NORTHSTAR CONSULTING GROUP

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March 1, 2012

Ms. Jaclyn A. Brilling
Secretary
New York State Department of Public Service
3 Empire State Plaza
Albany, NY 12223-1350

Re: National Fuel Gas Distribution Corporation, Case number 11-G-0580

Dear Ms. Brilling:

NorthStar Consulting Group (NorthStar) is pleased to provide our proposal to the New York State Department of Public Service (Department) to perform a comprehensive management audit of National Fuel Gas Distribution Corporation.

> **Per New York State's Public Officer's Law §87(2) (c), we are requesting that the attached proposal be treated in its entirety as confidential information. We request such exception from public disclosure until the Public Service Commission selects a winning proposal for this investigation. Public disclosure of this proposal prior to selection by the Commission would impair present or imminent contract awards for this engagement.**

We have responded to your Request for Proposal (RFP) in all respects and our proposal is detailed as to the scope and approach to be employed during this engagement. As requested, NorthStar has provided our proposal in PDF to the Department of Public Service's Records Access Officer at recordsaccessofficer@dps.state.ny.us. In addition, we have provided an electronic copy of the cover letter *only* to the Project Manager and the Secretary of the Commission at secretary@dps.state.ny.us.

In the preparation of this proposal, we were guided by some key needs for this assignment. We briefly describe them to provide the underlying philosophy of our approach.

- We have taken particular care to assemble a senior team of professionals to conduct this audit. Our team has significant utility management audit experience.
- The approach, methodology and work plan is comprehensive, and designed to address the areas of work outlined in the RFP.
- We understand the Department's objectives and needs for this audit. We plan to keep the Department informed of our findings as we proceed.
- We are aware of and can meet the critical milestone dates and deliverables.

As evidenced by my signature below, I certify that:

- All the information in the proposal is accurate;
- NorthStar is committed and able to perform all the work contained in the proposal;
- NorthStar is in compliance with all RFP requirements; and
- The proposal is valid for 180 days from this date.

I will act as the primary contact for this proposal if you have any questions. My contact information is as follows:

Douglas A. Bennett
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The NorthStar project team is available to meet with the evaluation committee to elaborate on this proposal and to give you a better basis on which to judge our capabilities.

Yours truly,

Douglas A. Bennett

Managing Director

A PROPOSAL TO PERFORM A COMPREHENSIVE MANAGEMENT AUDIT OF NATIONAL FUEL GAS DISTRIBUTION CORPORATION

Submitted to the:

New York Public Service Commission

Three Empire State Plaza
Albany, NY 12223-1350

MARCH 1, 2012

NORTHSTAR CONSULTING GROUP

MANAGEMENT CONSULTANTS

NEW LONDON, NH • LAS VEGAS, NV • SANTA MARIA, CA

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I. INTRODUCTION

NorthStar Consulting Group (NorthStar) is pleased to respond to the January 19, 2012 Request for Proposal (RFP) from the New York Public Service Commission (PSC or Commission) to perform a Comprehensive Management Audit of National Fuel Gas Distribution Corporation (NFGDC).[1] Our proposal takes into account the specific requirements of the PSC, as expressed in the RFP, and our extensive knowledge of the gas utility industry. This section summarizes key aspects of our proposal to conduct the audit and provides the format for the remainder of our proposal.

A. PROPOSAL SUMMARY

The audit provides a unique opportunity for the PSC and the Department of Public Service (DPS) Staff to gain valuable insight about NFGDC's operations and management from objective third-party experts. We believe that the audit should be conducted in a constructive manner, characterized by frank and open discussion of findings, conclusions and recommendations. NorthStar's final report will provide an independent and objective evaluation of current performance, specifically with respect to NFGDC's construction program planning. Our report will detail our findings, provide recommendations for performance improvements, and quantify the expected costs and benefits of such recommendations.

Scope and Objectives

As indicated in the RFP, the audit scope is based on a framework of a series of elements or functions which can be viewed as a feedback loop. This framework begins with the element of "corporate mission, objectives, goals and planning" and ends with "performance and results measurement." The feedback loop typically facilitates changes and improvements that will result in better performance. In reviewing these elements, we would expect to evaluate the construction program feedback system. Our audit will assess NFGDC's efficiency and effectiveness in meeting its performance goals and the extent to which there are opportunities for improvement.

This audit scope includes the following eight elements:

- Corporate mission, objectives, goals and planning (including a review of affiliate transactions)
- Load forecasting
- Supply procurement
- System planning
- Capital and operations and maintenance (O&M) budgeting
- Program and project planning and management

[1] Case 11-G-0580

- Work management
- Performance and results management.

The scope elements and their components are the major elements of the program feedback loop. The audit will address all of the areas specified in the RFP, as well as some additional evaluation areas NorthStar recommends based on its prior audit experience in order to perform a comprehensive review.

Project Approach

NorthStar views this audit as a unique opportunity to provide crucial support to the PSC and DPS in meeting the numerous internal and external challenges it faces in regulating NFGDC's operations. Our approach is designed to help assure that NFGDC is addressing strategic and operational concerns consistent with the needs of its New York State customers.

NorthStar will ensure that:

- All construction program planning issues which may affect NFGDC operations are being addressed in an effective manner;
- NFGDC's corporate mission(s), objectives, goals, planning and operations are consistent with customers' needs;
- Our final report provides detailed and practical recommendations that address strategic and operational issues facing NFGDC; and
- Our final report defines and quantifies the expected recommendation implementation costs and benefits, as appropriate.
- Our final report is well-documented, easy to understand, and will withstand public scrutiny.

Project Team

NorthStar is highly qualified to perform the management audit of NFGDC. Our Engagement Director and our Project Manager have a proven track record of delivering excellent results in other similar studies within the utility industry. They have managed numerous management reviews for various regulatory agencies throughout the country.

Our project team consists of experts in utility corporate governance, finance, strategic and operational issues, performance management, system planning, construction program/project management, and gas utility operations, including gas pipeline safety and reliability, who have substantial management audit experience. Five of the members of our team had major roles on our audit of Niagara Mohawk's (NMPC) electric operations for the PSC and five members had major roles on our more recent audit of Central Hudson Gas & Electric Company (Central Hudson) for the PSC. We are proposing a work plan requiring an estimated 2,460 professional staff hours to complete this project, at least seventy-five percent of which would be spent on site.

In addition to completing our projects within budget, we normally try to complete our projects ahead of the client's requested schedule. We believe that we have assembled the right team with the appropriate expertise and experience to perform the highest quality job in the proscribed time frame. Our anticipated start date, based on dates in the RFP, would be June 4, 2012. Based on that start date, we are prepared to submit our draft report to the DPS on or before February 25, 2013 and our final report by June 10, 2013.

B. ORGANIZATION OF THE PROPOSAL

This chapter has presented a brief summary of our proposal. The remaining sections of our proposal describe our preliminary work plan, firm and individual consultant experience, and our schedule and budget estimates. These chapters are organized as follows:

- **Chapter II – Scope and Objectives**, provides our understanding of the scope and objectives for this audit.

- **Chapter III – Approach, Methods, Procedures and Audit Management**, describes our approach and project management processes, and provides a discussion of project deliverables.

- **Chapter IV – Areas and Issues for Review**, provides our preliminary work plan which includes a list of areas to be reviewed including evaluative criteria and work tasks to be performed for each area.

- **Chapter V – Consulting Staff Organization**, provides the structure of the consulting team assignments and background of personnel proposed for the assignment.

- **Chapter VI – Schedules and Budgets**, itemizes professional staff fees and out-of pocket expenses, and provides our total not-to exceed cost to perform the audit. It also provides the elapsed time estimate for each task in the work plan and a complete project schedule.

- **Chapter VII – Experience and Qualifications**, describes NorthStar's history and provides a list of relevant projects with client names and references.

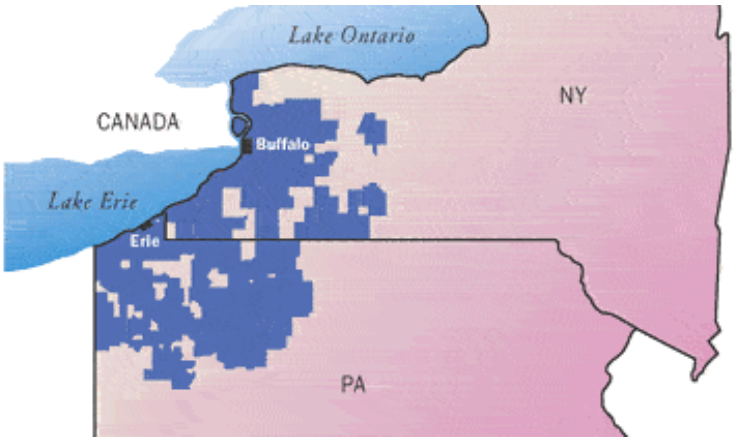
II. SCOPE AND OBJECTIVES

In this section, NorthStar provides background on NFGDC and confirms the scope and objectives of the management audit as noted in the RFP and the Audit Guide.

A. INTRODUCTION

NFGDC provides natural gas distribution service to approximately 407,000 retail customers and 106,000 transportation customers in western New York State, and an additional 324,000 total customers in Northwestern Pennsylvania. **Exhibit II-1** shows the utility's service territory in New York and Pennsylvania.[1] The largest metropolitan area served by the utility in New York is Buffalo.

Exhibit II-1
NFGDC Service Territory

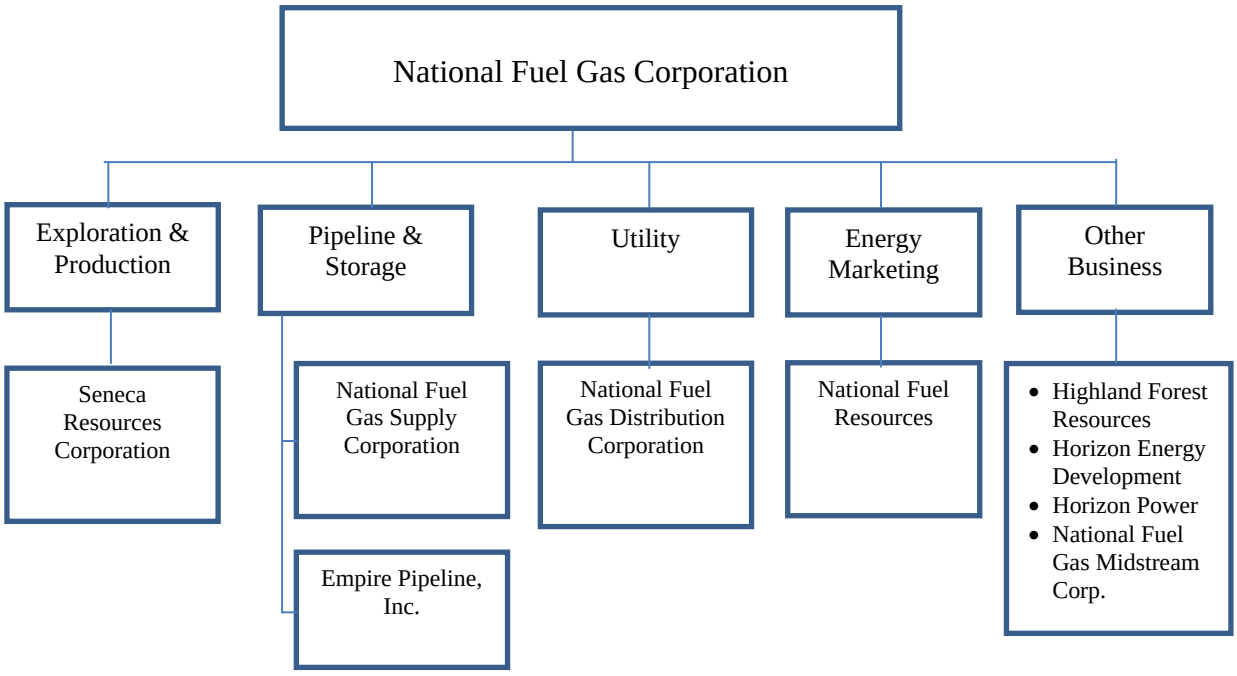


NFGDC is a wholly owned subsidiary of National Fuel Gas Company (NFGC), a utility holding company. NFGC is a diversified energy company with operations in exploration and production, pipeline and storage, and energy marketing business segments in addition to the regulated utility segment. NFGC identifies integration of its business segments as one of its strategic strengths, and calls NFGDC an important link in NFGC's vertically integrated chain of natural gas assets, proving a stable foundation and support for the dividend.[2] NFGC is governed by a ten-member Board of Directors, eight of which would be considered "outside" of the corporation. The Board includes seven Directors with natural gas distribution, pipeline and exploration experience, including the current and past Presidents of NFGC.

[1] National Fuel Gas website, accessed 2/1/2012
[2] NFGC Annual Report, p. 6.

Exhibit II-2 illustrates the business structure of NFGC.[3] The various business segments are described below.

Exhibit II-2
National Fuel Gas Corporation Organization



- Seneca Resources explores, develops, and produces oil and natural gas in Pennsylvania, California, and the shallow waters of the Gulf of Mexico. Seneca's main focus is on its extensive holdings in the Marcellus Shale resources in Pennsylvania, where it controls an estimated risked resource potential of between 8 and 15 trillion cubic feet of natural gas.

- The two pipeline companies – Natural Fuel Gas Supply Corporation (Supply Corporation) and Empire Pipeline – provide natural gas transportation and storage services through 2,878 miles of pipeline and 31 underground storage fields. These assets are located in central New York and southwestern Pennsylvania, and provide connections between the Canadian-United States border and the major demand centers of New York City and the East Coast.

- National Fuel Resources (NFR) markets natural gas to industrial, wholesale, commercial, public authority and residential customers primarily in western and central New York and northwestern Pennsylvania.

- Highland Forest Resources markets timber from Seneca's land holdings in Appalachia.

[3] NFGC, Financial and Statistical Report, 2010, unnumbered page i.

- Horizon Energy Development engages in various foreign and domestic energy projects. According the Corporation's 2010 Form 10K, a portion of Horizon Energy's European investments are being concluded or sold.

- Horizon Power operates landfill gas electric generation facilities.

- National Fuel Gas Midstream Corporation (Midstream) owns and operates natural gas processing and pipeline gathering facilities in Appalachia.[4]

As shown in **Exhibit II-3,** NFGDC provides 47 percent of NFGC's revenues and 29 percent of its net income. NFGDC constitutes 41 percent of the corporation's total assets, and received 12 percent of the corporation's capital expenditures in 2009.[5]

Exhibit II-3
NFGC Financial Summary
(Dollars in millions)

Business Segment	Revenue	Net Income	Capital Expenditures	Total Assets
Utility Operations	$ 819.8	$ 62.5	$ 58.0	$ 2,071.5
Exploration & Production	438.0	112.5	398.2	1,539.7
Pipeline & Storage	218.9	36.7	37.9	1,094.9
Energy Marketing	344.8	8.8	0.4	69.6
All Other	(61.0)	(1.5)	7.0	329.9
Total All Segments	**$ 1,760.5**	**$ 219.0**	**$ 501.5**	**$ 5,105.6**
Utility Percentage	**47%**	**29%**	**12%**	**41%**

New York comprises approximately 56 percent of NFGDC's sales customers and 66 percent of sales volumes.[6] NFGDC faces competition for gas sales from wholesale energy marketing firms and aggregators. While the greatest competition is for industrial and large commercial markets, NFGDC has lost approximately 20 percent of its New York residential customers to aggregators. The vast majority of transportation customers (97.5 percent) and transportation volumes (76 percent) are located in the New York service territory.

B. SCOPE

NorthStar's management audit will be comprehensive and thorough, and will focus on NFGDC's construction program planning, operational efficiency and performance, including reliability, as required by the Public Service Law, Section 66(19). The Public Service Law states "the audit shall include, but not be limited to, an investigation of the company's

[4] Collectively Highland Forest Resources, Horizon Energy Development, Horizon Power and Midstream represent approximately one percent of the corporation.
[5] Calculated from Financial and Statistical Report, 2010, pp. 6-7.
[6] Financial and Statistical Report, p. 20, and Gas Transportation Operating Manual, Version 2. 11, p. B-13.

construction program planning in relation to the needs of its customers for reliable service and an evaluation of the efficiency of the company's operations."

As indicated in the RFP, the audit scope is based on a framework of a series of elements or functions which can be viewed as a feedback loop. The elements, although generally sequential, require feedback from one or more of the latter elements to allow for revisions, adjustments, and other changes, over both the short- and long-term. This framework begins with the element of "corporate mission, objectives, goals and planning" and ends with "performance and results measurement." The "end" is actually the means by which the flow of the elements is connected to the first element. The feedback typically facilitates changes and improvements that will result in better performance.

This audit scope includes the following eight elements of the feedback loop:

- Corporate mission, objectives, goals and planning (including affiliate transactions)
- Load forecasting
- Supply procurement
- System planning
- Capital and O&M budgeting
- Program and project planning and management
- Work management
- Performance and results managment.

The scope elements and their components are the major elements of the construction program feedback loop. The audit scope is NFGDC's New York State gas business. In **Chapter IV – Audit Areas and Issues**, we provide our insights and initial scope of work for each of the eight elements. NorthStar is experienced in addressing the unique challenges associated with utility holding company ownership and understands the expectations and areas of concern of the DPS Staff, knowledge it has gained during its prior Commission audits.

C. OBJECTIVES

Generally, the objectives of this audit as identified in the Audit Guide are guided by the principle that process improvements lead to performance improvements. The objectives include:

- Identify specific opportunities as needed, for improving: planning, business processes and management practices, organizational design, staffing, operations and performance management.

- Identify specific opportunities, to improve performance, including operational efficiency and productivity, operational reliability, organizational effectiveness, cost savings, work quality, customer service, safety and other measurable elements.

- Develop recommendations, as needed, for implementing changes or undertaking the studies necessary to achieve performance improvements.

- Develop cost-benefit analyses and other applicable guidance for the implementation of improvement opportunities and recommendations.

- Receive a written report that meets the scope and objectives of the RFP, including factual findings, conclusions and recommendations.

This audit will assess NFGDC's effectiveness in meeting their mission, particularly with respect to meeting performance goals and the extent to which there are opportunities for improvement. In this regard, this audit will focus on construction program planning, operational efficiency and performance including reliability. Included within each element of the construction program feedback loop are components, issues, parameters, and questions. Within each element, the audit objective will address the following generic questions and issues:

- The purpose, mission, planning, goals and objectives, and strategies.

- Functions, processes (including inputs and outputs), practices and systems.

- Organizational design.

- Staffing, responsibilities, and accountabilities.

- Cost control/cost oversight.

- Efficiency and effectiveness.

- Results and performance including how the results are used.

- Opportunities for improvements, including "best practices" (based on past experience) that are appropriate to NFGDC's operating environment.

The components and issues for each element in the feedback loop as identified in the RFP are reviewed in detail in the **Chapter IV – Audit Areas and Issues**.

III. APPROACH, METHODS, PROCEDURES AND AUDIT MANAGEMENT

This section provides a discussion of NorthStar's general approach to management audits, and includes our initial interview and information request lists. Our approach is based on what we believe is the most efficient and effective means of completing the audit of NFGDC's New York State operations.

A. INTRODUCTION

NorthStar prides itself on performing independent and objective management audits for regulators. In this context, we plan and conduct our assignments to maximize client participation (the DPS Staff), and we will work closely with the DPS project manager throughout the engagement. We anticipate the Staff will participate in the orientation presentation and the interviews (either in-person of via teleconference), review and comment on the work plan, participate in routine telephone status updates, address and comment on any issues as they arise, participate in discussions regarding preliminary recommendations and cost-benefit analyses, and review and comment on the draft report.

To facilitate the interaction and dialogue among the audit team, the DPS Staff and NFGDC, our project manager will work closely with both the DPS and the NFGDC project managers to coordinate audit activities, and to schedule and conduct regular briefings and three-party meetings, as appropriate.

The RFP identified a time schedule for the consultant to issue a draft report in February, 2013. Our schedule presented in **Chapter VI – Schedules and Budgets** is designed to meet this deadline, assuming a start date of June 4, 2012. Our project team has the availability and commitment to meet this target. Our team has a history of bringing projects in on-time and on-budget. Our experience indicates that an audit of this magnitude is best performed when a rigorous time schedule is established and adhered to. It enhances the sense of urgency that an undertaking as complex and important as this audit be performed in an expeditious and timely manner, so that recommendations and cost-benefit analyses can be thoroughly explored. Attaining our schedule will require the full cooperation of both NFGDC and the DPS Staff.

To complete the work plan within that timeframe, we have developed an initial data request (**Exhibit III-1** end of this Chapter) that should be provided to NFGDC as soon as we are selected in order that it can make the responses available to us prior to the audit "kick off" presentation.

NorthStar will use a time-proven approach to perform this audit that will ensure the delivery of a high quality product in a cost-effective and timely manner. Our approach is designed to: promote a focus on the specific needs of the DPS Staff; rely on quantitative data to support findings; have open communication among the parties; adhere to generally

accepted auditing standards; and, thoroughly document our report findings in our work papers.

Our approach has the following characteristics:

- It will be performed by experienced consultants who have the appropriate combination of utility management audit, gas industry, and functional expertise and who have worked together on numerous previous assignments of a similar magnitude and complexity.

- It will maximize the value of input from the DPS Staff and NFGDC while minimizing the disruption of regular operations through our practice of scheduling interviews and other activities well in advance.

- It will eliminate surprises by keeping the DPS Staff and NFGDC informed of our activities, findings, and conclusions throughout the audit.

- It will base evaluations on demonstrated performance, and, when appropriate, qualitative and quantitative metrics.

Our approach has four phases:

- Phase I. Orientation and Planning
- Phase II. Technical Review
- Phase III: Cost-Benefit Analyses
- Phase IV. Report Development

Phase I. Orientation and Planning

The objectives in the first phase of the audit are as to confirm our understanding of the audit objectives and scope and the DPS' 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 will guide our activities during the remainder of the audit. We will also prepare follow-up data requests and request additional interviews as may be required. Work activities included in this phase are listed below.

- Complete logistical and contractual arrangements. The NorthStar project manager will meet with DPS Staff and the NFGDC project manager to complete logistical and contractual arrangements. Specifics regarding project logistics, key contacts, interfaces, schedules and communications will be established. We will also reach agreement on protocols for the audit, including, at a minimum, the following:

  - 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.

- Meet with Staff to discuss any concerns regarding NFGDC or NFGC and any additional issues or areas to be considered, and further explore the DPS Staff's objectives for the audit.

- Review responses to our initial document requests (**Exhibit III-1** end of Chapter). To facilitate the start of the review, we would expect NFGDC to have a complete set of all requested documents available prior to the kick-off meeting.

- Attend a NFGDC orientation presentation. To ensure that we have a detailed understanding of NFGDC's organization and operations we would ask that the appropriate NFGDC personnel make a presentation to our consulting team addressing the areas within the scope of the audit. The presentation should provide an overview of the organization, describe the relationships between the relevant NFGC entities, introduce NFGDC management, and discuss each of the key areas covered by the audit. We expect the orientation presentation to summarize key practices, systems, functions and results.

- Conduct initial interviews. Following the orientation presentation, we will initiate our interviews of key personnel. **Exhibit III-2** provides a list of initial interviews we would expect to conduct during the orientation. While this represents an initial request, it is likely that NorthStar will interview some individuals more than once regarding different topics and in order to obtain follow-up information and confirm our understanding of information provided during the audit. Additional personnel will likely be identified upon receipt of NFGDC organization charts.

Exhibit III-2
Initial Interview Request

No.	Interview Request Description – Position or Function	Approximate Timing
1.	Orientation Presentation	Orientation
2.	David F. Smith, CEO NFGC	Orientation
3.	Ronald J. Tanski, President and COO NFGC	Orientation
4.	Anna Marie Cellino, President NFGDC	Orientation
5.	Carl M. Carlotti, SVP NFGDC	Orientation
6.	Karen M. Camiolo, Controller, NFGDC	Orientation
7.	Richard E. Klein, Treasurer, NFGDC	Orientation
8.	David P. Bauer, Treasurer and Principal Financial Officer, NFGC	Orientation
9.	Bruce D. Heine, Vice President, NFGDC	Orientation
10.	Jay W. Lesch, Vice President, NFGDC	Orientation
11.	Sarah J. Mugel, Vice President and General Counsel, NFGDC	Orientation
12.	Steven Wagner, Vice President, NFGDC	Orientation
13.	Ann M. Wegrzyn, Vice President, NFGDC	Orientation
14.	Paula M. Ciprich, General Counsel and Secretary, NFGC	Orientation
15.	Head of Human Resource, NFGDC	Orientation
16.	Independent members of NFGDC's Board of Directors	Technical Review
17.	Independent members of NFGC's Board of Directors	Technical Review

- Schedule and conduct additional interviews and request and review additional documents.

- Analyze the information received obtained from our interviews and our document reviews. Issue additional data and interview requests required for Phase II.

- Prioritize audit requirements. We will assess audit risk exposures to prioritize our work and to determine areas in which sampling techniques will be employed. The risk assessment will be used to focus our activities on those activities most likely to result in reduced costs or improved performance.

- Prepare our draft work plan and obtain DPS Staff's approval of it. The work plan will include the results of the risk assessment; evaluative criteria; tasks, activities and other audit activities; consultant assignments and hours; and the schedule for each audit area. It will also identify any preliminary issues identified during Orientation, interviews to be conducted and documents to be reviewed. The work plan will be developed in conformance with the three-party agreement and submitted to the DPS project manager for approval prior to commencement of Phase II.

Phase II. Technical Review

In this phase, the audit team will perform its principal investigation, data collection and other technical review activities for each of the eight identified audit elements. Evaluative criteria and work activities which we would expect to perform in the technical review are provided in **Chapter IV – Areas and Issues for Review** for each element. These will be updated in the final work plan. Wherever possible, the audit team will seek to employ quantitative measures for evaluation. NFGDC's organization, operations management and financial management will be evaluated against industry "best practices." **Exhibit III-3** provides an example of a preferred practices checklist against which we would evaluate NFGDC management practices.

Exhibit III-3
Preferred Practices Checklist: Corporate Planning

No.	NorthStar Preferred Practices	Yes	No
1	Directed by the Executive Team and the CEO.		
2	Has significant senior management involvement.		
3	Reviewed and approved by the Board of Directors.		
4	Aligned with corporate vision/mission.		
5	Processes and responsibilities in the process are well-understood by key management personnel.		
6	Process assures appropriate bottom-up input.		
7	Addresses an appropriate and wide range of issues.		
8	Is responsive to dynamic changes in the operating environment.		
9	Includes detailed functional and departmental performance goals.		
10	Links goal attainment to incentive compensation.		

Our audit team will integrate and summarize information gained during this phase, confirm and validate information, and develop preliminary findings, conclusions and

recommendations to be included in our task reports and our draft report. In general, our work activities will include the following:

- Review and analysis of documents and other data to be requested from NFGDC.
- Interviews with NFGC and NFGDC personnel.
- Testing compliance with company, industry and other standards.

In formulating conclusions, the audit team will focus on substantive issues. NFGDC management practices will be evaluated against existing rules and regulations as well as sound, generally accepted business practices. We will apply 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 conclusions will reflect areas where NFGDC is appropriately managing as well as areas where improvement may be required. During this phase we will also begin collecting data to be used in quantifying the costs, benefits and potential savings or efficiency gains from our recommendations. Recommendations will be considered in terms of the relative implementation benefits.

Sampling Techniques

During the course of our work, we will select transactions, data, documents and other information for review. We expect that in some cases we will utilize sampling techniques to examine this data. When we use sampling techniques, our goal will be to select a sample of the population and make inferences from that sample. The two general approaches to audit sampling are statistical and non-statistical. Each of these approaches has the same basic requirements:

- Planning: When planning the audit sample, the relationship of the sample to the audit objective should be considered.
- Selection: Items should be selected so that the sample can be expected to be representative of the population and all items in the population have an opportunity to be selected.
- Evaluation: The results of the audit sample should be projected to the population from which the sample was selected.

No single audit sampling technique can be predicted, or is likely to be used, in all sampling situations for the audit. The specific sampling techniques we use will be based on the audit objective for each sample selected and the nature and availability of data for a population. During the audit, NorthStar will develop specific sample methodologies for our testing as appropriate.

Our selection of a representative sample of construction programs and projects that are completed and/or in progress will be based on the aforementioned approach to sampling. First, we will develop a profile of recently completed, in progress, and planned construction

projects. From this profile, we will select projects that, at a minimum, have the following characteristics:

- Provide significant overall dollar coverage.
- Reflect different types of projects.
- Reflect different-sized projects by dollar amount.
- Are performed in varying geographical locations by different organization groups.
- Provide a valid sample.

The sample of projects will be used to determine whether oversight and project management controls and processes are adequate and appropriate procedures are being followed.

Phase III. Cost-Benefit Analysis

During this phase we will work with NFGDC and the staff in the development of costs and savings projections. At 75 percent completion of the audit, the audit team will develop its preliminary findings, conclusions and recommendations. Preliminary recommendations will be provided to the DPS staff and NFGDC for discussion of general merit and applicability, the cost-benefit analysis approach, the various costs involved in implementation (one-time and recurring), anticipated benefits, potential impediments to implementation, and quantification data requirements. The recommendations may take a variety of forms. For example, they may identify specific accounting adjustments or changes in organizational structure, policies, processes, information systems and operating practices. Preliminary recommendations may be refined at this point, other recommendations may require additional studies in some areas to identify more specific opportunities and some may identify policy considerations for NFGDC and/or the DPS. Recommendations will address major performance improvement opportunities. Upon completion of the preliminary recommendations, NorthStar will prepare cost-benefit analyses for each of the proposed recommendations. This provides the requisite process structure and allows us to ensure recommendation are fully defined, realistic and can be implemented. Based on the results of the cost-benefit analyses, recommendations may be modified as appropriate to maximize benefits while providing adequate consideration of initial and ongoing implementation costs.

For those recommendations where the expected costs or benefits are difficult to quantify (e.g., having a member of the BOD that lives within the service territory) we will provide qualitative measures and expected benefits. In other areas the costs of implementation may be *de minimus* and therefore do not warrant a detailed cost-benefit analysis. Our cost-benefit analyses will include estimated implementation durations (months or years) and quantified dollar benefit and cost streams. The specific format for the cost-benefit analysis is detailed in **Chapter IV – Areas and Issues**.

Phase IV. Report Development

Upon completion of the cost-benefit analyses, NorthStar will prepare draft and final reports. A preliminary draft report will be prepared and submitted to the DPS project manager for review and comment. The report will include an executive summary, a

description of the audit process, and completed chapters that address each of the eight elements of the feedback loop. Each of these focused chapters will include an overview, evaluative criteria, findings, conclusions and recommendations, implementation quantification (cost-benefit analysis) and timeline, and a detailed narrative describing the applicable policies and management processes in sufficient detail to allow the reader to understand the reasoning behind each finding and conclusion. Assuming work begins by June 4, 2012, we will provide the draft report to the DPS Staff by February 25, 2013 unless other arrangements are made with the DPS project manager. Based on feedback from the DPS Staff, NorthStar will then prepare a revised draft report which will be submitted to the DPS project manager.

Upon authorization of the DPS project manager, NorthStar will submit the revised draft report to NFGDC for review of factual accuracy. We will work with the DPS Staff and NFGDC to ensure the factual accuracy of the information contained in our report, and audit conclusions will be supported and tied to specific facts and analyses. NorthStar will make modifications to address specific comments as it deems necessary, after consultation with Staff. The audit team may verify the facts in our revised draft report in three-party meetings with NFGDC and the DPS Staff to ensure accuracy and confirm that we have appropriately addressed major issues.

Upon completion of the fact verification, we will prepare a completely annotated copy of the final report containing all of the information supporting our recommendations. The final report will be written using terminology that will be meaningful to NFGDC management, DPS Staff and others generally familiar with the subject area. The report will be objective, comprehensive and conclusive. At a minimum, the report will address all of the audit elements identified in the RFP and present our investigation, and recommendations relating to the subject matter.

B. AUDIT MANAGEMENT

Cost, Schedule and Quality Control

Effective project management requires the development of a logical and efficient work plan that is clearly understood by the project team and the DPS Staff. The NorthStar project manager will closely manage the cost and schedule of this audit through careful planning and the use of proven project controls. The project manager will also coordinate activities among the project team to ensure interfaces between the various areas have been addressed, potential issues are surfaced and discussed, and that the final audit work product addresses the audit areas and evaluative criteria specified in the detailed work plan and meets the needs of the DPS Staff and the Commission. Project management activities will include:

- Establishing a workable set of administrative procedures covering:

    - Requesting, storing, and returning documentation and other information.
    - Scheduling interviews and documenting results.
    - Reporting project hours and expenses.

- Reporting progress and dealing with exceptions.

- Defining tasks to investigate thoroughly all audit areas.

- Specifying task dependencies so that interdependent tasks will be completed in the appropriate sequence to ensure that the flow of work builds to a cumulative body of knowledge rather than clusters of data with possible contrasting conclusions. Since several of the work activities in different task areas are related, work will be planned and scheduled to avoid duplication of effort.

- Defining protocols for interfacing with external parties, if any.

- Estimating staff hours and preparing schedules to complete each task.

- Facilitating discussions among the project team members and with the DPS Staff to ensure potential findings and conclusions are thoroughly explored.

- Monitoring work progress. To ensure that the audit is managed at all times, the project manager will carefully:

  - Review the work in progress including performing such quality control activities as attending interviews, reviewing analytical processes, testing conclusions, and checking the clarity and completeness of all written materials. This review will prove useful in helping the audit team place appropriate emphasis on issues important to the DPS.

  - Compare actual versus estimated hours and expenses by staff for each task defined in the work plan. Monthly progress reports will describe the audits status relative to the budget and schedule in each audit area. Any deviations from plan will be immediately identified and remediation activities will be defined. Careful monitoring of the costs and schedule is critical to ensuring delivery of projects on-time and within budget.

  - Make project plan adjustments based on the project progress to date, changes in project scope, or changes in priorities.

  - Establish and enforce documentation standards for audit work papers to ensure confidentiality, accuracy, completeness, and consistency.

- Reporting on project status. The project manager will provide monthly written reports, coordinate routine telephone status updates, and provide other informal updates as issues arise.

NorthStar strives for all our work products to be of the highest quality. Utility management audits are complex projects, involving many consultants and many separate tasks. While careful planning is an important task in an audit, we believe that the experience and organization of the project team is an important factor in determining the quality of the

final product. Three distinctive features of our proposed team and approach will ensure a quality product.

- The project manager and lead consultants are experienced utility management audit professionals.

- The NorthStar audit team will perform all work in a professional manner in accordance with *Government Auditing Standards July 2007 revision GAO-07 731G* (also known as the Yellow Book). NorthStar will also adhere to the American Institute of Certified Public Accountants' (AICPA) Code of Professional Conduct; the National Association of Regulatory Commissioners' *Consultant Standards and Ethics for the Performance of Management Analysis*; and "The Guide - A Guide for Consultants Submitting Proposals Management and Operations Audits" issued by the State of New York Department of Public Service on January 4, 2012. Adherence to these standards will provide the project controls and reporting standards necessary to perform the audit effectively and provide sufficient justification for all recommendations.

- The NorthStar project team has a demonstrated track record for producing quality products within schedule and budget limits. Members of the proposed audit team have successfully performed audits or similar projects in many states.

Communication

We believe that the audit should be a positive experience for NFGDC and the DPS Staff. In conducting the audit we will ensure that a spirit of cooperation is maintained among the three key parties involved – the DPS Staff, NFGDC, and our audit team. In conducting the audit, we will maintain a professional relationship with NFGDC personnel and DPS Staff. Our consulting team members are experienced in conducting studies on client premises and know how to minimize disruption to the client's normal operations. We plan interviews ahead of time, maintain our appointment schedules, and are sensitive to the normal demands placed on a manager's time during the business day. We expect that the project managers designated by the DPS and NFGDC will be the sole points of contact for NorthStar in any discussion with the DPS or NFGDC personnel regarding the audit process.

Team Meetings

Our audit team will meet internally on a periodic basis to discuss progress, address and challenges or issues that have been encountered during the course of the audit, exchange ideas, collaborate on areas or issues that touch multiple elements of the feedback loop, and to test and validate preliminary findings and recommendations. These meetings may be conducted in-person or via teleconference. In addition, to the extent practical, the NorthStar engagement director, project manager and consultants attempt to schedule their site visits concurrently to facilitate communication. Staff personnel are invited to participate in these discussions.

Client Communication

NorthStar expects the DPS Staff will be active participants in the review, and we look forward to working with them throughout the course of the audit. In this connection, we expect that Staff will likely wish to participate in interviews via conference call and we will facilitate that process. NorthStar expects that DPS Staff will attend selected interviews; review analytical procedures; discuss conclusions, recommendations and cost-benefit analyses; and will monitor the audit's progress as to scope, budget, work plans, and time. NorthStar will keep the Staff apprised of interview requests and scheduled dates, site visits and team meetings. We will also provide the DPS Project Manager with weekly interview and data request logs, access to all data responses, and written summaries of interviews as they are completed.

Monthly (or more frequent) briefings in person or by teleconference will be provided to the DPS project manager and DPS subject matter experts. At a minimum, these briefings will address the following:

- Summary of progress towards the objectives and schedules of the audit.
- Discussion of emerging issues, preliminary findings and likely conclusions.
- Review of challenges encountered to date.
- Discussion of open data or interview requests.
- Discussion of any modifications to the work plan or schedule which may be appropriate as a result of the challenges and/or preliminary findings and conclusions.
- Cost-benefit analyses and approach.

The briefing for each area will be provided by the lead consultant for that area, similar to the method we successfully employed on our audit of Central Hudson. NorthStar expects that each consultant assigned to a task area will frequently discuss his/her progress informally and directly with the DPS project manager or his designee. Issues will also be brought to the attention of the DPS project manager as they are identified.

On a monthly basis, NorthStar will provide the DPS Project Manager with a written progress report detailing activities performed, any issues identified and audit cost and schedule progress as described in Section C of this Chapter.

As indicated in our project schedule in **Chapter VI – Schedule and Budgets**, we will have a mid-point status meeting with DPS Staff the week of October 1-5, 2012 (mid-point of the audit), to discuss emerging issues.

Work Papers

NorthStar will maintain adequate documentation of report findings and conclusions to ensure that our work is factually based, that our findings and conclusions are supported by

relevant data, that our professional judgment, where applied, is differentiated from analytical results, and that the results of our audit are easily traceable to specific consultant efforts. In short, NorthStar will establish an "audit trail." NorthStar consultants are familiar with the need for such an audit trail. Our consultants' involvement in numerous proceedings that have called for providing expert witnesses for public testimony has sensitized them to the need to thoroughly investigate potential issues, ensure conclusions and recommendations are well-supported, and to correlate each statement in a report with the working papers and documents that support it.

In accordance with generally accepted auditing standards (GAAS), our work papers will be:

- Complete and accurate.
- Clear and easily understandable.
- Legible and neat.
- Relevant, i.e., "restricted to matters that are materially important and relevant to the objectives of the assignment."

C. DELIVERABLES

As part of the audit process, we will prepare and obtain a number of documents, working papers and reports that will be available during and upon completion of the project to the DPS Staff. These include the following:

- **Interview Documentation.** The project team will use a formal interview request form that will be provided as a record of our request and the topics to be covered in interviews. All interview requests will be assigned a unique number that will allow us to reference the interview in the final report. When possible, interviews with personnel will be requested at least ten working days in advance. Upon completion of each interview, we will prepare a formal interview summary including participants, conclusions and observations, data requests generated, issues identified, and follow-up required. The interview summaries will become part of our audit work papers.

- **Data Requests.** Throughout the audit, we will provide written requests for documents and other information. These document requests will clearly specify the information or documents needed and, if possible, the person most likely to have access to the document or information. All data requests will be assigned a unique number that will allow us to track the status of responses and reference the specific document in the final report.

- **Progress Reports.** To keep the DPS Staff apprised of audit progress, we expect to have frequent contacts and will provide periodic oral and written reports as requested by the DPS project manager. All such contacts will be documented and become part of the project work papers.

- **Emerging Issues/Conclusions Summaries.** Prior to the submission of our initial draft audit report for review by the PSC Staff, we will prepare written summaries of emerging issues. These summaries will be prepared at the mid-point of the audit.

- **Cost-Benefit Analyses.** NorthStar will prepare detailed cost-benefit analyses for its audit recommendations. The cost-benefit analyses will be initiated at 75 percent audit completion. We anticipate DPS and NFGDC personnel will be involved in this process.

- **Preliminary Draft Report.** A preliminary draft report will be developed covering the eight element task areas and submitted electronically to the Staff for review and comment. The report will be reviewed by the DPS Staff for adherence to the scope of the RFP and the work plan.

- **Revised Draft.** After revising the draft as appropriate based on Staff comments, the revised draft report will be reviewed by Staff before being provided to NFGDC for factual content and accuracy. NFGDC will provide its comments to NorthStar and Staff. We will then hold one or more three party meetings with NFGDC and Staff as necessary to discuss NFGDC's comments.

- **Final Draft Report.** This draft will reflect any factual corrections that NorthStar chooses to make, and will be submitted to the Staff for final review. The full report will describe each audit task area, our evaluative criteria, audit tasks performed, findings, conclusions, recommendations and cost-benefit analyses. The report will be a complete description of the results of our audit of the respective task areas. In preparing the final report, the only changes NorthStar will make to the final draft report will be in response to specific comments from the DPS Staff and/or NFGDC.

- **Final Report.** Upon release by the commission, generally following the Session at which it was considered, the final report will be a public document. Staff will determine when to release the final report. In accordance with the RFP, the report will be provided electronically.

- **Briefings.** Briefings to senior DPS staff and Commissioners and/or meetings with NFGDC's Board of Directors may be required upon submission of the final report.

- **Working Papers.** We will develop an organized set of work papers that will be the basis for our report. The report will be footnoted to these work papers as the source of its factual statements as well as the basis for its findings, conclusions and recommendations. If requested, we will provide a complete set of working papers, indexed and in orderly form upon completion of the audit. The working papers will include a copy of the work plan indicating the consultant who performed the work and date completed, and the documents, interview summaries and analysis supporting our findings and conclusions. All work papers, interview notes, statistical analyses, and other supporting documents developed or obtained during the course of the audit will be made available to Staff in an organized electronic format. We will maintain a data base of non-sensitive material received during the course of the audit to which DPS Staff will be given both on-site and off-site access.

- **Interviews and Site Visits Schedules.** A report of interviews and site visits scheduled for the following week will be issued weekly. At a minimum, this report will include the interviewee, interviewer, topic/area of focus, date, time and location. As this report is updated weekly, it will serve as a report on interviews conducted.

- **Person-Days Expended Report.** A monthly report of person-days expended by activity in each task area. This is a progress report relative to the calendar (time-line) schedule provided in **Chapter VI – Schedule and Budgets** and will show the original estimate, time spent during the current month and to-date, estimated time to complete, and percent completed.

- **Weekly Document Request Log.** This log will identify documents requested and date received.

D. TESTIMONY

At this point in time, it is uncertain whether testimony will need to be presented on the final report. Therefore, the not-to-exceed price outlined in **Chapter VI – Schedule and Budgets** does not include the activities associated with the preparation and presentation of testimony. However, NorthStar would prepare and present testimony on the final report, if requested. The project manager and/or lead consultants most familiar with the specific findings, conclusions and recommendations would prepare and provide the testimony. The number of witnesses would depend on the specific areas being addressed in testimony. Our billing rates would be the same as indicated in **Chapter VI – Schedule and Budgets**.

Exhibit III-1
Initial Document and Data Request

No.	Data Request Description
1.	Statements of corporate mission/vision, and goals and objectives for NFGC and NFGDC.
2.	Description of the overall corporate and utility planning processes, including how shared corporate services activities are included in the process.
3.	Most recent company strategic plan and strategic plans for NFGDC and for each of the NYS and Pennsylvania operating units.
4.	Current, detailed organization charts for NFGC and NFGDC showing all positions (including vacant positions) and current incumbents with as much information (location, position number and salary grade) on each position as is available.
5.	Description of any significant organizational changes that have occurred in the last five years.
6.	High-level organization charts showing the relationships and transactions between NFGDC, NFGC, and the various affiliated companies.
7.	Copies of service level agreements for the provision of services by NFGDC's New York operations to all affiliated entities to which it provides support services (and vice versa).
8.	Mission and function statements for each department and division within NFGDC and any current year operational plans for each department and division.
9.	Description of the overall corporate performance management process from strategic planning through business planning, budgeting, performance reporting, issues management, individual performance plans and evaluations and incentive compensation.
10.	Description of how the performance management system relates to workforce management and productivity.
11.	Description of all current and prior (last five years) improvement initiatives (process improvement, information technology, new tools or equipment).
12.	Description of any executive and non-executive incentive compensation systems.
13.	Copies of all consulting, benchmarking and best practices studies and surveys for the last five years for the corporation and each division and department, or other reports used by management to compare itself to other utilities.
14.	Biographies of all officers and Board members.
15.	List, composition, scope and charter for each management, project oversight and Board committee.
16.	Examples of all reports regularly distributed to top management, division and department manager, and the Board of Directors including dashboard screen shots and all scorecards.
17.	Audited financial reports for past five years.
18.	Copies of all audit reports, management letters, and management responses completed during the past three years (internal and external).
19.	Description of financial planning models currently used.
20.	List of key financial indicators used by management and five year trends of each.
21.	List of all regulatory service level or other performance standards/targets, including reliability standards, and five year trends (preferably in an open Excel spreadsheet) in each metric.
22.	List of Key Performance Indicators (KPIs) for the corporation and each division and department and the current target or control limits. For each KPI, provide five-year trends (preferably in an open Excel spreadsheet).
23.	Current capital and operating budgets, including all budget assumptions.

No.	Data Request Description
24.	Description of the capital and O&M budgeting process(es) including timeline, organizations involved and their respective roles, key inputs/assumptions, and any guidance given during budget development, and a description of capital and O&M budgeting systems.
25.	Five-year comparison, actual to budgeted operating expenses.
26.	Five-year comparison, actual to budgeted capital expenses.
27.	Copies of the most recent budget variance reports and explanations for each responsibility area.
28.	Description of budget and cost controls, and any associated procedures.
29.	List of planned construction projects including cost and timing for the next three years.
30.	List of construction projects completed in the last three years. The list should provide the final cost, the original cost estimate, subsequently approved estimates, the project start and complete dates for each project.
31.	List of ongoing construction projects. The list should provide the original cost estimate, subsequently approved estimates, the project start and expected complete dates and percent completion for each project.
32.	Description of the job classification program and compensation policies, procedures and ranges for each position.
33.	Description of all computer models and software systems used for system demand forecasting.
34.	Recent short- and long-range demand forecasts used for planning purposes for gas operations at the most detailed level developed.
35.	Comparison of demand forecasts to actual demand for past five years for gas operations, at the most detailed level developed.
36.	The most recent energy conservation plans and policies, including any metrics used to monitor achievement of savings and budgetary goals.
37.	Any system planning guidelines.
38.	Most recent and prior (five years) system plans.
39.	Risk management policy and most recent risk register or risk assessment report.
40.	Current policies and procedures for gas price hedging transactions, including last five years of price hedging strategy and implementation monitoring reports. If not included in the policy documents, identification of allowed and prohibited energy trading transactions.
41.	Description of each engineering system utilized, such as, GIS, AM/FM, CAD, etc.
42.	Description of each project management, maintenance management or work management system utilized.
43.	Description of each operations system used, such as, SCADA, computer aided dispatch, etc.
44.	Description of the process by which projects are prioritized, approved and funded.
45.	Copies of all project management and control procedures/manuals covering: project authorization, review and approval, authorization levels, fund appropriation, cost and schedule development and controls, status reporting, variance analyses and project closeout.
46.	Copies of all procedures and controls addressing the review and approval of projects that exceed initial budgets/estimates, and any thresholds for re-approval.
47.	Description of the contracting and contractor management process.
48.	Description of all quality control or assurance programs.
49.	Copy of equipment replacement procedures used to determine whether to repair or replace equipment.
50.	Documentation on project close-out, quality assurance, and post-audit feedback processes.
51.	Documentation relative to the decision-making process for selecting in-house crews versus outside contractors.

No.	Data Request Description
52.	Example copies of all workforce management relevant reports, particularly those that address availability, utilization, efficiency, productivity, quality and effectiveness.
53.	Monthly reports of productivity tracking systems.
54.	Amounts awarded to contractors for 2009, 2010 and 2011.
55.	Guidelines used to develop staffing requirements.
56.	Current supply plans for natural gas operations, including planned hedging operations, including any planned modifications or new contracts/supply sources.
57.	Summary descriptions of all contracts and other arrangements for capacity and supply for gas operations, including counterparty, volumes, timing/scheduling of delivery/usage, price terms, dates of original agreement and most recent amendments.
58.	Description of the gas supply planning and procurement processes, including systems used for the planning and procurement processes and identification of all departments and groups involved in front, middle, and back office activities. If not part of the standard procedure documentation, please provide representative copies of all execution and control documentation.
59.	All cost allocation manuals or procedures, including all approval and control procedures and systems involved in allocations and controls.
60.	Description of all cost allocation formulas/factors used by NFGC to allocate costs between operating units and legal entities, and five year trends in the allocation percentages for each factor
61.	Description of the processes used to directly charge and allocate costs across operating units and legal entities, including identification of all departments and groups involved in review, approval and control of cross charged expenditures (both capital and operating).
62.	Description of the processes used to budget for services provided by one operating unit to another operating unit, and to control actual expenditures against these budgeted amounts.

IV. AUDIT AREAS AND ISSUES

This chapter provides a detailed description of how the audit areas and issues will be examined by the NorthStar consulting team, and indicates the consultants assigned and our estimated level of effort for each audit area. The level of effort assigned to each audit area reflects NorthStar's assessment as to the complexity of the area and those areas which typically pose the greatest risk or provide the potential for significant improvements in performance or reductions in costs.

A. OVERVIEW AND AUDIT ELEMENTS

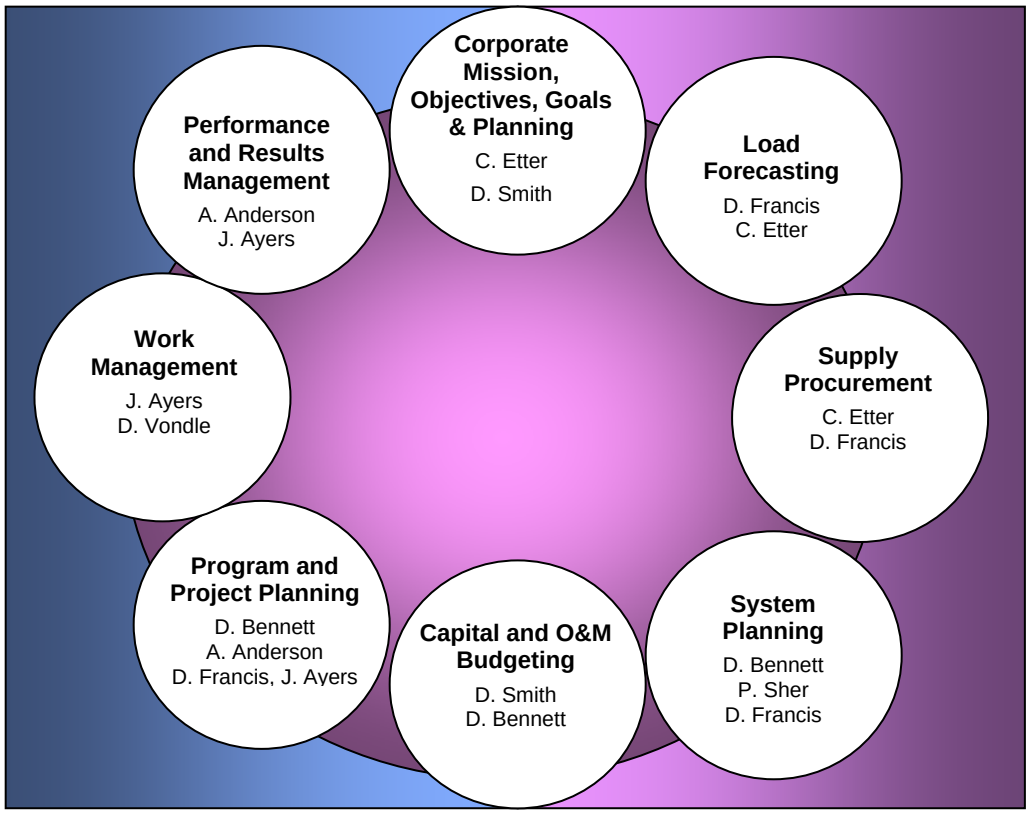
The audit will address the eight elements of the feedback loop described in the RFP and displayed in **Exhibit IV-1 (**page following). Collectively, these elements cover many of NFGDC's operations and touch many functional aspects of the company. Therefore, our review will require obtaining information from and observing many aspects of NFGDC's organization. The feedback loop typically facilitates changes and improvements that will result in better performance. The scope elements and their constituent parts are the major components of the construction program feedback loop. Examples of where weaknesses in the feedback loop elements may result in excessive costs and therefore increased rates to customers include:

- Poor estimating in the system planning element could result in the inefficient use of capital and labor resources, thereby unnecessarily increasing construction costs.
- Inaccurate load forecasting could cause the utility to reserve more gas or delivery capability at an increased cost to customers.
- Ineffective work management programs could result in poor utilization of employees or contractors, thereby increasing construction costs.
- Lack of an effective project prioritization scheme could result in the wrong capital projects being completed, potentially adversely affecting system reliability.

The audit will assess NFGDC's effectiveness in achieving its mission, particularly with respect to meeting its performance goals and the extent to which there are opportunities for improvement. In this regard, this audit will focus on NFGDC's construction program planning, operational efficiency and performance, including reliability. Included within each element of the construction program feedback loop are components, issues, parameters, and questions. Within each element, the audit objective will address the following generic questions and issues:

- The purpose, mission, planning, goals and objectives, and strategies
- Functions, processes (including inputs and outputs), practices and systems
- Organizational design
- Staffing, responsibilities, and accountabilities
- Cost control/cost oversight
- Efficiency and effectiveness
- Results and performance
- Opportunities for improvements, including "best practices" (based on NorthStar's past experience) that are appropriate to NFGDC's operating environment.

Exhibit IV-1
Elements of the Feedback Loop



Our proposal assigns specific process areas to individual consultants, as outlined in **Chapter V – Project Team and Responsibilities,** based on the specific expertise of the consultants. An estimated breakdown of the hours required and personnel associated with each element are provided at the end of this Chapter. Our proposed project organization is shown in **Exhibit V–1** in **Chapter V.**

B. PRELIMINARY ELEMENT AREA WORK PLANS

In this section, we provide the following for each element area:

- Perspective
- Assigned Consultants
- Phase II – Technical Review Consultant Hours
- Evaluative Criteria as identified in the RFP
- Additional NorthStar Evaluative Criteria to supplement those provided in the RFP
- Work Tasks

Exhibit III-1 provides an initial list of the documents and data we would review at the beginning of the audit and **Exhibit III-2** provides a list of initial interviews we intend to conduct.

Element No. 1: Corporate Mission, Objectives, Goals and Planning

Perspective

This task area addresses corporate governance and planning for the company as a whole as it relates to NFGDC's operations in New York State (NYS). It covers the corporate structure and function of NFGDC's senior management and Board of Directors (BOD), the strategic planning process, and senior management's ability to anticipate and respond to opportunities and problems. This task area also addresses relationships and transactions between the regulated operating utilities, the parent company, and affiliates not regulated by the NYPSC.

Corporate governance refers to the processes, systems and associated checks and balances by which a corporation is governed and controlled, and includes the relationships and potential conflicts in goals and activities between management, the BOD, shareholders, regulators, customers, and other stakeholders. An effective governance system typically has:

- An experienced and knowledgeable BOD with appropriate committees to provide effective oversight and direction.
- Top management with the right number of people with the right skills.
- An executive compensation system with appropriate checks and balances.
- An organizational structure, management focus and strategic direction that supports the successful attainment of the entity's mission.
- Effective communication among executives and the BOD on important business, legal and regulatory issues, and comprehensive reports on cost and performance results.
- A process for developing management talent and filling key positions with highly qualified individuals.

Corporate governance becomes more complex in a regulated utility environment. The governance structure must manage the potentially competing interests of investors, differing state regulations/regulators and ratepayers. Utilities must also balance the financing and operational needs of each of their individual regulated operating units with the needs of unregulated companies and activities. For utilities, the governance structure must also ensure adequate separation, accountability and oversight of each of the regulated utilities, independent of how the company manages day-to-day operations. Protection of utility ratepayers requires that unregulated operations do not adversely affect the capital and operating programs of the regulated utility or the cost and availability of outside financing. Each regulated utility should be viewed by its creditors and owners as a stand-alone company with a separate corporate identity and an appropriate capital structure *vis-á-vis* the parent. If unregulated activities are perceived by the financial community as negatively influencing cash flow and risk of the regulated activities, the cost of capital for regulated operations may be increased over what it would be in a "pure" regulated company.

The utility industry has an uneven track record relative to strategic planning activities. Some utilities have aggressively embraced strategic plans and the strategic planning process as integral to maintaining focus on both the immediate and long-term needs of their ratepayers and

shareholders. These utilities have developed a focused strategic direction that provides guidance for all decision-making, and a systematic process for monitoring progress towards attaining the entity's goals and meeting internal and external challenges and changes. Other utilities focus most of their planning efforts on near-term activities, with only occasional *ad hoc* exploration of new trends and challenges. For many of these utilities, their "strategic plan" is a financial budget. Further questions regarding the focus of future activities will elicit departmental tactical plans, with no clear linkage to one another or to a corporate strategic direction. While tactical/operational plans and budgets are necessary, they must be developed with and support the larger and longer-view company strategic direction. And, that strategic direction must itself be developed in context of and support the internal strengths and weaknesses, and outside factors influencing the company. Implementation of an integrated strategic planning and performance management program can provide overall guidance and focus to other corporate process and efficiency improvement projects, resulting in savings to ratepayers.

Based on our prior work in strategic planning, NorthStar has developed a matrix of "best practices" that we typically use to evaluate a company's strategic plans and planning processes (see **Exhibit IV-3** below).

Exhibit IV-3
NorthStar Strategic Planning Preferred Practice Checklist

NorthStar Preferred Practices	Yes	No
1. Directed by the CEO.		
2. Has significant senior management involvement.		
3. Reviewed and approved by the Board of Directors.		
4. Coordinated and monitored by dedicated resources.		
5. Processes and responsibilities are well-documented and understood by key management.		
6. Process assures appropriate bottom-up input.		
7. Addresses a wide range of issues.		
8. Is responsive to dynamic changes in the operating environment.		
9. Includes detailed functional and departmental performance goals.		
10. Links goal attainment to incentive compensation.		

NFGDC provides centralized services for regulated and non-regulated affiliates; however, it is not designated as a centralized service company under FERC rules and regulations to accumulate and distribute shared, or common, costs. NFGDC therefore does not file FERC Form 60 annual reports for centralized service companies and does not maintain a separate set of books and records and general ledger for this activity. NFGDC's Common Cost Allocation Manual filed with the New York PSC identifies the need to allocate administrative and general common costs that arise from "several departments within the New York jurisdiction of [NFGDC] that perform work that benefits or affects multiple subsidiaries" within NFGC: NFGDC, Supply Corporation, Seneca, NFR, Empire, and Midstream. Additionally production expenses are allocated between the New York and Pennsylvania divisions of NFGDC. The

percentage of costs allocated to the New York division vary based on the type of expenditure, but are approximately 70 percent of costs allocated to NFGDC in total.[1]

NFGC believes that integration of its business segments contributes to its financial success. This integration is seen in affiliate transactions reported in the corporate Form 10K. In particular, in 2009 NFGDC held contracts for 40.7 percent of the total firm storage capacity owned by Supply Corporation, and the utility accounted for approximately 50 percent of contracted transportation capacity on Supply Corporation pipelines. The percentage of pipeline capacity contracted to affiliates (NFGDC and NFR) was projected to increase 2.5 percentage points in 2011. NFGDC accounts for only 6.1 percent of Empire Pipeline's firm contracted capacity.[2]

Exhibit IV-2
NFGDC Operating Statistics Summary

Customer Segment	Number of Customers	Volumes (mcf)
New York Division Sales Customers		
Firm Residential Non-Heating	9,494	325,600
Firm Residential Heating	379,254	39,387,618
Commercial	18,276	5,128,913
Industrial	102	135,248
Interruptible	1	344,899
Total New York Sales Customers	**407,127**	**45,322,278**
Total Pennsylvania Sales Customers (est)	321,620	23,437,722
Total Sales Customers	**728,747**	**68,760,000**
Percent New York	*55.9%*	*65.9%*
New York Transport Customers		
Firm Residential Non-Heating (Aggregated)	1,440	43,024
Firm Residential Heating (Aggregated)	89,459	10,818,994
Commercial (Aggregated)	13,794	12,082,649
Industrial (Aggregated)	186	1,159,796
Large Volume Transportation	1,233	21,645,698
Total New York Transport Customers	**106,112**	**45,750,161**
Total Pennsylvania Transport Customers (est)	2,738	14,354,839
Total Transport Customers	**108,850**	**60,105,000**
Percent New York	*97.5%*	*76.1%*

NFGDC may purchase natural gas supply for its sales customers from Seneca Resources. However, those purchases comprise less than 10 percent of NFGDC's total annual gas purchases, because Seneca is not listed as a major supplier in NFGC's 10K for 2010. Because the NFR marketing territory overlaps the NFGDC service territory, NFR may market to NFGDC sales customers, although affiliate transaction requirements would limit any direct integration of NFGDC and NFR activities.

[11] National Fuel Gas Distribution Corporation, Common Cost allocation Guideline, filed January 3, 2012.
[2] Annual Report, p., 3.

The audit of NFGDC affiliate transactions will assess the extent to which managerial decision-making, organizational separation and operational controls are sufficient to protect NFGDC's NYS ratepayers from abuses such as cross-subsidization that could result from NFGC corporate interests.

Lead Consultant: **Carol Etter**
Consultants: **Darrell Smith**

Phase II – Technical Review Consultant Hours: 210

RFP Evaluative Criteria:

- Are the governance, organizational structure, missions and relationships within NFGDC appropriate, particularly as they relate to the construction program planning process?
- Are organizational responsibilities for planning priorities and budgeting allocations appropriate?
- Are the BOD and executive and senior management properly involved in the development of budgeting guidelines and periodic budget reviews and approvals?
- Are adequate controls in place to prevent affiliate transaction abuses (e.g., managing and controlling levels of services and costs of services provided by the various regulated and non-regulated operating entities and are the controls consistently applied?
- Are the factors established in the Cost Allocation Manual reasonable and based on causal factors?
- Are the methods used to price affiliate transactions consistently applied and do they result in reasonable costs to NYS ratepayers?
- Is the company permitted to utilize the most cost-effective means to procure goods or services or are they held captive customers of the affiliates?
- Is NFGDC paying an appropriate share of the parent company's costs and is employee time being fairly allocated?
- Are NFGDC's financial position and the level of rates factored into the budgeting process?
- Does NFGDC appropriately use measurable goals, metrics and key performance indicators to achieve the corporate mission and objectives, and is the performance improvement process handled effectively at successive levels of management? (See also performance management)
- Does the company comply with procedures and practices related to the scope of the audit, e.g., internal controls, internal audit function and the Sarbanes-Oxley Act (SOX)?

- Are management performance and compensation programs aligned with the corporate mission, objectives and goals at all organizational levels? (See also performance management)

- Has NFGDC developed an appropriate approach to competitive issues for new markets such as natural gas vehicles? What new markets are considered, how would the costs for entry into these markets be funded, and would NFGDC's entry into those markets help or hinder competition?

Additional NorthStar Evaluative Criteria

- Are the interests of NYS customers and ratepayers properly represented and addressed by the governance and organizational structure?

- Is the company's overall strategic planning process sufficiently comprehensive in its scope and development, and does it appropriately incorporate ratepayer needs and rate impacts?

- Is the company's strategic plan appropriately linked to operating plans and budgets, and is progress regularly reviewed, and appropriate adjustments made to plans and strategies to respond to internal and external environmental changes?

Work Tasks:

1. Evaluate the governance, organizational structure and relationships within and between NFGC, NFGDC and its affiliates.

2. Determine if NYS customer interests are appropriately represented and protected by the NFGC/NFGDC corporate structure.

    - Determine whether the decision-making processes are appropriate and protect the best interests of NYS ratepayers.

    - Identify any structural or process changes necessary to ensure that NYS ratepayer concerns are properly, effectively and efficiently addressed.

3. Evaluate the strategic planning process and the resulting plans from the past several years.

    - Determine if the strategic plans, operating objectives, goals and tactics are aligned with the overall corporate mission.

    - Determine the extent to which NYS ratepayer interests are considered and addressed in the planning process.

    - Assess whether key policies are aligned with the corporate mission.

    - Determine if the company's strategic plans are aligned with regulatory requirements (e.g., service reliability, financial considerations, energy efficiency, other demand-side management programs, customer services and communication requirements).

- Determine if the company's goals and objectives are reasonable and if they are generally achieved.

4. Review tactical business/operational plans and determine whether they are appropriate and align with the long-term strategy. Determine if these plans are consistent with NFGDC's strategic plans and if they are reviewed and updated periodically.

5. Determine whether the involvement of the BOD and executive and senior management in developing budgeting guidelines, performing periodic budget reviews, and approving budgets is appropriate. (See also budgeting)

6. Examine whether budgeting priorities and allocations among the regulated and non-regulated entities are appropriate and protect the interests of NYS ratepayers. (See also budgeting)

7. Determine if NFGDC uses measurable goals and key performance indicators to achieve the corporate mission and objectives and correct performance deficiencies, and how the performance process is handled by successive levels of management. (See also performance management)

8. Evaluate how management performance and compensation are aligned with the corporate mission, objectives and goals at all levels within the corporation. (See also performance management)

9. Evaluate NFGDC relative to NorthStar's corporate/strategic planning preferred practices checklist (Exhibit IV-3).

10. Review the system of controls in place to prevent affiliate transaction abuses and assess their adequacy.

    - Review existing service level agreements. Determine how service level targets are developed.

    - Identify all affiliate transactions between NFGC and NFGDC, and among NFGDC and its affiliate entities.

    - Evaluate controls to ensure costs are charged or allocated reasonably and to the appropriate entity.

    - Evaluate the process by which budgets for services provided to multiple operating entities are developed.

    - Determine whether there are there effective controls for managing and controlling levels of service and costs from support service functions between and among affiliate (regulated and non-regulated) entities.

11. Review the basis of the allocation factors used to spread costs to the affiliates, to determine whether they are based on cost causation factors or whether proxy data is used.

12. Determine how frequently the cost allocation factors are updated, and review the sources of data used for updating.

13. Review the methods and procedures for determining the costs charged between affiliates, including, for example, any use of outside bids for pricing and the inclusion of administrative and benefits overheads.

14. Determine if NFGDC is permitted to utilize the most cost-effective means to procure goods or services or if it is captive to its affiliates.

15. Evaluate the adequacy of compliance with various internal control policies and procedures for areas covered by the audit.

    - Review Internal Audit reports, SOX compliance documents, and other control policies and procedures for areas covered by the audit.

    - Interview the Internal Audit Director and the Chairman of the Audit Committee of the Board.

    - Review the independent auditors' recent management letters and reports regarding SOX compliance.

    - Examine activities undertaken to rectify any recommendations by internal or external auditors for process and control improvements in areas covered by this audit.

16. In coordination with other Work Elements, determine the degree of integration and coordination of the strategic plan(s), budgets, operational/tactical plans and physical system plans, and the extent to which they appropriately reflect regulatory constraints and are consistent with the corporate mission. (See also System Planning)

17. Compare performance to industry "best practices".

18. Prepare a task report for this element.

Element No. 2: Load Forecasting

Perspective

Load forecasts are a fundamental input to a number of strategic and planning considerations. The utility's forecasts for peak design day provide inputs to reliability considerations including transmission and distribution system design, required natural gas storage and pipeline capacity, and city-gate maximum daily send-out. The natural gas commodity sales forecasts provide inputs into supply planning, rate design, financial projections, and marketing programs. Accurate forecasts are critical to rate stability and reliability.

Modeling assumptions such as weather, price elasticity, and economic drivers are key inputs. Understatement of variables such as weather and economic conditions may result in underspecified infrastructure requirements or supply shortages. Overstatement of assumptions could result in unnecessary capital expenditures affecting rates. NorthStar's review of NFGDC's load forecasting activities will include not only the models and recent accuracy, but also the assumptions used to populate the models and sensitivity analyses conducted on those input assumptions.

NorthStar's recent experience indicates that load forecasts are often less accurate than optimal due to a number of factors, including:

- The forecasting models may not be robust or their technology may be outdated.
- The utility may not have region-specific forecasting processes.
- Meter data collection activities may be inadequate to support development of end-use modeling.
- Projected effects from energy efficiency initiatives may not be included in forecasts.
- The impacts on consumption of inter-fuel competition and resulting commodity price changes do not reflect current research.
- Incorporation of retail access trends may be based on outdated assumptions of consumer behavior.

Lead Consultant: **Dawn Francis**
Consultant: **Carol Etter**

Phase II – Technical Review Consultant Hours: 90

RFP Evaluative Criteria:

- Does NFGDC effectively and accurately use models, assumptions, key drivers and other inputs to forecast load and supply requirements?
- Are inputs, including demand response, energy efficiency, inter-fuel competition, and other similar factors given appropriate consideration in the forecasting process?
- Are forecasting functions organized and staffed appropriately?

Additional NorthStar Evaluative Criteria

- Does NFGDC have well-defined forecasting platforms including multiple forecasting horizons, appropriately segmented customer models, and sufficient data sources?
- Does NFGDC have access to and use best available data to support implementation of energy efficiency, demand response and other initiatives?
- Does NFGDC accurately account for the effects of retail access customers in their forecasting methodologies?
- Is the impact of supply price variations and increased supply options appropriately captured in the forecasting processes and models?
- Are the NFGDC system load forecasts accurate, and are deviations between the forecasts and actual experience investigated and promptly corrected?

- Is planning for meeting natural gas load appropriately integrated with NFGDC's overall business processes and strategies?

- Do the load forecasting functions/products meet the needs of finance and rates, supply procurement, regulatory compliance, system planning and other organizations within NFGDC? (See also corporate planning, system planning and supply procurement)

Work Tasks:

1. Assess the organization structure and staffing of forecasting activities.

2. Determine if the planning for gas load, including region-specific factors, is integrated with the overall business processes and strategies including financial projections, rate cases, customer marketing programs, system planning and supply procurement. (See also corporate planning, system planning and supply procurement)

3. Assess the manner in which load forecasting affects various strategic initiatives or provides substantial risk to NFGDC. (See also corporate planning)

4. Determine whether management processes ensure that all planning is based upon a set of common assumptions relating to demographics, economic conditions, financial capability and other factors which significantly affect the load forecast. (See also corporate planning)

5. Evaluate the performance of the models, inputs, and assumptions NFGDC uses to forecast load and supply requirements.

6. Assess the overall forecasting platform for types of models, data development, and application of models.

7. Review the use of planning models to support the development of load forecasts.

8. Determine if NFGDC employs current technology and modern methods for data gathering in the development of its load forecasts.

9. Review and evaluate NFGDC's load research data.

10. Determine the adequacy of the input data used and consider whether the models provide adequate capability to assess the effects of potential loss of load to alternative energy providers, conservation, price sensitivity and other variables across a broad range of possibilities.

    - Review the types and sources of weather data used in each of the forecasts.

    - Determine the adequacy of demographic assessments, appliance saturation studies, customer surveys, and elasticity of demand studies and similar information used in the development of load forecasts.

    - Determine how demand side management (demand response), energy efficiency and other conservation initiatives are considered in the forecasting process.

- Determine how NFGDC accounts for the effects of retail access in their forecasting methodologies.

11. Assess the extent to which inter-fuel competition and related price impacts are incorporated into the process.

12. Review sensitivity or impact analyses performed on the load forecasts.

13. Compare actual sales and load data with forecasts for selected years .

14. Compare NFGDC's performance to industry "best practices".

15. Prepare a Task Report for this area.

Element No. 3: Supply Procurement

Perspective

Assuring reliable, adequate, and best-cost natural gas supply for ratepayers, and addressing the supplier of last resort requirements that underlie retail access customers, requires ongoing monitoring of trends and market conditions, and balancing of risk and price factors. The combination of available suppliers and sources of supply have to be matched with available capacity and balanced against pricing considerations and risk factors. Supply must also match with demand, balancing the uncertainties of weather and the evolving market, and required reserves for unexpected events, without saddling the full-service ratepayers with high costs. Utilities across the country are taking a range of approaches to procurement and supply management, from maintaining all capabilities and activities within the company structure, to outsourcing essentially all procurement and management activities to third parties. FERC actions, and actions in neighboring regulatory bodies, can modify, open, or close gas supply and management opportunities.

The recent and ongoing development of the Marcellus Shale natural gas fields directly underlying NFGDC's service territory provides a new supply source for the company, and we would expect to see considerable attention by the gas procurement processes to this new supply source as part of a diverse supply portfolio. The extensive involvement by NFGDC's affiliated companies – Supply Company, Seneca and Empire – in the Marcellus Shale developments provides opportunities for the Company, but also requires NFGDC to closely monitor potential affiliate transaction factors and maintain arms-length relationship with these affiliate companies.

NorthStar does not believe there is one "best" way for a gas utility to manage its supply portfolio. Instead, it is important to look at the markets being served, the pipelines available to the utility, the regulatory guidelines relative to customers and severe weather, the pricing signals available, and the risk factors associated with the various options. Additionally, the large volume of gas provided through transportation and aggregation to customers within NFGDC's service territory – half of the flowing volumes – mandates careful consideration of supplier of last resort obligations set by the NYPSC, together with strong consideration of rates for transportation and aggregators to pay for the portion of assets and commitments used by those customers.

Like most natural gas utilities, NFGDC participates in various methods to mitigate the volatility of the prices of natural gas passed through to their ratepayers. Management of these financial and physical hedging activities requires a strong "Risk Management Policy" which includes all associated control practices. Senior management should be involved in policy development, oversight, hedge strategy and execution. The BOD should approve the Risk Management Policy, and the Audit Committee of the Board should oversee and review quarterly risk reports. A dedicated Risk Management function (which includes wholesale credit risk) should be independent from the supply procurement function.

Preventive controls that should be in place include trade documentation, trader authorization, financial product approval, and trade limits. Front, middle and back office activities should be segregated from the Risk Management function. Controls should include internal audit review, system-generated limit exception reports, accounting trade reconciliations, daily reconciliations, and voice recordings. Effective execution of trade control requires proper segregation of duties, appropriate software systems, reconciliation processes, trained staff and senior management support. The oversight process should ensure that an appropriate control environment exists, that industry leading practices are in place and that senior management is committed to having an effective hedge strategy. Improvements in a utility's supply procurement process can produce potentially significant savings.

Lead Consultant: **Carol Etter**
Consultant: **Dawn Francis**

Phase II – Technical Review Consultant Hours: 100

RFP Evaluative Criteria:

- Does NFGDC have appropriate supply portfolio principles, goals and objectives for mass market default customers?
- Does NFGDC have appropriate risk management strategies and practices?
- Does NFGDC have effective supply procurement strategies, policies, processes, and methods?
- Are the company's financial and physical hedging practices appropriate and effective?
- Does NFGDC use supply procurement performance benchmarking in an appropriate manner to improve and monitor procurement performance?
- Does NFGDC set achievable portfolio performance goals?
- Are the decision-making processes and the management structure adequate and effective with respect to portfolio oversight and control?
- Is the role of demand management, energy efficiency and migration of retail customers to competitive suppliers appropriately incorporated in the portfolio and procurement processes?

- Has NFGDC adequately considered the effects of increased local and regional gas production on supply and capacity procurement, including the role of development of the Marcellus Shale region?

- Do the Company's procurement policies and practices consider the impact of NFGDC's gas supply purchases on the overall gas supply and prices in the Niagara area markets?

Additional NorthStar Evaluative Criteria

- Are the organization structures for procurement activities appropriate and supportive of the groups' mission, goals and objectives?

- Do the front, middle, and back offices operate under clearly defined and segregated missions, exhibit sufficient independence from each other, support the making of decisions and transactions as required and in an arm's-length manner, and are they subject to periodic outside reviews of their effectiveness and integrity?

- Are supply procurement policies and procedures consistent with work requirements and supply procurement and marketing objectives?

- Does NFGDC have a well-defined supply procurement strategy that properly balances long-term and short-term considerations of cost and reliability of supply?

- Are the supply procurement processes sound and integrated with strategic and operational planning processes?

- Do financial and physical hedging practices benefit customers? Are hedging purchases made consistent with the hedging guidelines, and do they represent an appropriate balance of opportunistic and mechanistic or pre-set purchases?

- Does NFGDC appropriately incorporate impacts on ratepayers into their supply procurement planning and execution?

- Are NFGDC's day-ahead (short-term) forecasts sufficiently robust for supply nominations?

Work Tasks:

1. Review supply procurement strategies, policies, processes, and methods, including portfolio performance goals, oversight and controls.

2. Determine whether or not the current mix of long-term and short-term gas supply arrangements for NFGDC was established in accordance with a well-developed plan.

3. Determine whether or not the current mix of long-term and short-term gas supply and capacity arrangements adequately balance the consideration of cost and reliability of supply for gas mass market customers.

4. Determine if NFGDC has adequately considered the effects of increased local and regional gas production on supply and capacity procurement.

5. Review gas supply, transportation and storage transactions between NFGDC and its affiliated entities to assure they comply with company and regulatory affiliate transaction guidelines. Confirm that these transactions are arms-length and are comparable in price and terms to similar non-affiliated transactions.

6. Review the extent to which the development of local gas wells and the Marcellus Shale production has been incorporated into the Company's gas supply portfolio.

7. Determine whether the company has reviewed and revised its supply procurement strategies to address changes in competitive pricing and risk issues associated with current energy markets and policy trends.

8. Identify and evaluate risk management strategies and practices as they relate to supply procurement and price hedging activities and assess the implementation of the financial and physical hedging practices.

9. Assess the extent to which the Company's procurement policies and practices consider the impact of NFGDC's gas supply purchases on the overall gas supply and prices in the Niagara area markets.

10. Review the percent of the Niagara area natural gas market that NFGDC comprises.

11. Examine use of performance benchmarking in the procurement processes, including the use of metrics from other utilities.

12. Assess the role of demand response, energy efficiency and migration of retail customers to competitive suppliers in the portfolio and procurement processes.

13. Consider whether supply procurement strategies are adequately supported by the current organizational structure.

14. Assess the mechanisms used to monitor and measure performance of the supply procurement group and personnel, and determine if they are appropriate and result in sufficient controls and encouragement of process improvements. .

15. Evaluate whether there is a clear and definitive system of approval authority for both financial and physical supply procurement actions.

16. Evaluate the policies and procedures that control supply procurement-related activities, including short and long-term contracting, daily purchases, nominations of supply into the pipelines, execution of hedges, verification of purchases, settlement and billing activities.

17. Determine if the front, middle, and back offices operate under clearly defined and segregated missions, exhibit sufficient independence from each other, support the making of decisions and transactions as required and in an arm's-length manner, and are subject to periodic outside reviews of their effectiveness and integrity.

18. Determine if supply procurement policies and procedures are consistent with work requirements and supply procurement and marketing objectives.

19. Assess whether financial and physical hedging practices benefit customers. Verify that hedging purchases are made consistent with hedging guidelines, and that they represent an appropriate balance of opportunistic and mechanistic or pre-set purchases.

20. Determine if the company appropriately protects the short-term and long-term interests of their retail customers.

21. Evaluate the company's participation in FERC processes, including tracking of relevant cases, decisions regarding level of participation in cases, and monitoring of compliance with filing and notification dates for, for example, project participation, increase or decrease of capacity, required filings.

22. Determine if the load forecasts provide sufficient and appropriate information for projecting natural gas peak day, and whether short-term forecasts yield reliable results and are sufficiently robust for near term scheduling.

23. Compare performance to industry "best practices".

24. Prepare a Task Report for this area.

Element No. 4: System Planning

Perspective

The primary objectives of system planning are to satisfy load requirements while maintaining a high level of reliability at the lowest cost. Aging infrastructure, resource conservation, energy efficiency programs, and a decline in customers and sales due to economic slowdown and competitive alternative providers, increases the need for up-to-date, accurate and dynamic system planning. Over many years increasing demand and system growth provided a natural advantage for reliability enhancements. Recently, our experience indicates that declines in reliability are typically due to:

- Limited maintenance program funding and staffing.
- Maintenance that is largely corrective upon failure, rather than preventive.
- Aging infrastructure and under-funded capital programs that do not systematically replace old equipment and systems at a rate sufficient to avoid age-related failures.
- Low staffing levels in key work groups are unable to keep up with engineering, maintenance programs, capital programs and recordkeeping.
- Poor or inadequate management, organization, leadership and work processes.

Proper system planning integration should produce an optimal investment roadmap for all stakeholders, including ratepayers, natural gas producers, adjoining pipeline owners and the company. It should lead the utility in meeting its reliability, safety, and load objectives at the lowest overall cost.

The adequacy of system planning must be evaluated for the area as a whole in view of the pertinent reliability, regulatory, and load requirements. In addition to requiring sound integration of the planning process on a state-wide basis and at all delivery levels, it is also necessary to have seamless and up-to-date load forecasts that can be consistently applied in all investment decisions. A thorough, well-designed system plan is critical to making cost-effective decisions.

The plan should identify existing and potential system reliability deficiencies, estimate the likely cost of improvements and evaluate economic trade-offs. Effective system planning optimizes the cost of improved reliability.

Lead Consultant: **Doug Bennett**
Consultants: **Philip Sher, Dawn Francis**

Phase II – Technical Review Consultant Hours: 200

RFP Evaluative Criteria:

- Do the infrastructure planning and engineering functions operate effectively?
- Does NFGDC have appropriate priorities, guidance and other instructions for evaluations, tradeoffs and decision-making including:
  - Asset condition and management process
  - Using input from the asset health review process
  - Linking asset management decisions (e.g., predictive failure analyses) to improve reliability and performance?
- Does NFGDC develop accurate system forecasts which are used in identifying infrastructure requirements?
- Are other load and infrastructure factors such as advanced technology and energy efficiency initiatives given appropriate consideration in the planning process?
- Are the needs for major projects (e.g., gas lines) identified, developed and justified adequately?
- Are the processes and criteria for making decisions regarding replace vs. repair, including how the overall construction program planning process is affected, documented, adhered to and appropriate?
- Are the planning processes for reliability versus new business tradeoffs, and regional versus central planning dynamics appropriate?
- Are benefit/cost analyses and risk analysis considered in the decision-making process?
- Are the specific types of benefit/cost and risk analysis methodologies used appropriately?
- Are trade-offs optimized with respect to the replacement of older technology with newer technology and the resulting effect on the useful lives and depreciation assumptions of the existing infrastructure, cash flow and system reliability?

Additional NorthStar Evaluative Criteria

- Are load forecasts, resources, and distribution loads integrated and reconciled periodically?

- Does NFGDC appropriately analyze reliability benefits for their customers versus short- and long-term rate effects?

- Does NFGDC's long-term system planning function address land availability, right-of-way, land use and environmental siting constraints, and do they establish a context for future public interaction on specific projects?

Work Tasks:

1. Examine the development of forecasts for local networks and infrastructure requirements.

2. Evaluate planning processes and work products that focus on asset management, aging infrastructure, inspection/testing programs and their integration with system reliability issues.

3. Determine if demand forecasts, resources, transmission and distribution loads are integrated and reconciled periodically.

4. Assess NFGDC's integrated long-range plans and whether a system-wide work plan is developed.

5. Assess infrastructure planning and engineering functions:

    - Planning and engineering policies and procedures
    - Organizational structure and functions performed
    - Resource levels, work management and the ability to measure quality/performance
    - Interim and final work products and services
    - Workload quantification and backlog recognition
    - Departmental interfaces and coordination.

6. Assess how needs are developed for major projects (e.g., gas lines).

7. Review the process and criteria for making decisions regarding replace vs. repair, including how the overall construction program planning process is affected.

8. Determine the extent to which benefit/cost analyses and risk analysis are considered in the decision-making process. Examine the specific types of benefit/cost and risk analysis methodology being used.

9. Examine the methodologies used to prioritize capital improvement projects competing for limited resources including management guidance and other instructions for evaluations, trade-offs and decision-making.

10. Determine if other load and infrastructure factors, such as advanced technology, energy efficiency and conservation issues are considered in the planning process.

11. Determine how trade-offs are considered with respect to the replacement of older technology with newer technology and the resulting effects on the useful lives and depreciation assumptions of the existing infrastructure, cash flow and system reliability.

12. Determine if NFGDC adequately identifies reliability benefits for its customers relative to the short-term and long-term effects on rates.

13. Assess whether NFGDC's long-term system planning address land availability for rights-of-way and land use and environmental siting constraints, and whether they establish a context for future public interaction on specific projects.

14. Compare performance to industry "best practices".

15. Prepare a Task Report for this area.

Element No. 5: Capital & O&M Budgeting

Perspective

Capital and O&M budgeting processes and reports typically are separate, but closely related processes. Capital budgets are often driven from the top down by broad organizational needs such as customer and load growth and restrictions related to the capability of the utility to fund needed capital projects. O&M budgets are more often developed from the bottom up with recognition of the immediate physical needs of the system as well as long-term maintenance priorities. However, O&M budgets are often affected from the top by the same sort of funding restrictions that affect capital budgets. Because budgets are affected by both upper level and executive management and lower management, it is critical to review the roles of all levels involved in the budget development processes.

The review of budget processes must determine how and in what way needs-based information is incorporated. It must also determine what limitations on budgets are placed from the top down and the basis for these limitations. For example, are top-down restrictions based on predetermined profit margins and rates of return? In previous reviews of the capital and O&M budgeting processes at other utilities, NorthStar has identified weaknesses such as the following:

- Managers at inappropriate levels make decisions in the budget preparation process.
- Managers apply inconsistent rationale in decision making.
- Cost effective, efficiency improvements, and long-term maintenance priorities consistent with safety and reliability standards are deferred due to lack of capital.
- Decision-making criteria are not well-articulated or documented and are not consistently applied across all business units.
- The budgeting process does not have sufficient input from the bottom.
- The interface between workforce planning and the budgeting process is not clearly described and effectively implemented.
- Budgets and the related variance/management reporting processes are not consistent with operational plans or the implementation of those plans.

- Reports provided to managers are not useful in assisting managers to exercise their business responsibilities. Too often financial reports do not provide the appropriate detail and structure needed by operations managers.

Lead Consultant: **Darrell Smith**
Consultants: **Doug Bennett**

Phase II – Technical Review Consultant Hours: 180

RFP Evaluative Criteria:

- Are the roles and responsibilities of the BOD, and executive and senior management in the capital and O&M budgeting process appropriate and are they executed effectively?

- Does the BOD see and have access to a sufficient level of budget detail relative to its budgetary responsibilities?

- Is the construction/capital priority setting process balanced, consistent and appropriately executed from the top down?

- Are incremental O&M expenses associated with new construction factored into the budgeting process in an appropriate manner?

- Do allowed revenues/rates and financing opportunities or constraints adversely affect budget levels and priorities?

- Are relationships among planned/budgeted expenditures, rate case proposed expenditures, and actual expenditures appropriate?

- Is the capital budgeting process documented, adhered to, appropriate and effective?

  - Project authorization
  - Project appropriation
  - Increases/decreases to authorization and appropriation amounts
  - Capital budget status reporting
  - Validation in advance of appropriation
  - Funding controls and other elements of the process

- Does NFGDC use budgeting guidelines, practices and procedures, including "zero-based" and other alternative methods, effectively?

- Are the roles of and relationships between regional and centralized planning and budgeting functions appropriate?

- Does NFGDC have an effective methodology for prioritizing and approving capital projects?

- Does NFGDC use appropriate modeling software in the capital and O&M budgeting processes?

- Are capital budgets managed and controlled?

- Are bottom-up and top-down processes for developing budgets for capital/construction classifications and categories appropriate?

Additional NorthStar Evaluative Criteria

- Does NFGC corporate affect budgeting priorities and allocations within NFGDC in a positive manner?

- Are budget forecasts incorporated into rate case revenue requirements accurately?

- Does NFGDC have sufficient access to capital to support its capital programs?

- Are actual decision makers at appropriate levels?

- Are the rationale and criteria used to make budget decisions consistent across departments?

- Is the workforce plan consistent with the budget?

- Are the reports provided to managers clearly related to the budget and provide data that are helpful to managers in achieving budget goals?

- Does NFGC have a capital spending bias towards one state versus another, or between regulated and non-regulated affiliates?

Work Tasks:

1. Evaluate the respective roles and involvement of the BOD and executive and senior management in the budgeting process and determine if they are appropriate.

    - Determine whether the BOD gets involved in the capital and O&M budget processes at the right time and to the appropriate extent.

    - Determine if the BOD sees and has access to sufficient detail.

    - Determine if the BOD's responsibilities are documented and adhered to.

    - Determine if the BOD and executive and senior management are properly involved in the development of budgeting guidelines and management execution (e.g., investment priorities and allocations, periodic budget reviews and approvals) that are in the interest of NYS ratepayers.

    - Review the respective roles and responsibilities of any regional versus centralized planning and budgeting functions. (See also corporate mission and planning)

2. Assess whether the construction/capital priority setting process is balanced and appropriate. Evaluate NFGDC's methodology for prioritizing and determining which capital projects it approves.

3. Determine if organizational responsibilities for planning priorities and budgeting allocations are appropriate.

4. Determine if capital and O&M budgets effectively balance safety and reliability. Determine if repair versus replace decisions affect infrastructure/capital expenditures positively over the long-term.

5. Determine if cost-effective efficiency improvements are deferred due to lack of capital.

6. Determine if NFGDC has sufficient access to capital to implement cost-effective decisions.

7. Determine whether appropriate capital budgeting policies and procedures exist, are clearly documented and understood, and are adhered to. (See also Program and Project Management.) Procedures should address:

    - Project authorization and appropriation
    - Increases/decreases to authorization/appropriation amounts
    - Validation in advance of appropriation
    - Funding controls
    - Capital budget status reporting.

8. Review and assess NFGDC's budgeting processes.

    - Evaluate NFGDC's use of budgeting guidelines, practices and procedures, including "zero-based" and other alternative methods.

    - Review capital and O&M budgeting systems.

    - Evaluate the timing of the budget development.

    - Review guidance given to the various organizational units involved in developing the budget.

    - Determine if bottom-up and top-down processes for developing the budgets for capital/construction classifications and categories are appropriate.

    - Determine if the budgeting processes is consistent across functions within NFGDC.

    - Determine how capital and O&M budgets are integrated.

    - Determine how incremental O&M associated with new construction is factored into the budgeting process.

    - Evaluate whether decisions are made at appropriate levels.

9. Assess the annual process for reviewing and determining whether total planned capital and O&M expenditures are adequate.

10. Determine if allowed revenues/rates and financing opportunities or constraints adversely affect budget levels and priorities.

11. Determine if relationships among planned/budgeted expenditures, rate case proposed expenditures, and actual expenditures are appropriate.

12. Determine if budget forecasts are incorporated into rate case revenue requirements accurately.

13. Determine if expenditures are managed and controlled. (See also project management)

    - Review methodologies used to control and manage overall capital expenditures in the near-term and long-term.

    - Assess the effectiveness of cost control systems and processes from both a top-down and bottom-up perspective.

    - Determine if there are sufficient controls in place to ensure that increases and decreases to the construction budget/expenditures are justified and appropriately approved.

14. Determine whether reports available to managers are appropriate to assist them in achieving budget targets.

15. Evaluate whether workforce plans are prepared in a manner consistent with the approved budgets and whether these workforce plans are implemented as stated.

16. Compare performance to industry "best practices".

17. Prepare a Task Report for this area.

Element No. 6: Program and Project Planning and Management

Perspective

Program and project planning and management are of importance to executive management and regulators for many reasons, including:

- The potential adverse effects of poor project cost and schedule performance including overruns in cost and schedule;
- The possibility of management being poorly informed and caught off guard regarding project issues and events;
- Problems arising from technical and managerial limitations or insufficient staff resources for successful project completion;
- Pressure from the public or politics relative to project selection;
- The "hidden" cost of delays on customers who must forgo the benefits of late projects;
- The risks arising in general from a potentially litigious environment.

Early program and project planning includes the decisions and processes that shape a project and determine its success. Performing adequate analyses, establishing initial project work plans, and considering various risk factors are critical for successful project execution. Project risks and the process for prioritizing projects must be assessed to develop plans for financing and to identify potential resource requirements and limitations.

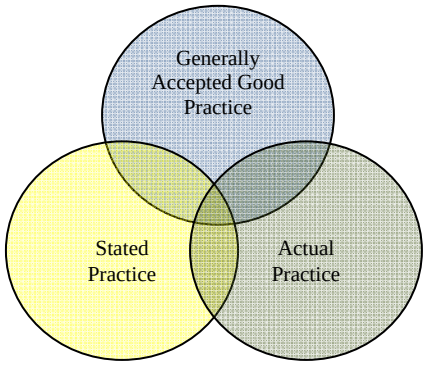
Capital projects are investments in the gas system to preserve assets, ensure or improve system reliability and safety, protect the environment, or expand operating efficiency or capacity. Project scope, budget, and schedule estimates provide the foundation for monitoring and controlling capital projects. While uncertainty is involved in any project estimate, identification of known requirements, particular areas of uncertainty, risk and complexity is fundamental to demonstrating feasibility, analysis of alternatives, and demonstration of project benefits.

The full implication of many project management decisions cannot be known until project completion. The review of program and project management capabilities must therefore focus on the management decision-making processes used to control construction costs, schedules and quality – as evidenced, for example, by organization and control mechanisms used and whether they are sound, adhered to, logical, and responsive to changing conditions. Fortunately, there are is a robust body of knowledge defining "generally recognized good practices" in portfolio, program, and project management. Among them are the following:

- 2007 Comparison of Construction Management and Program Management Costs, Construction Management Association of America
- Best Practices Procurement Manual, FTA, November 2001
- BSI PAS 55: 2008 Specification for the Optimized Management of Physical Assets, The Institute of Asset Management
- Business Process Change: A Guide for Business Managers & BPM (Business Process Management) & Six Sigma Professionals, 2nd Edition, 2007
- Construction Management Standards of Practice -- 2010 Edition; Construction Management Association of America (CMAA)
- Government Design-Bid-Build Work Breakdown Structure (WBS), Project Management Institute
- Guide to the Project Management Body of Knowledge (PMBOK® Guide), 4th Edition, Project Management Institute
- Organizational Project Management Maturity Model – 2nd Edition, Project Management Institute (PMI)
- PAS 55: 2008 Specification for the Optimized Management of Physical Assets Parts 1 and 2, British Standards Institution
- Project Management Institute Government Extension to the PMBOK Guide, 3rd Edition
- Standard for Program Management, 2nd Edition, Project Management Institute

Our approach would compare current written available procedures (stated practice), actual practice as documented in audits of representative projects, and good practices recommended by standard-setting organizations, as shown in **Exhibit IV-4**.

Exhibit IV-4
Best Practice Intersection



Lead Consultant: **Doug Bennett**
Consultants: **Angela Anderson, Dawn Francis**

Phase II – Technical Review Consultant Hours: 220

RFP Evaluative Criteria:

- Do capital and O&M plans and budgets convert to specific programs and projects in an effective manner?
- Are programs and projects prioritized and approved over various time horizons in a cost-effective manner? (See also System Planning)
- Are the program and project planning, design, estimating, engineering, costing, scheduling and execution functions well documented and performed to company and recognized standards for good practice?
- Are materials and equipment, transportation and other logistical support planned and managed effectively for programs and projects?
- Does NFGDC analyze trade-offs and make decisions in order to optimize the use of in-house workforce versus contractor labor?
- Are contractor and engineering bidding practices appropriate?
- Are construction contractor projects planned and managed effectively?
- Does NFGDC have effective quality assurance and quality control at the program and project level?
- Does NFGDC have effective contractor management and project/program management, including accountability, goals, objectives, and performance measurement?

- Does NFGDC have an effective methodology for tracking costs, work units and work quality for specific programs and projects?

- Does NFGDC routinely identify typical variances between original budgeted and actual capital expenditures and work units?

- Does NFGDC track and minimize variances in order to improve the cost control, efficiency/productivity and work quality?

Additional NorthStar Evaluative Criteria

- Does NFGDC use baseline scope, budget, and schedule for monitoring and controlling projects? How well have projects, programs, and portfolios performed? Are these results visible in a timely way for monitoring and controlling?

- Are risk analyses consistently performed, and are risk analysis procedures documented?

- Does NFGDC utilize a well-defined work breakdown structure to estimate, track and monitor project performance?

- Is the project work breakdown structure consistent between in-house, contracted projects and the utility's cost accounting systems?

- Are project estimates accurate and updated on a periodic basis?

- Is monitoring and controlling against project baselines for scope, budget, and schedule performed?

- Are project scope changes effectively controlled and communicated among participants?

- Are project change orders managed and controlled effectively?

- Are project quality control and technical requirements effectively communicated and transferred to contractors?

Work Tasks:

1. Assess how programs and projects are prioritized and approved over various time horizons in order to establish comprehensive work plans.

2. Review how capital and O&M plans and budgets convert to specific programs and project schedules.

3. Define and review program and project planning, design, estimating, engineering, costing, scheduling and execution.

4. Test a representative sample of capital projects (current and completed) to determine whether appropriate policies and procedures are being followed.

    - Interview Project Managers regarding project management and controls.

- Review projects and associated files against a checklist of requirements. A sample checklist is provided in **Exhibit IV-5**.

Exhibit IV-5
Preliminary Capital Project Checklist

Project Management Activity	Performed and Recorded	Performed Not Recorded or Poor Documen-tation	Not Performed
Projects are fully defined in terms of scope, functional requirements and relationships to existing infrastructure			
Execution schedules are planned along with system availability, interdependencies and completion requirements			
Activities are sequenced and the project schedule is confirmed in terms of resource requirements			
Project estimates are accurate and updated on a periodic basis			
A well-defined work breakdown structure is used to estimate, track and monitor project performance			
The project work breakdown structure is consistent between in-house, contracted projects and the utility's cost accounting systems			
Project contingency funds are appropriate and are managed and controlled effectively			
Project scope changes are effectively controlled and communicated among participants			
Project change orders are justified and controlled effectively			
Materials and equipment, transportation and other logistical support are planned and managed for programs and projects			
Variances are tracked and minimized in order to improve cost control, efficiency/productivity and work quality			
Project progress is tracked and reported in terms of cost, schedule and percent complete			
Project work quality is formally checked and recorded prior to acceptance			
Project completion activities such as engineering as-built drawings and closure to plant accounting are performed promptly			

- Follow-up with company personnel regarding any perceived deficiencies or missing file documentation to confirm receipt of all available information.

- Determine the cause of any budget overruns and schedule delays, and determine whether corrective action was taken.

- Identify opportunities to improve performance.

5. Review the rationale for resource decisions, and determine how tradeoffs are analyzed and decisions made in order to optimize the use of in-house workforce versus contractor labor. Procedures are defined for various delivery methods like Design-Build, Contractor-at-Risk, Design-Bid-Build, and Public Private Partnerships.

6. Examine contractor and engineering bidding processes.

7. Evaluate how contracted construction projects are planned and managed.

8. Examine contractor management and project program management processes, including accountability, goals, objectives, and performance measurement.

9. Determine if project quality control and technical requirements are effectively transferred to contractors.

10. Examine methodology for tracking costs, work units and work quality for specific programs and projects.

11. Determine if variances between original project budgets and actual capital expenditures and work units are justified.

12. Examine quality assurance and quality control at the program and project level.

13. Compare performance to industry "best practices".

14. Prepare a Task Report for this area.

Element No. 7: Work Management

Perspective

An effective work management program provides a utility with a net positive benefit that can be directly related to improved performance and significant cost savings for the following reasons:

- Work planning improves efficiency and effectiveness in the use of human resources.

- The utility is better able to align its workload with available resources and determine the optimum work force for each area or function, often translating into reductions in labor costs.

- Work management supports the budgeting process by identifying the workload requirements for planned activities. Work management also assists in the determination of the time frame for activities consistent with the utility's ability to finance the work.

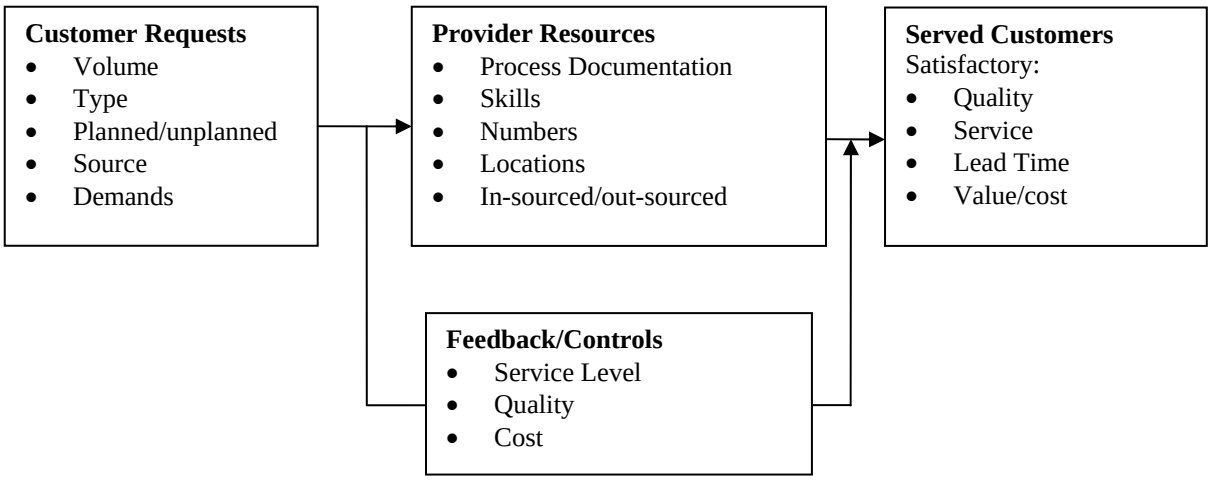
    - Employee utilization is improved because managers have the tools to monitor and direct resource distribution depending on the workload.
    - Efficiency is improved by getting more work or higher quality work done with the same number of people.
    - Effectiveness is improved by focusing available work-hours on higher priority tasks and delaying or eliminating less important or unnecessary work.

- Work management provides management the tools needed to benchmark its efforts against other utilities.

- Benchmark data developed from consistent reporting also gives management the information needed to negotiate with its union to define better work rules.

Many utilities still do not have a comprehensive and effective work management program. An appropriate work management system typically includes the following elements.

Exhibit IV-6
Typical Elements of a Work Management System



The figure depicts the situation faced in managing any front line work group and can be extended to most work groups. Customer/project requests (on the left) trigger the process. Workloads for different core services will vary in timing, whether they are planned or unplanned, their source, and the demands in terms of the need for provider resource numbers and skills.

Provider resources are people responsible for delivering the service. Managers need feedback/controls to monitor the process and adjust staff levels, make process changes, and measure effectiveness. The feedback should include customer satisfaction levels. Dimensions include quality, service, lead-time, value/cost, and other factors depending on the process. Managers should be able to evaluate whether a work unit is over or understaffed by the existence and effectiveness of management controls over the process as depicted in the figure.

Applying the model requires industrial engineering expertise to develop measures of work content and forecasts of expected volume. The result is ongoing resource management to satisfy customers. The models also assist in performing tradeoffs between costs and service levels.

The NorthStar project team has found that the implementation of a comprehensive work management system and lean process design can be useful in eliminating or minimizing a number of types of process "waste."

Exhibit IV-7 provides a list of process wastes that might be minimized.

Exhibit IV-7
Types of Process Waste

Type	Description/Examples
Over production	• Overstaffing • Failure to provide flexible capacity matched to workload fluctuations • Excessive number of paths for work requests entering the system • Too many points of contact
Waiting	• Often caused by interface problems or process defects at junctures between departments, sections, or individual employees • Queues resulting from operations/ workforce imbalances
Transportation	• Non-value adding activities • Complex or sub-optimized routing
Over processing	• Duplication in maintaining systems/information • Overlapping functions in a process • Non value-added levels of approval
Inventory	• Work backlogs, poor control of processes, and lack of visibility over process performance • Process delays • Unbalanced staffing along work processes – bottlenecks in process
Rework	• Multiple repeated processing cycles • Poor documentation of processes leading to variation • Unclear instructions to employees • Incomplete work request inputs
Motion	• Complicated process design • Poor training and assignments to process tasks
Waste of Resources	• Scheduling problems • Inflexible assignment capability (e.g., crew sizes, restrictive work rules) • Over-specialization in job classifications; lack of cross training • Excessive troubleshooting/too many follow up inquiries • Poor control and visibility over the process

Implementation of a work management system and the elimination of process inefficiencies can result in substantial productivity savings to utilities.

Lead Consultant: **Jim Ayers**
Consultant: **Dave Vondle**

Phase II – Technical Review Consultant Hours: 170

RFP Evaluative Criteria:

- Are programs and projects effectively converted into short-term and day-to-day work?
- Are projects executed in accordance with the plan?
- Are work management systems used effectively to schedule and manage field crews, including transportation, equipment, and materials?
- Are the roles and responsibilities of project managers, supervisors and inspectors defined and appropriate?

- Does NFGDC have effective quality assurance and quality control procedures and functions?

- Does NFGDC measure and manage employee availability, utilization, efficiency, productivity and effectiveness in an appropriate manner?

- Are work program and project schedules managed effectively on a day-to-day basis?

- Does information about rework, failures and repair history get translated into corrective actions, infrastructure aging analysis, and repair versus replace decisions in an effective and timely manner?

- Do the workforce and work management systems feed back into performance improvement opportunities? (See also performance management)

Additional NorthStar Evaluative Criteria

- Are appropriate methodologies and tools from standards or best practices used to design and continually improve processes? These include documentation of customer requirements and the associated service standards.

- Do process improvements reduce handoffs and provide accountability for execution? Are process designs for similar processes standard for different locations?

- Are enablers (e.g., systems, organization, training) and controls appropriate to manage and control the process?

- Are work measurement standards validated? Does NFGDC use measurements to manage its workforce?

- Are work schedules used and useful? Are the schedules at an appropriate level of detail?

- Are major workforce groups covered by work management systems to assign, execute, and control the work?

- Do excess work and process backlogs exist, and if so, does NFGDC have plans to eliminate them?

- Are assumptions documented when planning workforce requirements for new projects and continuous operations where history is inadequate to determine staffing levels?

- Does NFGDC have appropriate guidelines and procedures for contracting project or continuous work? Are the guidelines consistently utilized in practice?

- Is NFGDC's work force management practice consistent with its own stated procedures? Do stated procedures reflect best practices?

- Does NFGDC use process and project performance data as a basis for continuous improvement? Does it track improvement in processes and workforce performance?

- Has NFGDC established appropriate decision-making processes and controls to assure that staffing levels are adequate (both in numbers and skills) for both day-to-day operations and emergencies to meet customer service, service quality, safety and reliability standards?

Work Tasks:

1. Examine how planning and execution of programs and projects are converted into short-term and day-to-day work planning, task assignment, and control.

2. Document workforce planning and management tools and existing work management system(s) for selected areas, including:

   - Process documentation
   - Work measurement standards
   - Their function and use
   - Work groups/locations covered
   - Whether transportation, equipment, and materials are addressed and in an integrated manner
   - Measurement and control and frequency of update
   - Use in performance measurement; rewards and recognition; and process improvements.

3. Determine how work management systems are used to schedule and manage maintenance and construction crews, including transportation, equipment, and materials supply.

4. Determine whether work measurement standards are maintained appropriately and whether NFGDC uses the measurements to manage their workforces.

5. Review the roles and responsibilities of project managers, supervisors and inspectors.

6. Determine how NFGDC measures and manages employee availability, utilization, efficiency, productivity, and effectiveness.

7. Evaluate how work program and project schedules are managed on a day-to-day basis.

8. For a sample of key areas, determine if information about rework, failures and repair history gets translated into corrective actions, infrastructure aging analysis, and repair versus replace decisions.

9. Determine if workforce and work management systems feed back into performance improvement opportunities. (See also performance management)

10. Review staffing trends for the past five years by functional area.

11. Analyze existing data on key work backlogs by functional area and evaluate reasons for backlogs.

12. Review data on overtime in total, by functional area and by job classification.

13. Evaluate NFGDC's quality assurance and quality control functions.

14. Document existing decision-making processes and controls that set staffing levels (both in numbers and skills) for projects, day-to-day operations, and emergencies to meet customer service, service quality, and safety and reliability standards..

15. Determine if work schedules are practical and if the schedules are at an appropriate level of detail.

16. Compare performance to industry "best practices".

17. Prepare a Task Report for this area.

Element No. 8: Performance and Results Management

Perspective

Performance management is an ongoing process that consists of performance planning, measurement, review, feedback and corrective action. Key elements of performance management include performance monitoring and metrics, reporting and communication, and the design and implementation of an appropriate employee performance review process which links employee objectives and performance targets to achievement of overall corporate goals and objectives. Measures should be meaningful and appropriately linked to the organization's mission, objectives, and strategic and operational plans. Performance should be reviewed and adjusted in a timely manner.

Another important aspect of performance management is the linkage between results and compensation. Targets for compensation must be realistic and attainable and they must be in alignment with a corporation's real challenges and objectives. Management personnel should have a clear understanding of how corporate objectives and KPIs relate to their compensation.

Performance measures can be classified as leading or lagging. Lagging indicators measure the outcomes that have resulted from past actions. Leading indicators provide information about the current situation that may affect future performance. Used properly, leading indicators help an organization respond to changing circumstances and take actions to achieve desired outcomes or avoid unwanted outcomes. It is NorthStar's experience that many utilities utilize a fairly standard set of performance measures (typically lagging indicators) driven by regulatory requirements and industry standard metrics such as customer satisfaction survey levels, and leak and service call response times. NorthStar has further found that improvement processes and initiatives may not be adequately tied to or driven by the performance management process.

We would expect NFGDC to have corporate and business unit objectives with targets and metrics in key areas, for example.

- Earnings per share
- Free cash flow
- Safety – no more than X incident rate
- Recruitment – hiring X percent of planned vital hires
- Reliability – gas leaks per X distance surveyed
- Customer service – speed of answer of X seconds.

Many of these may be driven by NYPSC requirements. Ideally these measures would be tied to the corporate mission and goals as part of a comprehensive performance management process. They should be used to provide early warning of potential performance issues and used to initiate corrective action.

Lead Consultant: **Angela Anderson**
Consultant: **Jim Ayers**

Phase II – Technical Review Consultant Hours: 130

RFP Evaluative Criteria:

- Does NFGDC's performance (e.g., reliability and productivity) feed back to its corporate mission, objectives and goals so NFGDC can improve processes, redirect resources, and change priorities? (See also Corporate Planning)

- Does the BOD get involved in the performance feedback loop at the right time and to the right extent, and are its role and responsibilities appropriate? (See also Corporate Planning)

- Is management held accountable for performance improvements, e.g., cost savings and productivity gains anticipated from specific capital and O&M programs and projects, and specific corporate goals?

- Does NFGDC make appropriate use of goals, key performance indicators and metrics?

- Does NFGDC use benchmarking techniques to identify and develop performance targets?

- Does NFGDC have effective change management and continuous improvement processes?

- Are there impediments that tend to constrain performance improvements and has NFGDC taken appropriate actions to remove impediments to performance improvements?

- Are compensation and performance metrics appropriately linked?

- Are there additional performance measures or indicators that are needed to facilitate the corporate mission, objectives and goals? For example, in addition to lagging indicators, are there appropriate leading indicators, metrics and measures that will help improve performance?

Additional NorthStar Evaluative Criteria

- Do improvement initiatives such as capital and O&M programs and projects have defined expected performance improvements, such as, cost savings and productivity or service level improvements?

Work Tasks:

1. Identify existing performance measures and determine how they are used to evaluate and manage performance. Measures to be reviewed include:

    - Corporate performance measures reported to the BOD
    - KPIs used to evaluate corporate performance and as reported to the NYPSC.
    - Operational metrics used by the various departments/divisions to manage performance.
    - Measures used to evaluate the performance of the construction program and projects.

2. Review processes by which performance targets (including any "stretch" goals or tiers) are established and are updated to reflect changes in conditions, process improvement initiatives and long-term performance improvements.

3. Evaluate NFGDC's use of benchmarking techniques to identify and develop performance targets.

4. Review processes by which performance measures, goals and results are communicated to the BOD, management and the employees.

5. Review corporate mission, goals and any strategic initiatives vis-á-vis existing performance measures. Assess whether NFGDC's performance measures tie to and provide feedback relative to its corporate mission, objectives and goals so that it can improve its processes, redirect resources, and change priorities.

6. Determine whether NFGDC has used performance feedback to improve processes, redirect resources and change priorities.

7. Determine if managers are held accountable for performance improvements, e.g., cost savings and productivity gains anticipated from specific capital and O&M programs and projects, and specific corporate goals.

8. Evaluate the BOD's involvement in the performance management process, including:

    - BOD involvement in the identification of performance measures and setting performance targets.
    - Timing, frequency and level of detail of performance reporting by management to the BOD.
    - How the BOD responds to any reported performance deficiencies.
    - Whether the BOD is involved in utilizing performance feedback to make adjustments in processes, resource allocation and priorities.
    - Whether the BOD gets involved in the performance feedback loop at the right time and to the right extent.

- Reviewing and approving executive incentive compensation.

9. Determine if there are impediments that tend to constrain performance improvements and how NFGDC has addressed any impediments.

10. Assess NFGDC's change management and continuous improvement processes. Determine the extent to which these are linked to the performance measurement process.

11. Determine if compensation and performance metrics are linked, and if so whether it appropriately motivates behavior.

12. Determine if improvement initiatives such as capital and O&M programs and projects have defined expected performance improvements, such as, cost savings and productivity or service level improvements.

13. Determine if additional performance measures or indicators that are needed to facilitate the corporate mission, objectives and goals. For example, in addition to lagging indicators, are there appropriate leading indicators, metrics and measures that will help improve performance.

14. Compare performance to industry "best practices".

15. Prepare a Task Report for this area.

C. RECOMMENDATION COST-BENEFIT ANALYSES (CBA)

NorthStar will be responsible for fully developing the findings, conclusions and recommendations, and all findings, conclusions and recommendations will be subject to Staff's review for completeness. As discussed in **Chapter III**, at 75 percent complete NorthStar will develop preliminary recommendations and quantify the expected costs and benefits. This provides the requisite process structure and allows us to ensure recommendation are fully defined, realistic and can be implemented. During this phase we will work with NFGDC and the Staff in the development of the costs and savings methodology and projections. NorthStar envisions this as an iterative, consultative process.

Recommendations will consider cost benefit or risk benefit analyses, where appropriate. For those recommendations where the expected costs or benefits are difficult to quantify (e.g., having a member of the BOD that lives within the service territory) we will provided qualitative measures and expected benefits. In other areas, the costs of implementation may be *de minimus* and not warrant a detailed CBA. Our cost benefit analyses will include estimated implementation durations (months or years) and quantified dollar benefit and cost streams, as appropriate, using the following model:

- For a recommendation that is expected to have quantifiable net dollar benefits, we will define known cost components and quantify as many as feasible. We will also define all benefit components and quantify as many as feasible.

- For a recommendation that does not have quantifiable benefits, but nevertheless is desirable (improved performance or good management practices), we will define cost

components and quantify as many as feasible. We will also define all benefit components.

- At a minimum, we will define as many benefit and cost components as feasible so that if/when more information becomes available, those components can be more readily quantified.

- We may also recommend a methodology for NFGDC to capture the costs and benefits of implanting a specific recommendation.

Recommendations for improvements and/or change will be justified and accompanied by adequate supporting information, especially those involving significant implementation costs and/or savings. We will provide a five year schedule of implementation costs and savings. In providing supporting information for recommendations, NorthStar will include estimates of the following:

- Operating costs incurred before implementation of the recommendation.
- Operating costs to be incurred after implementation of the recommendation (one-time and recurring costs).
- Time frame for implementing the recommendation.
- Costs of implementing the recommendation and any annual maintenance costs.
- Savings after consideration of implementation and maintenance costs.
- Risks associated with not implementing the recommendation.
- Five year cumulative savings.

The cost-benefit analysis will be integrated with the evaluation and considered in the development of the final recommendations. Preliminary recommendations may be further defined or revised based on the cost-benefit analysis to maximize the benefits of NorthStar's recommendations while minimizing costs.

Given the integrated nature of the various work elements, NorthStar proposes to provide the Staff with a consolidated action plan guideline. The guideline document will consolidate the recommendations and provide the cost-benefit analysis and estimated implementation timelines. This can be used by the DPS and NFGDC in the development of a detailed implementation plan. A preliminary structure is provided below, but can be modified to meet the needs of the DPS Staff.

Exhibit IV-8
Preliminary Action Plan Structure

Recommendation(s)	**Number(s)**	**Recommendation Text**
	May include multiple recommendations if part of one process	
Priority:		
Background:	Discussion of the findings to be addressed by the recommendation. To include discussion of the as-is state.	
Improvements:	Discussion of the improvements that will be realized from implementation – to-be	

	state.
Risks:	Discussion of the potential risks if they recommendation is not implemented.
Expected Implement. Timeline:	
Expected Improvement Timeline:	
Cost Analysis:	Estimate of the operations and capital costs associated with implementation of the recommendations. Capital and O&M costs will be broken out, as will one-time and recurring costs. Costs will be specific to the department/ function and sourced/supported. Potential costs include:

Labor	Department/function specific based on company specifics
Outside services	Training and development, consultant fees, outside contractors
Materials	Materials and equipment
Systems	
Capital Costs	
Other Costs	

Savings Analysis:	Consider and define the following benefit components. Benefits such as improved productivity, reduced staffing, reduced expenses or capital requirements will be quantified. • Increased productivity • Improved reliability • Reduced expenses • Reduced capital requirements • Reduced full time equivalents (FTEs) – internal labor or contractors • Improved practices and processes • Improved schedule adherence • Improved work quality • Optimized organization
Other Costs and Benefits:	Listing of those costs and benefits which may not be readily quantified such as improved reliability, improved practices and processes, improved schedule adherence, improved work quality, and optimized organizational structures
Five Year Payback Analysis:	One table each for capital and O&M costs

	Y1	**Y2**	**Y3**	**Y4**	**Y5**
One-time costs	$				
Increased annual costs	$	$	$	$	$
Cumulative costs	$	$	$	$	$
Annual savings		$	$	$	$
Cumulative savings		$	$	$	$
Net savings	$	$	$	$	$

V. PROJECT TEAM AND RESPONSIBILITIES

The successful execution of the audit requires a project team with a unique blend of capabilities. NorthStar has assembled a project team with the technical and functional expertise and skills to meet the objectives of the audit. In particular, our team provides:

- Knowledge of utility industry matters and the capability to identify and address significant issues that affect NFGDCs' ability to provide quality, low-cost service to its customers.

- Experience in conducting management audits of utilities, balanced with experience in assisting clients implement recommendations.

- Specific experience in gas utility operations, including safety and reliability.

- A senior project management team with extensive experience in performing complex, large engagements for utility regulators.

- Ability to work closely and communicate with the PSC staff to ensure that Staff and Commission needs are addressed as recently demonstrated in our performance of the NMPC and Central Hudson audits.

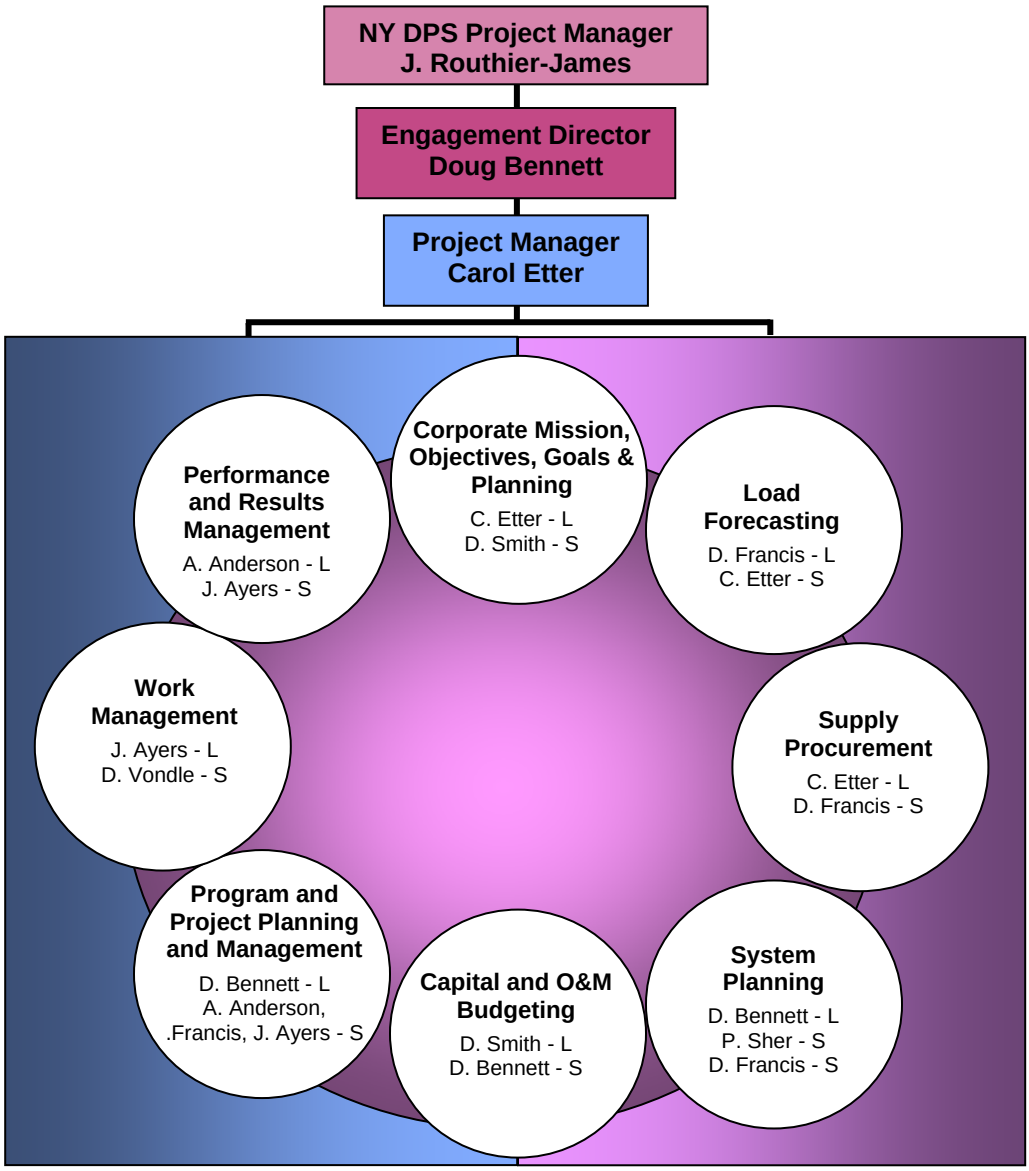
- Three industrial engineers, providing a structured and process-based approach to work management. Industrial engineering is a branch of engineering dealing with the optimization of complex processes or systems.

- Freedom from any potential impairments or conflicts of interest. Neither NorthStar, nor any of its affiliates, personnel or subcontractors have any current or prior contracts or agreements with NFGDC, NFGC, any of its affiliates or any organizations which may represent their work forces. NorthStar performed two prior engagements for the NYPSC – the management audits of Central Hudson and NMPC, and a management diagnostic for the New York Independent System Operator. None of these engagements pose a conflict.

A. KEY PERSONNEL AND PROJECT ORGANIZATION

Each major audit area is assigned to a Lead Consultant who is an expert in that field. To facilitate coordination of our project team activities, we have organized the eight project element areas as displayed in **Exhibit V-1**. Five of our eight proposed team members worked on our Central Hudson audit and six worked on the NMPC audit. The relevant experience and the role of each team consultant team are summarized following the exhibit.

Exhibit V-1
Audit Team Organization Chart



Note: Lead consultants are designated by an L, support consultants by an S.

Mr. Douglas Bennett, a NorthStar founder and Managing Director, will act as Engagement Director and will serve as lead consultant for the reviews of system planning, and program and project planning and management. He served in a similar capacity on our recent management audits of Central Hudson and NMPC for the New York PSC. He will also assist in the review of capital and O&M budgeting. Mr. Bennett has over 30 years of management consulting experience. He has directed and performed management audits for over 50 public service clients including electric and gas utilities, municipalities, seaports, airports and public service commissions. His work on numerous management audits has

included operations and maintenance management, corporate performance, fuels procurement, work force management, materials management, purchasing, engineering and construction. He has a BS in Industrial Engineering from California State Polytechnic University.

Ms. Carol L. Etter is an engineer and business management expert with over thirty years of experience in the utility industry. She will be the Project Manager for this project, and the lead consultant for the review of corporate mission, goals and planning and supply procurement areas, and will support the load forecasting area. Her areas of expertise include corporate and strategic planning, fuel and supply procurement, regulatory compliance, budgeting and financial analysis, affiliate transaction analysis, acquisition analysis and energy industry restructuring. Ms. Etter has extensive project management expertise, having served as project manager on numerous fuel procurement, energy efficiency, and feasibility projects for utility regulatory commissions across the country, most recently for a natural gas procurement audit in Ohio. Prior to her consulting work, she was employed by Citizens Utilities, a gas, electric and water utility where she conducted strategic planning and special projects for all segments of the company's operations. While with Citizens, Ms. Etter managed the $104M acquisition of BHP GasCo's Hawaiian propane business by Citizens, including coordinating the due diligence field work, preparation and presentation of business case to the Citizens' Board of Directors, all regulatory approvals, and internal logistical integration activities, meeting Citizens' closing schedule and seamless conversion goals. Later, she served as the Utility Division Project Manager for implementation of a five-module SAP financial ERP system across twenty operating units in fifteen states. On the NMPC and Central Hudson audits, she was the lead consultant for supply procurement and a consultant for corporate mission. She also reviewed affiliate transactions as part of the audit of Central Hudson. She has a BS in Engineering from Swarthmore College and an MBA from the University of Colorado. She is a registered professional engineer in Colorado.

Ms. Angela Anderson, a Certified Management Consultant (CMC), has over twenty-five years of utility consulting experience. She will be the lead consultant for performance and results management, cost-benefit analysis, and provide support for the review of program and project planning and management. Ms. Anderson served as project manager for NorthStar's management audits of Just Energy Illinois (an alternative natural gas supplier) performed for the Illinois Commerce Commission and Southern Connecticut Gas, for the Connecticut Department of Public Utility Control (DPUC), and a review of the credit and collection practices of the four Ohio gas utilities for the Public Utilities Commission of Ohio. Ms. Anderson has managed numerous large complex projects involving multiple audit entities, including a $2 million review for the New Jersey Board of Public Utilities (BPU), a $2.4 million project reviewing the four California investor-owned utilities and another review involving the simultaneous audit of eleven funding recipients. Ms. Anderson's areas of experience include regulatory compliance, management, operations and process reviews, performance measurement, financial assessments, internal controls, human resources, and customer service. Ms. Anderson has an AB from the University of Chicago, and continued her education with additional coursework at the University of Chicago's Graduate School of Business and at Villanova University in Project Management.

Mr. James Ayers is a CMC and work force management and productivity improvement expert with extensive consulting experience assessing and implementing operations improvement. He will be the lead consultant for the work management area and assist in the review of performance measurement and program and project planning and management. His clients include government agencies, utilities, manufacturers, and private industries. Mr. Ayers has assisted over 25 clients improve their project management and workforce management and implement best practices. In addition to his consulting work, Mr. Ayers provides management training, including a two-day workshop that is certified fully compliant with the Project Management Institute's Body of Knowledge (PMBOK-Guide®). The workshop details best practices in lean and six sigma disciplines. Mr. Ayers is a member of the Project Management Institute (PMI) and the Council of Supply Chain Management Professionals. He is a published author and frequent speaker in Europe and Asia. Mr. Ayers holds a BS (with distinction) from the U.S. Naval Academy and MBA and MS Industrial Engineering (MSIE) degrees from Stanford University. His MSIE specialty was economic systems planning which focused on engineering economy and capital budgeting.

Ms. Dawn Francis has over twenty years of experience in the utility industry as both a consultant and utility professional. She will be the lead consultant for load forecasting and a consultant for the system planning and program/project planning areas. On the NMPC and Central Hudson audits, she was the lead consultant for load forecasting and a consultant for the system planning and program planning areas. She recently reviewed the Los Angeles Department of Water and Power's (LADWP) load forecasting process as part of an audit for the City Controller. Prior to joining NorthStar, Ms. Francis had over ten years of direct experience in utility resource and financial planning having served as the electric rates manager for LADWP. She holds a BS in Electric Power Engineering from Rensselaer Polytechnic Institute and is a Registered Professional Engineer in the State of California.

Mr. Philip Sher is a recognized expert in pipeline design, operations, safety, and planning. He is an engineer with over 40 years of national experience with utilities, regulators, and the U.S. Department of Transportation (DOT). Mr. Sher will be a support consultant for the review of system planning. Mr. Sher has consulted since 1990, providing accident analysis and expert witness services; code compliance; plans, procedures and operator qualification; integrity management programs, coordinating emergencies with public officials; pipe replacement programs; underground damage prevention systems; training programs and special projects. Most recently, Mr. Sher is providing Unitel with expert witness support in proceedings before the New Hampshire PUC. Unitel recently acquired Northern Utilities contingent on the establishment of acceptable emergency response standards. He is a former manager of the Connecticut DPUC's Gas Pipeline Safety Group. Mr. Sher has BS in Engineering from New York University School of Engineering and Science.

Mr. Darrell Smith is an expert in financial management, having served as Chief Financial Officer of four companies. He has over twenty-five years experience as a management consultant in the utility industry. He has participated in over ten NorthStar affiliate transaction audits. He will be the lead consultant for the capital and O&M budgeting review and will review affiliate transactions as part of the corporate mission area. Mr. Smith has appeared as an expert witness on energy, the environment, and economic analysis before

the U.S. Congress, Federal OSHA, and the states of California, Texas, Illinois, Louisiana, Massachusetts, New Hampshire, Florida, and Ohio. Specific topics included rate design, cost of service, forecasting, management performance, and prudence of major capital project decision-making. He has an MBA from the Harvard Business School and a BS in Business Administration/Operations Management from the University of California at Berkeley.

Mr. David Vondle is a CMC with over 30 years consulting experience in workforce strategy and planning, work management, and performance and results measurement, and a frequent NorthStar subcontractor. Mr. Vondle is an expert in gas system safety performance, pipeline safety regulations compliance programs, main and service pipe replacement programs, damage prevention, business information systems, organization and staffing, contracting and contractor management, performance measurement and management, business process analysis and improvement, and O&M and capital cost planning, management and control. Mr. Vondle will assist in the review of work management. He has played a key role in over thirty regulatory audits, including management reviews of: Southern Connecticut Gas, Philadelphia Gas Works, National Fuel Gas, Peoples Gas Light/North Shore Gas, Central Illinois Light Company Gas Division, Pacific Gas & Electric, Louisville Gas & Electric and Southern California Gas. Much of his consulting experience is with gas transmission and distribution companies, including, Southern California Gas, New Jersey Natural Gas, Gas Company of New Mexico, Vectren/Indiana Gas Company, United Cities Gas, Public Service Company of North Carolina, Connecticut Natural Gas, Integrys/Peoples Energy, and the municipal gas utilities of Colorado Springs, Corpus Christi, and Los Alamos. Mr. Vondle received his M.B.A. from Southern Methodist University and his B.S. in Industrial Management from the University of Akron.

Mr. Robert Decker has over twenty-nine years of experience in industry with a focus on information technology. He will serve as project administrator. He served as the project administrator on the NMPC and Central Hudson audits. His utility clients have also included Southern California Edison and Qwest Communications. Mr. Decker has a degree from Evergreen Valley College in Business Administration and Accounting and attended San Jose State University. He also has a B.S. in Business Accounting from the University of Phoenix.

B. ROLES, RELATIONSHIPS AND EXPECTED TIME COMMITMENT

Exhibit V-2 provides the roles of the consulting team members, describes their relationship with NorthStar and provides their expected project time commitment. Credentials were summarized above and are detailed in the consultant resumes that follow. The members of the proposed team have worked together on many projects in the past. **Exhibit V-3** provides a list of assignments which included at least three of the project team members. Detailed work hour estimates are provided in **Exhibit V-4**.

Exhibit V-2
Roles, Relationship and Time

Consultant	Role(s)	Relationship	Expected Time Commitment
Doug Bennett	Engagement Director Lead – Program and Project Planning and Management Lead – System Planning Support – Capital and O&M Budgeting	NorthStar	390
Carol Etter	Project Manager Lead – Corporate Mission, Objectives, Goals and Planning Lead – Supply Procurement Support – Load Forecasting	NorthStar	415
Jim Ayers	Lead – Work Management Support – Performance and Results Management Support – Program and Project Planning and Management	Subcontractor – no prior NorthStar projects. Worked with NorthStar personnel when all were employed at Theodore Barry & Associates. Has also worked on projects with Dave Vondle.	235
Angela Anderson, CMC	Lead – Performance and Results Management Lead – Cost-Benefit Analysis Support – Program and Project Planning and Management	NorthStar	370
Dawn Francis, PE	Lead – Load Forecasting Support – Supply Procurement Support – Program and Project Planning	NorthStar	290
Philip Sher	Support – System Planning	Subcontractor – no prior NorthStar engagements; prior work with Dave Vondle	80
Darrell Smith	Lead – Capital & O&M Budgeting Support – Corporate Mission, Objectives, Goals and Planning	NorthStar	285
Dave Vondle	Support – Work Management	Subcontractor – 2 prior NorthStar projects. Worked with NorthStar personnel on numerous prior engagements when employed by Barrington-Wellesley Group and Theodore Barry & Associates. Has also worked on projects with Jim Ayers.	145
Robert Decker	Project Administrator	NorthStar	250

Exhibit V-3
Consultant Shared Project Experience

Client – All Projects Below are NorthStar Engagements	Bennett	Etter	Ayers	Anderson	Francis	Sher	Smith	Vondle	Decker
ILAW (2012)	X	X		X	X				X
Central Hudson (2010)	X	X		X	X				X
LA Renewables (2011)	X			X	X				
NJAW (2010)	X	X		X	X				X
Ohio Gas Credit (2010)		X		X	X				
SCG (2009)		X		X	X			X	
NMPC (2009)	X	X			X			X	X
SCE (various)	X			X	X		X		
LCRA (2007)				X	X		X		
Sempra (2006)	X				X		X		
PG&E (2001)				X					
PSE&G (2000)	X				X		X		

Exhibit V-4 provides the detailed work hour estimates for each consultant.

Exhibit V-4
Work Hour Estimate

	D. Bennett	A. Anderson	J. Ayers	C. Etter	D. Francis	P. Sher	D. Smith	D. Vondle	R. Decker	Total
Phase I: Planning and Orientation	50	50	40	50	40	20	50	30	50	380
Phase II: Technical Review										
Corporate Mission, Objectives, Goals and Planning		20		110			100			230
Load Forecasting				20	70					100
Supply Procurement				70	30					100
System Planning	50	20		10	60	60				190
Capital and O&M Budgeting	70	20		10			80			170
Program and Project Planning and Management	70	70	20	10	50					210
Work Force Management		20	50	10				90		160
Performance and Results Management		60	70							130
Subtotal Phase II	**190**	**190**	**140**	**240**	**210**	**60**	**180**	**90**	**0**	**1,290**
Phase III: Cost-Benefit Analyses	**50**	**80**	**25**	**25**	**10**		**25**	**10**		**205**
Phase IV: Report Development	**50**	**50**	**30**	**50**	**30**		**30**	**15**		**255**
Project Management	**50**			**50**					**200**	**310**
Total Hours	**390**	**370**	**235**	**415**	**290**	**80**	**285**	**145**	**250**	**2,460**

Note: Lead team members highlighted in yellow.

C. RESUMES

The following pages contain detailed resumes of the proposed audit team.

DOUGLAS A. BENNETT

Project Role: **Engagement Director**
Lead Consultant: **System Planning**
Project and Program Planning and Management
Consultant: **Capital and O&M Budgeting**

Summary of Qualifications

Mr. Bennett, a NorthStar founder and Managing Director, has over thirty years of consulting experience to the public service and utilities industries. He has directed and performed management reviews for over 50 utility clients as well as directing audit assignments for over 20 regulatory agencies. He is an expert in operations improvement and corporate performance particularly in the areas such as production operations, work force management, materials management, purchasing, engineering and construction. In his 16 years as a Vice President and Director for a major management consulting firm, he had responsibility for the firm's operations and productivity improvement practice area. He has a BS in Industrial Engineering from California State Polytechnic University.

Project and System Planning Experience

- Lead consultant for the review of project management and system planning for the management audits of NMPC and Central Hudson for the New York PSC. (2009 and 2010) Mr. Bennett also served as engagement director.

- Directed a project for Southern California Edison to develop strategies to reduce regulatory risks for its construction program. Surveyed large utility construction projects and performed benchmarking analyses to highlight regulatory risk potential.

- Directed an improvement program for the City of Phoenix Aviation Department's Capital Expenditure Program. Developed project management tools, and integrated management controls between the program manager, contractors, and the City.

- Directed numerous studies of engineering and construction management functions for the following clients:

Arizona Public Service Company	Pacific Gas & Electric Company
Consolidated Edison Company	Public Service Electric & Gas Company
El Paso Electric	Public Service Company of New Hampshire
Los Angeles Dept. of Water and Power	Sierra Pacific Power Company
Nevada Power Company	Southern California Edison Company
New York Power Authority	Utah Power and Light Company

- Directed three projects covering the engineering and construction of the Palo Verde Nuclear Generating Station for Arizona Public Service: project management, planning and construction; litigation support; and summary level project history.

- Conducted numerous reviews of materials management and logistics functions to improve organizational structure, re-engineer processes, upgrade technology and systems support, and control inventory. Clients include:

Arizona Public Service	Los Angeles Dept. of Water & Power
Carolina Power & Light	Nevada Power Company
Columbus Southern Ohio Electric	New Jersey Natural Gas Company
East Bay Municipal Utility District	Northern States Power Company
Glendale Public Utilities	Oklahoma Gas & Electric Company
General Public Utilities Corporation	Public Service Company of New Mexico
Jersey Central Power & Light	Public Service Electric & Gas Company
Pennsylvania Electric Company	San Diego Gas & Electric Company
Metropolitan Edison Company	Southern California Gas Company

- Directed a management audit of Pacific Gas & Electric's Pipeline Expansion Project's management practices, project costs and controls, and cost allocations for the California PUC. Focused on project management fees, contract selection, engineering and construction costs, cost classifications, and owner involvement.

Capital Project Planning

- Directed a program for Southern California Edison's Transmission & Distribution (T&D) Business Unit to improve policies and procedures utilized to identify, design, and construct electric system capital projects. Improvement areas included: the Transmission Construction Master Plan; the project management organization; evaluation criteria and prioritization scheme; executive decision-making; policies and procedures, and strategies for outsourcing and contracting.

- Directed a capital project planning and organizational review of the Sky Harbor International Airport for the City of Phoenix, Arizona. The Department renewed efforts to complete the Master Plan, improve project management controls and reporting systems; and develop policies and procedures to support project management.

- Performed a comprehensive production competitive study for Public Service Electric & Gas. Revised organizational structure and management practices in plant operations and maintenance, capital project planning, economic dispatch, performance and cost comparisons, and production cost modeling.

- Assisted Nevada Power Company in its efforts to improve capital and O&M facilities planning and management activities, resulting in facility improvements that were incorporated in the North Las Vegas service center.

- Conducted numerous generation, transmission and distribution improvement programs for clients that include:

Boston Edison Company	Nevada Power Company
Central Power and Light	Niagara Mohawk Power Corporation
City of Colorado Springs Department of Public Utilities	New York State Electric & Gas Company
Columbus and Southern Ohio Electric	Niagara Mohawk Power Corporation
Consumers Power Company	Oklahoma Gas and Electric

Glendale Public Utilities
Kentucky Utilities
Ketchikan Municipal Utilities
Los Angeles Department of Water and Power
Montana Power Company
Mountain Fuel Supply Company
Omaha Public Power District
Public Service Company of New Mexico
Public Service Electric and Gas
Seattle City Light
Tampa Electric Company
Utah Power and Light

Other Management Audit Experience

- Directed an audit of the fees assessed to Illinois American Water by its affiliate service company for the Illinois Commerce Commission. (2011)

- Lead consultant for capital and O&M budgeting for the management audits of NMPC and Central Hudson for the New York PSC. (2009 and 2010)

- Directed the 1999, 2000, 2001 and 2006 Affiliate Transaction Audits for Southern California Edison. These audits, ordered by the California PUC, determined compliance with the State's Affiliate Transaction Rules.

- Directed the 2002 and 2004 Affiliate Transaction Audits for San Diego Gas & Electric and Southern California Gas. These audits, ordered by the California PUC, determined compliance with the State's Affiliate Transaction Rules.

- Directed an audit of Public Service Electric & Gas's compliance with affiliate transaction standards. Assessed the extent of cross-subsidization of competitive services provided by the utility or its affiliates.

- Conducted a comprehensive management audit of the Research Demonstration and Development program of Southern California Edison for the CPUC. Reviewed projects to ensure compliance with FERC guidelines, costs and program justification.

- Project manager for a management audit of the Los Angeles Department of Water and Power. Reviewed power operations and maintenance, design and construction, transmission, dispatch, fuels management, and for overall project administration.

Work Experience

- Managing Director and Founder, NorthStar Consulting Group, Inc. (1999 – present)
- Vice President, Navigant Consulting. (1997 - 1999)
- Managing Director and Co-Founder, Barrington-Wellesley Group, Inc. (1990 - 1997)
- Vice President and Director, Theodore Barry & Associates. (1973 - 1990)

CAROL L. ETTER

Project Role: **Project Manager**
Lead Consultant: **Corporate Mission, Objectives, Goals and Planning**
Supply Procurement
Consultant: **Load Forecasting**

Summary of Qualifications

Ms. Etter has over twenty-five years of experience in the energy and utility industry, including strategic and business planning, fuel procurement and regulatory compliance, budgeting and financial analysis, implementation of enterprise software system, acquisition analysis and execution, and energy industry restructuring. She has extensive experience in market and financial analysis, rate and regulatory initiatives, supply portfolio development, operational efficiencies, management analysis and business process re-engineering. She has consulted for public utility commissions, public and municipal utilities, and private energy companies across the country, in many cases serving as project manager for the engagement. She was employed by Citizens Utilities, one of the early nationwide gas, electric and water utilities, conducting strategic planning and special projects for all segments of the company's operations. She has a BS in Mechanical Engineering from Swarthmore College and an MBA in Finance from the University of Colorado.

Supply Procurement Experience

- Lead consultant for supply procurement/wholesale markets for the management audits of NMPC and Central Hudson for the New York PSC. (2009 and 2010)

- Lead consultant for supply procurement for the management audit of Southern Connecticut Gas for the CT DPUC. (2009)

- Project manager for the management/performance audit Duke Energy of Ohio for the Ohio PUC. (2009)

- Reviewed technical and financial risks for numerous wind-power and cogeneration power projects, including developing appropriate contractual and/or rate treatments to mitigate risks to both investors and ratepayers associated with non-performance.

- Served as Senior Consultant on fuel procurement projects in Illinois and Indiana. In both projects, reviewed existing practices and policies and identified gaps and opportunities for improvements. The Illinois project also included examination of the risk mitigation program operated by the company.

- Prepared a Midwest gas distribution utility for a biannual gas procurement review audit. Reviewed all procurement, demand forecasting, and price volatility mitigation programs and documentation. Reviewed all on-system gas procurement over a three-year period, along with price and deliverability risk mitigation programs.

- Served as project manager on a three-year gas procurement audit in Tennessee involving all three of the regulated gas utilities in the state. Developed on-going monitoring reports, and oversaw the monthly tracking of gas procurement activities.

- Reviewed the gas procurement practices of four gas distribution utilities in Iowa, developing recommendations for pricing adjustments and process improvements.

- Project manager and lead consultant on numerous natural gas and electric fuel and power contract management audits. Prepared detailed evaluations of fuel supply portfolios, purchased power, coal and gas supply contract terms, and developed assessments of those terms relative to market trends and corporate risk abatement activities.

- Project manager for a proposed joint venture between Citizens Utilities and an engineering firm to supply backup generation for pumping stations for the New Orleans Sewerage & Water Board. Coordinated efforts of the gas supply and the regulatory affairs departments, and the engineering firm to obtain the necessary permits from the state regulatory commission and the City Council.

- Project manager on a comprehensive review of Atlanta Gas Light's integrated resource plan. Reviewed the demand forecasting methodologies for their appropriateness for use in demand-side management (DSM) program development. Reviewed the gas supply planning processes and identified opportunities for improving the integration of demand forecasting into the supply planning process.

- Project manager on projects in Montana and British Columbia to evaluate the role of gas DSM programs as alternatives to expending pipeline facilities to meet increased customer demand. These projects involved integration of supply forecasting procedures, demand forecasting models, and the demand side management programs.

Corporate Governance, Planning and Affiliate Transaction Experience

- Consultant for the review of corporate mission and strategic planning on the management audits of NMPC and Central Hudson for the New York PSC. Also reviewed Central Hudson's affiliate transactions. (2009 and 2010)

- Lead consultant for the review of shared services costs charged or allocated to Illinois American Water. (2011)

- Lead consultant for strategic planning and finance for the management audit of Southern Connecticut Gas for the CT DPUC. (2009)

- Lead consultant for strategic planning for the management audit of New Jersey American Water for the New Jersey BPU. (2010)

- Project manager for the $104M acquisition by Citizens Utilities of BHP GasCo's Hawaiian propane and manufactured gas operations, including oversight of due diligence work, business case preparation and presentation, fuels and operating risk components of

contract negotiations, coordination of all in-house/target teams implementing the merger, regulatory filings, and smooth, on-line cut over of operations and management.

- Project manager for the implementation of the SAP Enterprise Resource Program at Citizens Utilities, including consolidation of charts of accounts, development of cost allocation systems, programs and procedures, utility field staff training, and smooth, on-time cut over. Implementation affected over twenty operating units in fifteen states.

- Coordinated all budgeting and strategic planning for the public utility operations of Citizens Utilities. As part of these efforts, oversaw the activities to forecast gas and electric demand and to integrate the purchasing of natural gas, and contracts for the purchase and sale of power into the strategic and operational plans. The budgeting efforts also included review and coordination with regulatory affairs and accounting department personnel to assure appropriate recording, forecasting, and tracking of supply purchases and costs for regulatory oversight purposes.

- Lead consultant on the management decision-making and productivity improvement elements of a Business Process Review of Central Vermont Public Service. Included assessment of the decision-making processes, models, documentation, and effectiveness. Reviewed the overall strategic planning process, implementation of an ERP software package and examined the productivity improvement process used to identify and prioritize process improvements, as well as the results of the improvements. (2008)

- Developed corporate policies, state commission filings, and implementation plans for Citizens Utilities' electric industry restructuring activities. Prepared electric industry filings for Vermont and Arizona commissions addressing activities for Citizens' operations in those states. Developed corporate positions on consumer protection, supplier of last resort, stranded cost recovery, functional separation of regulated and non-regulated operations, and provision of ancillary services.

- As part of prudence reviews, reviewed management decisions associated with continuing or canceling construction of large nuclear and coal-fired power plant decisions. The projects involved examining changes in demand forecasts over time, compared to the costs of continuing, suspending, or canceling construction contracts.

Work Experience

- Director – NorthStar (2008-present)
- Independent Consultant (2002 – 2007)
- Director – Economic Development, Downtown Development District, New Orleans, Louisiana, (2000 – 2001).
- Citizens Utilities Company (Public Services Sector); Harvey, Louisiana (1995 – to 2000)
  - Director, Financial Analysis and Reporting
  - Project Director, Strategic Market Development Team
  - Acting Vice President, Marketing Department
  - Director, Market Development
- Manager RCG/Hagler Bailly, Boulder, Colorado (1983-1995)

ANGELA L. ANDERSON, CMC

Project Roles: Lead Consultant: Performance and Results Management
Cost-Benefit Analysis
Consultant: Program and Project Planning and Management

Summary of Qualifications

Ms. Angela L. Anderson is a CMC with 20 years of consulting experience. She has directed or served as lead consultant in numerous engagements for regulators or other government agencies. Ms. Anderson's areas of expertise are regulatory compliance, management, operations and process reviews, financial assessments, internal controls, and customer service. Ms. Anderson has managed numerous large complex projects involving multiple audit entities, including a $2 million review for the New Jersey BPU, a $2.4 million project reviewing the four California IOUs and another review involving the simultaneous audit of eleven funding recipients. She recently managed an audit of Just Energy Illinois (an alternative natural gas supplier for the Illinois Commerce Commission) and an audit of the credit and collections practices of four Ohio gas utilities for the Public Utilities Commission of Ohio. She also managed the audit of Southern Connecticut Gas Company for the Connecticut Department of Public Utility Control. Ms. Anderson has an AB from the University of Chicago. She has continued her studies at the University of Chicago Graduate School of Business and at Villanova University in Project Management. Ms. Anderson is a member of PMI, IMS and IIA.

Representative Experience

- Directed a management and compliance audit of the sales and marketing practice of Just Energy Illinois (an alternative natural gas supplier) for the Illinois Commerce Commission. (2011)

- Lead consultant for the review of customer service and external affairs shared service costs allocated to Illinois American Water Company. (2011)

- Lead consultant for performance measurement and results and consultant for capital and O&M budgeting in the management audit of Central Hudson for the New York PSC. (2010)

- Managed an audit of the Los Angeles Department of Power's renewable program for the City Controller. (2010)

- Project Manager for a process review of customer credit and collection policies and procedures for the four major investor-owned gas utilities for the Public Utility Commission of Ohio. Reviewed the activities of Columbia Gas of Ohio. (2010)

- Project manager and lead consultant for the customer service and marketing operations for the comprehensive management audit of Southern Connecticut Gas for the Connecticut DPUC. (2009)

- Lead consultant for human resources and customer service in the management audit of New Jersey American Water for the New Jersey BPU. (2010)

- Audited direct, indirect and allocated costs (including corporate services and other departmental charge backs) as part of NorthStar's audit of the transmission cost of service of the Lower Colorado River Authority.

- Directed an audit of internal financial controls and procedures and the administrative operational effectiveness of a fund administered by two utilities for the Connecticut DPUC. Assessed internal controls, organizational structure, staffing levels, cost controls, administrative costs and existing processes.

- Directed a $2.4 million financial and management audit of utility public goods charge programs for the California PUC. Reviewed procurement practices, internal controls, costs, program management, delivery and administration. Assessed SCE's compliance with market share requirements and other Commission rules as they relate to utility affiliates and other energy service companies.

- Managed a $2 million prudence review of Atlantic City Electric Company's, Jersey Central Power & Light's and Public Service Electric & Gas' (PSE&G's) procurement practices and the reasonableness of the utilities deferred balances for the New Jersey BPU. Reviewed PSE&G's power procurement activities. Testified before the New Jersey BPU in proceedings related to the audit of deferred balance costs and the reasonableness of management practices.

- Assistant Project Manager for an assessment of the financial condition of Pacific Gas & Electric during the California energy crisis. Testified before the CPUC regarding PG&E's deferred balances and the potential impact of a proposed accounting change. Briefed the Energy, Utilities and Communications Committee of the California Legislature on the cause of the deferred balances, the mechanics of the accounting, and the impact of a proposed accounting change.

- Directed an audit of eleven entities receiving emergency energy efficiency and low-income assistance funding (SBX15) for the California PUC. Determined whether the funds achieved demonstrable energy peak demand reduction while limiting administrative costs associated with the expenditures.

- Reviewed the Port of Los Angeles' environmental planning function.

- Managed an audit of Citizens Telecommunications Company of California's California High Cost Fund-B (CHCF-B) claims performed for the California PUC.

- Managed a compliance review of SCE's transition cost balancing account balances and headroom revenues as part of a Commission-ordered audit.

- Assistant Project Manager for the financial verification compliance audit of the costs associated with Pacific Gas & Electric's Diablo Nuclear Power Plant for the California PUC.

- Managed a review of SDG&E's electric industry restructuring transition costs as part of a Commission-ordered audit. Reviewed non-recorded sunk costs and estimated future costs resulting from existing obligations.

- Reviewed generation RD&D projects in the evaluation of SCE's Research, Demonstration and Development (RD&D) program for the California PUC.

- Reviewed energy efficiency program management, program controls, contract administration and program costs for the residential programs as part on an audit of PG&E's demand-side management programs.

- Reviewed the reasonableness of Pacific Gas and Electric Company's management of the construction of the $850 million Pipeline Expansion Project for the California PUC. Lead consultant for the review of the development of the fixed-price contract between the owner and the project manager. Quantified the excess costs incurred as a result of mismanagement. Managed the preparation of rebuttal testimony and provided written and oral expert testimony.

- Lead Consultant for two compliance audits of merger costs and savings performed for the Illinois Commerce Commission. Assessed merger transaction costs, allocated costs between Ameritech Illinois and its affiliates and between regulated and non-regulated activities, and reviewed transactions with selected affiliates.

- Project Manager for the review of hourly power exchange prices of Southern California Edison Company, San Diego Gas & Electric Company and Pacific Gas & Electric for the California PUC.

Work Experience

- Director, NorthStar Consulting (2009 to present))
- Independent Management Consultant (1989-1990, 2008)
- Managing Director, blueCONSULTING, Inc. (2003-2007)
- Director, Barrington-Wellesley Group, Inc. (1991-2002)
- Associate, Theodore Barry & Associates (1987-1989)

JAMES B. AYERS, CMC

Project Role: **Lead Consultant: Work Management**
Consultant: Performance and Results Management
Program and Project Planning and Management

Summary of Qualifications

Mr. Ayers has extensive consulting experience in assessing and implementing operations improvement. Client industries include government agencies, utilities, manufacturers, and private industry service providers. Some of his clients include the Port of Long Beach, FedEx, San Francisco County Transportation Authority, Bombardier Transportation Services (rail vehicles after sales support), Western Municipal Water District, Los Angeles Department of Water & Power (LADWP), American Electric Power, Southern California Edison, Orange County Water District, and Omaha Public Power District. He has reviewed field crew support; professional, technical, and administrative functions; and all phases of capital project planning and construction.

Mr. Ayers' areas of expertise include lean supply chain implementation, productivity improvement, quality improvement, information systems requirements and implementation, facilities management, organization reviews, and a range of industrial engineering skills. He has developed approaches to evaluating hard-to-measure technical and professional environments, including paperwork intensive workflows with complex requirements for participant decision-making. Throughout his career, Mr. Ayers has also developed and applied methodologies for activity-based costing to justify process changes that cross department and organization boundaries. He has also applied the Project Management Institute's (PMI) Organization Project Management Maturity Matrix in a management perform audit of the San Francisco Municipal Transportation Agency's (SFMTA) capital program. The audit included assessing the adequacy of processes in all three PMI project management domains – projects, programs, and portfolios.

In addition to his consulting work, Mr. Ayers provides management training, including a two-day workshop that is compliant with PMI's Project Management Body of Knowledge (PMBOK-Guide®). The workshop details best practices in lean and sigma disciplines. Mr. Ayers also conducts workshops and courses internationally. Work has included Executive MBA supply chain management course to Chinese executives under contract to UCLA Extension.

In the last decade, Mr. Ayers has authored six books on the emerging supply chain management discipline with an emphasis on the role of project management in implementing change. Several are best sellers used in college level courses internationally. He speaks frequently in Europe and Asia and is the editor of the Encyclopedia of Supply Chain Management published in 2012. Jim's recent book on Supply Chain Project Management 2nd Edition will be translated into Chinese.

Mr. Ayers is a member of the Project Management Institute (PMI) and the Council of Supply Chain Management Professionals. He serves on the Institute of Management Consultants' Certification Committee which maintains IMC's ISO-approved certification process and reviews candidates for certification. Mr. Ayers holds a BS (with distinction) from the U.S. Naval Academy and MBA and MS Industrial Engineering (MSIE) degrees from Stanford University. His MSIE specialty was economic systems planning, a discipline that includes measuring rates of return from public sector investments.

Work Force Management and Process Improvement Consulting Experience

- Productivity improvement expert employing project management and workforce management best practices and methodologies. Clients include half-dozen utilities and over 20 other government agencies, manufacturers, healthcare organizations, and service organizations.

- Conducted numerous reviews and implementation of work force management and logistics improvement projects addressing organization structure, process reengineering, inventory control, and information technology modernization. Related client experience at utility and non-utility clients includes:

American Electric Power
Bombardier Transportation
Brookstone Telecom
City and County of San Francisco
City of Anaheim
Los Angeles Department of Water & Power (LADWP)
Omaha Public Power District
Orange County Water District
Port of Long Beach (POLB)
Public Service Company of New Mexico (PNM)
Public Service Enterprise Group (PSEG)
Schlumberger Limited
Sierra Pacific Power Company (now NV Energy)
Southern California Edison
Tucson Electric Power Company
U.S. Postal Service
Western Municipal Water District

- Provided extensive process documentation of the construction process lifecycle at Port of Long Beach (POLB). Employed the PMI standard for public agency construction project work breakdown structure. The process analysis work Jim supported at the Port also encompassed over 20 environmental planning and permitting activities. As a result, the Port implemented stronger processes for managing the engineering project life cycle.

- Analyzed POLB processes and systems including procurement of construction-related software and related services. Prepared solicitations for portfolio and construction project management software, including user-defined features and requirements, and coordinated Port staff evaluations of alternative solutions. The requirements addressed the entire asset lifecycle from planning to post-construction operation.

- Facilitated a review of Bombardier Transportation's aftermarket logistics and procurement organization. The company is the world's largest manufacturer of rail vehicle and provides extensive maintenance services to transit operators. This led to a redesign of its organization, measures, and processes for supporting vehicle maintenance and overhaul. The result included structuring of the Materials and Logistics organization to focus on operator requests for outsourced maintenance services to maintain and assure availability of fleet vehicles.

- Facilitated the creation of a service request system for the POLB Engineering Design Division that handles smaller construction and major maintenance projects. Evaluated current processes for service requests and designed streamlined process supported by Port SharePoint application.

- Assisted Western Municipal Water District (WMWD) (Riverside CA) to analyze its warehouse and purchasing functions. The scope included planning warehouse layout and equipment, designing processes for procurement and material management using Council of Supply Chain Management (CSCMP) *Process Standards*, and recommending an implementation plan.

- Analyzed future operating requirements and made recommendations for the Orange County Water District's Groundwater Replenishment System (GWRS), a 70 MGD "toilet to tap" facility. Work included an analysis of staff numbers, organization, and shift scheduling for operating a greatly expanded facility. The deliverables provided a roadmap for reviewing staff levels as the technology was implemented. The project budget was over $400 million.

- Project Manager for capital program performance audit of San Francisco Municipal Transportation Agency (2010-2012). The project employed international standards to evaluate capital program processes, organization, and systems for expansion construction, facility rehabilitation, and vehicles planning and replacement. Standards employed included PMI's Organizational Project Management Maturity Model (OPM3) and the Institute of Asset Management's PAS 55-1 and 2: 2008 (*Specification for Optimized Management of Physical Assets).*

- Structured and served as engagement leader for company-wide workforce management improvement initiatives at Theodore Barry & Associates. Contributed to criteria for evaluating utility work force management practices. Developed a service model used to evaluate the completeness of management processes for monitoring and controlling workforce levels. Led efforts to implement audit finding at several electric utilities including Columbus and Southern Electric Company (now AEP), Public Service of New Mexico, and Omaha Public Power District.

Other Representative Experience

- Reviewed load planning functions for Tucson Electric Power Company as part of a management audit.

- Prepared process improvement training curriculum based on industry best practices for use by Port of Long Beach divisions. Delivered training to Port business analysts to prepare for process improvement assignments within Port divisions. This activity accompanied the implementation of new information management programs budgeted at $24 million.

- Assisted the Port in implementing its Business Continuity Plan. Set up teams, defined processes that required continuity plans, and implemented support software (eBRP Toolkit).

- Supported development of Air Products and Chemicals' Ionic Transport Membrane (ITM) technology. ITM applications include innovations in energy production. Work produced estimates of "should cost" manufacturing processes to meet expected demand.

- Provided cost estimating model support to Jet Propulsion Laboratory and Sandia Laboratories for estimating the cost of producing, marketing, and installing photovoltaic solar cells in residential, commercial, and industrial markets. The work guided funding decisions and progress toward goals for a large research effort sponsored by the U.S. Department of Energy.

- Provided expert testimony in State of Virginia utility rate hearing on the effect of rates on the speed of solar technology penetration.

Work Experience

- Principal, CGR Management Consultants Inc. (1993 to Present)
- Partner Designate, Ingersoll Engineers (1991 to 1993)
- Partner, Coopers & Lybrand (1989 to 1991)
- Vice President and Director, Theodore Barry & Associates (1971 to 1989)
- U.S. Navy Submarine Force (1964 to 1969)

DAWN FRANCIS

Project Role: **Lead Consultant:** **Load Forecasting**
Consultant: **Supply Procurement**
System Planning
Program and Project Planning and Management

Summary of Qualifications

Ms. Francis has over 20 years of professional experience in the utility industry as both a consultant and utility professional. Ms. Francis has over ten years experience in utility resource and financial planning. She served as the electric rates manager for the Los Angeles Department of Water & Power. Ms. Francis actively participated in the utility's rate designs, marginal cost studies, load research program, and incremental cost causation models. She recently served as lead consultant reviewing the load forecasting functions of NMPC and Central Hudson. Ms. Francis holds a BS in Electric Power Engineering from Rensselaer Polytechnic Institute and is a Registered Professional Engineer in the State of California.

Load Forecasting Experience

- Consultant for the review of load forecasting on the management audits of Central Hudson and NMPC for the New York PSC. Assisted in the review of system planning. (2009 and 2010)

- Reviewed the Los Angeles Department of Water and Power's (DWP) load forecast as part of an audit of DWP's renewables program. (2010)

- Lead consultant for the review of load forecasting on the management/performance audit of gas supply procurement of Duke Energy for the Ohio PUC. (2009)

- As Assistant Supervisor of Load Forecasting for the Los Angeles Department of Water & Power, responsible for the development and population of econometric and end-use models used to forecast system peak demand. Developed weather normalization and customer elasticity models.

Project and Program Planning Experience

- Consultant for program/project planning on the management audits of NMPC and Central Hudson for the New York PSC. (2009 and 2010)

- Lead consultant for a performance review of the City of Los Angeles' energy conservation program. Assessed how the City is planning, implementing and maintaining energy conservation initiatives for City facilities. Identified organizational and technological improvements that would assist the City meet its energy goals. (2008)

- Lead consultant responsible for regulatory research on construction retrospective reviews for Southern California Edison. Determined the causal factors that lead to increased regulatory scrutiny and rate base disallowances. Allowed the utility to include analyses and considerations prior to project initiation and ultimately obtain the required results while recovering all costs through the rate base. (2003)

- Lead consultant responsible for the development of project implementation policies and processes for the City of Phoenix Aviation Department's Capital Improvement Program. Assisted in the development of the Capital Program Annual Budget and a project prioritization system.

- Performed a study for the City of Los Angeles Bureau of Engineering to evaluate the effectiveness of organization changes and project management tools. The study was a "before and after" analysis that utilized metrics as percent cost overrun, number of projects on schedule, and percent overhead cost to complete project.

Other Utility Consulting Experience

- Reviewed service company costs allocated to Illinois American Water (2011).

- Lead consultant for affiliate interests on the management audit of Southern Connecticut Gas for the Connecticut DPUC. (2009)

- Lead consultant on the review of the credit and collection practices of the four Ohio gas utilities for the Ohio PUC. (2009)

- Directed a management audit of the Lower Colorado River Authority (LCRA) and its Transmission Services Corporation. The purpose of this audit was to determine the necessity of reasonableness of costs recovered through LCRA's wholesale transmission rates. The study focused on the effectiveness of the administration of capital transmission expansion projects, the appropriateness of direct charges, and the reasonableness of overhead cost allocations. (2006)

- Lead consultant on the 2000, 2001, 2002 and project manager for the 2004 Affiliate Transaction Audits of SDG&E and SoCalGas. Responsible for review of customer service functions, non-discrimination, and separation. Performed analysis of affiliate transactions for the procurement of natural gas and electricity to determine compliance with the Affiliate Transaction Rules.

- Lead consultant on an audit of Public Service Electric & Gas's compliance with affiliate transaction standards. The audit also assessed the extent of any cross-subsidization of competitive services provided by the utility or its affiliates. (2000).

- Lead Consultant for the 1999 Affiliate Transaction Audit of Southern California Edison. The purpose of the audit, ordered by the California PUC, was to determine the degree of compliance of Edison with the State's Affiliate Transaction Rules. Specific areas of responsibility included non-discrimination and separation applicability and assessment.

- Lead consultant responsible for performance measure calculation verification for the 2003/2004 Colorado Performance Assurance Plan Audit of Qwest Communications. The purpose of this audit was to determine if Qwest provides service to competitive local exchange providers in the same manner as to its own local exchange provider.

- Lead consultant on a gas procurement study for the Public Service Company of New Mexico. The purpose of this study was to investigate Commission-approved trading and hedging mechanisms utilized for natural gas procurement throughout the U.S. and determine the impact on ratepayers. Responsible for identifying types of mechanisms utilized, how the mechanisms were developed, the relative merits and limitations of the mechanisms, and the constraints and limitations placed on traders. (1999)

- Participated in an organizational and operational assessment for the City of Phoenix Aviation Department. The goals of the project were to identify opportunities to reduce costs, increase efficiency and improve service levels. A comprehensive review was conducted that included organization missions and functions, management systems, administrative procedures and operational practices, based on benchmarking comparisons and a knowledge of best practices employed by other planning, engineering design and construction management organizations. Responsible for reviewing contract change order management.

- Lead consultant on regulatory reporting requirements review for Southern California Edison. The purpose of the study was to identify opportunities for consolidation, elimination, and modernization of processes associated with filing documents with the California PUC. (2002)

Work Experience

- Senior Associate, NorthStar Consulting (1999 to present)
- Los Angeles Department of Water & Power
  - Manager of Electric Rates. Responsible for the development and maintenance of the City's Electric Rate Ordinance. Responsible for the development of rate classes, marginal cost of service studies, embedded cost of service studies, system and class load shapes, and rate design. Administered the system load research program.
  - Supervisor of Retail Customer Contracts. Responsible for the development of long-term customer performance contracts. The purpose of these contracts was to encourage customers to alter usage patterns, interrupt load and/or defer uneconomic bypass of the system.
  - Assistant supervisor of Strategic and Business Planning. Responsible for the development of customer marginal cost and profitability analysis and evaluation of wholesale utility costs against wholesale market cost.

PHILIP SHER

Project Role: Consultant: System Planning

Summary of Qualifications

Mr. Philip Sher is a nationally-recognized expert in pipeline design, operations, safety, and planning. He is an engineer with over 40 years of national experience for utilities, state commission, and the U.S. DOT. Mr. Sher will be a support consultant for the review of system planning. Mr. Sher has consulted since 1990, providing accident analysis and expert witness service; code compliance; plans, procedures and operator qualification; integrity management programs, coordinating emergencies with public officials; pipe replacement programs; underground damage prevention - 1-call systems; training programs and special projects. Most recently, Mr. Sher is providing Unitel with expert witness support in proceedings before the New Hampshire PUC. Unitel recently acquired Northern Utilities contingent on the establishment of acceptable emergency response standards. Mr. Sher has BS in Engineering from New York University School of Engineering and Science.

Pipeline Engineering

- **Connecticut Department of Public Utility Control - Manager of the Gas Pipeline Safety Unit**. Responsible for the formulation, promulgation and administration of the Department's gas pipeline safety program and underground damage prevention (Call Before You Dig) program. Liaison to, and agent of, the U.S. DOT Office of Pipeline Safety. Experience includes: incident investigations; testimony at NTSB hearings; cross-examination of witnesses at NTSB hearings; formulation, promulgation and application of gas pipeline safety standards, including the Minimum Federal Safety Standards (49 CFR 191, 192); development and implementation of pipeline safety inspection program including field inspections and records reviews; the application of engineering enforcement techniques in furthering compliance with safety standards; and damage prevention programs. Extensive cross-examination of expert witnesses at hearings. (1979-2009)

    - Provided program function reviews include design, construction including welding and joining, operations and maintenance including corrosion control, excavation damage, emergency response including coordinating with other emergency responders, operator qualification and integrity management programs.
    - Pipeline facilities covered under the program include gas transmission lines, gas distribution lines including extremely high pressure (750 psig) distribution lines, propane distribution lines, liquefied natural gas facilities (full plants and satellites), propane storage facilities, propane peak shaving facilities, hortonspheres, and gas holders.
    - Experience also includes economic regulation including: rate structures; expansion of plant and equipment; cost of service studies; utility research programs; customer load analysis including normalization and annualization; gas supply planning and analysis;

cost of gas analysis, pipeline refunds, deferred gas costs, fuel adjustment clauses; depreciation studies; master metering; cogeneration; and utility diversification.

Underground Damage Prevention Activities

- Establishment of Connecticut Underground Damage Prevention Program, Connecticut's underground damage prevention is the oldest, statewide, mandatory one-call system.

  - Assisted Commissioner during testimony before Connecticut Legislature to pass Connecticut's mandatory program.
  - Responsible for the oversight of the establishment of the mandatory statewide one-call system.
  - Responsible for oversight of development of bylaws and operating procedures, including establishment of a non-stock, non-profit corporation.
  - Responsible for development of State regulations to implement Statewide, mandatory one-call system.

- Establishment of Enforcement program for Connecticut Underground Damage Prevention Program.

  - Active in development and passage of Public Act 81-46 one-call enforcement.
  - Developed enforcement program to implement Public Act 81-46.

- Development of Reinvigorated One-Call Underground Damage Prevention Enforcement Program.

  - Oversaw the development of in-house computerized system for enforcement.
  - Simplified procedure for negotiated settlement of civil penalties.

- Oversight of Office of Pipeline Safety Recognized Comprehensive One-Call Underground Damage Prevention Program

  - Over 33 years overseeing the Connecticut one-call underground damage prevention program.
  - Recognized by the US Department of Transportation Office of Pipeline Safety Integrity Management for Gas Distribution Pipelines Report of Phase 1 Investigations (December 2005) as one of five state damage prevention programs identified as having a "comprehensive" program.
  - Analysis of five individual states with comprehensive damage prevention programs that include effective enforcement by the state agencies with responsibility for pipeline safety (Connecticut, Georgia, Massachusetts, Minnesota, and Virginia) shows a material improvement in gas distribution excavation damages per 1000 tickets compared to individual states that do not have effective enforcement programs. (Phase 1 Report)

Educator Experience

- Instructor at the Northeast Gas Association Gas Operations School. "Federal and State Pipeline Safety Regulations" (1978-1997, 1999-2011), Coordinating Emergency Response with Local Officials" (1996 - 1998), and "DOT Overpressure Protection Regulations" (1980-1981). Member Distribution Integrity Management Program (DIMP) panel (2005) and presentation on status of DIMP (2006).

- Instructor at the New England Pipeline Safety Representatives/U.S. DOT's Transportation Safety Institute Pipeline Safety Seminar:, "Distribution IMP" (2008), "PIPES Act of 2006 + Integrity Management Programs" (2007), "Integrity Management Overview & Update" (2005 and 2006), "Emergency Plans" (2006), "Yankee Gas LNG Plant Waterbury, CT" (2005), "Integrity Management - Update" (2004), "Integrity Management" (2003), "Data Processing and 1-Call Enforcement" (2001), "Initial Responder Actions" (2001), "PBR and Safety" (2000), "Pressure Testing" (1999), "High Pressure Distribution Lines" (1998), "Accident Investigation" (1997), "Emergency Plans" (1996) and "Coordinating Emergency Response With Local Officials" (1995).

- Instructor at the U.S. DOT's Transportation Safety Institute - gas service lines and meter installations (1988-1989).

Expert Testimony

- Southern New England Telephone Company DBA SBC Plaintiff vs. Giordano Construction Co., Inc. And Dimeo Construction Company Defendants (Case No. NNH-CV-06-5001B06-S, 2010 through 2011)

- Salome Vinaja vs. Cordillera Energy Partners, III, LLC, Panhandle Pipeline, L.P. and Granite Operating Company (Case No. C.A. No. CV-00049-J United States District Court Northern District of Texas, Amarillo Division, 2010)

- Emilio Teixeira, et. al. v. NSTAR Gas Company and David Teixeira, et. al. v. NSTAR Gas Company (Commonwealth Of Massachusetts Bristol, Superior Court C.A. NO.: 2006-01440-B and C.A. NO.: 2006-01441-C, 2009)

- Petco v. N.J. Natural Gas (Superior Court Of New Jersey, Law Division - Monmouth County Docket No. Mon-L-2784-05, 2009)

- Eastman v. Atmos Energy Corp., et. al. (Case No. DC-07-12177-B In the District Court of Dallas County Texas 44 Judicial District, 2009)

- Kathleen M. Brooks, et.al. vs. Old Republic Insurance Company et.al. (United States District Court Eastern District Of Wisconsin Case No: 06-C-996, 2008)

- Injured Workers' Insurance Fund, et al., vs. Eastern Shore Gas Company Inc. (In The Circuit Court For Worcester County In And For The State Of Maryland Case No. 23-C-05-09800, 2008)

Professional Affiliations

- Second Vice Chairman American National Standards Institute (ANSI) Gas Piping Technology Committee (GPTC) (1989-present). The GPTC has responsibility for developing guidelines for compliance with the minimum Federal Safety Standards that are published in the ANSI Z380.1, "Guide for Gas Transmission and Distribution Piping Systems." The GPTC also has responsibility for petitioning the federal government for changes in standards, and for commenting on proposed rulemakings.

- Member of the GPTC Executive Committee (1989-present).

  - Member of the GPTC Main Body (1976-present), which has technical responsibility and policy oversight of the GPTC.
  - Member of the GPTC Distribution Committee (1976-1990).
  - Member of the GPTC DI guidance TG (2006-2008) developing guidelines for the pending Distribution integrity management federal safety standards.
  - Secretary of the GPTC Editorial Section (1975-1990).
  - Chairman of the GPTC Procedures committee that revised the committee operating procedures and organization (1980-1981) and member (1989-1991).
  - Responsibility for revising "Guide for Gas Transmission & Distribution Piping Systems" 1976 Ed. Included development of technical material, and editing material for clarity, correctness, consistency and logical presentation.

- Member of the American Society of Mechanical Engineers (1979–present).

- National Association of Pipeline Safety Representatives (NAPSR).

  - NAPSR National Past Chairman (2007-2008)
  - NAPSR National Chairperson (2006-2007)
  - NAPSR National Vice Chairman (2005-2006)
  - NAPSR National Secretary (2004-2005)
  - NAPSR Board of Directors (2003-2008)
  - Chairman NAPSR Eastern Region (2004-2005)
  - Vice Chairman NAPSR Eastern Region (2003-2004)
  - Chairman NAPSR Integrity Management Program Committee (2003-2007)
  - Member NAPSR Distribution Integrity Government-Industry Team (2003-2005)
  - Member NAPSR Security Committee (2002-2006)
  - Charter member and member NAPSR (1982-2009)

- Vice Chairman of the New England Pipeline Safety Representatives (1988-2009).

- Member of the National Association of Regulatory Utility Commissioners (NARUC) Staff Committee on Pipeline Safety (1986-2009).

- Member of the B31 American National Standards Committee for Pressure Piping Conference Group (1976-2009).

- Presenter, Northeast Gas Association 2009 Fall Operations Conference:

  - Preparing for and Responding to State and Federal Audits
  - Distribution Integrity Rule and Quality Assurance
  - Corrosion Control & the Distribution Integrity Management Plan

- Presenter, US DOT Office of Pipeline Safety Distribution Integrity Management Program Webcast on DIMP process and response to Notice of Proposed Rulemaking (2008).

- Presenter, US DOT Office of Pipeline Safety Direct Assessment Workshop (November 2003) and Integrity Management Workshop (2004).

- Chairman Risk Control Practices Group of the U.S. DOT Office of Pipeline Safety (OPS) "Assuring the Integrity of Gas Distribution Pipeline Systems" effort. (2005–2006).

- Presenter, New England Gas Association Operating Division Meeting "Pipeline Security" (2002).

- Member of the US OPS Liquefied Natural Gas regulations review committee (1992) dealing with portable and temporary LNG facilities.

- Recipient of the American Society of Mechanical Engineers Board of Governors Certificate of Appreciation (1989).

- Chairman of the New England Conference of PUC Staff Committee on Gas (1980).

- Secretary of the 831.8 American National Standards Committee for Gas Transmission and Distribution Piping Systems (1975-1976).

- Secretary of the B31.3 American National Standards Committee for Chemical Plant and Petroleum Refinery Piping (1975-1976).

DARRELL SMITH

Project Role: **Lead Consultant: Capital and O&M Budgeting**
Consultant: Corporate Mission, Objectives, Goals and Planning

Summary of Qualifications

Mr. Smith has over 30 years of business experience as a management consultant, chief financial officer, small business owner and college instructor. Mr. Smith is an expert in financial management, having served as Chief Financial Officer of four companies, and in the management analysis of capital decisions. Mr. Smith spent twenty-five years in management consulting rising to the level of Principal and Vice President in two nationally recognized firms. For the past eleven years he has served as an executive consultant with NorthStar and has participated in over ten NorthStar affiliate transaction audits of utilities.

Mr. Smith has appeared as an expert witness on energy, the environment, and economic analysis before the U.S. Congress, Federal OSHA, and the states of California, Texas, Illinois, Louisiana, Massachusetts, New Hampshire, Florida, and Ohio. Specific topics included rate design, cost of service, forecasting, management performance, and prudence of major capital project decision-making. He has a BS in Business Administration/Operations Management from the University of California at Berkeley and an MBA from Harvard Business School.

Finance and Accounting Experience

- Chief Financial Officer of four privately-held service companies with revenues as high as $100 million.
- Evaluated investment decisions of several major electric utilities using state-of-the-art probabilistic decision analysis techniques.
- Directed teams in the development of computer analyses used to determine stakeholder effects of changes in operations and capital investments.
- Audited accounting transactions and procedures of several major electric utilities to evaluate compliance with commission-mandated rules.
- Evaluated internal controls for selecting, evaluating performance and paying vendors of a major electric utility.
- Led the evaluation of the Port of Los Angeles' Finance and Administration organization's performance.
- Developed financial models of the electric utility and steel industries used by several federal and state agencies.
- Developed a sophisticated budgeting program for a company with 26 operating units. Used this program to prepare detailed plans and budgets for full year and a major mid-year revision.
- Developed and implemented internal controls and procedures that reestablished credibility of an accounting system that had lost credibility.

- Evaluated maintenance procedures and costs for a large east coast gas utility with a fleet of over 1,000 units (vehicles and construction equipment). Evaluated the costs associated with fraudulent repairs by a vendor.
- Revised invoice review and payment approval procedures of a distribution and service company.
- Monitored the cash flow and maintained documentation of the cash clearing process for an agricultural processor.
- Implemented departmentalized accounting for a company with multiple locations.
- Managed due diligence investigation and financial analysis for several mergers and acquisitions including an $86 million stock merger with a public firm.
- Prepared comprehensive business and strategic plans, financial analyses and operational reports.
- Negotiated a refinancing that provided a sound financial base for market success.
- Analyzed acquisition offers and assisted in negotiating terms for merger.

Representative Utility Management Audit Experience

- Reviewed Lower Colorado River Authority's costs allocation processes as part of the review of the utility's transmission cost of service.

- Consultant on an audit of Public Service Electric & Gas's compliance with affiliate transaction standards. Assessed the extent of cross-subsidization of competitive services provided by the utility or its affiliates.

- Consultant on the 2002, 2003 and 2004 Affiliate Transaction Audits for San Diego Gas & Electric and Southern California Gas. Evaluated accounting procedures and systems and O&M costs. These audits, ordered by the California PUC, determined compliance with the State's Affiliate Transaction Rules.

- Consultant on the 1999 and 2000 Affiliate Transaction Audits for Southern California Edison. Evaluated accounting procedures and systems and O&M costs. These audits, ordered by the California PUC, determined compliance with the State's Affiliate Transaction Rules.

- Engagement Director for a commission-directed management audit of Duquesne Electric.

- Project manager for a commission-directed management audit of Bangor Hydro Electric.

Project Management Experience

- Assisted a major commercial bank implement new information flows including developing processes, staffing requirements and monitoring performance.

- Managed the conversion of the computer system for the retirement department of a major financial institution including developing requirements for the new system and manual processes for conversion.

- Trained managers in effective project control and assisted managers with troubled projects develop strategies and techniques to regain control.

Work Experience

- Executive Consultant, NorthStar Consulting (1999 – present)
- CFO, Central Valley Training Company (2000-2009)
- Independent Consultant (1998-1999)
- CFO, Resource Management Inc. (1997-1998)
- CFO, Barakat and Chamberlain (1994-1997)
- Owner and CFO, Delta Truck Sales (1986-1994)
- Adjunct Instructor of Management, Saint Mary's College, CA (1984-2008)
- Principal Putnam, Hayes and Bartlett (1983-1986)
- Principal and VP, Temple, Barker and Sloane (1975-1983)
- Analyst, Pacific Gas and Electric (1971-1975)
- Director Data Analysis for Compliance, Federal Energy Administration (1973-1974)

DAVID P. VONDLE

Project Role: Consultant: Work Management

Summary of Qualifications

Mr. David P. Vondle is a CMC with over thirty years of management consulting experience, primarily in the public utilities industry. Mr. Vondle is an expert in gas system safety performance and operations, main and service pipe replacement programs, damage prevention, business information systems, organization and staffing, contracting and contractor management, performance measurement and management, business process analysis and improvement, and O&M and capital cost planning, management and control.

Mr. Vondle has played a key role in over thirty regulatory audits, including management reviews of: Southern Connecticut Gas, Philadelphia Gas Works, National Fuel Gas, Peoples Gas Light/North Shore Gas, Central Illinois Light Company Gas Division, Pacific Gas & Electric, Louisville Gas & Electric and Southern California Gas. Much of his consulting experience is with gas transmission and distribution companies, including, Southern California Gas, New Jersey Natural Gas, Gas Company of New Mexico, Vectren/Indiana Gas Company, United Cities Gas, Public Service Company of North Carolina, Connecticut Natural Gas, Integrys/Peoples Energy, and the municipal gas utilities of Colorado Springs, Corpus Christi, and Los Alamos. He was responsible for developing an International Benchmarking and Best Practices Consortium for gas transmission and distribution utilities for AUC Management Consultants. The Consortium's scope included practices related to transmission and distribution gas system safety, regulatory compliance and operational performance. Mr. Vondle has a B.S. in Industrial Management from the University of Akron and an MBA from Southern Methodist University

Most of Mr. Vondle's consulting engagements involve workforce strategy, work management, reviewing or developing performance metrics and improving productivity. His book, Service Management Systems: How to Create Competitive Advantages through Integrated Work Management, Materials Management, Facilities Management, and Cost Management Systems, was published by McGraw-Hill. Mr. Vondle received his M.B.A. from Southern Methodist University and his B.S. in Industrial Management from the University of Akron.

Gas Utility Management Audit Experience

- Lead Consultant for gas system operations in a management audit of Southern Connecticut Gas for the Connecticut Department of Public Utility Control. The audit scope included gas system safety performance and pipeline safety regulations compliance programs.

- Project Manager for the management audit of National Fuel Gas' Pennsylvania operations for the Pennsylvania Public Utility Commission. Also served as the Lead Consultant for gas system planning, design and construction; gas system operations and

maintenance; gas supply; and staffing levels. The audit scope included gas system safety performance and pipeline safety regulations compliance programs.

- Lead Consultant on the management audit of a gas utility for the Illinois Commerce Commission in the areas of gas supply; organization and work force management; gas systems planning, design and construction; and operations and maintenance. Examined the cast iron pipe replacement program and the mobile dispatch system. The audit scope included gas system safety performance and pipeline safety regulations compliance programs.

- Lead Consultant on the management audit of Peoples Gas Light/North Shore Gas for the Illinois Commerce Commission in the areas of technology use, systems betterment, maintenance programs, and system mapping and records. Examined the economics of an urban utility cast iron replacement program and the adequacy of the cathodic protection program. The audit scope included gas system safety performance and pipeline safety regulations compliance programs.

- Team Leader in the areas of distribution operations and measurement in the California Public Utility Commission's ordered management audit of Southern California Gas.

- Lead Consultant in the review and analysis of Los Angeles Department of Water and Power's workforce planning, gas procurement and wholesale power trading risk management activities as part of the Department's Ten-Year Strategic, Industrial and Economic Survey.

- Lead Consultant in the review and analysis of Pacific Gas & Electric's gas supply portfolio in conjunction with the California Public Utility Commission's sponsored study during the California energy crisis. Examined the gas supply portfolio and related storage and peaking facilities in the context of the cash crisis to assure continued reliable gas supply for the remainder of the winter. The study also examined PG&E's financial hedging activities.

- Lead Consultant for gas supply planning and gas portfolio management for the Pennsylvania Public Utility Commission's sponsored management audit of the Philadelphia Gas Works. The study included the organization and staffing for gas supply, gas supply information systems, gas supply planning process, and the gas supply portfolio and hedging activity.

- Lead Consultant in the management audit of affiliate relations of Southern Connecticut Gas for the Connecticut DPUC. Reviewed the implementation of a new customer information system which was developed and implemented by an unregulated affiliate.

Gas Utility Management Consulting Experience

- Expert Witness and technical resource for a series of cases for the Massachusetts Attorney General (consumer advocate), including an examination of the safety performance and economic effectiveness of NiSource/Bay State Gas Company's and NSTAR's main and service replacement programs.

- Directed a process improvement program for a major southeastern gas utility. Areas included were system integrity (leak survey, leak repair, valve maintenance, right of way maintenance, patrols and inspections, cathodic protection, and pipe replacement program) and pressure management (compressor stations, SCADA, metering, regulation, measurement, city gate stations, LNG plant, farm taps, odorization, and the gas operations center).

- Facilitated two process improvement teams for a major western gas transmission and distribution company. Improvements included lower costs, reduced downtime, and fewer damage incidents. Both projects developed metrics for work management, cost and service levels.

- Prepared a major Midwestern gas utility for a management audit. Areas covered included transmission and storage operations, safety performance and regulation compliance.

- Directed a project to improve the corporate performance management including a "balanced scorecard" of key performance indicators for a large mid-west gas utility.

- Directed the overhaul and modernization of the services contracting process for a large gas utility. The effort included the company's contracting philosophy, contracting economics, contractor qualifications, labor relations issues, bid packaging, bidding and selection procedures, contract pricing, contract documents and internal controls.

- Directed a project to achieve cost reductions and customer service improvements through organization, work management policy, and facility changes for a large gas company. Areas covered included engineering, customer service, construction, maintenance, warehousing, and business offices.

- Lead consultant on an engagement for a combination utility to develop a succession management program that was fully integrated with its performance management program.

- Lead consultant on an engagement for a combination utility to develop a labor resource optimization program. The program included a review of enterprise metrics and targets and leveraging the performance management process to achieve the program objectives of reducing employee staffing by ten percent.

- Conducted best practices studies for individual clients or small groups of clients on topics including engineering, maintenance management, damage prevention, dispatching, and customer service.

- Led a team for a large Western combination utility that examined all of its shared support services and recommended a new management process to improve internal client satisfaction and reduce costs. The new management process includes clear definition of roles, defined quality and service requirements, accurate costing, clear pricing and billing, and integrated business planning and performance appraisal.

- Directed a project to analyze and improve the service, quality, and cost performance levels for the customer service representatives and service technicians for a major mid-western gas utility. This project included developing service, quality, and performance metrics.

- Initiated developed and directed the AUC Management Consultants International Best Practices Consortium for natural gas local distribution utilities. Over its seven years of operation, the Consortium had thirty utility participants from seven countries. The Consortium included a balanced scorecard of benchmarked performance measures covering all aspects of company operations and customer service and examined innovative best practices from around the world.

Work Management Consulting Experience

- Led a team of engineers and inspectors to reengineer the contractor inspection process. The team developed practical recommendations to improve inspection, reduce risk exposure, and lower total costs.

- Directed an organization and work management study for a regional Bell holding company. Evaluated the organization structure, workload trends, the use of available technology, and cost accounting practices. Developed appropriate productivity performance metrics.

- Conducted a comprehensive audit of an electric company's workforce planning, productivity and staffing levels. Addressed the workforce planning process, contract versus in-house decision-making, overtime control, proposed labor saving investments and reward systems.

- Conducted a study that related staffing needs to performance for a growing Western city. Departments covered included police, courts, parks, water and wastewater, and public works.

- Conducted a work management study for a municipal water utility. Developed a plan for integrated work management and materials management systems.

- Conducted an organization and staffing study that produced a streamlined organization structure that improved customer service and reduced costs for large municipal water utility.

- Conducted a management review of the organization, staffing and work management practices of the public works and utilities departments of a major Texas city.

Performance and Results Management and Corporate Mission Consulting Experience

- Lead consultant on a Corporate Performance Management Organization and Process Improvement program for a Midwest investor owned combination utility. The program included the mission statement, strategic planning, business planning, issues

management, performance metrics, individual performance planning and evaluation and incentive compensation.

- Assisted a combination utility develop a succession management program that was fully integrated with its performance management program.

Work Experience

- Independent Consultant (1999 to present)
- Founder and Managing Director, AUC Management Consultants (1989 – 1998).
- Director, Impell Pacific (1988 – 1989)
- Founder and President, Management Technology, Inc. (1985 – 1988)
- Senior Vice President, Wolfe & Associates, Inc. (1982 – 1985)
- Principal, Theodore Barry & Associates, Inc. (1974 – 1982)

ROBERT DECKER

Project Role: Project Administrator

Summary of Qualifications

Mr. Decker has over thirty years of experience in industry with a focus on information technology (IT). Within IT, he has experience with program and project management, organizational development, financial management, and implementation of new and emerging technologies. Mr. Decker's business experience includes roles as Director of Management Information Systems, Data Center Manager, and Information Management Consultant. Specializations include datacenter facilities, complex networks and web based technologies. Mr. Decker has managed global information technology projects such as the implementation of Microsoft infrastructure at Digital Equipment Corporation (DEC). Mr. Decker has a degree from Evergreen Valley College in Business Administration and Accounting and attended San Jose State University. He has a BS in Business Accounting from the University of Phoenix.

Utility Consulting Experience

- Project administrator and consultant on the management audit of Illinois American Water for the Illinois Commerce Commission. Reviewed costs of IT services. (2011)
- Project administrator on the management audits of NMPC and Central Hudson for the NY PSC. (2009 and 2010)
- Project administrator and consultant on the management audit of New Jersey American Water for the New Jersey BPU. (2010)
- Consultant on the Qwest Communications, Inc. Colorado Performance Assurance Plan (CPAP) audit for the Colorado PUC. Performed statistical verification of CPAP measures and information and technology review. (2003 and 2004)
- Performed records management assessment, provided guidance, identified strengths, weaknesses, and made recommendations to mitigate regulatory risk associated with large T&D engineering projects for Southern California Edison's (SCE) Transmission and Distribution (T&D) Business Unit. (2003, 2006)
- Performed assessment, provided recommendations, tools, and assessments for design and implementation of a record management program for SCE's energy efficiency program. (2004)

Computer Industry and Information Management Experience

- Manager of technical consulting group providing projects to the U.S. Government and prime government contractors.
- Director of advanced technology projects.
- Manager of system and network managers engaged in running operations for the VAX 9000 manufacturing plant.
- Director of virtual teams responsible for management of three corporate data centers: including operations, system management, helpdesk, application support, business operations and integration.
- Project work engaged in audit preparation internal audits.
- Project work as facilitator and instructor for several technology based classes on programming languages and operating systems.
- Consultant working on advanced engineering projects for a Silicon Valley startup.

Project Management and Project Experience

- Project Manager for construction of an engineering data center at a California research facility.
- Project Manager for data center consolidation of all western U.S. data centers for DEC.
- Project Manager for revision of the global corporate information security policies at Compaq Computer Corp.
- Project Manager for "Y2K" testing and migration project for Compaq Computer Corp.
- Project work, designed and prototyped a web-based system for engineering manuals at Los Angeles Bureau of Engineering and Phoenix Airport Aviation Department.

Work Experience

- Consultant, NorthStar Consulting Group (2003-present)
- Hewlett Packard Company Technology Consultant (2001-2003)
- Compaq Computer Company (1998-2001)
- Digital Equipment Corp. (1978-1983, 1984-1998, 1990-1998)
- Independent Consultant (1983-1984, 1998-1990)

VI. SCHEDULES AND BUDGETS

NorthStar's proposed not-to-exceed cost for performing the management audit of NFGDC is $740,375. This proposed cost includes all professional fees ($655,000) and expenses ($85,375) associated with performing the work and delivering the necessary draft and final reports described in this proposal. Additional appearances and testimony will be billed at the individual hourly rates shown in **Exhibit VI-1.**

Our proposed cost is based on our normal hourly fees and normal travel, lodging, and other expenses. Details of our proposed project cost, including hours by consultant by task and estimated expenses by consultant, are provided in **Exhibit VI-1**. Details of project expenses by category can be found in **Exhibit VI-2.** NorthStar's project cost information can be reconfigured in another format if desired.

Invoices will be submitted monthly in accordance with milestones and are due upon receipt. Invoices will include professional fees for hours worked to date, and will not exceed the limits shown in **Exhibit VI-1**. Invoice backup will include:

- Hours worked, professional fees, and expenses (by expense category) for each consultant.
- Copies of all expense receipts over $25.
- Percentage of work completed.

Individual consultants and the firm are reimbursed monthly for direct expenses incurred in conducting the assignment. In general, our policy provides that each consulting team member is reimbursed at the same levels, for the same expense item regardless of role, according to the following:

- Personal mileage is reimbursed at the rate allowed by the IRS.
- Travel is reimbursed to and from the consultant's home, office, or last work assignment. Travel fares are based on coach or discounted rates when available. In cases where a consultant is traveling from another assignment, the cost will be allocated (with documentation) between assignments in an appropriate manner. However, the amount will not be greater than if from the consultant's home.
- Miscellaneous expenses are charged at cost with receipts.
- Communication, copying, and mail costs are charged at cost.

NorthStar is cognizant of the need to contain expenses. Travel expenses will be reasonable and limited to only what is necessary for the conduct of the audit. NorthStar will exercise fiscal responsibility when making travel arrangements. Travel and accommodations will be booked in advance to the extent possible to minimize the cost. Change fees, upgrade fees, short-term parking at airports, one-way car rentals, and other unnecessary charges will be avoided. We will endeavor to utilize available technology to conduct meetings via videoconferencing and/or teleconferencing to the extent practical in order to achieve efficiencies throughout the audit.

Exhibit VI-1
Summary of Audit Fees and Expenses

	D. Bennett	A. Anderson	J. Ayers	C. Etter	D. Francis	P. Sher	D. Smith	D. Vondle	R. Decker	Total
Phase I: Planning and Orientation	**50**	**50**	**40**	**50**	**40**	**20**	**50**	**30**	**50**	**380**
Phase II: Technical Review										
Corporate Mission, Objectives, Goals and Planning				110			100			210
Load Forecasting				20	70					90
Supply Procurement				70	30					100
System Planning	50	20		10	60	60				200
Capital and O&M Budgeting	70	20		10			80			180
Program and Project Planning and Management	70	70	20	10	50					220
Work Management		20	50	10				90		170
Performance and Results Management		60	70							130
Subtotal Phase II	**190**	**190**	**140**	**240**	**210**	**60**	**180**	**90**	**0**	**1300**
Phase III: Cost-Benefit Analyses	**50**	**80**	**25**	**25**	**10**		**25**	**10**		**225**
Phase IV: Report Development	**50**	**50**	**30**	**50**	**30**		**30**	**15**		**255**
Project Management	**50**			**50**					**200**	**300**
Total Hours	**390**	**370**	**235**	**415**	**290**	**80**	**285**	**145**	**250**	**2,460**
Rate	**$ 300**	**$ 275**	**$ 275**	**$ 275**	**$ 230**	**$ 360**	**$ 275**	**$ 275**	**$ 175**	
Fees	**$ 117,000**	**$ 101,750**	**$ 64,625**	**$114,125**	**$ 66,700**	**$ 28,800**	**$ 78,375**	**$ 39,875**	**$ 43,750**	**$ 655,000**
Estimated Expenses	**$ 15,700**	**$ 15,920**	**$ 8,755**	**$ 12,100**	**$ 9,000**	**$ 3,450**	**$ 10,400**	**$ 4,800**	**$ 5,250**	**$ 85,375**
TOTAL COST	**$ 132,700**	**$ 117,670**	**$ 73,380**	**$126,225**	**$ 75,700**	**$ 32,250**	**$ 88,775**	**$ 44,675**	**$ 49,000**	**$ 740,375**

Note: The lead consultant for each audit area is highlighted in yellow.

Table VI-2
Estimated Expenses

Expense Category	Amount	Total
Transportation and Lodging		
Hotel (est.175 hotel nights)	$ 31,000	
Air Transportation (est.35 trips)	20,500	
Meals/Per Diems	11,375	
Ground Transportation	12,000	
Miscellaneous	6,000	$ 80,875
Supplies and Materials		
Telephone, Teleconference	3,000	
Office supplies	1,500	$ 4,500
Total Expenses		**$ 85,375**

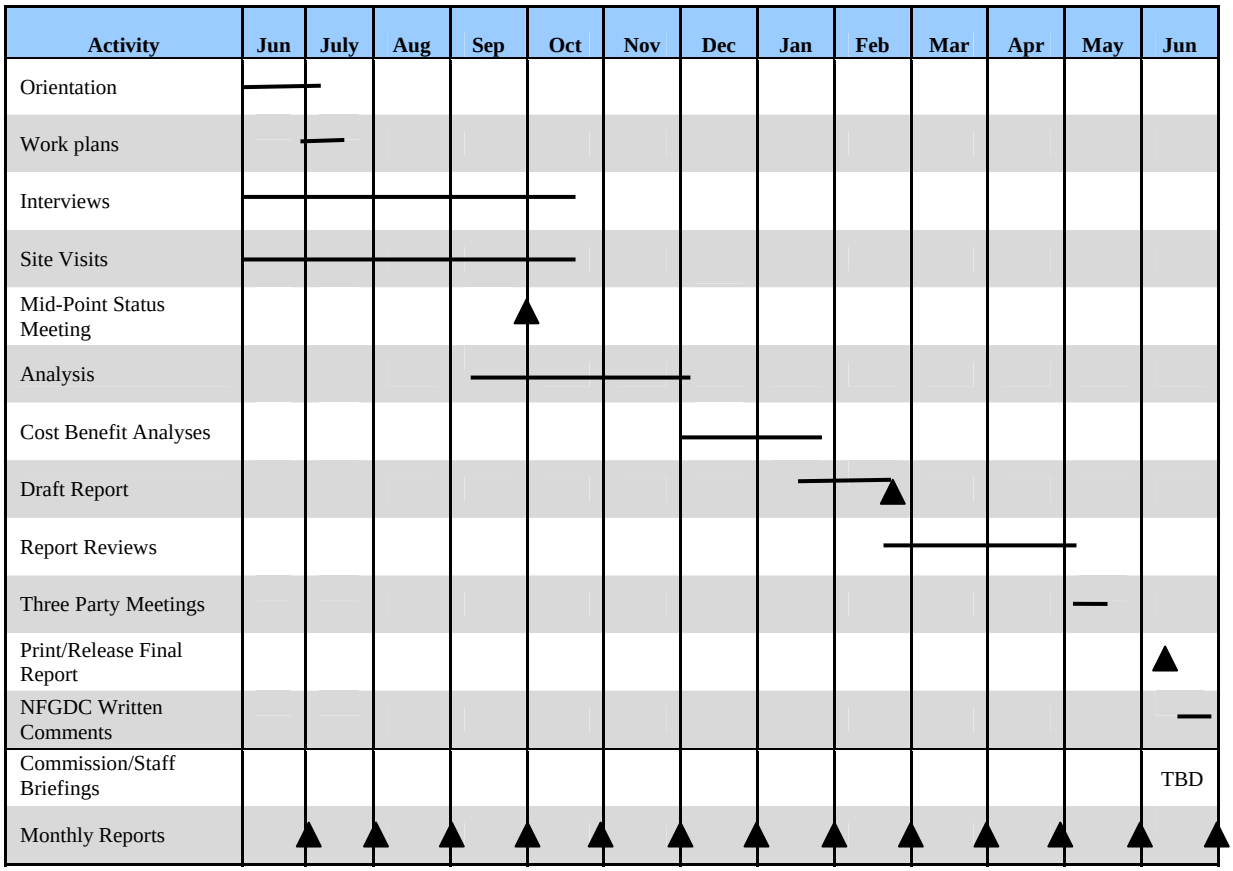
Our estimate of project expenses includes travel to New York, report preparation, developing quantification of savings, responding to Staff and company comments on draft reports and participating in three-party meetings.

Key milestones/deliverables can be found in **Exhibit VI–3**. **Exhibit VI-4** shows the proposed schedule for completing the audit. The final schedule will be developed in consultation with the Department. Assuming a start date of June 4, 2012, the draft report would be completed and submitted to staff by February 25, 2013 and the final report submitted on or before June 10, 2013.

Exhibit VI-3
Key Milestones/Deliverables

Key Milestone/Deliverable	Date
1. Begin Audit	June 4, 2012
2. Submit draft work plan to Staff	July 6, 2012
3. Detailed work plan approved (Phase I complete)	July 13, 2012
4. Technical audit begins	July 16, 2012
5. Mid-point status meeting/emerging issues	October 1, 2012
6. Develop preliminary findings and recommendations	November 19, 2012
7. Begin cost-benefit analyses	December 3, 2012
8. Complete detailed audit investigation and CBA	January 18, 2013
9. Submit draft report to staff	February 25, 2013
10. Submit draft report to NFGDC for factual accuracy	April 1, 2013
11. Comments back from NFGDC	April 29, 2013
12. Submit revised draft report to Staff/NFGDC	May 13, 2013
13. Issue final report (Phase IV complete)	June 10, 2013
14. NFGDC submits written comments on final report	TBD

Table VI-4
Proposed Project Schedule (2012 - 2013)



VII. EXPERIENCE AND QUALIFICATIONS

This chapter provides the statement of qualifications for NorthStar Consulting Group. We provide summaries of engagements similar to the scope of work on this assignment and a listing of references. Qualifications and resumes of individual consultants can be found in **Chapter V – Project Team and Responsibilities**.

This chapter is organized as follows:

A. Overview
B. Utility Expertise
C. Representative Management Audit Experience
D. Other Utility Consulting Projects
E. Client References

A. OVERVIEW

NorthStar is a full service management consulting firm specializing in services to the utility, transportation, and public service industries. NorthStar's clients include regulatory commissions, investor-owned electric, gas, water and telecommunications utilities, municipal governing bodies, and municipal electric and water utilities. NorthStar focuses on providing its clients with the understanding, knowledge, training, and tools necessary for them to manage and overcome challenges, improve performance, and provide cost-effective service to their customers and stakeholders. NorthStar's consultants have provided services to the utility industry since the mid-1970s, working with clients to adapt, reorganize, and comply with a changing regulatory and operating environment.

Founded in 1999 and incorporated in the State of California, NorthStar's partners and staff have served clients throughout the United States and Canada. While NorthStar is continually serving new clients, a substantial portion of its practice consists of providing consulting services to organizations that its partners and staff have established relationships with over the years.

NorthStar provides a broad array of management services, including:

- **Management Audits.** Comprehensive audits of the management and operations of electric, gas, water and telephone utilities aimed at developing more effective and efficient policies and procedures. These projects include extensive investigation in areas such as executive management, financial management, customer services, human resources, field operations, and support services.

- **Affiliate Transaction Audits**. Process and financial-based audits of transactions between regulated utilities and their holding companies and unregulated affiliates. The purpose of these audits is to determine if a utility's ratepayers are subsidizing

unregulated businesses or if the unregulated affiliates are leveraging their relationship with its regulated affiliate to obtain a market advantage.

- **Operations Management.** Comprehensive studies in distribution and customer operations including quality assurance procedures, work management, scheduling, work standards, manpower utilization, methods engineering, equipment maintenance, inventory controls, and cost reduction.

- **Work Force Management.** Comprehensive and focused programs to increase worker productivity and reduce labor expenses. Strengths and improvement opportunities of current systems are evaluated and the utilization of the existing work force is established. A baseline for service level, quality and productivity is defined for an implementation program consisting of orientation sessions, training of supervisory personnel, measurement of work, and development of performance indicators.

- **Project Management.** Examination, evaluation and development of the overall engineering, procurement and construction management processes including: organization of engineering and construction functions; reporting relationships within client and external contractors; selection of architect/engineer or engineering/ construction firm and/or general contractors and subcontractors; evaluation of contracts; processes of planning, scheduling estimating, and reporting progress and expenditures; site management; accounting; materials tracking and control; work force productivity; quality assurance; and document control.

- **Construction Program Management.** Design and implementation of management processes and working materials that enable client management and staff to effectively manage and control large scale construction and development programs. Developing project management organization, control tools, reporting systems, training modules, and performance measurement techniques for use by client personnel.

- **Business Planning.** Assessment of organization capability for anticipating and responding to changes in demand, market demographics, environmental factors, government regulations, cost factors, availability of capital, and those factors which affect operations and performance.

- **Performance Benchmarking and Process Re-Engineering.** Definition and quantification of basic indicators by which management, regulators and financial institutions can judge the performance of the company or specific functional unit; thus providing a common basis for reviewing management. Identifying key measures of performance, establishing appropriate benchmarks to evaluate how well the company is being managed, and providing a tool for continuous measurement of such performance.

- **Best Practices and Operations Improvement.** Comprehensive programs covering the overall effectiveness of management, organization structure, policies, decision

processes, and critical operating procedures. NorthStar consultants have conducted numerous management and operations improvement programs - ordered by public utility commissions and company-authorized - because of the need to develop an improved understanding of company operations beyond those provided through routine processes.

NorthStar maintains offices in Las Vegas, Nevada, New London, New Hampshire, and Santa Maria, California. NorthStar professionals are recognized specialists in the utility industry and possess substantial experience in business process re-engineering and best practices, organizational planning and development, strategic planning, corporate performance, operations and maintenance management, work force management, engineering and construction, plant operations, financial planning, and supply chain management.

B. UTILITY EXPERTISE

NorthStar consultants are utility experts who have successfully completed numerous challenging assignments for private- and public-sector clients. We have performed a significant number of project assignments for various federal, state and municipal government agencies, utility companies, boards and commissions. An important element of our approach to consulting engagements is developing and maintaining a close working relationship with the clients for whom we have performed work over the years. It is our goal to develop long-term client relationships by providing valuable counsel and assisting clients to achieve the benefits of our recommendations. We believe that achieving real, tangible and sustainable results for our clients generates the primary value added from consulting. Many of our projects have involved analyzing situations, identifying problems and developing solutions, as well as detailed implementation, planning and assistance.

We are committed to implementing the results of our analytical work and we are proud of our reputation of producing results for our clients. We believe that the strong implementation focus of our practice, combined with our experience in facilitating the change process in a variety of client environments is unique in the consulting profession and the key to our success. It is the hallmark of our consulting profession and the driving force behind our selection of staff and organizational structure.

We feel that our qualifications, as discussed below, optimally position us to effectively perform the management audit of NFGDC's New York State utility operations.

1. **Independent, Unbiased and Objective Approach** - NorthStar is able to offer our services without the hindrance of any issues or concerns that might be raised about our independence and objectivity. NorthStar has never directly or indirectly worked for NFGDC or any of its affiliated companies.

2. **Extensive Utility Industry Consulting Experience** - NorthStar consultants have worked with more than 50 clients during the last 30 years, including many reviews to evaluate management effectiveness.

3. **Subject Matter Expertise** – NorthStar consultants provide expertise in all areas of utility operations and management.

4. **Strong Project Management Capabilities** - NorthStar personnel have a proven track record of managing large, complex projects on time and within budget, while providing high quality work products. We have successfully managed numerous projects of scope and complexity similar to this audit.

5. **Extensive Testimony Experience** - Most of the members of our project team have experience with the preparation and/or presentation of testimony to public service commissions, state legislatures, and others.

NorthStar consultants have worked with many public and private utilities, municipal government departments, and regulatory bodies in the U.S. Some of clients we have served are listed below.

Regulatory Commissions	California Public Utilities Commission	New York PSC
	Connecticut PURA	Ohio PUC
	Illinois Commerce Commission	Pennsylvania PUC
	Massachusetts PUC	Texas PUC
	Nevada PSC	US Dept. of Commerce
	New Jersey Board of Public Utilities	US Environmental. Protection Agency
Municipal Organizations	Los Angeles Bureau of Engineering	Los Angeles Dept. of General Services
	Phoenix Sky Harbor International Airport	Port of Los Angeles
Municipal Utilities	Colorado Springs DPU	Memphis Light Gas and Water
	East Bay Municipal Utility District	Nebraska Public Power District
	Glendale Public Utilities	New York Power Authority
	Ketchikan Municipal Utilities	Omaha Public Power District
	Los Angeles Dept. of Water and Power	Seattle City Light

Investor-Owned Public Utilities	Alliant	New Jersey American Water
	Arizona Public Service Company	New Jersey Natural Gas Company
	Boston Edison Company	New York State Electric & Gas
	Central Vermont Public Service Corp.	Niagara Mohawk
	Cilcorp	NICOR
	CMS Energy	Northeast Utilities
	Columbia Gas Ohio	Northern Indiana Public Service
	Consolidated Edison Company	Oklahoma Gas & Electric
	Dominion Energy Ohio	Pacific Bell
	Duke Power	Pacific Gas and Electric Company
	Elizabethtown Gas Company	Peoples Energy
	Enbridge Consumers Gas	Public Service Co. of New Mexico
	Exelon	Public Service Electric and Gas
	General Public Utilities Corporation	Public Service Oklahoma
	Great Plains Energy	QWEST Communications
	Jersey Central Power & Light	San Diego Gas and Electric
	Kentucky Utilities Company	Southern California Edison
	KeySpan	Southern California Gas Company
	MDU Resources	Southern New England Telephone
	MidAmerican Energy	United Illuminating Company
	Montana Power Company	US WEST
	Mountain Fuel Supply Company	Vectren Energy Delivery
	Nevada Power Company	WE Energies

C. REPRESENTATIVE MANAGEMENT AUDIT EXPERIENCE

Central Hudson Gas and Electric (Central Hudson)

NorthStar performed a comprehensive management audit of Central Hudson for the New York PSC. Central Hudson is an independent regulated natural gas and electric distribution utility serving approximately 300,000 electric and 74,000 gas customers in New York's Mid-Hudson River Valley. The audit focused on Central Hudson's construction program planning, operational efficiency and performance including reliability, and affiliate transactions. The audit also included a review of Central Hudson's affiliate transactions. Doug Bennett, Angela Anderson, Carol Etter, Dawn Francis and Robert Decker worked on this engagement. (2010)

Niagara Mohawk Power Corporation d/b/a National Grid Electric Business

NorthStar completed a comprehensive management audit of National Grid's (NG) Upstate New York electric business for the New York PSC. NG has over 1.5 million electric customers in Upstate New York. The audit focused on NG's construction program planning, operational efficiency and performance including reliability. Doug Bennett, Carol Etter, Dawn Francis, Dave Vondle and Robert Decker worked on this engagement. (2009)

Just Energy Illinois Corporation – Management and Compliance Audit

NorthStar performed an audit of the sales and marketing practices of Just Energy, an alternative natural gas supplier marketing in Illinois. The primary objective of the audit was to substantially reduce customer complaints. The audit was initiated in response to a lawsuit filed by the Illinois Attorney General and a complaint filed by various parties with the

Illinois Commerce Commission alleging unfair and deceptive sales and marketing practices by Just Energy. Angela Anderson directed this engagement and Dawn Francis served as Lead Consultant. The final audit report was submitted on January 4, 2012 and is available at:

http://www.icc.illinois.gov/docket/files.aspx?no=10-0398&docId=175735

Contact: Mr. Peter Muntaner
Project Manager, Illinois Commerce Commission
160 N. LaSalle, Suite C-800
Chicago, IL 60601
(312) 814-6074

Illinois American Water Company (IAWC) - Service Company Fee Audit

NorthStar performed an audit of the fees assessed to IAWC by its affiliate service company for the ICC. IAWC, a wholly-owned subsidiary of American Water Works, has 200,000 customers and is the largest water utility in Illinois. Doug Bennett, Angela Anderson, Carol Etter, Dawn Francis and Robert Decker worked on this engagement. The final audit report was submitted on January 11, 2012 and is available upon request.

Contact: Mr. Daniel G. Kahle, CPA
Project Manager, Illinois Commerce Commission
527 East Capitol Avenue
Springfield, IL 62701
(217) 782-4710

Los Angeles Department of Water and Power – Renewables Performance Audit

NorthStar conducted a performance audit of LADWP's Renewable Portfolio Standard (RPS) program, performed for the Controller's Office. The primary objective of the audit was to determine whether LADWP had efficient and effective processes for implementing the City's RPS to increase the use of wind, solar, geothermal, biomass and small hydroelectric power and meet the goal of achieving 20 percent of the City's electricity needs from clean, renewable sources in 2010 and for the future. Doug Bennett, Angela Anderson, and Dawn Francis worked on this engagement. The audit report is available on the City's website at:

http://controller.lacity.org/stellent/groups/electedofficials/@ctr_contributor/documents/contributor_web_content/lacityp_014034.pdf

Contact: Mr. Farid Saffar, CPA
Director of Auditing, City of Los Angeles Controller's Office
200 North Main Street, Suite 460
Los Angeles, CA 90012
(213) 978-7392

New Jersey American Water (NJAW) - Comprehensive Management Audit

NorthStar conducted a comprehensive management audit of NJAW for the New Jersey BPU. The audit focused on numerous functional areas including organizational structure, customer service, finance and accounting, strategic planning, support services, operations and work management, and affiliate transactions. NJAW is a regulated affiliate of American Water Works, Inc., the largest investor-owned water company in the US. NJAW has 640,000 water and wastewater customers and $560 million in annual revenue. The audit included a detailed assessment of the relationships between NJAW, its holding company, the service company, and the unregulated affiliates. Doug Bennett, Angela Anderson, Carol Etter, Dawn Francis and Robert Decker worked on this engagement. (2010)

Contact: Mr. Dennis Moran
Director – Division of Audits, New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102
(973) 648-7664

Southern Connecticut Gas (SCG) - Comprehensive Management Audit

NorthStar completed a comprehensive management and audit of Southern Connecticut Gas Company for the Connecticut DPUC. The audit focused on numerous functional areas including executive management, support services, system operations, financial operations, supply management, and affiliate transactions. SCG has 180,000 natural gas customers. SCG has numerous interfaces with its affiliates resulting in transactions between SCG and the Energy East (EE) service company, a liquefied natural gas plant owned by an affiliated marketer, the EE management company, shared contracts with its sister Connecticut utility, Connecticut Natural Gas, and a shared asset management contract with all of the EE companies. Angela Anderson, Carol Etter, Dawn Francis and Dave Vondle worked on this engagement. (2009-10)

Contact: Mr. Robert Palermo
Public Utilities Regulatory Authority (formerly DPUC)
10 Franklin Square
New Britain, CT 06051
(860) 827-2760

Ohio Gas Utilities – Credit and Collections Audit

NorthStar performed a review of the credit and collection policies and procedures of the four natural gas utilities for the Ohio PUC. The audits were performed simultaneously, completed under an aggressive schedule and provided numerous recommendations for performance improvement. Angela Anderson directed this engagement. Carol Etter and Dawn Francis served as Lead Consultants. The public version of NorthStar's audit report was issued on May 3, 2010, and is available on the PUCO's website at:

http://dis.puc.state.oh.us/TiffToPDf/A1001001A10E03B64021D26087.pdf

Contact: Ms. Barbara Bossart
Manager of Audits, Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43215
(614) 466-0793

Duke Energy of Ohio – Gas Supply Management Audit

NorthStar performed a gas supply management/performance review of Duke Energy of Ohio for the Ohio PUC. Carol Etter directed this engagement and Dawn Francis served as Lead Consultant. (2009)

Contact: Mr. Roger Sarver
Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43215
(614) 466-7647

Southern California Edison – 1990, 2000, 2001, and 2006 Affiliate Transaction Audits

NorthStar Consulting Group performed the annual affiliate transaction audit for calendar years 1990, 2000, 2001, and 2006 in compliance with the California Public Utility Commission (CPUC) Affiliate Transaction Rules. The Rules require the utility to conduct an independent annual audit and file the audit results with the CPUC. The objective of these audits was to express an independent opinion on the degree and extent of SCE's compliance with the CPUC's rules governing affiliate transactions and relationships, and with SCE's own compliance plans. NorthStar reviewed utility compliance in areas such as organizational structure, non-discrimination, information disclosure, separation, internal controls, cost allocations, and competitive services. NorthStar completed the last SCE audit in April 2007. Doug Bennett, Dawn Francis and Darrell Smith worked on this engagement. A copy of this document can be found at:

http://www.sce.com/NR/sc3/tm2/RPA/Reg_Info_Ctr/AffiliateAuditReport/2006_affiliate_transactions_audit_report.pdf

Contact: Mr. Jack Fulcher
California Public Utility Commission
505 Van Ness Avenue
San Francisco, CA 94102
(415) 713-1711

Southern California Gas Company and San Diego Gas and Electric – 2000, 2001, 2002, and 2004 Affiliate Transaction Audits

NorthStar conducted the 2000, 2001, 2002, and 2004 affiliate transaction audits of Sempra Energy's two regulated utilities, San Diego Gas and Electric and Southern California Gas Company. The annual audits are a requirement of the State of California's Affiliate

Transaction Rules. The purpose of this audit was to provide a professional opinion as to each utility's relative compliance with the California Affiliate Transaction Rules. Doug Bennett, Dawn Francis and Darrell Smith worked on this engagement.

NorthStar completed the last Sempra audit in May 2005. NorthStar's audit results were recognized by the CPUC in D.06-12-029, pages 11-12. A copy of the decision can be found at: http://www.cpuc.ca.gov/WORD_PDF/FINAL_DECISION/63087.PDF.

Contact: Mr. Jack Fulcher
California Public Utility Commission
505 Van Ness Avenue
San Francisco, CA 94102
(415) 713-1711

Lower Colorado River Authority (LCRA) – Cost Allocation Audit

NorthStar performed an audit of the transmission cost of service of LCRA for LCRA and the Public Utility Commission of Texas. The audit encompassed five subject areas: direct transmission charges, allocation of overhead charges, FERC reporting, administration of capital expenditure transmission projects, and transmission cost-of-service. LCRA is a Texas reclamation and conservation district operating in Central Texas. LCRA, through its wholly owned subsidiary, LCRA Transmission Services Corporation (TSC), provides wholesale transmission services throughout the ERCOT region. TSC has gross revenues of approximately $170 million annually and assets in excess of $1.2 billion. Angela Anderson, Dawn Francis and Darrell Smith worked on this engagement.

Contact: Mr. Roger de la Garza
Lower Colorado River Authority
3700 Lake Austin Boulevard
Austin, TX 78703
(512) 473-3273

QWEST Communications – 2003 and 2004 Compliance Audit

NorthStar was selected by the Colorado PUC to conduct the 2003 and 2004 Colorado Performance Assurance Plan Audits of QWEST Communications. The objective of the audits was to determine QWEST's overall compliance in providing parity in service to its competing local exchange carriers.

In order to evaluate Qwest's service levels a number of service metrics were developed and specified in the Colorado Performance Assurance Plan. NorthStar was responsible for verifying that the service metrics were accurately calculated and reported and that all resulting penalties were paid. This audit required significant quantitative analysis to demonstrate Qwest's overall level of compliance. Doug Bennett and Dawn Francis worked on this engagement

SCE Energy Efficiency Program Management Audit

The CPUC performed a management audit of SCE's utility public goods charge fund revenue collection and energy efficiency program expenditures from January 1, 1998 through December 31, 2002. The management audit was conducted over a period of nearly one year from mid-2003 to mid-2004. The audit included 15 recommendations for SCE that addressed management/financial controls, increased competitive procurement and energy efficiency program process improvements. SCE retained NorthStar to conduct a high level review of the critical aspects of energy efficiency program management within the control of SCE and evaluate the progress that the Energy Efficiency organizational unit within CSBU has made in addressing CPUC audit concerns. Doug Bennett and Dawn Francis worked on this audit.

Public Service Electric & Gas

NorthStar conducted an audit of PSE&G's compliance with New Jersey's affiliate transaction rules. The audit identified any cross-subsidization of non-regulated competitive services offered by the utility or its affiliates. The audit began in early July and was completed in October 2000. Doug Bennett and Darrell Smith performed this audit.

D. OTHER UTILITY CONSULTING PROJECTS

SCE - Grid Interconnections Process Improvement

In 2009, NorthStar was engaged by SCE to review its internal processes for generator interconnection projects, from the application stage to the signing of an interconnection agreement and project execution. In 2009, there was a dramatic increase in SCE's number of transmission and distribution interconnection requests as a result of California's Renewable Portfolio Standard (RPS). The grid interconnection process at SCE involves over twenty organizations, from system planning and engineering to licensing and legal. NorthStar reviewed the management and business process relationships and project management and controls processes and identified several recommendations for improvement. In 2010, NorthStar assisted SCE with implementation. (2009-2010)

Contact: Ms. Jill Horswell
Director, FERC Policy and Compliance
Southern California Edison
3 Innovation Way
Pomona, CA 91768
(909) 274-3422
jill.horswell@sce.com

SCE - Project Scoping and Estimate Process Improvement

In 2008, NorthStar performed a diagnostic assessment of SCE's processes to develop, revise and distribute capital project estimates for its Transmission and Distribution business

unit (TDBU). Following the diagnostic assessment, SCE engaged NorthStar to improve the project scoping and estimate delivery processes for transmission and substation projects. As part of this effort, NorthStar established an annual capital planning timeline, developed a formal estimate classification system, and developed automated estimating and scoping checklists to be used by engineering, construction, project controls, and estimating organizations to develop estimates for transmission and substation projects. NorthStar also assisted SCE with the treatment of contingencies and risk allowances in cost estimates, including the treatment of regulatory uncertainties.

Contact: Mr. Scott McGaffin
Southern California Edison
Manager, Transmission and Distribution Business Management
1 Innovation Way
Pomona, CA 91708
909/274-1144
scott.mcgaffin@sce.com

Southern California Edison TDBU Management & Organization Review

NorthStar completed a management and organization review of SCE's Transmission and Distribution Business Unit (TDBU). TDBU faced a number of challenges after the California Energy Market restructuring. Electric demand was forecast to increase requiring the development of new transmission facilities after many years of dormancy. TDBU had the task of staffing and training to develop this new infrastructure. The scope of this program included:

- Evaluate the organization structure and determine staffing levels.
- Establish effective resource planning.
- Provide quantitative manpower planning and work reporting.

NorthStar performed a top-down review of the TDBU organization and its current operating practices. The TDBU organization and responsibilities were evaluated for strengths and weaknesses, appropriateness to the TDBU mission, and against other similar organizations in the industry. Organizational missions, products, and services were evaluated to ensure that they support the work management philosophy. Activities were categorized into tasks, project or time category work and then analyzed for efficiency utilizing standard industry engineering methodology. Recommendations were developed to match resource requirements with workload levels, defined management requirements, work management reporting systems, and defined management processes. The last step of the project was planning for implementation of long term recommendations.

E. NORTHSTAR REFERENCES

Client: **Project:** **Contact:**	Illinois Commerce Commission 2011 Management and Compliance Audit of Just Energy Mr. Peter Muntaner 160 N. LaSalle, Suite C-800 Chicago, IL 60601 (312) 814-6074	**Client:** **Project:** **Contact:**	Public Utility Commission of Ohio 2010 Credit and Collections Audit Ms. Barbara Bossart Manager of Audits 180 East Broad Street Columbus, Ohio 43215 (512) 473-3273
Client: **Project:** **Contact:**	Southern California Edison Company Affiliate Transaction Audits 1999 through 2006 Mr. Michael Unland Regulatory Policy & Affairs 2244 Walnut Grove Rosemead, CA 91770 (626) 302-6638	**Client:** **Project:** **Contact:**	City of Los Angeles Controllers Office Performance Audits of LADWP, General Services, and City Administrative Office 2008 through 2011 Mr. Farid Saffar, CPA Director of Auditing 200 North Main Street, Suite 460 Los Angeles, CA 90012 (213) 978-7392
Client: **Project:** **Contact:**	New Jersey Board of Public Utilities 2010 Management and Affiliate Transaction Audit of New Jersey American Water Mr. Dennis Moran Director – Division of Audits Two Gateway Center Newark, NJ (973) 648-7664	**Client:** **Project:** **Contact:**	California Public Utility Commission Affiliate Transaction Audits from 1999 through 2006 of SCE, SDG&E, and SoCalGas Mr. Jack Fulcher Regulatory Analyst 505 Van Ness Avenue San Francisco, CA 94102 (415) 713-1711