or gas public utility.

- N.J.A.C. 14:4-3.7 through 3.9 address regulatory oversight, dispute resolution and violations and penalties applicable to electric and/or gas public utilities regarding affiliate relations, fair competition, accounting standards and related reporting requirements.

N.J.A.C. 14-4 addresses PUHC Standards:[6]

- N.J.A.C. 14:4-4.5 (Service Agreements) contains substantive requirements concerning the Board's review and ratemaking treatment of service agreements between an electric or gas public utility and its PUHC system. The intent of this section is to ensure that service agreements between an electric or gas public utility and an affiliate in its PUHC system fairly allocate costs to ratepayers.

- N.J.A.C. 14:4-4.6 (Structural Separation) contains structural separation requirements. These requirements protect ratepayers and the State from abuses that could result when the interests of the electric or gas public utility are not entirely aligned with the interests of its PUHC system. This section also requires that each public utility maintain a distinct corporate identity, imposes independence requirements on certain utility directors and requires various information from an electric or gas public utility in order to facilitate effective Board oversight.

- N.J.A.C. 14:4-4.7 (Retail Choice Consumer Protection) contains operational separation requirements. These requirements are intended to protect ratepayers and the State from cross-subsidization between an electric or gas public utility and its PUHC system. The section allows the Board to implement restrictions if it finds that the capital of an electric or gas public utility may be impaired. This includes the authority to limit or stop payment of a dividend or a distribution to shareholders or the PUHC system. Additionally, it requires notice before either the transfer of more than five percent of the electric or gas public utility's retained earnings to its public utility holding company, or the declaration of a special or un-regular cash dividend. Finally, the provision restricts utility involvement in intra-holding company money pools.

B. Scope and Objectives

NorthStar was retained by the BPU to perform an audit of the Affiliated Transactions between NJNG and its affiliates and a Comprehensive Management Audit of NJNG in response to RFP 13-X-22139. The scope of the audit included fiscal years 2009-2013. The objectives of the audit were to assist the BPU in determining whether NJNG is in compliance with EDECA as specified in N.J.S.A. 48:3-49, N.J.S.A. 48:3-58 and N.J.A.C. 14:4-3 et seq. both in a retail and wholesale capacity, and the Board's Affiliate Standards, and to determine if the management practices, functions, operational procedures, and other internal workings of NJNG are effective. NorthStar fulfilled these objectives by:

- Examining the strategies, practices, programs and methodologies employed by NJNG to comply with the Act and the Standards.

- Evaluating the financial control and integrity, corporate accountability, degree of separation, and wholesale and retail transactions between NJNG and its affiliates.

[6] http://www.nj.gov/bpu/pdf/rules/Chapter%204%20Readoption%20Proposal%20-%20_21%20April%202011_%20COURTESY%20C.pdf

- Reviewing and evaluating NJNG's internal control system and processes.

- Assessing the effectiveness of NJNG's and NJR's organization, general management functions, policies, procedures, and practices, and identifying opportunities for improvement.

As part of the audit, NorthStar reviewed business and regulatory compliance strategies, competitive services offerings, affiliate transaction documentation, past audits, internal control processes, functions, organizational structure, performance and accountability in relation to the Act and other Board rules, regulations, and orders related to the provision of natural gas services. The audit assessed whether there is appropriate separation and allocation of revenues, costs, assets, risks, and functions, between NJNG's gas distribution operations and its related competitive business segments, and whether NJNG is managed in an effective and efficient manner. Specific areas addressed in the audit(s) included:

- Procurement strategies of the utility in relation to its affiliates.
- Holding company and affiliate activities and their effect on the utility and its ratepayers.
- The effect of utility/affiliate practices on market competitiveness.
- Utility/affiliate cost allocation methodologies.
- Implementation of previous audits and recommendations.
- Organizational and functional separation of the utility and affiliates.
- Executive management and corporate governance.
- Employment policies and procedures.
- Strategic planning.
- Corporate finance and cash management.
- Environmental issues and remediation costs.
- Distribution operations.
- Contractor performance.
- Accounting and property records.
- Customer service.
- External relations.
- Support services.

C. Methodology

NorthStar prides itself on performing independent and objective management audits for regulators. In this context, we planned and conducted the audit to maximize BPU Staff participation, and worked closely with the BPU project manager and NJNG throughout the engagement.

The affiliate and management audits were conducted concurrently, in three Phases discussed in additional detail below.

- Phase I. Orientation and Planning

- Phase II. Detailed Audit Investigation
- Phase III. Report Development

NorthStar's initial information request was submitted to NJNG on June 17, 2013 and its first site visit occurred the week of August 12, 2013. During the orientation and detailed audit investigation, NorthStar submitted over 700 information requests and conducted over 150 interviews, including follow-ups.

NorthStar's draft audit report was submitted to the BPU staff on March 3, 2014. Upon approval by the BPU Staff, on March 24, 2014, NorthStar submitted the draft report to NJNG requesting identification of confidential information and verification of the factual accuracy of the report. On April 11, 2014, NJNG identified the information it considered to be confidential, but indicated it would not provide factual verification, despite the subsequent urgings of NorthStar and the BPU Staff. NorthStar addressed NJNG's confidentiality concerns, and a revised draft report was submitted to the BPU Staff on May 12, 2014, absent the standard fact verification. The BPU Staff reviewed and approved the final confidentiality edits, and on May 26, 2014 the draft report was finalized. On May 27, 2014, the BPU Staff submitted the final draft report to NJNG. On June 24, 2014, a three-party meeting involving the BPU Staff, NorthStar and NJNG was held at the BPU's offices in Trenton, NJ, as the last step prior to finalizing the report. NJNG was told to come prepared to address any and all items of concern. No significant issues were raised during that meeting. On June 26, 2014, NorthStar prepared and submitted the Final Report to the BPU Staff.

Phase I. Orientation and Planning

The objectives of the first phase of the audit were to confirm our understanding of the audit objectives and scope and the BPU's expectations from the audit; finalize contractual, project management and other administrative matters; perform preliminary data collection; and develop and obtain approval of our detailed work plan which guided our activities during the remainder of the audit. Specifically, NorthStar:

- Met with BPU Staff to discuss any concerns regarding NJNG and any additional issues or areas to be considered, and further explore the Staff's objectives for the audit.
- Completed logistical and contractual arrangements with BPU Staff and NJNG. Specifics regarding project logistics, key contacts, interfaces, schedules and communications were established as well as agreement on protocols for the audit:
  - Procedures for requesting and tracking interviews and documents.
  - Working paper and documentation requirements.
  - Procedures for adhering to auditing standards.
  - Policies and procedures for treating confidential information.
  - Quality control and reporting procedures.
- Reviewed responses to our initial and subsequent information requests.

- Obtained an orientation presentation and conducted initial interviews.
- Prepared our final work plan and obtained BPU Staff approval. The work plan was submitted to the Staff and approved in mid-September 2013. The work plan included evaluative criteria, audit tasks, consultant assignments, hours, and a revised audit schedule.

Phase II. Detailed Audit Investigation

In this phase, the audit team performed its principal investigation, data collection and other technical review activities for each of the affiliate and management audit areas. In general, our audit tasks and activities included the following:

- Review of applicable New Jersey Statutes including the New Jersey Administrative Code, the Electric Discount and Energy Competition Act, the Affiliate Relations, Fair Competition and Accounting Standards and Related Reporting Requirements, and other applicable regulatory requirements.
- Review and analysis of documents and other data requested from NJNG.
- Direct observation of NJNG operations, including site visits and a tour of portions of the service territory affected by Superstorm Sandy.
- Interviews with NJNG, NJR and affiliate personnel.
- Review and testing of direct and allocated costs.
- Testing compliance with NJNG, industry and other standards and regulatory requirements.

In formulating conclusions, the audit team focused on substantive issues. NJNG's management practices were evaluated against existing rules and regulations as well as sound, generally accepted business practices. NorthStar applied a standard of reasonableness which regulators and courts have accepted in a wide range of evaluations of management performance, that is, one that does not require perfection, is not based on outcomes, and does not rely on hindsight.

The audit conclusions reflect areas where NJNG is appropriately managing as well as areas where improvement is required.

Phase III. Report Development

Upon completion of the audit field work and analyses, NorthStar prepared draft and final reports. A preliminary draft report was prepared and submitted to the BPU staff for review and comment on March 3, 2014. The report included an executive summary, a description of the audit process, and completed chapters that addressed each of the audit topic areas. Each of the technical chapters included a background, evaluative criteria, findings, conclusions and recommendations. The final report was submitted on June 26, 2014.

D. Organization of this Report

This report comprises 18 chapters, including an Executive Summary and this Chapter which provides an overview of NorthStar's approach to the audit.

The technical chapters are organized as follows. In general, the first series of Chapters (Chapters III-X) address areas of corporate focus or affiliate interest. The second series of Chapters (Chapters XI-XVIII) are more exclusively focused on NJNG's operations and associated support functions.

Corporate or Affiliate-Related

Chapter III.	Executive Management, Corporate Governance and Organization
Chapter IV.	Strategic Planning
Chapter V.	Affiliate Relationships
Chapter VI.	Accounting and Cost Allocation Methodologies
Chapter VII.	Market Conditions
Chapter VIII.	Gas Supply Procurement
Chapter IX.	Finance and Cash Management
Chapter X.	Previous Audit Recommendations

NJNG Operations and Support Functions

Chapter XI.	Distribution and Operations Management
Chapter XII.	Contractor Performance
Chapter XIII.	Human Resources
Chapter XIV.	Customer Service
Chapter XV.	Clean Energy and Related Programs
Chapter XVI.	MGP Remediation Costs
Chapter XVII.	External Relations
Chapter XVIII.	Support Services

Each of the RFP audit areas are addressed in this report. **Exhibit II-2** provides a mapping of the RFP area to the NorthStar Chapter in which it is covered.

Exhibit II-2
RFP Audit Area Coverage

RFP Area	NorthStar Chapter
3.1.1 Purchasing and Procurement Activities (Gas Supply)	VIII
3.1.2 Affiliate Relationships	V
3.1.3 Market Conditions	VII
3.1.4 Recommendations and Review of Previous Audit	X
3.1.5 Affiliate Cost Allocation Methodologies	VI
3.2.1 Executive Management and Corporate Governance	III
3.2.2 Organizational Structure	III
3.2.3 Human Resources	XIII
3.2.4 Strategic Planning	IV
3.2.5 Finance	IX

RFP Area	NorthStar Chapter
3.2.6 Cash Management	IX
3.2.7 Accounting and Property Records	VI
3.2.8 Customer Service	XIV
3.2.9 External Relations	XVII
3.2.10 Distribution and Operations Management	XI
3.2.11 Clean Energy	XV
3.2.12 Support Services	XVIII
3.2.13 Contractor Performance	XII
3.2.14 Remediation Costs	XVI