

**Proposal to Perform a
Management Audit of Iberdrola S.A.,
Iberdrola, USA,
New York State Electric and Gas, and
Rochester Electric and Gas**

Case 10-M-0551

Presented to:

*Public Service Commission
State of New York*

Presented by:

*The
Liberty Consulting Group*



January 24, 2011

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January 24, 2011

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

Dear Ms. Brillling:

Re: Request for Proposal to Perform a Management Audit of Iberdrola S.A., Iberdrola, USA, New York State Electric and Gas, and Rochester Electric and Gas - Case 10-M-0551

The Liberty Consulting Group (Liberty) is pleased to present the enclosed *Proposal to Perform a Management Audit of Iberdrola S.A., Iberdrola, USA, New York State Electric and Gas, and Rochester Electric and Gas*. This proposal responds to the December 16, 2010, RFP issued by the State of New York Department of Public Service (NY DPS). Liberty presents exceptional capabilities, an extraordinary team and the proven track record to perform the substantial and unique requirements of this RFP.

Liberty has a strong record of accomplishment for regulatory commissions, having served two-thirds of state utility regulators over more than twenty years. We have conducted an extremely wide range of engagements, including more than 20 management audits and literally dozens of reviews of governance and common service costs (affiliate transactions). We have served the New York Public Service Commission on many occasions in the past, including the recent management and operations audit of ConEd and an assignment involving Verizon's network infrastructure, and look forward to a strong, continuing relationship in the future.

Our proposal builds from our successful ConEd approach, which introduced the "strawman" concept, designed to seek engagement from the company in crystalizing the identification of significant needs and in working jointly with all audit participants to identify means for addressing them. The enclosed proposal also recognizes and deals specifically with the significant number of additional RFP emphases added to respond to Iberdrola circumstances as they affect New York customers. One of the major ones, control of commonly provided service costs, tracks very closely with an area where Liberty simply has no peers. We have performed more than 30 examinations of utility holding company affiliate relationships and transactions, concentrating on service companies that serve multiple utility operations. Our most recent experience, as Commission staff is aware, includes National Grid U.S. While currently being performed for the Company, this engagement (which is nearing the scheduled date for submission of our primary report) has been designed and conducted to progress as would a similar engagement being performed for utility regulators.

Ms. Jaclyn A. Brillig
January 24, 2011
Page two

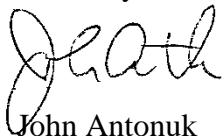
Our long history of commission engagements extends well beyond the Northeast. Liberty's recent ConEd and National Grid U.S. assignments nevertheless give us an especially broad and current perspective on the electricity and natural gas industry in New York, and our extensive management, operations, governance, and affiliates background position us very well to meet all of this RFP's objectives. We are especially pleased to offer a team concentrated in the New York and Mid-Atlantic region. Roughly half of the team's members are engineers and have extensive utility planning, budgeting, and management experience in their assigned work areas. The team includes the core members from our audit of ConEd and our work at National Grid U.S. In particular, our core team's many projects together over a long time will support a cohesive and efficient approach, and further assure the Commission that we can deliver what we promise.

We have supplemented this core group in moderate, carefully chosen ways with added expertise to give further assurances that we can continue to offer the specific sources of expertise (embodied in very senior people) it takes to give the Commission well-formed, soundly based judgments on important and complex areas of utility management and operations. Our team modifications particularly recognize the importance of assuring that we are able to overcome any language and business cultural obstacles in communicating with Spanish senior executives and directors in Spain, where we feel such work must take place. We have assembled a team of three persons fluent in both Spanish and English. Two are based in Spain and the third is a Liberty officer and long-time consultant. The two based in Spain (one a Spanish native, the other American) have spent their entire careers (each more than 30 years) working in northern Spain, within easy reach of Bilbao. One is a lawyer who practices administrative and business law; the other is a teacher of English and a translator.

I hereby certify that the information contained in this proposal is accurate, that Liberty is committed to and has the ability to conduct the work described in this proposal, and that Liberty takes no known exceptions to the RFP. This proposal constitutes a firm offer to provide the services described therein, and that offer is valid until July 23, 2011. Please feel free to contact us with any questions or information needs. Thank you for considering our proposal to conduct this important engagement.

You may reach us at the addresses and numbers identified in this letter's header, or contact our office by e-mail at admin@libertyconsultinggroup.com (copying me personally at antonuk@libertyconsultinggroup.com).

Sincerely,



John Antonuk
President

Enclosures

**Proposal to Perform a
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I. Introduction

A. Audit Scope

The Commission issued, under cover of a December 16, 2010 letter, a Request for Proposal (RFP) in *Case 10-M-0551 – Management Audit of Iberdrola S.A., Iberdrola USA, New York State Electric and Gas, and Rochester Electric and Gas*. This RFP seeks an independent consultant to perform a comprehensive management audit of the electric and gas business of Iberdrola USA’s New York State operating companies: Rochester Gas and Electric (RG&E) and New York State Electric and Gas (NYSE&G). This proposal from The Liberty Consulting Group (Liberty) responds to the RFP seeking a consultant to perform this audit. The audit will be conducted under the provisions of Public Service Law, Section 66(19). The statute allows the commission to provide for management and operations audits of combination gas and electric companies at least once every five years. The statute intends that such audits examine reliability and efficiency of operations in areas that include but are not necessarily limited to construction program planning. The Commission will select the auditor, the Department of Public Service Staff (Staff) will manage the work, and NYSE&G and RG&E will pay for the audit’s costs.

The Commission historically conducted one of the country’s earliest, most comprehensive, and largest utility management audit programs, in major part through the retention of outside consultants. Liberty has been favored with the opportunity in the past to conduct a number of audits for the Commission, including the audit of Consolidated Edison which was completed in 2009. For many years prior to that Con Edison audit, the Commission conducted audits primarily through the use of Staff, supplemented on occasion through the use of consultants in particularly focused inquiries. The Commission has now returned to the use of independent consultants to assist the Commission in the performance of this important regulatory oversight function. In the intervening years, Liberty has become the country’s leading source of assistance to utility regulators in the performance of such work, and we are again pleased to offer our services to the Commission.

B. Audit Objectives

The RFP contemplates a comprehensive and thorough audit, but not one that follows the classic approach of examining utility management and operations on a functional basis, divided largely by the organizational units into which utilities then typically divided their resources. The RFP requires that this audit focus on the construction program planning, operational efficiency and performance, including reliability. The approach sought by the RFP is to examine the elements that comprise a cycle that flows from planning through resource assembly and structure, through key activity definition and structuring, through work planning and budgeting, through work performance and measurement, and back to planning through the incorporation of lessons learned by performance measurement. The specific cycle elements to be examined in this audit comprise:

- Corporate Mission, Objectives, Goals and Planning
- Load Forecasting
- Wholesale Market Issues
- Supply Procurement

- System Planning
- Capital and O&M Budgeting
- Program and Project Planning and Management
- Work Management
- Performance and Results Management.

C. Unique Features of This Audit

This audit differs in important respects from those recently conducted under the New York Public Service Commission's renewed management and operations program. First, it involves one of the world's largest and most dispersed companies. As big as ConEd and National Grid U.S. are, they do not compare with IBE when viewed in an overall context. IBE serves millions of customers dispersed largely over three continents (Europe, North America, and South America). IBE has aggressively acquired and disposed of operations in recent years. Its size and breadth of operations have produced one of the more complex holding company structures that exist. Another significant difference is the proportionately small share of operations centered in New York. RG&E and NYSE&G are large electric and gas utilities in their own right, but they comprise fairly small percentages of IBE's total operations.

Factors like size and location of directors and senior executive management (Spain for global operations and for European ones and Maine for U.S. operations are the primary centers) pose special problems in examining how New York customer needs get identified, prioritized, and met through resource commitments and focused attention. This RFP takes special note of a number of factors that relate directly to some of the differentiating aspects of IBE operations, or more precisely, how New York operations fit within them. Some, like governance and affiliate transactions, would be important in their own right. On top of what makes them significant generically, they have commanded increased attention due to circumstances at ConEd and National Grid, both the subjects of recent management and operations audits. Liberty performed the ConEd audit and is therefore aware of the importance that senior executive management and board of directors involvement became in examining management and operations within the audit's scope (particularly on the question of long-term sustainability). Liberty is now examining National Grid's affiliate relationships and transactions in an independent, thorough affiliates audit growing out of recent regulatory difficulties. Liberty is thus also very sensitive to the importance that assuring effective and proper control of affiliate costs has.

We are the country's leading firm in providing services to commissions and our credentials are the strongest in the areas of: (a) management and operations audits, (b) examinations of utility holding company governance (in relation to how it responds to the needs of utility operations in a given state), and (c) evaluating and testing affiliate relationships and transactions in similar environments. We do not think our competitors can match our depth of experience in any one of these areas; when all three are considered, Liberty's experience is manifestly unmatched.

We have designed our approach to, preliminary work plans for, and staffing on this engagement around the path we took on the ConEd audit, and adjusted for particular areas of emphasis this RFP accentuates in consideration of the unique circumstances of National Grid. The major added

areas of emphasis (some comprising new issues; others making clear that additional emphasis is in order) include subjects like:

- Governance
- Common Service Costs (arising from affiliation and a common service company)
- Consolidation of New York Operations and Rates
- Wholesale Market Issues
- Plans and Strategies for Acquisitions and Divestitures
- Compliance with Merger Order Financial Insulation Requirements
- Vegetation Management.

As the following sections of this proposal demonstrate, we have begun from the core approach that we believe was successful in the ConEd audit. We have specifically considered some of the specific Iberdrola circumstances that we believe make the preceding added areas of focus especially pertinent for auditing RG&E and NYSE&G, incorporating them into our past, successful approach. We offer the same core team that performed the ConEd audit, augmenting it with experts particularly suited for the added scope requirements (for example in the Common Service Costs and Wholesale Markets areas).

Because affiliate relationships and transactions comprise a virtually continuous part of our ongoing work, the three-persons proposed to lead the review of common service costs here are, in their own right, core Liberty personnel as well. In some cases, (such as Vegetation Management and Financial Insulation) we did not need to augment our ConEd team for the work here, as our core team members addressing electric operations and planning/budgeting on the ConEd audit have very strong credentials to address the RFP's areas of added emphasis for NYSE&G and RG&E). Thus, our team additions here, while important, are moderate.

The next sections will show what we are confident will be an unparalleled commitment to addressing the language issues that this audit will raise.

Just as importantly, the following proposal sections will show that we recognize and value highly the need for our approach, communications, and conduct to conform to the standards of the specific area of Spain where we will need to carry out confined, but very important areas of our work. We are committed to communicating with senior executives and directors in their environment. How they act and what they do in Spain is what is fundamentally important to what results in New York, not how they handle "road shows" to the U.S., video conferences, or communicating primarily through document exchanges. Thus, we consider it crucial to "go to the mountain" and not ask the mountain to come to New York or, paler still, to derive information about what happens in Spain that affects New York through even less direct means.

We are very pleased to include on our team a very senior attorney from northern Spain (who practices administrative law and is particularly fluent in English) and a native Ohioan who has spent nearly her entire working career (some three decades) teaching English and translating in northern Spain. This approach will not only give us the translation skills we need, it will also assure that our approaches, communications, and conduct there conform to cultural and other requirements of business etiquette. The professional background and exceptional English skills

of the attorney with whom we will be working will also be important in interpreting the meaning of documents that have to be considered in the particular business cultural environment in which they have been created. We cannot and will not avoid the direct and probing questions that successful performance of this engagement will require. However, because of the nature of those questions, it is all the more important that we not cloud the discussion by missteps that can complicate and impede the communications process.

This introduction closes with our firm commitment to the same dedicated attention and first priority here that we showed on the ConEd audit. We are confident that the Commission will find our team's capabilities and expertise even further sharpened by our work post-ConEd, by our addition of expertise directly connected with the added areas of emphasis in this audit, and by our recognition of the need for specific, "local" (meaning local to northern Spain) expertise in overcoming both language barriers and business cultural barriers that might otherwise encumber the audit process.

II. Audit Objectives and Scope

A. Objectives

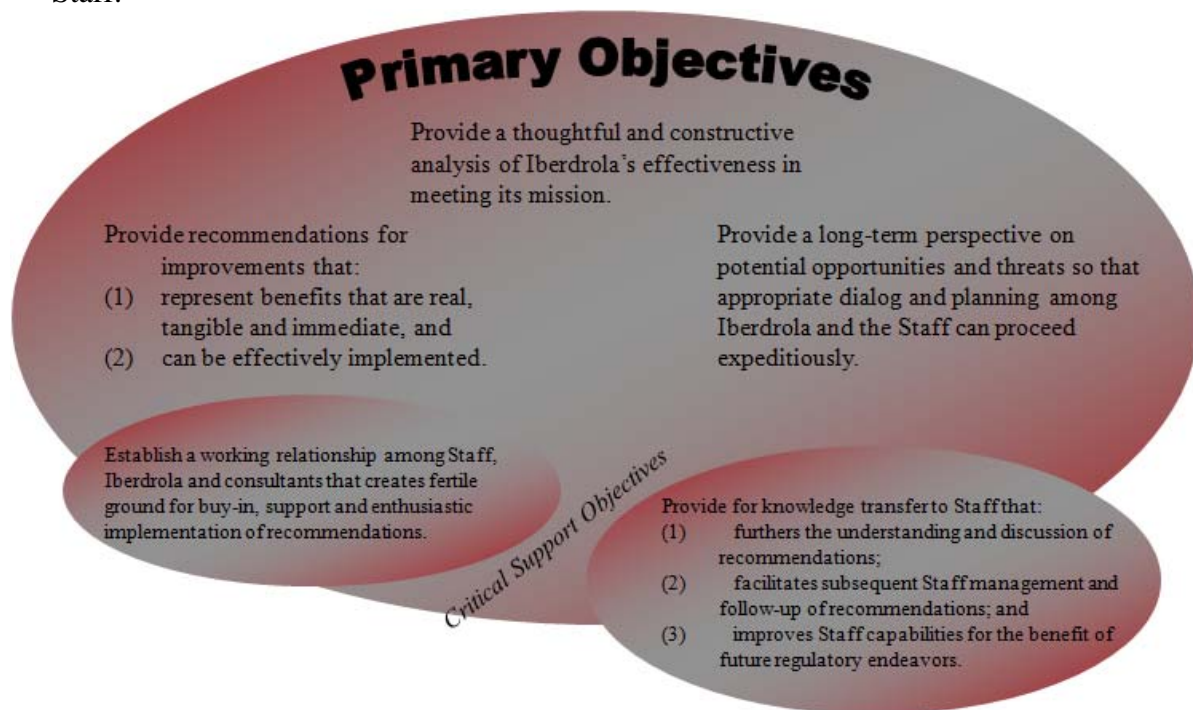
Liberty applied three primary substantive objectives and two supporting objectives in creating the strategic framework for this audit:

Substantive

- Analysis of current management and operations
- Recommendations to improve cost or service effectiveness and efficiency
- Consideration of the longer term outlook for NYSE&G and RG&E (*i.e.*, addressing the “sustainability” issue raised in the ConEd audit and facing American infrastructure owners and operators generally)

Administrative

- Provide for a solid working relationship with Staff
- Provide a clear, structured opportunity for knowledge transfer from the audit team to Staff.



The other principal considerations Liberty applied are the following:

- The challenges posed by IBE's home location in Bilbao, Spain
- The areas of emphasis that distinguish the RFP for this audit from those addressed in the ConEd audit, which Liberty performed (*e.g.*, Governance, affiliates, operations and rate consolidation, wholesale market, future acquisitions and divestitures, and money pool issues)

- The opportunity that this audit brings to assist Commission Staff (given Liberty's prior work on ConEd and current work at National Grid U.S.) by providing a common perspective on issues that broadly affect the New York electric and gas utility industry.

The first objective illustrated in the preceding chart is to produce for each area of management and operations examined a thorough and careful analysis of the IBE/IUSA/NYSE&G/RG&E current structure, resources, methods, and performance as they concern New York electricity and gas operations. Meeting this objective requires recognition of the major changes that have taken place in the industry generally, and in New York specifically, since the last comprehensive management audit. Customer choice, in particular, has caused major changes in the utility energy supply roles and in the portfolio of assets used to fill those roles.

The second and certainly most central objective of this engagement is to produce clear benefits for customers. Those benefits may take the form of reduced costs, enhanced reliability, better service, higher levels of customer satisfaction, or increased transparency or accountability. Whatever form they take, however, it is important that the benefits produced be tangible and timely. Therefore, the audit report should:

- Produce clear and specific recommendations
- Describe all applicable balancing among forms of benefits (*e.g.*, any increased costs required to produce service enhancements)
- Be as precise and comprehensive as possible in quantifying the costs of making changes and the benefits to be obtained.

Liberty's now long record of performance for utility regulators in similar projects makes clear that our objective is to seek meaningful improvement, not "change for the sake of change." IBE/IUSA/NYSE&G/RG&E will no doubt do some things differently from what our team members, who have extensive industry and regulatory experience, would prefer. That inevitable fact, however, is not in itself justification for change. Our team members understand and have acted many times in furtherance of Liberty's demonstrated respect for the notion that there are many different ways to accomplish the same objective. We consider it our burden to prove that changes in strategies, plans, structure, staffing, resource expenditure, programs, policies, methods, procedures, actions, measurement, and feedback will better or more economically serve customers.

Liberty also has significant experience in examining the management and operations of combination utilities and of utilities operating in a multi-jurisdictional fashion (including cases where the utility being examined does not comprise a comparatively large share of total operations). That experience teaches our team members that businesses operating in the same "house" can have very different and sometimes even conflicting needs. Our work involving such companies recognizes the need to look at the needs of each segment individually, while understanding that overall management and operations optimization must ultimately recognize the linkages among them.

The third objective that Liberty considers important, is related to the second, but considers a different time horizon. Consistency and stability were hallmarks of the industry for decades. Change has, however, become a much more important factor, creating significant uncertainties

for the future. Moreover, service-reliability, which has become a matter of increasing concern across the country, moves much more according to longer-term, as opposed to short-term changes.

On the operations and maintenance side, as Liberty's work at many companies teaches, it can take a long time for service quality metrics to respond to declines in expenditures. On the capital side, the quality of the infrastructure, which remains one of American industry's longest-term investments, is also a matter of much increased regulatory scrutiny. A lack of adequate investment can cause a slow, but eventually material degradation in service quality. On the other hand, responding with massive new investment may seem a customer-friendly action, but may over the long term drive rates higher without a fully matching level of actual service quality enhancement. Whoever performs this audit will need to take an appropriately long-range view to measure the effectiveness and efficiency of major new investments that will serve the public for many decades to come. The issue of "sustainability" proved to be an especially important one in the ConEd audit, which examined the ability of the company to identify and examine carefully long-term investment needs in connection with the need to keep service affordable.

The first, overriding support objective is one that Liberty has emphasized in its more than twenty years of work with utility regulators in two-thirds of the U.S. jurisdictions and several in Canada. Liberty has found that audit effectiveness improves significantly in cases where Staff participation is strong, and not just in administrative and project management matters. Liberty has always welcomed Staff participation in all audit activities, including the sessions where Liberty's team members discuss and debate among themselves the nature of current management and operations and the possibilities for improving them. Nothing has diminished Liberty's commitment to a close working relationship with Staff in the years since our last work for the Commission. In fact, a principal reason for our success in the business is a continuation of that commitment as our work has expanded to include all regions of the country, all of the major utility industries regulated by commissions, and a vast range of different governance, operations, financial, accounting, policy and other issues facing utility regulators.

Knowledge transfer to Staff comprises Liberty's second, overriding support objective for this project. Our team members routinely work with Staff members of the many commissions we serve to answer their specific questions about both management and operations and how to examine them effectively. We have worked with large and small staffs. We have encountered industry-based and functionally-based staff organizations. We have worked with both advisory and with "prosecutory" staffs. Liberty has consistently demonstrated the openness and candor required to serve effectively in a knowledge-transfer capacity. We often perform that role in the variety of relationships and interactions that take place on our projects. We have also performed it by constructing and leading, as is expected here, specific and focused demonstrations, presentations, and workshops.

Liberty will work hard to assure Staff an opportunity for strengthening its capabilities to respond to the missions given it by the Commission. Specifically, Liberty will assist Staff by allowing it to:

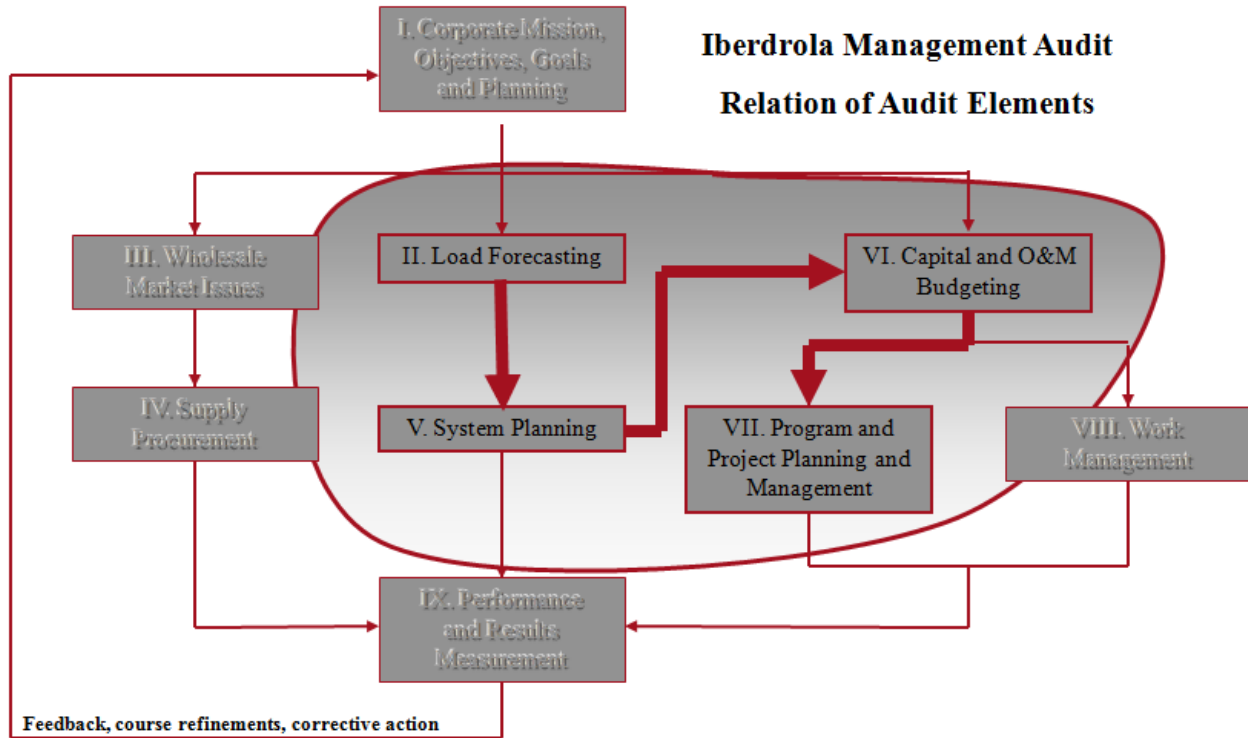
- Develop an understanding of both what we view to be the present circumstances at (and affecting to the extent IBE and IUSA are involved) at NYSE&G and RG&E and how and why we consider the particular circumstances on which we focus to be the important ones
- Apply a framework for placing what we do at IBE/IUSA/NYSE&G/RG&E and what we consider important there into contexts that will apply at other utilities in the same industries
- Differentiate what makes circumstances at and affecting NYSE&G and RG&E different from its peers and understanding where they are similar
- See what specific evaluation criteria Liberty applies, how the team applies them to the facts, and why those criteria are considered the proper ones for examining management and operations efficiency and effectiveness
- Gain the benefit of team member experience in understanding how changes in the industry have affected the opportunities, challenges, and needs facing NYSE&G and RG&E utility operations specifically, and its peers generally.

B. Scope

1. Vertical and Horizontal Examination

Liberty's performance of comprehensive management and operations audits has always consisted of what may be termed "vertical" and "horizontal" perspectives. The vertical perspective corresponds to what the RFP terms a silo approach. It focuses on the functions into which utilities have classically structured their organizations, adding several such as corporate governance and corporate planning. Even those often generally correspond to organizational units; *e.g.*, the board of directors has the largest governance role (supported by senior executive, internal audit personnel, and compensation personnel), and most utilities have a department that coordinates planning activities (although corporate planning activities almost always involve at least the leadership of all organizations). A factor of special importance here is the provision of common services to multiple operating units. Where they exist, they typically perform services that most or all units need. More common in recent years is to engage them in more detailed engineering, construction, and operations work. Such involvement can make them primary contributors (or barriers) to program planning, management, and measurement.

The RFP's focus of a related set of elements or processes, diagrammed below, that form an integrated loop corresponds with Liberty's horizontal perspective.



Liberty typically has examined on both a process basis and an organization basis those activities that have corporate-wide bearing or that involve persons working together across organization lines. Corporate planning, budgeting, and performance management (performance and results measurement as termed in the RFP) provide examples. Liberty has generally examined some activities, such as supply procurement, on more of a functional or organizational basis, because they generally involve a single organization unit, or a dominantly responsible unit supported by inputs from one or a few other units.

Some sets of processes, such as program and project planning and management and workforce management, have corporate-wide applicability, but can be difficult to examine outside of their particular functional context. The reasons are that they support activities, depend on data, or involve work groups that can vary widely from function to function or organization to organization. In those cases, Liberty has typically used a functional approach, while remaining mindful of any common approaches or personnel and of the comparative relative levels of rigor, sophistication, and importance placed on the processes in question among the different organizations that apply them.

Whatever the matter at issue, Liberty has generally examined matters within audit scope from both the horizontal and vertical perspectives. This approach focuses attention on areas where horizontal continuity is important. For example, it promotes attention on the important question of whether linkages between and among processes that form a (hopefully) well-integrated loop are less than optimum, even though the processes themselves may not exhibit significant weakness. Those linkages are many and sometimes complex; the diagram above can only begin to show them without becoming too busy to be useful. The vertical approach, in contrast, promotes a focus on the need for different considerations to be applied by organizations with

distinct requirements and resources, and activities, even though they are using common or similar processes.

This characteristic of Liberty’s approach and methods means that the RFP would not require Liberty to perform work in an unfamiliar way. To the extent that this RFP does impose a substantive difference, as compared with the audits Liberty has previously performed under what the RFP does aptly term a “silo” approach, it is that certain functions classically included in a utility management and operations audit (*e.g.*, fleet and facility management, insurance, external affairs) will tend naturally to get less emphasis, because their successful performance relies much less on the use of the integrated set of elements diagrammed above or because they do not tend to make significant use of construction dollars, or be measured in terms of the materiality of their contribution to O&M expenses, both of which are significant focuses of this RFP. The approach contemplated by the RFP does, however, offer a means for presenting audit results in a novel and useful manner.

2. Telling the Audit’s Story

Accordingly, Liberty will both conduct the work and prepare a report that “flows” according to the logic of the RFP, which is to say that this audit should tell a logical story about how NYSE&G and RG&E manage fundamental parts of their business and how IBE and IUSA direct and contribute to that management.

The cycle that it takes to provide that management effectively begins and ends with management direction and oversight. In *Element I* (which includes the processes generally referred to as Corporate Planning), successful management appropriately defines the standards of performance expected of the organization. *Element IX* (Performance Measurement), provides the data and analysis needed to define the degree to which those standards have been met. This simplified view of these two elements serves to express the most basic of management concepts: (1) establish a standard, (2) execute according to sound plans, structure, and resources, (3) measure performance against standards and goals established, (3) analyze deviations, and (4) take corrective action to minimize those deviations.

Good management actually uses *Element I* to do more than set standards; it puts into place a framework for their achievement. That framework allocates and aligns resources (people and other), defines overall values, declares an overall mission, sets forth a vision that all should strive to make a reality, and creates oversight mechanisms. Most importantly, good management uses *Element I* to set a tone that will give the enterprise a basis for guiding and determining the effectiveness of the Board, executive management and governance structures in general in each of the following “chapters” of the audit’s “story.”



Element I serves as the fountainhead for three related streams or paths relevant to this audit: (1) energy supply (*Element IV*), (2) infrastructure planning and expansion (*Elements II* and *V*) and (3) management of projects, plans and people (*Elements VI, VII, and VIII*).

Element III (Wholesale Market Issues) focuses on generator interconnection process for wholesale and distributed generation, plans and objectives for wholesale market and generation operation practices, how the companies protect customer short- and long-term interests as wholesale markets affect them, and how effectively the companies participate in NYISO and FERC processes. Liberty's work will be closely integrated with the next element (Supply Procurement), with which it is closely interrelated. The work in both areas will recognize the important role that the utilities have in assuring that wholesale markets function in a manner that is fully supportive of the customer choice that is the hallmark of New York's electric utility industry.

Element IV (Supply Procurement) focuses on commodity acquisition and the management of the risks associated with it. The great magnitude of those risks in high-priced, volatile energy markets makes this element one that requires a particularly high degree of care, structure, comprehensiveness, and senior oversight. This volatility makes the process of balancing cost stability and price for default customers an especially difficult one in commodity markets; the costs of even marginal weaknesses can be enormous. The eastern U.S. has in recent times seen utility commodity price increases of 50 percent and more. Price freezes associated with utility restructuring have contributed to some of them; however, current oil prices suggest that market dynamics alone have the potential to keep price risk at or above these levels. On top of this uncertainty, even slow growth eventually absorbs capacity excesses. Supply procurement and supporting price and risk management (hedging) programs therefore will continue to present huge opportunities and threats as we enter an era of questionable capacity reserves, already-volatile commodity prices, and mounting pressure for carbon mitigation measures.

Recent years, as many very recent Liberty engagements have demonstrated, have also seen increased risk to service reliability. These problems originated in the years following limits on delivery rates put into place to accompany the introduction of retail competition. Following an initial review by another firm, the Commission selected Liberty to: (1) perform the significantly more detailed work necessary to identify root causes, (2) assess the impacts on capital and operating costs, and (3) perform continuing monitoring.

Liberty's examination of infrastructure will begin by explaining and analyzing how NYSE&G and RG&E identify the demands they will face as load growth drives them in the future. Load forecasts (*Element II*) generally appear straightforward and benign in the short term; they tend to exhibit much more complexity and controversy in the long term. The compounding effect that occurs across a multi-year horizon adds to a tendency for troubling answers to emerge from modeling and analytical activities. In some firms, this leads to forecasts that define "what level of growth can we afford" rather than "what level of growth is most likely." Liberty's review will encompass all of the forecasting process, which means that we will go beyond merely addressing the tools used to perform them. Liberty's process-based review will enable conclusions about how NYSE&G and RG&E results are finalized, and build them into expansion planning.

Overall programmatic and budgetary parameters, guidelines, and targets associated with system expansion present critical issues for the future of NYSE&G and RG&E's provision of economical and reliable service. Liberty will therefore examine them in detail. Nevertheless, Liberty understands that utilities typically make the actual decisions regarding work projects on a regional and local basis. Liberty's review will therefore consider how IBE/IUSA/NYSE&G/RG&E apply processes and tools to individual segments of the NYSE&G and RG&E systems (e.g., transmission networks, substations, and feeders) in order to make particular system-expansion decisions.

Utilities make those decisions as part of their System Planning processes (audit *Element V*). A utility's system guidelines and standards give direction to those decisions. Effective system planning requires continuous balancing; accordingly one hears system planners referred to as "jugglers." Their essential work involves, among other choices:

- Weighing technical and economic demands
- Trading off capital investment versus operating costs
- Comparing facility upgrades against replacement
- Balancing expansion versus reliability
- Analyzing various and sometimes numerous system design options.

Liberty will examine the processes for weighing these balances, and will use a sampling of decisions to assure that their application is effective. Specifically, Liberty will examine the many questions necessary to enable us to gauge the effectiveness of planning processes and their contribution to optimum costs and reliability. A partial listing of them includes:

- What are the ground rules for economic analyses
- What is the process for making relative valuations of capital and operating costs
- What standards exist to govern expansion
- What, if any, constraints face planners
- How do new (or merely different) approaches and technology become introduced into the system
- How robust is the consideration and use of options to reduce the need for new facilities?

Element V System Planning, provides a direct and paramount feed to Capital and O&M Budgeting, audit *Element VI*. The system planning process's major output consists of the specification of prioritized new work, which forms a principal source of information and analysis leading to the development of capital and O&M budgets. Budgeting often comprises the single most structured and burdensome function that many utility organizations face. Its popularity among those involved in it is inversely proportional to the burdens it presents. Where budgeting has become an accounting-driven process, it often comes to be viewed as an administrative chore that does not get done in a way that provides real value to those who live under it, those who oversee it, and those who measure performance at the highest levels. Another common budgeting problem is the disaffection and ultimately lessened emphasis on it that results when budgets get invariably and arbitrarily modified downwards after those ultimately responsible for the work have spent a great deal of time and effort to prepare and justify them.

Problems like these undermine the substantial benefits that effective budgeting processes carried out in proper sequence and using effective tools can produce. A well-managed budgeting process

provides direction, a standard of performance, priorities, resource allocation, a vehicle for integrating the efforts of varied organizations on common tasks, and a good baseline for measuring performance effectiveness. A well-managed organization nurtures and applies all of these characteristics, all of which have a clear and material link with comprehensive, timely, structured, and diligently applied budgeting processes. Liberty will therefore begin its work in this area by defining the role of the budgeting process and the degree of acceptance of that role in the organization.

The linkage between the capital and O&M budgets often exhibits significant weakness within utilities. That the budgets result from processes that frequently differ widely from each other contributes to the lack of effective linkage. Liberty will undertake the inquiries necessary to assure that their integration is sufficient. It is critical that the results of the O&M budgeting process drive operational priorities and goals, and that those priorities and goals be consistent across the Company. Liberty will examine whether budget amounts have strong and direct linkage to those priorities and goals. Liberty has on occasion found them more linked to last year's budget levels than to this year's realities.

The capital budget should similarly be driven by the results of the overall corporate planning process, but its structure and derivation will be quite different. It will more directly flow from the system planning activities discussed above. Our evaluation of the capital budgeting process will be at both macro and micro levels, examining the determination of broad spending strategies and limits as well as the details of how specific projects are defined, prioritized, estimated and slotted in the construction sequence.

Budgets set the performance baseline for the next two elements of the audit. Utilities often manage large capital projects and large-scale O&M initiatives on a single project basis, while managing smaller projects and initiatives collectively. However, in each case, sound and diligently applied principles of project management should guide those responsible. Liberty will examine the effectiveness of project and program management processes (audit *Element VII*). The audit team will perform this examination guided by the important requirements of effective project control (*e.g.*, firm scope definition, a good estimate, pre-planning, strong cost and schedule systems, performance analysis, and accountability), examine the role given to each requirement in getting the work done on time, within budget, and on a performance-measurable and measured basis.

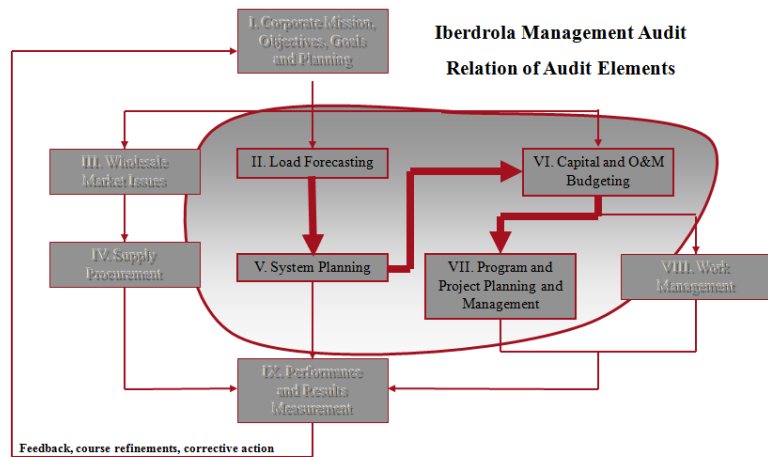
Providing that basis is an important part of workforce management (audit *Element VIII*). Many of the project management principles to be examined in *Element VII* also apply to work force management. One difference is the particular focus in *Element VIII* to understanding and evaluating how and how well NYSE&G and RG&E obtain optimum performance of its human resources, both employees and contractors. Productivity is the key; Liberty will study the tools and standards used to measure it. How productivity measures are analyzed and used to improve performance will be an important focus. It would be surprising to find in today's environment a large utility that fails to use functional systems and tools. Securing improvements in performance in this audit element is not very likely to be a matter of identifying better tools, although Liberty will examine them. If improvement proves possible, it is much more likely to be a matter of how the information from tools and systems get used to measure and improve performance on a

continuous basis. Liberty’s examination of workforce management will therefore not consist largely of a recitation of what information the company’s systems collect and a series of charts that do little more than repeat that information. Instead, Liberty’s focus will be on information use, and a demonstration that information does not just get into spread sheets, but gets into the sessions where work is planned, budgets are developed, and performance is measured.

Another principal that Liberty will apply in its examination of *Element VIII* is that rarely do “productivity” issues prove to be “labor” issues at their heart. Like every rule, this one has exceptions, *e.g.*, in the case of specific labor rules occasionally encountered. Liberty’s experience, however, is that a productivity problem is far more likely to reflect a management issue. Productivity improvements are much more likely to flow from improvements in how the workforce is assigned and supported.

3. The Connection Between Process Linkage and Effective Management

While the process-flow approach clearly lends itself to effective report presentation, the more important issue is assuring that the audit team examines, reports meaningfully, and recommends meaningful improvements in the way that NYSE&G and RG&E utility work actually gets done. Using system expansion and upgrade as a case study, one can see that this approach is appropriate and that Liberty can execute it successfully. For example, consider capital improvements. Identified needs originate with the load forecast (influenced perhaps less directly by other factors). Planners and managers use the system planning process to refine and revise solutions to identified needs (and on occasion the nature or scope of an identified need itself) by applying economic and technical reasons and constantly changing information. When new constraints appear in the budgeting process, they can provide another reason for revising the planned outcome. The ensuing project management process, which focuses on completing the work on time and within budget, may add further restraints and changes.



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The more time that passes from planning to execution, the more likely is the divergence between the final product and the original identification of need and solution. For example, loads may have changed, other on- or off-system events may have intervened, costs may have varied substantially, and schedule may have lengthened. A solution that remains good from a technical perspective may have become too costly to make sense in hindsight. A need properly identified may have been mooted by an extended delay that has allowed time for other, possibly related needs or solutions to become a more effective option. In the utility business, a better adage than “time heals all wounds” is that it will eventually expose the folly of all plans. The only effective solution is to view all of the processes as essential links in a continuum that requires close

integration of all linked processes and activities. That view will form a guiding principle of Liberty's work in this engagement.

III. Approach and Methods

Liberty has proven the effectiveness of its approach to management audits “in the trenches” time and again. Our success in satisfying client expectations, however, does not come from experience alone. Equally important is our view that every new project requires a fresh beginning, developing working relationships with new clients and companies, meeting new needs and expectations, facing different circumstances and responding to unique challenges. Liberty has enough seasoning to operate under an overall approach that will not necessarily have to vary by a great deal, but our construction of this project will indeed be strictly tailored to the desires of the Commission.

Liberty has carefully crafted this proposal to address all of the requirements of the RFP and the special needs of the Commission, as it takes the next step in the use of outside consultants in a broader way to help in the conduct of its audit program. Anything less than an all-out, totally professional effort, staffed by the very best consultants, should be considered unacceptable.

We offer a large team in order to maximize specialized skills and experience. We would be disappointed to find generalists managing the activities that will form the subjects of this audit. We believe that the Commission and the company should be disappointed were we to send generalists out to find ways to improve the company’s management and operations.

A. Philosophy

Management audits represent a large expense and substantial administrative burden to energy utilities. Some view this simply as a cost of doing business, and one that is conveniently borne by customers. But the more mature organization sees opportunity, and in fact demands that its large investment in money and people produce some tangible benefit for its customers. We welcome such thinking and hope that those responsible for NYSE&G and RG&E take a demanding position. Doing so will signal that the utility will manage its part of the audit in a similar fashion; i.e., to produce real customer benefits as opposed to a defensive or a disinterested posture. It is such an approach by all parties (the Staff, consultant, NYSE&G, RG&E, IBE, and IUSA) that will produce a winning outcome.

Liberty, nevertheless, understands that some utilities simply do not see the audit process in this manner, and that underlying cultures often produce resistance among employees. The capable consultant does all that can be done to facilitate a healthy three-party approach, but must, of course, be prepared to effectively complete the audit in a less cooperative environment if such develops. We have worked in good and bad environments and concede that the outcome in the latter is invariably weaker. Regardless, Liberty will maintain a professional approach with the project team always taking the high ground and remaining focused on the objectives.

Our philosophy about engagements such as this one is that we must begin with a basic commitment to the objective of improvement. We further commit to establishing an environment of mutual respect for all of the players, which demands full and honest communications. We cannot guarantee consensus, but we can and will guarantee that each participant will have a voice and that voice will be heard, respected and considered in our analyses.

All of our work will be conducted at a professional level. We have no interest in damning people or organizations; instead we look for opportunities for improvement and present those in a manner best designed for their acceptance and effective implementation. While this at times requires critical comments, such conclusions will be presented professionally and objectively.

A solid team relationship with Staff is a necessary component of our philosophy. Many specific elements of our approach are designed to raise the “team approach” from a simple feel-good concept to a meaningful working reality. These include an honest commitment to full communications among the Staff-consultant team, with no exceptions. “What we know – Staff knows,” says it in a nutshell. Liberty brings no surprises, has no hidden agendas, conceals no behind-the-scenes disagreements, and does no sanitizing of the facts.

Our philosophy accepts diversity of thought among consultants as a strength of a capable team, not a weakness to be shielded from Staff view. Discussions and debate at a professional level are encouraged, and should include the Staff as valued participants. Only in this manner will we achieve the best technical results and the set of results with the maximum buy-in and ownership.

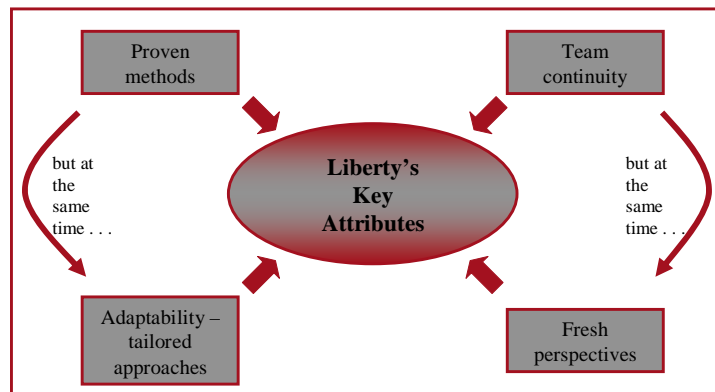
B. General Approach

Four key attributes give Liberty the performance strengths it has taken to become the leader in service to utility regulators. The approach, methods, and the team that will apply them are:

- Mature, well developed, and comprehensive audit methods
- Team member continuity and familiarity with methods and with each other
- Broad experience that promotes adaptability
- Fresh perspectives from senior consultants.

Liberty has developed its *audit methods* and procedures through the performance of 200 or more engagements for public utility regulators conducted over many years. Most of these engagements have been management and operations, energy procurement, and affiliates audits. Liberty began performing comprehensive energy utility management audits for commissions virtually 20 years ago. Our work in this field includes the New York Public Service Commission, for whom Liberty has performed major audit engagements involving Con Edison, Energy East (NYSEG), Central Hudson Gas & Electric, and Verizon (NY Tel).

Liberty has maintained *team continuity* by keeping together a senior core of consultants over a very long period. As a result, Liberty’s teams are accustomed to working both under methods and procedures that are familiar, and with other team members who are familiar.



Liberty's *adaptability* generates the ability to tailor methods and procedures to the specific project at hand, based on the great length and breadth of our work for utility regulators. Our work with utility regulators in more than two-thirds of the U.S. jurisdictions and a number in Canada has covered a wide array of engagement types, work processes, organizational units, utility types, geographic and political environments, relationships with commission staffs and utilities, and policy and technical issues. We have worked on some of the most controversial issues that commissions have faced and we have performed our share of routine (both large and small). The depth and breadth of our experience gives us a hard-to-match ability to adapt our approach and methods, not based on speculative or merely hopeful notions about client expectations, but upon having lived through such an immense variety of job, client, and utility types.

C. Focused and Comprehensive Audit Work Planning

Very detailed work plans form the cornerstone of Liberty's overall approach to audits of this type. In no small measure, Liberty's past work for the Commission on comprehensive management audits of New York combination utilities promoted the development of this approach. This approach has been refined and improved over the years allowing Liberty to use sound and comprehensive work plans first to assure client comfort that: (a) the full Liberty team begins with a sound understanding and acceptance of project scope, goals, and objectives, and (b) that the client has a comprehensive basis for continually measuring time, cost, and content progress. At the project working level, Liberty next uses detailed work plans to manage work at the day-to-day level, in order to assure that all required scope areas and items get sufficient attention, and that conclusions and any ensuing recommendations flow from a sound set of criteria that conform to proper standards of good-utility practice.

Section IV of the proposal sets forth the guidelines, evaluation criteria and basic work activities that Liberty will use to begin developing the detailed work plans that will guide audit work. They are preliminary; the first weeks of audit work will undoubtedly lead to amplification and change, as well as to added substantive detail and the RFP-required details about individual work assignments and schedules. Liberty appreciates the fact that the RFP to which this proposal responds anticipates detailed work plans to come later, after initial audit work. Nevertheless, given that our work planning constitutes a particular firm strength, Staff may wish to consider Liberty's work plans recently prepared for the Consolidated Edison audit.

Liberty welcomes the opportunity to undertake the exchanges with Staff that will lead to the creation of detailed work plans for this engagement. The New York Commission's Staff is a large and sophisticated one. Its particular strengths and capabilities make it important to assure that detailed audit work takes advantage of both the Staff's general background and experience, and its particular knowledge of NYSE&G and RG&E management and operations. The fact that so much time has passed since the last use of consultants to assist with comprehensive management and operations audits makes it even more important to assure that the work plans that will guide audit work have the benefit of combining approaches that have over time applied to such engagements in New York, the insights that Liberty's team can bring from its recent and extensive experience with many Staffs, and the knowledge that Staff can bring about current circumstances and issues affecting NYSE&G and RG&E.

D. Beyond a Paper Audit

A focus on processes and measurements is appropriate, but care must be taken to get beyond what a utility says it does, and how well its measures say it did. Liberty does not propose to halt after completing a “paper” audit, which addresses policies, procedures, guidelines, and reports of performance. These indicia are certainly important, and provide an essential baseline for forming conclusions. They are not in and of themselves convincing, however. Interviews can help to confirm what documents say, but, again, may leave room for doubt about how things really happen and what results they produce. Liberty therefore does not propose to rely only on paper exercises; *i.e.*, determining the appropriateness of various policies, the degree to which processes and programs are in place to carry them out, and representations about how they are carried out. Nor do we give only “lip service” to the need to get “out in the field” or to dig “behind the numbers.” Going beyond what the paper says in a project of this type takes senior, experienced consultants who are used to looking at multiple sets of data that bear on the same factor. We have those people and we intend to take advantage of their ability to cross check data sets against data sets and what their seasoned eyes tell them against what the reports say.

For example, assume that reports show that routine inspections (say manholes or substations) with a well-defined scope take place, and that a comparatively few exceptions result. These facts offer an indicator of effective performance in the planning and conduct of inspections and in the serviceability of the facilities inspected. Suppose, however, that cross checking area reliability statistics with inspection data, however, shows comparatively poor performance by the facilities involved. A more informed approach might be to select a sample of recently performed inspections and visit the facilities to examine conditions personally. If that site visit shows a number of exceptions that the inspection did not catch, one would have substantial counter indicators regarding the quality of the inspection process and the facilities.

This type of example, which can be repeated many times in connection with the processes and facilities that comprise a principal focus of this audit is one that Liberty has seen on many occasions. The potential for early paper indicators and even for confirming interview data to prove eventually invalid is why Liberty allows for two important verification steps: *i.e.* comparing the results of multiple data sets rather than relying on one, and, where deemed necessary, conducting focused field reviews, generally using a sampling approach.

The key to making this approach work is to bring to the audit team members with the experience to know:

- Which secondary data sets help to verify primary ones
- What to make of visual observations taken in the field.

This need is primary among the reasons why Liberty brings to this engagement a team of specialists who have direct, hands-on experience. In short, their capabilities allow us to get at the problem that paper and people will often say how something should be done, but that does not mean that it gets done that way in the field, where the costs are incurred and where the physical roots of service problems may lie. Liberty believes that measured hands-on validation activities are important in any well-managed audit. This does not mean in all areas, nor does it suggest

excruciating detail. But failing to use such validation appropriately can produce conclusions that simply are not valid.

Liberty consultants use guidelines like the following to determine when further data analysis or field inspection is required as a normal part of the audit process:

- When input data is heavily relied upon by a critical process, the sources and quality of that data should be validated (for example, reliability inputs to the system planning process).
- When analytical data reveal inconsistencies with process data (for example, when process reports says something is working but quality reports say it is not).
- When differing opinions exist on the same “facts.”
- When the auditor needs a field examination to fully understand the topic.
- When a sample is appropriate as good audit practice.
- When the auditor’s judgment suggests the need for further study.

Liberty will use early audit work to identify where and how much sampling should be incorporated into the detailed work plans. Where practicable, these plans will provide sampling details. Where not, the work plans will make time and schedule allowances on the basis of past experience, allowing for alteration as appropriate as field work uncovers more data and supports more in-depth analysis. The time estimates of this proposal make allowance for what we believe to be a sufficient, but not excessive use of such verification techniques.

E. Work Performance Guidelines and Criteria

Liberty operates under a series of guidelines and criteria that apply to the work it performs in audits of this type:

- Recognize that the Staff is responsible for supervising the performance of the audit.
- Work closely with Staff in a manner that not only meets requirements, but also satisfies mutual expectations.
- Establish ongoing dialogue that will enable Liberty to take advantage of the Staff’s extensive knowledge of the utility.
- Follow generally-accepted standards and procedures applicable to regulatory proceedings for submitting data and interview requests, and conducting interviews.
- Submit draft work products to Staff for review in advance of procedural due dates wherever possible.
- Include in audit reports the background necessary to give readers a clear understanding of the issues identified and any problems that may have been discovered.
- Present a clear discussion of those issues and problems, and conclusions and recommendations supported by appropriate analyses and work papers.
- Source findings, conclusions, and recommendations to work papers under the assumption that it will be necessary to explain and defend audit work in proceedings before the Commission.
- Maintain a set of working papers that will allow the Staff to follow the work that Liberty performed in making findings and in reaching conclusions and recommendations; make those work papers available immediately upon Staff request.

- Maintain a database (web-based if desired by Staff) that will track all documents requested and received.
- Encourage the provision in all cases where feasible of data electronically by the company being audited.
- Maintain electronic copies of such data and of interview notes as part of working papers.
- Make Staff aware of tentative findings and conclusions as they emerge.
- Conduct work according to standards generally applicable to evaluations of the type at issue.
- Apply, except where specified otherwise by the client, the National Association of Regulatory Utility Commissioners' *Consultant Standards and Ethics for Performance of Management Analysis*.
- Encourage frequent, informal communications between the audit team and Staff.
- On a weekly basis, Liberty will report to Staff on the interviews and site visits that are scheduled for the following two weeks and on any problems encountered during the conduct of the audit.
- Provide monthly written status reports to Staff, listing the schedule for planned work, work accomplished, and any preliminary findings. These reports will provide a narrative description of the progress to date and the reasons for any differences between the project schedule and actual progress. They will also include quantitative information regarding the hours recorded by consultants, costs incurred, and the relationship of those hours and costs to the audit plan. The Staff project manager will receive the report within five working days of the end of the month that is the subject of the report.
- Invoice monthly, and include reports on consultant time and expenses in a form satisfactory to Staff, showing information needed to relate costs to work done and to work plans.
- Use project management, scheduling, and reporting systems capable of scheduling, providing status reporting, and performing document tracking and retrieval.
- Use a report cross-referencing system that will enable users of the report to quickly and easily trace back statements of fact, findings, conclusions, and recommendations to supporting documentation, such as interview notes and company-provided documents.
- Make the final report, where possible and consistent with client requirements and expectations, as much a stand-alone document as is practicable. Liberty's approach is to present as much supporting analyses in our report, in the text or in appendices, so that users of the analyses do not have to refer to other documents to see supporting analysis.
- Require all Liberty personnel to use common word-processing and spread-sheet software that facilitates the creation of endnotes or footnotes, or reference notes for charts and graphs, so that sources such as responses to document requests or interview notes are clearly displayed in reports.

F. Work Products and Working Papers

Liberty's deliverables for this engagement will include:

- Interview Logs showing all interviews requested and conducted, updated weekly to list interviews and site visits scheduled for the ensuing following week, listing interviewee, interviewer, subjects, date, time and location.

- Data Request Logs showing all documents requested, due dates, date received, and overdue, updated weekly to show status and to highlight requests issued since the last log issuance.
- Interview summaries identifying interviewee, interviewer, title and organization of the interviewee, documents requested, and items discussed.
- Monthly progress reports that: (a) identify for the most recent month, cumulative, and versus-budget person-days (number and percent) by activity in each task area, (b) show original, current, and to-complete schedule, and (c) show audit work percentage complete.
- An initial and a final detailed work plan, developed in consultation with and modified after comments from Staff; these plans will detail by audit area the specific scope (issues and areas to be examined), objectives, management and operations performance criteria, team members responsible for each audit work assignment, specific inquiries to be posed in applying those criteria, and specific data gathering and analytical steps and activities to be undertaken, organization of the interviewee, documents requested and items discussed.
- A regularly updated database containing documents other than trade secrets.
- Detailed project schedules accompanying the initial and final work plan submissions.
- Regular briefings to Staff on the progress of the audit, including identification of emerging issues work progresses.
- Monthly progress reports to the Staff providing a narrative of work performed and status, with an explanation of any variances from plans and budgets, and schedule progress charts.
- Issue Summaries: Liberty will prepare and submit written summaries of issues as they emerge, but not later than the midpoint of the audit; dialogue with Staff about these summaries will help to guide field work completion and to structure the draft report.
- A series of draft reports
 - A first addressing the full scope of the audit and all elements of the final work plan
 - A second reflecting changes made as a result of comments from Staff
 - A third, reflecting changes made (to the draft approved by Staff for presentation to NYSE&G and RG&E) as a result of company review for factual accuracy
 - A fourth, reflecting the final work product with confidential material redacted
- A final report before July 2009 documenting Liberty's findings, conclusions, and recommendations for each element of audit scope in the RFP and as listed in the approved detailed work plan.
- Access by Staff to a complete set of work papers accompanied by an annotated report presenting detailed cross-references to the supporting work papers.
- Participative workshops on mutually selected topics for dialog with and knowledge transfer to Staff on key areas.
- Testimony, as may be requested by the Commission or Staff at standard rates for consulting services and including travel and out-of-pocket expenses.

Liberty's final audit report will present audit results comprehensively, will be written for an audience consisting of interested parties, Commissioners, Staff and Company management, and will define technical terms and acronyms. The report will describe and support in detail any recommendations for improvements. Liberty will provide an electronic and a camera-ready copy

of the final report. Should the Staff request additional printed copies, Liberty will provide them at additional cost.

G. Staff Participation

Liberty fully understands that Staff's project manager or designees are its contact persons with the Commission for the audit, and that the work is being performed for the Commission, who is the client. Liberty is completely comfortable with this reporting structure, having performed literally dozens of audits using this approach. Liberty's study methods and its extensive experience in working for public service commissions make clear the firm's commitment to full Staff participation in this project. Such involvement provides an important contributor to the necessary high-quality final report that Liberty is to provide.

Beyond this clear commitment, Liberty welcomes Staff participation in any other project activity. Liberty has no concerns about confidentiality regarding the Staff, even to the point of taking Staff personnel on as team members if it fits the operational or training objectives of the Commission. Liberty's work methods ensure that the Staff's project manager or designee(s) knows at all times exactly where the project stands. This timely knowledge permits the client to track results and progress from quality, cost, and schedule perspectives. It also allows Staff to design whatever level of its own participation it deems appropriate.

H. Work Methods

This section identifies the work steps that are applicable to each audit module, and describes the methods that Liberty will use to conduct the audit. The logical flow of these activities is illustrated in the project schedule in Section VI.

1. Initial Data Request

Liberty's first data-gathering steps are designed to collect basic information that addresses the subjects of this engagement's scope. This information provides essential background for generating interview plans and focused data requests. Liberty will provide NYSE&G and RG&E with an initial request for documents that will include fundamental background information, such as the following:

- Mission, goals, and objectives
- A listing of all "key controls"
- Flow charts and associated narratives for "key controls" associated with the audit topics
- Charters for the Boards and their committees
- Board and committee minutes for meetings in the last three years in which budgeting (capital or O&M) or resource allocation was discussed
- Management compensation policies
- Organization charts
- Payroll and staffing levels by department, budget versus actual
- Corporate planning guidelines
- Descriptions, functions, resources of common service providers
- Summary of transaction paths (qualitative and dollar amounts) among affiliates as they affect NYSE&G and RG&E directly and indirectly

- Affiliate transaction and cost assignment and allocation methods, factors, and controls
- Descriptions of systems used to manage cost assignment and allocation
- Annual load forecasts for the last five years
- Contribution of demand side initiatives to capacity requirements
- Policies and procedures for load forecasting
- Reports describing the load research process and results
- Flow charts depicting the load forecasting process
- Load levels currently embedded in rates
- NY ISO load forecasting requirements
- Risk management policies and procedures
- Design of the supply portfolio, including hedging policies
- Policies and procedures for supply procurement
- Analyses of realized procurement prices versus market
- System design standards
- Planning policies and procedures
- Economic guidelines for planning studies
- Status report on advanced metering initiatives
- Status report on any “Smart Grid” initiatives
- Reliability goals – target and actual for past five years
- Repair / replace criteria including age limitations for facilities and equipment
- Studies or analyses linking expenditures to reliability
- Operating budget policies and procedures
- Capital budget policies and procedures
- Formal capital and operating budget packages as reviewed and approved by the Board
- Comparison of operating costs versus budget and versus rate assumptions for the last five years
- Description of the program for management of capital projects
- Policies on application of in-house versus contractor labor
- Sample project management reports for large projects
- Sample project plan for large projects including organization, scope, estimates, schedule, budget, organization, accountabilities, cost management program, reporting requirements, staffing levels, key assumptions (productivity, escalation, etc.)
- QA and or QC policies applicable to large projects
- Work-force effectiveness and productivity measurements
- Standard measures of work and unit rates
- Policies and procedures for management of labor
- Typical structure for management of work, including supervision, technical support and planning
- Work planning and work assignment procedures
- Labor agreements governing physical workers
- Regular management information and control reports
- Company-prepared or secured benchmarking data
- Results of any recent performance studies.

2. Orientation

This essential early step acquaints the Liberty project manager and key team members with the Staff and NYSE&G and RG&E personnel who will play key roles during the study. This step will provide an opportunity to begin the interchange that will lead to common understandings of the details of Liberty's work methods, and of the full extent of the Staff's intended participation in study activities. In addition, this step provides an early opportunity to begin the interchange with the Company, so that Staff and Liberty can make their expectations known.

Where Staff identifies (a) particular areas where it will actively participate, or (b) specific matters of interest, Liberty will incorporate them into its diagnostic, and subsequent detailed work planning. Liberty's team leadership also realizes that, at a later stage of the project, Staff may identify additional areas where its active participation in the study has become appropriate.

This study step will also establish the necessary protocols for communications between Liberty's auditors, Staff, and the Company, including those for document exchange, advance notice of particular task steps, and other similar activities. Liberty expects that the Company's coordinators will advise Liberty about their preferred protocols for requesting interviews and documents, the treatment of information that the utility deems proprietary, and notice requirements.

The Liberty team will require support from Company resources. This will include access to documents, facilities, and employees. To effectively address these requirements, without unduly disrupting normal business, Staff expects, and from Liberty's experience we concur, that the utility is likely to favor an organized system of contact for the study.

Logistically, we propose to kick off this orientation with a conference call with NYSE&G and RG&E and Staff at the very start of the work. This would be followed with formal meetings with NYSE&G and RG&E about two weeks later. A preparatory meeting will be held with Staff before the NYSE&G and RG&E meeting.

At the NYSE&G and RG&E meeting, we will expect a presentation from them on the basics of the Company and how they see the audit. We will then provide a formal presentation on the scope of the audit and how it will be conducted.

3. Initial Document Reviews

As soon as the Company provides responses to the initial request for documents, Liberty's team members will begin to familiarize themselves with baseline information in their respective areas. This initial document review will be an ongoing and fundamental activity throughout the engagement. A mutually agreeable timeframe for responses (our standard is two weeks, shorter for already existing documents and subject to negotiation if any special studies or detailed data assembly is necessary) will be set.

4. Introductory / Planning Interviews

Liberty will use the information acquired in response to the initial data requests to determine its requests for initial interviews. In addition to providing substantive information, these interviews will be used to learn about the logistics and availability of records and reports. These diagnostic interviews are designed to build on the information that comes from the initial data requests. We envision beginning these interviews in the same week as the orientation meeting.

These interviews will involve levels of management most familiar with, for example:

- Overall corporate organization, structure, and common services
- Descriptions of major functions performed and current objectives for each
- Detailed financial, accounting and cost information
- Energy supply planning and activities
- Major new or planned investments
- Staffing trends and programs
- Cost trends
- Operational changes resulting from centralization, from field-operations consolidation, or from other initiatives
- Persistent service problems
- High risk areas
- Apparent problems or gaps in organizational focus or management systems and tools
- Current budget and projected budgetary changes for operations
- Major areas of current management emphasis and concern.

5. Detailed Work Plans

Within two months of project start, Liberty will complete the process of establishing the detailed work plans that the audit team will use to manage, steer, and measure project work. Liberty will present for Staff review a draft of its proposed detailed work plans that:

- Summarize facts and issues learned and emerging from work to date
- List and describe the areas within each audit element that will be subjected to examination and evaluation
- Establish by area within each element the specific performance criteria to be applied in making such evaluations
- Listing the key questions that must be answered in order to lay a foundation for applying those criteria
- Identifying the work tasks that will be performed to provide the factual and analytical basis for answering those questions
- Identifying the individuals responsible, the time requirements for, and the schedule for completing those work tasks
- Specifying particular interviews to be conducted, documents to be examined, and visits to be conducted in completing those tasks.

Liberty will invite written Staff comment on and discussion of this draft, in order to facilitate the development of a mutual understanding of issues and areas to be examined and evaluated. Liberty will then prepare a final set of plans for Staff approval.

We propose to advance the schedule for orientation and development of the work plan. These are critical activities, but can become inefficient if extended too long. Our proposed schedule (Section VI) will allow sufficient time for orientation, drafting of the work plan, discussions with Staff, formal Staff review and comments and finalization. In this manner, we will be able to “hit the ground running” with a start to production as early as possible.

6. Data Gathering

This step will help to promote the assembly of a broadly based factual record from which to development hypotheses about the engagement’s task areas, and to support overall conclusions and recommendations. Data gathering will include many steps, as appropriate to the circumstances. Typical activities in this stage include (a) detailed document reviews and analyses, (b) in-depth interviews of a cross-section of management and line personnel in major functional areas, and (c) team meetings for detailed analysis of the likely areas requiring change and sharing of information.

7. Transaction Analysis

This audit will examine the controls applicable to shared service costs. Such an examination will require transaction testing to assure that transactions are: (a) traceable to source documentations in a reasonable transparent manner, (b) governed by methods and factors that provide for a fair apportionment of costs among cost-causing and benefitting entities, and (c) faithfully carried out in accord with governing methods, factors, and guidance.

8. Issues Review

As the project mid-point approaches, Liberty will conduct a focused series of reviews of emerging issues with Staff. They will actually begin on an informal basis as Liberty’s team management and subject matter experts interact routinely with Staff during the course of work. Liberty invites substantive discussion of substantive matters as part of the ongoing dialogue with Staff about project status. Liberty also welcomes the establishment of direct relationships that will allow individual Staff members to discuss on a more detailed basis any particular management and operations areas or issues of interest or concern to Staff. As Liberty has discussed elsewhere in this proposal, we welcome Staff involvement in our processes of identifying and pursuing needed factual information, conducting analyses, and forming conclusions. We fully understand the knowledge-transfer objectives of the RFP, and, even without them, consider it beneficial to keep Staff as informed and involved in audit processes as desired.

Our experience has been that keeping Staff informed during the course of the work promotes that exercise when there is a mutual understanding of roles and of the benefits of dialogue. In making its commitment to support such involvement as Staff considers appropriate, and in having met it routinely in our past work, Liberty nevertheless understands that: (a) the conclusions and recommendations it will form must result from the exercise of our audit team’s judgment, and (b) we will need to be prepared to stand behind and fully support those conclusions and recommendations. Staff does, however, have an important role in verifying that Liberty’s conclusions and recommendations are complete. This step sets a first, important milestone in that

verification process. It comes with sufficient remaining project budget and schedule to permit any course corrections that may be needed to assure completeness.

Liberty anticipates formally commencing this Issues Review step with a series of topically based presentations by the team members responsible for each topic to be addressed. Liberty will provide for Staff review a proposed schedule for these sessions. Liberty will then prepare for Staff review prior to each session the slide deck that will guide the presentations. To the extent possible at this project juncture, these slide decks will follow the general format proposed for the presentation of the background and factual findings portions of the final report. This approach will help the team to focus remaining work and to allow Staff to verify that work is addressing all required management and operations areas and activities.

In some cases, team members are likely to have already developed at least initial hypotheses (see the discussion of the next step) that initiate the conclusion and recommendation development process. In those cases, the presentation will include them. In areas where that is not the case, the presentation will describe the issues to be addressed in the conclusions, relying primarily on two factors: (a) the specific management and operations performance criteria that the detailed work plans will include, and (b) any particular matters of concern or interest disclosed by audit field work to date. As these matters have arisen during field work, Liberty anticipates that regular interaction with Staff will have already disclosed them. Thus, Liberty does not expect that the presentations will for the first time expose issues to the Staff. Instead, the presentations will provide a forum for more extended discussion of them, and context for assessing their significance in light of all the other facts, issues, and concerns being collected and formed.

Following a robust discussion of these facts, issues, and concerns at the sessions, Liberty will prepare written summaries, again generally in the form and structure anticipated for the final report.

9. Strawman Process

The incorporation of this step grows from our ConEd audit, which we understand to be the first use of the technique in New York. The goal of the step is to engage the enterprise being audited in a manner that promotes “ownership” of the ultimate agenda for change. Forming that agenda thoroughly and effectively comprises a primary goal of engagements of this type. Where the people responsible for implementing change after auditors depart have truly bought into the root causes of the need underlying it and into the way to address those causes, change is far more likely to be real and lasting.

Active and engaged company participation with the right mindset is necessary to give the concept the potential to increase audit benefits. Because the companies help identify solutions, one would expect the implementation to proceed more smoothly and effectively. Our experience in the ConEd audit demonstrates that it takes high level support and participation to make this approach work. We worked there on the strawman process at the senior executive and board levels. We propose to introduce the concept at the orientation step, and to work with senior management to identify specific activities, commitments, and schedules for making it work.

Following the establishment of full commitment to the process at the outset of the project (if we can gain it), specific steps in using the strawman approach will begin with our team's identification of potential major issues, proceed to precipitating dialog with senior management on them, and culminate in working with the Company to develop mutually beneficial solutions. If we do not gain it, the audit will proceed through the normally applied steps.

We emphasize that a necessary precondition to engaging in the presentations and dialog with management is a thorough vetting ahead of time with Staff of the issues to be included in the strawman process. Staff participation in the ensuing dialog is also welcome at whatever level Staff deems it appropriate. Where the process succeeds fully on a particular issue, the conclusions and recommendations to which it relates should reflect nearly complete agreement between Liberty and the companies. Where it may fail even broadly, Liberty will still be able to reach its conclusions and form its recommendations under its normal audit steps.

We acknowledge that the approach had mixed results in the ConEd audit. Even there, however, the minimum results in all cases were to better inform that normal audit-step conclusion- and recommendation-formation work. In a number of instances (including key improvement opportunities in planning and in governance) it led to significantly more. We were able to gain executive and board engagement in the crafting of common solutions to needs initially identified by the audit team, and honed through the strawman process.

As we recommended at the completion of the ConEd audit and as we continue to believe, maximizing its chances for successful use of the strawman process takes certain specific steps, which we propose here:

- Gain early commitment by senior executive management to the concept, which requires clearly explaining its purpose and required steps, and discussing why it is to the companies' benefit to support it
- Keep open and use regularly communication paths with senior management about the level of execution being demonstrated on that commitment as the audit progresses
- Examine the training materials used by the company for orienting employees and discuss any changes that would better support the approach
- Assure that personnel are being directed to be open and forthcoming, not just in providing "answers" but in communicating their issues and concerns
- Assure that training is directed to helping them reach the goal of being open and forthcoming
- Assure that any outside "audit prep" consultants retained (the practice is approaching nearly universal application in our experience) are there to "support," rather than to "manage" or "control" the audit
- Identify early in the audit any areas where executive management feels that improvement areas may exist.

The most effective use of the strawman process is likely to center on matters of apparent high impact and necessity for executive level attention. The process would begin with Liberty's laying out of preliminary findings and conclusions in these areas (after reviewing them with Staff), and asking for a senior level evaluation and response to the Liberty "hypotheses" as presented. If appropriate, the next step would be to conduct the dialog necessary to better define the issues on as common a basis as possible, but recognizing that even just partial agreement, if substantial, can support the strawman process's application. Then the goal would be to continue the dialog in order to seek solutions

mutually recognized as responsive to the underlying needs. As Liberty found in the ConEd audit, a “basket” of ten or so high-level issues proved most amenable to the process.

We are optimistic that the credibility gained through the use of the process at ConEd and the confidence that National Grid senior management has shown in Liberty’s independence, objectivity, and capability should give IUSA and New York utility senior management a sound basis for buying into the concept, and engaging fully and candidly in its execution. The same may prove true of IBE executives and directors in Spain. Certainly, one of the aims of our dedication to and specific efforts in addressing language and business cultural issues is to produce the confidence there that constructive future change and not recrimination is the goal of this project. Particularly pertinent in this case is the use of a senior administrative and business law contact in northern Spain. We expect him to demonstrate our interest in facilitating candid communication at high company levels.

If this optimism proves to be misplaced, or if the Commission decides against the use of the step, the audit can proceed to a successful conclusion (as many, many others we have performed have).

10. Conclusion and Recommendation Development

Conclusions and supporting findings will be developed for each of the project areas, and those that cross individual focus areas will be coordinated to assure completeness and consistency. Recommendations will take into consideration the full range of conclusions. Liberty will provide complete, accurate, and timely documentation of preliminary conclusions and recommendations for review by members of the study team and the Commission to ensure that the rationales that underlie the recommendations are thoroughly understood by all the parties.

Both qualitative and quantitative analyses will be performed in each task area. Where possible and appropriate, Liberty will quantify the expected changes that would result from each recommendation. For example, in the area of compliance with affiliate standards, Liberty will focus on identifying, supporting, and quantifying the effects of any non-compliance or cross-subsidization that may be found. This will mean preparing detailed descriptions of the results of analyses, so that users of Liberty’s work will immediately understand how the conclusion was developed, and the analytical basis for the valuation of the conclusion, if appropriate.

In a project such as this, analytical activities must be performed during every stage of the work. This step, however, is specifically devoted to formulating hypotheses that will ultimately become the basis for recommendations and conclusions.

As data gathering progresses, Liberty will develop hypotheses to explore prospective changes in management, operations, affiliate relationships, and other areas where cost or service improvement opportunities may be discerned in the areas covered by the audits. These hypotheses will be objectively analyzed and tested using the information base that has been compiled, in conjunction with the Liberty team’s collective experience.

In this context, Liberty draws an important distinction between hypotheses and conclusions. Hypotheses may or may not lead to conclusions, as determined by examining the facts and

subsequent analyses. Some hypotheses fall by the wayside as work progresses; others are modified; and additional hypotheses are introduced as new information surfaces. Hypothesis formulation and proposition testing are processes that assure that matters warranting further review can be aired within budget and schedule constraints.

Hypotheses that survive preliminary screening will be followed up with focused data gathering and verification. Liberty's team sessions provide a forum for further group discussion of each hypothesis. Team members review separate but interrelated areas as part of the team-wide analytical process that can involve the use of role-playing or devil's advocacy techniques in subjecting the hypotheses to scrutiny and challenge.

Where appropriate, Liberty will meet with senior Company managers to test working hypotheses. Liberty will seek information on how prospective changes might affect the Company's operations, management processes, service levels, costs, etc. The Liberty team will consider these factors in validating concepts, determining the extent of changes that could be involved, assessing the degree of the underlying need, and exploring the range of alternatives. These sessions will provide an opportunity for the Company to comment on hypotheses in advance of Liberty's formulating conclusions and recommendations, and to assure that the Company's viewpoint will be understood and appreciated.

Conclusions (statements of judgment or opinion) and supporting findings (objective statements or facts) will be developed for each issue or area. Conclusions that cross multiple issues or areas will be coordinated to assure completeness and consistency.

Recommendations will be formulated for each conclusion that identifies a weakness or an improvement opportunity. Recommendations will be determined from the perspectives of (1) the Company as a whole, and (2) individual areas. This is to assure that changes perceived as beneficial to one part of the organization do not inadvertently create problems in another business segment or function.

11. Draft Report

Liberty will prepare a draft report for Staff review for adherence to RFP and detailed work plan requirements. The draft will contain all the sections that Liberty expects to include in the final report. This document will undergo Liberty's quality review to assure that it approaches the form, content, appearance and accuracy of the final version. This quality review will consist of critical readings of draft reports by consultants on the team who have not contributed to the writing of a chapter they review, but who understand the subject matter at hand. Their objective will be to examine what has been written to ensure that the conclusions and associated recommendations are well supported and clearly delineated.

This report will be designed as a self-contained description of the audit and its results. It will provide (a) an executive summary, (b) a description of the examination processes, (c) summary descriptions and an overall assessment of the study areas, and (d) a detailed list of all recommendations, focusing on the quantification of their benefits wherever practicable. To support the recommendations properly, the draft final report will specify: (a) the audit's mission and objectives, (b) an explicit statement of the evaluation criteria applied, (c) a description of

study approach and methods, (d) a delineation of data collection and analytical processes performed, (e) conclusions about performance and cost efficiency and effectiveness, and (f) opportunities for cost reduction or performance improvement.

Liberty will prepare a revised draft after receipt of Staff comments, following the completion, if and as necessary, of any field work closure activities (see the discussion of the next step).

12. Closure of Field Work

Liberty will conclude the fact finding necessary to resolve comments on the task reports, finish analyses, and refine quantification calculations and implementation requirements.

By this time, the essential final report elements will have already reached an advanced stage, permitting ongoing Staff involvement in, and awareness of, study progress. It also helps to keep efforts throughout the project focused on the primary final product, a comprehensive examination. It also avoids the degradation in quality that becomes inevitable where inadequate budget remains at the end of the fieldwork to support a large writing effort. Finally, Staff's involvement provides an unmatched tool for evaluating the progress of the study on a real-time basis.

13. Final Report

Following Staff review of the revised draft and any changes that Liberty makes in response to Staff comments, NYSE&G and RG&E will have the opportunity to review the draft for factual content and accuracy. NYSE&G and RG&E will also be required to identify any report contents it believes should secure confidential treatment. Liberty will provide a report copy showing the company's proposed redactions for the report's publicly available version. This copy will allow NYSE&G and RG&E to verify that all proposed redactions have been properly made and it will allow Staff to determine whether it has any concerns about those redactions. Liberty will provide to Staff its input on any proposed redactions questioned by the Staff.

Meetings with Staff and NYSE&G and RG&E to discuss the companies' comments and any redaction issues will be scheduled as necessary. Upon Staff approval, Liberty will prepare and issue the final report, including both public and confidential versions if required.

I. Knocking Down this Audit's Potential Language and Business Cultural Barriers

Liberty understands and believes it critical for the team to understand that both language and business customs and usage are not the same in northern Spain as they are in the U.S. Liberty has worked throughout the U.S., which, despite the breadth and diversity of our nation, provide an extremely high level of commonality in effective introductions, demonstration of proper courtesy, means of communication, nuances of business and commercial language, the typical structure and contents of formal documents, and, most importantly, finding a way to promote candor when dealing with "tough" areas of questioning. These aspects of communicating will be equally critical in northern Spain, as Liberty considers it essential to "engage" directors and senior executive management in the environment in which they conduct their business as it

relates to NYSE&G and RG&E. Succeeding in each of these aspects will involve differences in both language and conduct. For this reason, Liberty brings to this team a group of four people who collectively will provide very strong Spanish language skills and a strong foundation in the conduct of business in northern Spain. Two of them are long-time Liberty employees of U.S. origin: (a) Liberty's president and the lead for the governance review, and (b) a Liberty officer and long-time consultant who, as a lawyer, brings skills relevant to examining the Spanish-language documents that we anticipate will require review. Two others have exceptional knowledge of both Spanish and English and of business conduct in northern Spain. One is a lawyer and native and the other has taught English in northern Spain her entire business life. Each has carried out a business career in northern Spain than 35 years. Both have known the Liberty's Spanish proficient officer and consultant for even longer.

The four members who have these skills and experience are:

- **Paulino Folgueras Galán:** Paulino practices law in northern Spain and for forty years, has engaged in a private forensic practice specializing in civil, administrative, and mercantile Law. He is particularly proficient in English, having taught it in Spain and having served as provincial Delegate of the American Field Service Program. He has served as legal advisor to a number of Spanish companies.
- **Michele Fende:** Michele was born and raised in Ohio and received a bachelor of arts degree with honors from the Miami University of Ohio. She has spent her more than 35-year career teaching and tutoring in English in northern Spain. She taught English for more than 25 years at the Cambridge School of English in Oviedo, Spain. She has regularly served as interpreter for a chemical company in Spain, and has performed special translating assignments for various other Spanish companies and police officials. She has more recently served the Spanish Judicial Courts, and now provides private lessons in English at all levels of proficiency.
- **Virginia Lowe:** Ginger, a Liberty officer, is an attorney and a long-time consultant for the firm. She received a bachelor of arts degree, majoring in Spanish and International Studies, from the Miami University of Ohio. She has taught English in Spain and South America.
- **John Antonuk:** John is Liberty's president, a founder of the firm, and would serve as the firm's project manager and the lead consultant responsible for the governance review. He studied Spanish for seven years prior to college and in college as well. He has traveled extensively in Spain and Latin America and is fluent in conversational Spanish (Paulino, Michele, and Ginger will have responsibility for translation and interpretation at the technical and business levels).

In addition to interpreting and translation, the group, particularly Paulino, will act to ensure that no cultural barriers or business customs stand in the way of the candid dialogue and reasonably close questioning it will take to address governance issues in a meaningful way. Paulino and Michele, being located within easy range of Bilbao, will also be able to assist as may be needed to screen large document sets for review, address any questions or concerns about data or interview requests involving Spanish people or activities, address data exchange and interview

and on-site document review logistics issues, and serve as a point of direct, more familiar contact in responding to any concerns or problems about Spanish participation in the audit.

Liberty will seek as much direct contact as possible with Spanish-based elements of the organizations involved in matters affecting NYSE&G and RG&E. We consider this approach far superior to the heavily mediated contacts that will be required if multiple, trans-Atlantic contacts within IBE are required. These four resources bring skills, project roles, and geographic locations that not only fully support this approach, but also offer what we imagine will be a uniquely well-qualified team for implementing it.

J. Testimony

Liberty's personnel have extensive experience in preparing formal reports for eventual use in administrative proceedings requiring pre-filed testimony and hearings. Liberty will produce a final report that meets applicable requirements for admissibility. As with all its work products, Liberty will stand behind its results if questioned in any public forum or proceedings. Any testimony that may be required shall be provided at then-standard Liberty rates for service.

IV. Audit Areas and Issues

Liberty proposes to divide the audit work according to the RFP's nine elements:

- Corporate Mission, Objectives, Goals and Planning
- Load Forecasting
- Wholesale Market Issues
- Supply Procurement
- System Planning
- Capital and O&M Budgeting
- Program and Project Planning and Management
- Work Management
- Performance and Results Management.

The following sections provide the study guidelines, the evaluation criteria, and the work activities that Liberty will include in the work designed to formulate the detailed work plans established as a key project milestone by the RFP. Liberty has based these sections on work it has performed on similar past engagements that have addressed these nine elements. Recent engagements include our audit of Consolidated Edison Company of New York for the Commission and work on affiliate relationships and transactions for National Grid. These plans are intended to guide initial project work, which will focus on the development of detailed work plans. The detailed plans will replace those in this proposal by adjusting detailed criteria, work activities, and supporting details as needed to respond to what the team learns in the early, critical stages of audit work.

A. Corporate Mission, Objectives, Goals and Planning

The RFP sets forth a number of specific components to this element of the audit:

1. Structure and decision making processes and relationships of boards of directors and senior executives within and among the parent based in Spain (IBE), the second-tier holding company for U.S. operations (IUSA), and the two New York utilities (RG&E and NYSE&G), considering both electricity and gas utility operations
2. Assuring compliance with New York laws, regulations, policies, and regulatory decisions and expectations
3. Strategy and objectives regarding consolidation of New York operations and rates
4. Responsibilities for planning priorities and making budget allocations for the gas and electric businesses
5. Board and executive and senior management budget roles in budget guideline development, approvals, periodic reviews, and assurance that New York customer interests receive sufficient priority and attention
6. Sufficiency of processes, methods, and controls to manage shared-service costs, assure their competitiveness with other alternatives, assign and allocate costs fairly and appropriately in accord with cost causation and benefits, and prevent cross subsidization and other potential abuse
7. Long-term utility electric and gas strategies

8. Use of measurable goals, key performance indicators, and other metrics sufficient to support achievement of mission and objectives, and provide for an appropriate performance improvement process
9. The controls environment elements of internal controls, internal audit structure and activities, Sarbanes Oxley Act compliance and other related measures applicable to the areas subject to the scope of this audit
10. Management performance and compensation programs and their alignment with mission, objectives and goals at all levels
11. Goals for modernization of the RG&E and NYSE&G transmission and distribution systems in response to the Energy Independence and Security Act of 2007 (“EISA”)
12. Decision-making process and practices for significant operating segment purchases/sales
13. NYSE&G and RG&E cash-management processes and controls to ensure: (a) least cost, compared to market and (b) insulation from IBE and non-regulated operations as required by the merger order.

Liberty has divided these 13 subjects into the following overall areas of examination under this portion of the audit:

- a. Governance (Items 1, 2, and 5)
- b. Corporate Strategies, Goals, and Plans (Items 3, 7, and 12)
- c. Top-Level Budget Priorities and Processes (Items 4 and 5)
- d. Controls Environment and Performance Measurement (Items 8 and 9)
- e. Compensation (Item 10)
- f. Title XIII of EISA (Item 11)
- g. Common Service Costs (Item 6)
- h. Financial Insulation (Item 13)

1. Study Guidelines

a. Governance

The RFP takes special note of the importance of examining governance matters. Liberty’s audit of ConEd found the role of the board of directors to be particularly material in addressing long term capital and operating needs associated with maintaining, augmenting, and improving the infrastructure needed to assure the ability to continue to serve important public needs over the long term. Governance issues (including activities of the board and its interaction with senior executive management) infused many of the management loop elements around which this RFP has been structured and around which Liberty designed and executed its ConEd audit work. Planning, budgeting, and performance measurement proved especially important areas of review in examining how well the board and senior executive management were structured and operated in connection with the audit’s primary areas of concentration. Liberty’s ConEd audit work found board involvement to be a critical link in addressing infrastructure needs, both short- and long-term. We believe that our work served as an important contributor in increasing board engagement in a broad array of system planning, budgeting, and performance measurement activities. We believe that our work also served as a constructive influence in strengthening executive management’s focus on infrastructure needs, long-term sustainability, and strengthened disclosure and communications with the Commission to promote a fuller understanding of budgets in the near term and infrastructure improvements in the longer term.

Governance issues proved important at ConEd, which, while a very large enterprise, nevertheless served an extremely (for its size) tight geographical area, and operated across what is, for a holding company, a comparatively narrow range of overall business activities (although its utility distribution operations covered electricity and natural gas, and steam). The challenges of governance are much greater for a company of IBE's immense, multi-continental geographic range, its millions of widely dispersed electricity and gas customers, and its significant operations described by IBE as falling outside the range of its utility distribution operations. Liberty has also recently gained experience in the operation of another multi-national holding company (National Grid), which operates other important New York electric and gas utilities, from Long Island through much of the upstate region, along with many others in the New England region.

The RFP also recognizes the multitude of layers IBE requires to run its vast array of operations. Those layers require interaction:

- Between the overall (first tier) holding company and the second tier entities that carry out operations on different continents and in different countries, in order to balance objectives, needs, and interests among them, particularly the allocation of resources
- Among U.S. operations overall (under the direction of one of those second-tier holding companies)
- Among U.S. operations in the different regions of the U.S., primarily consisting of two fairly large New York combined electric and gas distribution utilities, on the one hand, and Maine electric operations, along with a very small propane-air gas system in New Hampshire and small Maine natural gas operations, on the other hand
- Among the business units or structures dedicated to non-utility operations (recognized in the RFP primarily through the emphasis on affiliate relationships and transactions)

Recognizing these issues, the RFP seeks an evaluation of governance, organization structure, mission and relationships among all of the IBE elements whose interactions may affect customers in New York. The RFP specifically cites IBE IUSA, RG&E and NYSE&G as objects of focus. The specific areas Liberty will examine in this context include:

- Corporate Structure and Decision Making Processes (Parent Through Operating Utilities)
- Boards of Directors' Structure, Operation, and Decision Making
- Parent and Subsidiary Executive Management Interaction with Boards
- Reflection of New York Customer Interests in Structure and Decision Making
- Assuring Compliance with New York Requirements, Policies and Expectations

IBE's governance challenges as they relate to New York utility operations are complex. IBE serves millions of utility customers on three continents. U.S. operations run from a Maine headquarters. New York U.S operations, however, represent a very large share of operations on both the electric and natural gas side, as the following table summarizes.

Utility	Operating Revenue	Net Plant	Other P&I	Customers	
				Elec.	Gas
<i>NYSE&G</i>	\$1,650,952	\$2,458,809	\$21,366	872,000	256,000
<i>RG&E</i>	\$1,009,862	\$1,650,031	\$17,483	364,000	301,000
<i>CMP</i>	\$524,969	\$1,244,986	\$13,477	600,000	-

Most of IUSA’s U.S. utility customers outside New York take electricity distribution service in Maine. Despite its much smaller current share of current U.S. operations, however, Maine has clearly been an area of IBE strategic focus, both in its own right and because of its strategic position looking northward to Canada. IBE is engaged in developing a natural gas market in Maine. Moreover, it stands (from both electricity and natural gas perspectives) athwart an emerging energy superhighway emerging to link new Canadian electricity and natural gas sources with markets in New England. Emera Energy (parent of Nova Scotia Power, whose management and operations Liberty has routinely examined for utility regulatory authorities in the province) has positioned itself as a key exporter of electricity from existing facilities and is preparing to make massive investments to develop a major new hydro source and a transmission corridor linking to New England. It has also acquired two of Maine’s three largest electricity distribution utilities (Maine Public Service and Bangor Hydro) with the third of this group being CMP, which IBE owns. CMP has engaged in a \$1.55 billion dollar bulk transmission project that will strengthen the corridor running from New Hampshire near the border with Massachusetts northward through much of Maine (to Bangor). Bangor Hydro has been engaged in significant activities to strengthen transmission ties to New Brunswick, the main source of export to the U.S. from Maritimes Canada.

Emera also has substantial interests in natural gas transportation assets capable of bringing large quantities of natural gas from new LNG facilities and off-shore natural gas projects to New England. Emera has teamed on important ways with Repsol (the mega oil and natural gas company, which is Spain’s largest company) to establish a dominant position in natural gas entering the U.S. from the Canadian Maritimes. There have been a number of efforts to merge these two companies in the past. More recent news reports suggest the existence of common efforts between the two:

- “Iberdrola joins forces with Repsol” in energy production research
- “Spanish Repsol, Iberdrola Interested in LNG Projects in Russia”
- Joint participation in a consortium “building a new import facility [regasification] in conjunction with a new power station in Bilbao, Spain.”

The engagement of two of Spain’s largest electricity and natural gas enterprises, Emera and its U.S. subsidiaries, and IUSA’s activities in Maine suggest a broadly based strategic initiative that has many participants and that has the densely populated regions of the New England region as a principal focus. To the extent that upstate New York electric and gas utility operations do not represent similarly promising “growth engines” for shareowners, an important area of inquiry will be to assure that they receive the attention and resources necessary to meet public service responsibilities effectively in both the short and long runs. Reports about IBE activities have tied property dispositions (including Berkshire Gas in the New England region) to the need to acquire

capital for strategic initiatives, such as a major north/south high capacity transmission corridor through Maine.

Other areas of this audit capture the most direct and detailed examinations Liberty will undertake to assure that New York utility capital and operating needs have sufficient priority (and that priorities lead to corresponding commitments). Those other areas have been designed around the closed “management loop” that the RFP illustrates and that formed the core of Liberty’s approach in the ConEd audit. The focus here is at the top, strategic levels of IBE and IUSA thinking, as they affect RG&E and NYSE&G. A primary goal in this audit area, with respect to capital and operating commitments, will be to test the engagement of the board in terms of knowledge of New York needs, ability to parse them in a manner that serves both short and long term needs, and meets both electricity and gas service requirements. A particular challenge in making the required assessment is the nature and location of key elements of the governance structure. The only board that IBE emphasizes in its public governance reports is the one resident in Spain, consisting predominantly of Spanish members, and not including strong U.S. or New York representation. Moreover, the top executive management structure to which Spanish executives and directors connect directly organizationally is in Maine. A third factor arises from recent references by IUS to changes (which appear to include if not predominantly comprise management changes) designed clearly to depart from a direction that the Company did not find satisfactory.

Such factors require that an effective examination of governance include the top executive management structure. That structure includes officers (and, if any, senior managers with direct or important indirect roles involving New York operations) in Spain, Maine, and New York, in decreasing order of the hierarchy that IBE has established. Liberty considers it necessary as well to compare how IBE addresses governance and top executive management in the other countries it serves as well. The reason is to ensure not only that top management and the board focus strongly on New York customer needs and public expectations, but that it also do so under a structure that avoids planning, budgeting, communications, measurement, execution, accountability, or other barriers that disadvantage New York relative to the other, immensely diverse geographic areas, all of which can be expected to deserve and to compete for a fair share of resources.

Finally, it is critical to recognize the dynamic nature of IBE’s strategic scope, breadth, and focus. It neither wants nor has achieved a stable operations footprint or even a reasonably fixed nature. How well it has adapted to change to date and how capable it is of doing so in the future are clearly important aspects of its governance and top executive structure. Liberty will not look at these issues while assuming a largely static enterprise. Certainly, how well IBE is acting to meet today’s New York needs is the primary focus. However, given the proper assumption that today’s “snapshot” of IBE may not inform future viewers for long, how IBE has incorporated the ability to adapt, so as to avoid “stranding” investments in structure, approach, and people also form an important element of Liberty’s review. Liberty’s experience with a much smaller, domestic holding company underscores the need to look at flexibility in looking at holding companies with fairly aggressive growth strategies. A specific example is AGLR. Liberty performed for the New Jersey Board of Public Utilities a broad management and operations audit (of AGLR’s subsidiary, Elizabethtown Gas) that included governance, top executive

management, and service company operations, which are located predominantly in Georgia. Liberty found a strong corporate support platform established in anticipation of significant acquisitions, which ultimately did not take place.

b. Corporate Strategies, Goals, and Plans

The Corporate Strategies, Goals, and Plans segment of this audit comprises several subjects that generally concern corporate planning and two specific to IBE circumstances:

General

- Long-term utility-focused electric and gas strategies that support infrastructure plans and expenditures sufficient to make the provision of safe, reliable service at sustainable rates
- Existence of measurable goals tied to strategies and plans
- Application of key performance indicators and other metrics sufficient to support achievement goals and objectives and to support a continuous performance improvement process

Specific

- Strategy and objectives regarding consolidation of New York operations and rates
- Decision-making process and practices for significant operating segment purchases/sales.

General Corporate Planning Subjects

Subsequent areas of this audit (specifically, System Planning, Budgeting, Program Planning and Measurement, and Performance and Results Measurement) will examine the detailed organizations, staffing, plans, programs, processes, activities, reporting, and measurement needed to successfully manage the construction and operations segments of large electric and gas utilities such as RG&E and NYSE&G). This area focuses on the top-down contributors to them, primarily the participation by directors and senior executives, both in Spain and in the U.S.

We address first the RFP's more general planning objectives. At the broadest relevant level, senior executive management (with active board involvement up front and at all key milestones) should take a primary role in:

- Setting the corporation's broad direction overall
- Setting for RG&E and NYSE&G within that overall context a direction that is consistent with their utility customer and public needs and expectations in the short and long runs
- Integrating the strategies and plans of multiple business segments with different and sometimes competing needs and requirements
- Monitoring the consistency of performance results specifically with goals and objectives, and, as well and more generally, with common-sense notions of what defines success, proper risk mitigation, and flexibility in exploiting opportunities
- Assuring that controls intended to apply to senior management as well as lower, operations levels are being planned and executed with sufficient objectivity, vigor, and thoroughness.

Goals whose dimensions either fail to conform to the way that a business is structured or to set clear and largely measurable performance targets make it difficult for the board to guide the development of the direction-setting elements of what may be termed the "corporate planning"

process. Directors will also find it difficult to lay a foundation for ongoing communication, through executive management, about progress and performance in tangible ways. A particular need for RG&E and NYSE&G is for the overall corporate structure to timely and adequately seek to understand, gauge, and address in strategies, plans, and overall resource commitments the needs of New York electricity and natural gas customers in a manner that does not underemphasize them relative to the many other locations and interests served by the many IBE enterprises and operations.

Recent experience has shown that the absence of sound board oversight and effective contribution to setting overall direction and measuring performance against it can be a recipe for disaster, whether at the hands of changing external circumstances, or, in at least a handful of cases apparently, manipulation of information and self-dealing by senior executives. Even full implementation of recent public requirements changes such as those imposed by the Sarbanes-Oxley Act cannot be expected to inoculate a company against all ills that may infect it at this high level. Careful implementation of those requirements is a positive indicator, but care must be taken to assure that the need for instilling and encouraging sound structures and proper actions not be reduced to a simplistic checking of boxes. To be effective, corporate governance must not be viewed as passing discrete legal tests, but as an important contributor to achieving strong performance, which, in the case of a utility, means meeting public service obligations and expectations.

The challenge is, however, to make sure that the board remains involved and aware enough of events at this level to allow meaningful assessment of:

- Who has the responsibility and resources dedicated to achieving success
- What failings (internal or external) exist when plans, objectives, and goals are not being achieved
- When do actual circumstances and intractable limitations make plans, objectives, and goals impossible or impracticable to achieve
- Where does accountability lie for failings or weaknesses in achieving success
- Why did the problems occur and have successful corrections been identified and implemented?

Establishing comprehensive goals, continuously overseeing progress in meeting them, and making timely adjustments to them as performance unfolds should be a matter of routine board inquiry and involvement. The desired results that those goals address should be matters with which individual board members are conversant at more than a superficial level.

Operations and Rate Consolidation

The first of the two specific strategic issues to be addressed involves the potential consolidation of New York operations and rates. Particularly where there are disconnected territories and significant rate differentials, combinations of utilities, even in the same jurisdiction, often begin with a significant period under which rate schedules remain distinct. On the other hand, a common model for utilities operate across a wide-spread and partially noncontiguous region is to apply common rates across the whole footprint. Thus arises the question of the degree to which, as service organizations and operations approaches and methods merge over time, what should happen in terms of combining rate structures and levels. Liberty will determine what plans and

expectations, if any, have been created during consideration of mergers and acquisitions by the Commission. Liberty will also seek to determine what knowledge management has solicited and gained regarding public stakeholder and customer wishes, concerns, observations, and other issues surrounding the question of merging rate structures in whole or in part.

Liberty will also seek to examine what further operational consolidations management intends to examine or has already planned (either internal to New York or between New York and other U.S. operations). The treatment of Common Service Costs (addressed below) will include an examination of efforts to examine the competitiveness of common service costs. That treatment will include an examination of efforts to look at realigning what services are provided and what operations may be conducted through common resources, thereby complementing the work to be performed in this area.

Operating Segment Purchases/Sales

IBE has been particularly active in acquiring and disposing of business operations. The late 2010 sale to UIL Holdings Corporation of three New England gas distribution companies in the New England region provides a very recent example. Such acquisitions and dispositions can have a potentially significant impact on costs that result for RG&E and NYSE&G. Temporary impacts can be disruptive to efficiency and effectiveness. In the long run, additions can bring economies of scale; on the other hand, if that is so as a general rule, it must follow that dispositions tend to have the opposite effect.

It is thus important that the process for evaluating the design, structure, and resources applied to common services reflect the potential for periodic additions and subtractions, in order to assure that New York utility operations are not disadvantaged by factors such as the following examples illustrate:

- An “overbuilt” common service platform that incorporates at higher current expense the ability to accommodate future growth more efficiently
- The potential for “stranded” investment in capabilities that can result from subtractions
- Excessive transitional inefficiencies from either additions or subtractions
- Below cost “transition service agreements” with acquirers that might increase the sale price while tending to transfer costs to the remaining entities commonly served (transition service agreements are frequent in cases where the acquirer is not equipped to take on certain operating functions immediately).

c. Top-Level Budget Priorities and Processes

As distinguished from the complexity of articulating and gaining acceptance of a vision and philosophy throughout a large organization, priorities are another story. Leadership makes its priorities and values clear through its allocations of resources. These allocations should be more tangible than what can be expressed in terms of “vision.” The budgeting process both communicates management’s intentions specifically and gives the organization the resources to carry them out. The Board and executive management’s use of this process becomes the single most important indicator, and most effective determinant, of the Company’s ability to meet its mission. Executive leadership faces constraints in the budgeting process, and the degree to which the Company’s financial situation influences budgeting decisions is of significant interest.

Liberty will examine in detail the approaches taken by management in balancing these constraints (*e.g.*, earnings and rates) and its need to meet customer expectations and public responsibilities.

d. Controls and Performance Measurement

Establishing an effective controls environment and providing for comprehensive performance measurement comprise an important element in assuring effective corporate performance. Controls issues infuse all of the other areas of this audit and Performance and Results Management is the subject of one of them. Again, this area takes a higher level, more strategic view of controls and performance measurement. This task area will examine the means by which senior executive management and the boards of directors:

- Provide leadership in the creation of an effective controls environment
- Directly engage in and provide oversight of key controls programs and activities
- Use performance measurement programs and results to measure success and identify gaps in achieving current goals and targets
- Form recovery plans to address controls and performance gaps and use the resulting information to set challenging but achievable targets that seek performance improvement.

Audit committee structure, membership, independence, and activities are particularly important elements of a company's most senior involvement in creating a sound controls environment. Audit committee members, agendas, minutes, and presentations will form important sources of facts in this review. With respect to performance measurement, the routine sources of performance and cost information shared between senior executives and the board will be items of significant interest and examination. The degree to which information at this level builds up from and is consistent with detailed performance metrics will also be important. How the data addresses New York utility operations and New York gas and electric operations distinctly will also be important areas of focus.

e. Compensation

The compensation of utility executives has been a topic of special interest to regulators and customers for decades. More recently, the great increases of the compensation of chief executives and other top executives has brought increased national attention to an issue of concern in the RFP; *i.e.*, the alignment between compensation and the meeting of performance goals and objectives. Liberty will examine how base compensation, short-term cash incentives, and long-term stock-based incentives have changed in recent years and how directly related to performance they have been. One important factor will be to examine what market comparators used to benchmark compensation, and what those comparisons show.

Specifically, Liberty will assess how the program of incentive compensation ties to objective measures of performance. Those measures should consider the interests of customers as well as those of shareowners. A particular area of examination here will address the need for New York-specific (and within New York both electric- and gas- specific) factors to be meaningful contributors to personal measurements and rewards for executives and senior managers (whether located in New York or elsewhere) who have responsibility for New York utility cost and service

performance. Particularly for a company as large and dispersed as IBE (and to a lesser, but still consequential extent, IUSA) it can be too easy for even a substantial operations location's contribution to rewards to vanish.

f. Common Service Costs

Affiliate transactions are a necessarily complex matter at IBE and the enterprises that comprise it. The Spanish holding company, probably given its extraordinary size and geographic breadth, operates under an especially heavily layered holding company structure. The first-level holding company (the ultimate parent) is IBE (Iberdrola S.A.). A second tier holding company, RGS Energy Group, Inc. (RGS), operates IBE's U.S. businesses. IBE affiliate relationships thus operate under a large number of interfaces. First, there exist multiple offshore (*i.e.*, non-U.S.) layers. Multiple off-shore utility operations in a large number of countries create the potential for inter-utility service and goods exchanges, which must be priced in a nondiscriminatory fashion. IBE's off-shore non-utility operations create the added need for taking measures sufficient to assure that utilities do not cross subsidize them. Depending on how off-shore and U.S. operations have been structured and conducted, there may or may not be direct and indirect opportunities for cross subsidization by New York customers of off-shore utility and non-utility operations.

Similar layers exist in the IUSA organization, which includes both multiple utilities in different states and non-utility operations located in many different organizations. IUSA organizes its operations under three holding companies, which provide for a geographically segmented U.S. utility business. These holding companies are:

- RGS Energy Group, Inc. (RGS): holds the two New York utilities subject to this audit, NYSE&G and RG&E
- CMP Group, Inc. (CMP Group): holds Central Maine Power Company
- Iberdrola USA Enterprises, Inc. (USA Enterprises): holds Maine Natural Gas Corporation and New Hampshire Gas Corporation.

New York electric and gas and Maine electric operations comprise the vast majority of US utility operations, with New Hampshire and Maine gas operations representing only small portions. This past year witnessed a significant change in U.S. operations. Late in 2010, IBE reported completing the sale to UIL Holdings Corporation (the holding company of United Illuminating Company in Connecticut) of three New England gas distribution companies: Southern Connecticut Gas Company, Connecticut Natural Gas Corporation and Berkshire Gas Company.

U.S. operations represent a fairly small portion of IBE's business, as measured by assets and revenues. IBE reported over \$90 billion in non-current assets and about \$32 billion in revenues for 2009. For the same year, the net plant of RG&E, NYSE&G, and CMP combined was \$5.4 billion (\$3.2 billion in New York) and operating revenue was \$3.2 billion (\$2.7 billion in New York).

IBE cites renewables, SmartGrid, clean fossil generation technologies, electric vehicles, and electricity storage as focuses of its non-distribution utility businesses globally. The three holding companies under IUSA hold a number of non-utility operations and IUSA has directly under it two others. IBE reports the size of U.S. non-utilities as comprising two percent of U.S. assets; non-utility operating revenues may amount to 10 percent of U.S. totals. The non-utility holdings

(listing under the first three bullets those under the three second-tier holding companies containing U.S .utilities) include:

- RGS: Energetix, Inc., a subsidiary founded in 1998 and supplying electricity, renewable energy, natural gas, and energy related products and services to residential, small business, and large commercial/industrial customers in New York
- CMP Group: listed as holding “various” subsidiaries, whose business appear to be non-utility distribution, but which are not identified
- USA Enterprises: listed as holding a subsidiary listed as “Other;” IBE reports that this entity is developing a natural gas distribution business in Maine and expanding a high deliverability natural gas storage facility in New York
- The Energy Network, Inc. listed as a separate, third-tier holding company; IBE describes The Energy Network as focusing on peaking generation, retail energy marketing and telecommunications
- Two subsidiaries directly owned (*i.e.*, not under one of the three, second-tier US holding companies) by IUSA to hold equity interest in Connecticut LNG operations:
 - LNG Marketing Partners: 10 percent equity interest
 - LNG Storage Partners: 20 percent equity interest
- NYSEG Solutions: IBE also reports the existence of this subsidiary not listed on the chart provided in the RFP, noting its founding date and business are similar to those of Energetix.

IUSA also holds a service company, Iberdrola USA Management Corporation (U.S. Service Company). IUSA also holds equity interests in two entities (LNG Storage Partners and LNG Marketing Partners, which operate LNG businesses in Connecticut).

The RFP calls for two principal focuses in examining affiliate matters. It calls first for a review of controls to prevent affiliate transaction abuses, which, when they happen, often occur in the forms of cross subsidization by:

- Utility operations of non-utility operations
- Utility operations in one jurisdiction of utility operations in another jurisdiction
- One utility operation (*e.g.*, electric service) in a single jurisdiction of another type of utility operation (*e.g.*, natural gas distribution) in the same jurisdiction.

The presence of non-utility operations has been considered the biggest cross subsidization threat in many jurisdictions, but different approaches to or timing of rate increases or differences in competitive threats can serve to incent inter-utility cross subsidization as well.

The RFP secondly calls for an examination of the competitiveness of internally provided (usually a service company is the provider in the utility industry) goods and services with market alternatives. There is a generally accepted rule that the use of an internal group serving at “cost” provides two advantages: (a) increased economies of scale, and (b) avoidance of the addition of “profits” as a cost component. Thus, this theory proceeds, a well-designed set of common service organizations should compete well against market alternatives. However well this theory works generally in practice overall, it takes a number of specific inquiries to verify that any particular operation (in this case four New York utility operations; two electric and two natural gas) is not the exception to the rule. Those inquiries concern:

- Whether the common organization is in fact well-designed
- Whether the needs of the common users are so disparate that they require a subsidiary with simple needs in a given area to combine with one having more complex ones (“more complex” here being used as a proxy for “more expensive”)
- Whether particular needs rise to magnitudes and predictabilities sufficient to make in-house staffing versus outside contracting clearly more preferable
- Whether net efficiencies exist on a utility only basis (*i.e.*, net all-entity costs may be lower even though net all-utility-only costs are higher).

One key method for assuring that one is not the exception to the “all-for-one” rule is for the conduct of objective, reasonably frequent examinations of market alternatives. For large, diverse, and dispersed operations, it is also important that such examinations on regular occasion look at utility-group-only and sometimes at single-utility-only (particularly where there is significant size or geographic disparity between members of the utility subsidiary group) alternatives. It is not sufficient to look only at market alternatives only on an all-subsubsidiary or a combined utility/non-utility basis.

Liberty will undertake two lines of inquiry, analysis, and assessment to meet these two elements of the RFP’s required examination of affiliate matters:

- Planning, Designing, and Measuring Common Service Effectiveness and Efficiency
- Controls to Prevent Cross Subsidization.

Liberty will seek to catalog the relationships and transaction paths (nature and dollars) among service providers and beneficiaries. We will define the sources of services, and describe their structure, staffing, services provided, and costs. There is a nexus between organizational structure and the ability to manage costs that flow back and forth among units in that structure. The intersection may be trivial in simple organizations but rises substantially when the number of flow paths for costs is great. It is therefore appropriate to consider how structure helps or hinders control of cost allocation and management, and whether it includes the information necessary for and provides for sufficiently comprehensive and frequent analysis of competitiveness with other alternatives for providing services.

g. Title XIII of EISA

Title XIII addresses the ability of a smart distribution system to provide for the flow of information to devices inside customer premises (such as thermostats and appliances) and for data flow back to the utility. The SmartGrid will rely on equipment and services such as smart meters, smart appliances, renewable energy resources, and energy efficiency resources. The U.S. Department of Energy (DOE) will support deployment through reports to Congress, identification of barriers, creation of an advisory committee, conduct of research and development, creation of measurement strategies designed to assess implementation costs and benefits, and institution of a program that reimburses 20 percent of qualifying SmartGrid investments. Title XIII charges the National Institute of Standards and Technology (“NIST”) to establish protocols and standards that will enable deployment of SmartGrid equipment and systems. Section 1307 directs states to encourage utilities to employ SmartGrid technology.

There remains much to do to identify with particularity what network infrastructure requirements will be necessary to support what those who advance the goals of the Smart Grid think it will bring to the industry. It will be important for all electricity distribution companies to remain active in following developments, in identifying opportunities for customers, and in constructing and implementing plans that capture opportunities in a timely basis, while assuring that the pace and nature of investment recognizes the fluidity that may exist for some time in determining precisely what benefits will come and what improvements will best support their delivery to customers.

h. Financial Insulation

The Commission's merger order stated that:

NYSEG and RG&E may participate in a money pool only if all other participants, with the exception of Iberdrola, Energy East, and RGS, are regulated utilities operating within the United States, in which case NYSEG or RG&E may participate as either a borrower or a lender. Iberdrola, Energy East, and RGS may participate only as lenders in money pools involving NYSEG or RG&E.

The two New York utilities may not participate in a money pool that lends or transfers funds to the holding companies. The availability of short-term funds to the utilities should offer discounts as compared to the marketplace.

The merger order also states that neither the holding companies nor any of their affiliates may have any cross default provisions in their debt instruments that effect NYSE&G or RG&E in any manner, and that this condition must remain in the future. The merger order does not include specific restrictions on the other areas of cash management that can affect the utility companies. For instance, the order does not preclude the funding mechanisms for the utility companies from sharing backup lines of credit that support a holding company's parent commercial paper program that funds the money pool, or that support the utility's own commercial paper program. The order also does not preclude a utility from providing a backup liquidity source if the money pool or utility commercial paper program is not operational.

Such shared lines of credit are often arranged on a consolidated basis, with utilities receiving an allocation of funds available as well as the costs of the facility. Such credit facilities may provide the utilities with less access to liquidity capital than the parent company, or may allow expansion of credit to the holding company only. The utility entities should have full and equal access to any backup lines of credit that provided liquidity support in the case that money pool operations do not provide sufficient cash resources.

2. Evaluation Criteria

a. Governance

These criteria go to a large number of the planning, budgeting, execution, measurement, and corrective action elements of the management cycle that Liberty will be addressing in the other areas of this audit. By definition, the review here will examine many of them at a rolled-up level of detail. The view taken of these elements in this work will thus generally, although not necessarily always, be from a higher "elevation" than what will occur in the reviews undertaken in the other audit areas.

It is thus important to understand that there will be a strong need for coordination between the work here and the work in those other areas. In particular, those areas will focus very specifically on the quality of the work products and documentation resulting from those other elements. Here the focus will fall more on what roles directors and senior executives take in developing them and in how effectively personnel at these levels use those work products and documentation. Thus, the reader should not consider the criteria and the immediately ensuing work steps here to suggest that Liberty's review of each of the elements in the management cycle will only take place at a high level. Instead, the criteria and work steps addressing those elements need to be considered in conjunction with what is presented here as the plan for addressing "governance." Liberty recognizes that, while persons at these levels are not always involved at the "detail" level, they nevertheless clearly need to assure that what they use rolls up from supportable, comprehensive, and accurate detail. Theirs is the ultimate responsibility for assuring that those who do operate at the detail level do so from information and products that roll down from and are fully consistent with and supportive of top level oversight, directives, and guidance.

Recognizing the linkage between this and the other audit areas, the evaluation criteria that Liberty will use in addressing governance at the board and senior executive level include the following:

1. Entity, director, and executive structure should support the ability to identify, assess, and meet New York utility needs on a timely and sufficient basis.
2. Membership among board and executive organizations should take account of the importance of meeting customer and public expectations and requirements.
3. Recognizing the practical limits on "local" representation on the parent board and senior European executive structure, subsidiary structures should exist to assure focused attention at board and senior executive levels on New York operations.
4. Directors and senior executives should be able to demonstrate substantial awareness of New York conditions, needs, priorities, resources, customer needs, and public requirements and expectations.
5. There should be regular and significant methods for direct interaction, dialogue, and exchange among U.S. leaders responsible for New York operations and European authorities with direct and with substantial indirect influence over resources dedicated to New York operations.
6. Directors and senior executives should consider New York needs and requirements discretely and in a balanced manner in establishing overall corporate priorities, designing programs and initiatives, making plans, setting budgets, measuring performance, identifying action plans to address performance gaps, and responding quickly and effectively to unanticipated events that require significant shifts in attention and resources.
7. Routine information sources available to European directors and officers (and any senior managers with significant actual or potential influence over New York operations) should be at a scope, level of detail, and frequency to provide them with sufficient information to carry out their responsibilities as they affect those New York operations.
8. Frequent and focused attention to New York-related plans, budgets, initiatives, performance, variances, corrective actions to close gaps, and important customer and public stakeholder perspectives and concerns should be evident.

b. Corporate Strategies, Goals, and Plans

General Subjects

1. Overall and New York utility-specific missions, visions, or other statements of purpose should be clearly articulated and universally understood throughout the affected organizations.
2. Corporate plans should be in place with clearly stated objectives and goals that tie directly to the missions and visions.
3. Goals and objectives should balance the needs of all stakeholders, including customers, shareholders, employees and regulators.
4. Goals and objectives should include sufficient very long-term elements to assure the long-term viability and reliability of the system given the potential for an aging and increasingly fragile infrastructure.
5. Organizational plans should be in place, and flow logically from and directly support the corporate plan.
6. The parent, U.S. holding company, and New York entities, starting with the Boards, should have measures in place to assure compliance with all policies and procedures throughout the organization.
7. There should exist clear hierarchies of policies and procedures organized in logical structures, to assure that policies throughout the organization are linked.
8. The boards should have full control over the establishment of executive compensation.
9. The boards should exercise that role in a manner that focuses sufficiently on utility performance when deciding how to reward executives with significant utility responsibilities.

Operations and Rate Consolidation

10. U.S. senior executives and the boards should actively and regularly consider the opportunities for and the net service and cost benefits of consolidation of those elements of operations that may produce greater efficiencies or service levels economically.
11. U.S. senior executives and the boards should be aware of the differences in rate categories and levels and should understand the potential customer and economic development consequences arising from those differences.
12. U.S. senior executives and the boards should periodically consider the opportunities for and results of consolidation of rate categories and levels and their likely impacts on the customers and the economy of all affected New York areas served.
13. Those considerations should take full account of regulatory expectations and of input from customers and other stakeholders.

Operating Segment Purchases/Sales

14. The design, structure, and level of common-service resources should be optimized for current levels of operations, and not built for anticipated growth.
15. The common-service organizations should have the ability to respond to increased and decreased service requirements (from business acquisitions or dispositions) promptly and efficiently.
16. There should be a reasonably clear set of methods for determining the level of temporary inefficiencies resulting from such transactions and for preventing them from adversely affecting utility costs.
17. There should be a clear policy and methods for identifying “true costs” of services acquired or provided temporarily as part of an acquisition or disposition and for assuring that utility customers do not experience higher costs as a result of a transfer of transaction value to temporary service or similar agreements.

c. Top-Level Budget Priorities and Processes

1. Resources, including capital, personnel, and operating funds, should be allocated to the New York utilities (and within them to their electric and gas operations) in a manner proportional to the service needs of its regulated utilities.
2. Resources, including capital, personnel and operating funds, should be allocated in a manner proportional to the service needs of electric and natural gas utility operations.
3. Performance versus budgets should be regularly measured with corrective action, course corrections, with revisions to plans and targets made as appropriate.
4. Budget gaps and variances should undergo thoughtful analysis, documented explanation and reasonable justification in connection with future planning and budgeting.
5. The quality of budget information provided to the boards by management should be of the highest order and suitable for critical and objective decision-making.
6. The Board should demonstrate a suitable interest (as evidenced in minutes and resolutions and in knowledge demonstrated at interviews) in key budget- and rate-related areas.

d. Controls and Performance Measurement

1. The audit committee should have the power to hire/fire, compensate and oversee independent auditors; outside auditors should report directly to audit committee.
2. There should be structured and regular self-assessments of board and top management effectiveness in carrying out the governance function.
3. There should be well-structured and communicated, comprehensive, and robust policies, procedures, requirements, reporting, and enforcement of standards of ethical behavior and conflict-of-interest.
4. There should be routine, comprehensive measures for assuring compliance with exchange listing, SOX requirements, and other public policies regarding the controls environment.
5. There should exist formal audit committee procedures for treatment of accounting, controls, and audit related complaints, including assurance of anonymity.
6. The audit committee should have the power and access to resources to retain its own advisors.
7. There should be a policy addressing competitive solicitation and rotation of independent accountants.
8. Annual internal audit plans should result from a structured risk assessment process that fully considers New York utility risks, and produces sufficient examination of utility costs.
9. There should be a structured program for the conduct of not just financial, but also operational audits that focus sufficiently on U.S.-wide and New York specific electricity and natural gas utility operations.
10. The structure and conduct of audit activities should specifically recognize the potential for the transfer of profits from utility to non-utility subsidiaries, and from one utility operation to another, whether or not there is a net effect on consolidated U.S. or higher holding company results.

e. Compensation

1. There should exist clear definitions and documentation of the program of executive compensation.

2. The compensation committee should have access to and make effective use of sufficient analytical support from an independent compensation consultant as well as human resources and treasury functions.
3. Compensation programs and levels should be designed to be sufficient to attract and retain personnel with the necessary levels of skill and experience, while incorporating elements that align rewards with the achievement of established goals and objectives that relate to the differing responsibilities of different levels and functions within the enterprise.
4. Sound market benchmarks should form an important element of compensation, but should be carefully applied to assure that there remains a strong linkage between compensation and value to RG&E and NYSE&G in achieving utility-focused goals and objectives.
5. The measures used for incentive compensation should primarily be objective, and where customers bear those costs, should have a direct relationship to improvements in service and cost.
6. The recent history of incentive payouts should show that there is no assurance that incentives will be paid at high levels absent effective performance.

f. Common Service Costs

Planning, Designing, and Measuring Common Service Effectiveness and Efficiency

1. Service providers should be structured such that all “customers” (specifically focusing on New York utility operations) are treated equally and fairly.
2. Systems for cost allocation and management should be designed in a manner that is consistent with the structural interrelationships of the involved and affected organizations.
3. The organizational design of service functions should be consistent with the effective provision of those services and the ability to track and manage associated costs.
4. Common services should be subjected to a service-level agreement (SLA) or similar process between provider and a properly “empowered “service recipient on behalf of New York utility operations.
5. SLA design and content should align with the needs of the management of the regulated utilities.
6. SLA negotiation, execution, and service quality and cost measurement should afford the regulated utilities a suitable degree of influence and control.
7. A clearly defined process for management of service functions should be in place.
8. Structured budgeting and planning processes should be in place that focuses on the business needs of the user.
9. The process should provide for mutually agreeable cost and production targets.
10. Performance should be analyzed and deviations addressed on a regular basis by both the provider and user organizations.
11. Response to performance issues should be demonstrated and documented action.
12. The reasonableness of internal service costs should be regularly tested.
13. Formal documentation of service cost analysis should exist, and should demonstrate the cost effectiveness of internally provided services.

Controls to Prevent Cross Subsidization

1. Cost assignment and allocation methods should conform to regulatory approval requirements.

2. The methods should not cause New York utilities to cross subsidize utility and non-utility affiliates.
3. Methods should lead wherever practical to costs being accounted for and assigned on a direct basis; methods should provide for allocation based on appropriate cost-causative factors as much as feasible, and should minimize the use of general allocation factors.
4. Methods should be complete and comprehensive.
5. Systems and records should allow assigned and allocated costs to be traceable and transparent.
6. Cost allocation policies and procedures should be appropriately documented, provide clear direction, set guiding objectives and criteria, and establish appropriate allocation methods and factors.
7. An appropriate communication process should be in place to inform employees about cost allocation policies, procedures, and changes.
8. Training should exist for appropriate employees on proper cost allocation procedures, and should be up-to-date and adequately administered.
9. Review processes should be in place to provide on-going monitoring of cost assignment and allocation; review of cost allocation factors should be frequent and comprehensive enough to assure that any new factors are appropriate and existing factors are still appropriate, useful, and correctly updated.
10. Calculations of cost allocation factors should be accurate and sufficiently documented.
11. Affiliate billing and other affiliate charge recognition processes should be accurate and timely and invoice amounts should be properly assigned or allocated.
12. Overhead amounts should be properly calculated and assigned.
13. Clearing accounts should be properly built and cleared.
14. The factors used for assigning and allocating interest, depreciation, internal dividends, and taxes should be properly determined.
15. Building usage, occupancy, and rent charges should be properly assigned or allocated.
16. Estimates to actual should be reconciled when estimates are used for calculations.
17. Capital-related charges should be accurately calculated.
18. Expatriate transfer and relocation policies should address:
 - a. Need for the transfer, versus a local hire, promotion or temporary assignment
 - b. Consideration of regulated utility interests and commission policies
 - c. Methods to analyze the costs and benefits and determine net value
 - d. Cost accounting and allocation methods for one-time and ongoing costs
 - e. Compliance, controls and improvements to the policy, procedures and practices
 - f. Identification of the applicable salary range for the position involved, and specific justification for any departure above that range.
19. Charges should be fully traceable to the service company general ledgers; charges sources should be identifiable and identified.
20. The data should contain the detail necessary to allow the tracking forward to the cost allocation process, and back to the source documents; the audit trail from source documents to the service company ledgers should be clear.
21. Monthly bills to the operating company should be complete and accurate, prepared according to appropriate procedures, subject to an easily traceable audit trail, and timely paid.
22. Positive time reporting should be the norm; reporting systems should be adequate to support the appropriate time reporting.

23. All employees should be trained and aware of the importance of proper time reporting; manuals and other related documentation should provide adequate detail and be readily available as a reference.
24. Controls and internal audit processes should be in place to ensure employees are recording their time properly and that time reports result in proper direct or allocated charges.
25. Controls should be in place to ensure that default time reports are associated with the proper downstream accounts, and that affirmative reporting results in the proper direct billing or cost allocation.
26. Time reporting procedures allow employee overtime, holiday and other work time premiums are assigned to the correct cost accounts.
27. Time charging codes should be associated with proper direct charges, billing pools or project codes in downstream systems.
28. Due attention should be given to maximizing direct charging of time and to use cost-causative and narrowly directed multi-beneficiary charging codes.

g. Title XIII of EISA

1. RG&E and NYSE&G should clearly assign responsibility for assessing industry and governmental (particularly DOE and NIST) developments in SmartGrid development and for assessing current network capabilities and potential improvement plans in light of those developments.
2. The utilities should work actively with other state electricity distribution utilities and the Commission to address issues of deployment, standards, equipment, services, and cost recovery as they affect all New York providers commonly and their operations specifically.
3. RG&E and NYSE&G should have an analytically sound and structured process for examining the costs and benefits in a comprehensive and quantitative manner of network improvements, in order to be prepared to respond promptly and effectively to increased capabilities, emerging standards, regulatory programs and requirements, and customer expectations.
4. RG&E and NYSE&G should take a proactive role in examining the availability of funding support for network enhancements, and should aggressively pursue opportunities that will have demonstrable benefits for customers at effective cost.

h. Financial Insulation

1. Money pool operations should allow borrowing and lending only among investment grade U.S. utilities.
2. NYSE&G and RG&E should have access through the money pool to short-term funds that are at lower than market rates.
3. The parent holding companies should be allowed to participate only as a lender in utility money pools.
4. No cross defaults provisions or potential pledge of utility assets should be present in the debt instruments of any of the affiliates, to the extent that they could affect NYSE&G or RG&E.
5. Any cross defaults provisions or pledge of utility assets that affect the utilities must be immediately removed.
6. The utility entities should have full access to adequate liquidity to meet their needs in all potential situations.

7. The utilities should not rely on consolidated lines of credit that include the parent company or unregulated affiliates that may restrict the utilities access to liquidity in any way.

3. Work Activities

a. Governance

1. Determine the formally designed and intended structure of all boards of directors.
2. Specifically address (in addition to the parent board) the structure, purposes, memberships, and activities of subsidiary boards responsible for U.S. operations.
3. Assess actual operations (as compared with that structure) through board member interviews, reviews of board documentation, and interviews with key European and U.S. management.
4. Determine the formally designed and intended structure of all organizations and their executive leadership to the extent they directly oversee New York operations or address matters (such as resource allocation among entities or initiatives) that have significant potential for affecting New York operations.
5. Assess actual operations (as compared with that structure) through senior executive and key senior management interviews with key European and U.S. personnel.
6. Determine how U.S. needs are factored into the formation of overall plans, resource commitments, budgets, initiative, and corporate performance measurement.
7. Determine how, in what manners, on what subjects, and how frequently European directors and executives (and those located in other foreign countries to the extent directly or indirectly affecting New York operations) interact with those in Maine headquarters and those in the U.S. directly responsible for New York operations.
8. Determine how the New York governance and executive structures, roles, and activities interact and overlap with those addressing: (a) other U.S., and (b) international operations.
9. Determine how, in what manners, on what subjects, and how frequently U.S. headquarters (Maine) executives interact with those directly responsible for New York operations.
10. Examine the routine and any major special reports (purpose, frequency, and content) addressing New York operations that flow to Maine headquarters and to Spain.
11. Identify any material top-down planning and budget guidance that flow down to New York leadership from Spain or Maine.
12. Determine the approach to “ex pat” assignments to U.S. generally and New York specifically in the context of maintaining primary focus on cost efficiency and quality of service to New York customers.
13. Identify recent “ex pat” assignments to the U.S. and determine the process for determining that they were appropriate from a value perspective.
14. For such assignments, review methods to assure the compensation and expense recovery have been appropriate generally and consistent specifically to offer a “best cost” solution from the New York perspective in filling the positions involved.
15. Identify the principal sources that European directors and executive management use to maintain a comprehensive understanding of the New York operating environment, operating conditions, regulatory requirements, expectations, and current issues, and stakeholder values, concerns, and inputs.
16. Determine specifically how the European directors and executives measure their performance in meeting U.S./New York needs and how rewards relate to those measures.
17. Determine what role direct experience with and visibility on U.S. regulatory, operations, and other needs play into the process of identifying board candidates and in deciding on choices to fill vacancies.

b. Corporate Strategies, Goals, and Plans

General Subjects

1. Examine overall and New York utility-specific missions, visions, and other statements of purpose.
2. Assess the degree to which they have been “internalized” by all involved elements of the Spanish, U.S. and New York elements of the organization.
3. Review corporate plans and assess conformity of objectives and goals with New York public service responsibilities.
4. Determine how long term sustainability (particularly with respect to utility infrastructure) is considered and reflected in planning, goals, and objectives.
5. Examine organizational plans.
6. Determine what hierarchy of procedures exists and its ability to address specifically the needs of New York utility operations.
7. Determine where controls over procedure adoption and communication exist and how compliance is monitored.
8. Determine how executive compensation is established, benchmarked, and connected with sound performance objectives and measures that tie to New York utility service and cost performance.

Operations and Rate Consolidation

1. Identify the operations elements that remain distinct between the New York utilities vis-à-vis each other and the remainder of U.S. operations.
2. Identify the different rate categories and levels between RG&E and NYSE&G.
3. Determine what consideration was given to operations and rate structure consolidation and what expectations may have been created as part of merger proceedings or subsequently by the Commission.
4. Identify the nature, timing, extent, and results of consideration given to merging operations within New York or between New York and other U.S. operations.
5. Make a similar determination about any potential for separating elements of New York from other U.S. operations.
6. Identify the nature, timing, extent, and results of consideration given to merging rate classifications and levels between RG&E and NYSE&G.
7. Determine what efforts other jurisdictions have taken over time in the years following mergers of utility operations within their states.

Operating Segment Purchases/Sales

1. Determine how and how quickly have service company design, structure, and level of common-service resources changed as a result of recent purchases and sales.
2. Examine how they are anticipated to change as a result of the recent disposition of New England gas business operations.
3. Identify and assess efforts taken and those planned to be taken to address specifically the question of temporary inefficiencies resulting from such transactions and for preventing them from adversely affecting utility costs.
4. Examine the transition service agreements that have accompanied recent transactions.
5. Determine how their “costs” have been determined.
6. Examine the relationship between those costs and the value to or the prices paid under them.

c. Top-Level Budget Priorities and Processes

1. Review budgets to determine the extent to which utility resource allocations are consistent with their respective service needs in meeting both electricity and natural gas service needs and expectations.
2. Evaluate board and executive management interfaces with New York utility budgeting processes.
3. Evaluate the process by which the New York utility level of capital investment is determined by the boards and the extent to which it is consistent with goals and objectives.
4. Analyze the track record in meeting goals and objectives and response in cases where goals and objectives have not been met, including how such goals may have been revised for future years.
5. Evaluate how the boards and executive management address long-term (decades) infrastructure issues and how such issues are addressed by the capital investment program.
6. Evaluate how financial considerations (earnings, ratios, financing requirements) and rates impact the budgeting process.
7. Examine means for comparing performance versus budgets.
8. Determine how budget gaps and variances are analyzed, documented, and addressed in future planning and budgeting.
9. Examine what budget information the boards receive from management, and verify its usefulness in deliberations and decision making.
10. Review minutes and resolutions and interview board members about key budget- and rate-related subjects of concern in the recent past.

d. Controls and Performance Measurement

1. Evaluate the effectiveness of corporate reporting of performance versus the corporate plan including specific goals and objectives.
2. Evaluate the quality of information relating to audit elements that is provided to the Board.
3. Identify and assess the skills, experience, and compensation of the audit committee.
4. Determine how active the audit committee has been in setting its agenda, determining its information requirements, setting the format required for outside and internal audit reports, selecting the outside auditor, determining audit fees, and limiting other work by the outside accountants.
5. Examine means to keep auditor fees competitive.
6. Examine the reporting structure and the numbers, skills, experience, and assignments of Internal Audit personnel.
7. Determine how the independent accountants and Internal Audit work together to accomplish the goals of each and of the parent and utility.
8. Review audit plan planning processes, audits scheduled and audits conducted, in order to assure proper focus on utility matters.
9. Examine the overall approaches and methods to compliance with requirements and guidelines.
10. Verify the existence of structured and regular self-assessments of board and top management effectiveness in carrying out the governance function.

11. Identify and examine policies, procedures, requirements, reporting, and enforcement of standards of ethical behavior and conflict-of-interest and for assuring the ability to make anonymous complaints or observations.
12. Determine the policy regarding competitive solicitation and rotation of independent accountants.
13. Examine the approach, structure, scope, and resources dedicated to operational (as opposed to financial) auditing.
14. Identify and review recent audits of affiliate relationships and transactions.

e. Compensation

1. Determine exactly where in the process (from the early stages of forming compensation recommendations to the making of final proposals) the board is involved, and what form its involvement takes.
2. Determine what in-house and outside expertise is used to conduct peer analyses and help formulate recommendations; determine who is responsible for retaining assistance, and under whose direction that assistance is provided.
3. Assess the independence of the compensation committee of the board and its experience and capabilities in matters involving executive compensation.
4. Determine the values, parameters, and limits the board members (particularly the compensation committee) apply in designing the at-risk portions of executive compensation.
5. Determine whether the board members (particularly the compensation committee) operate under a well-formed standard for assuring that utility-appropriate measures apply to setting the compensation of those exclusively, predominantly, and substantially responsible for utility performance.
6. Determine how executive compensation is defined, who participates in setting and reviewing it, whether any of the definitions recently have changed substantially, and whether any future changes are contemplated.
7. Determine whether already-written descriptions of the compensation philosophy and market targets for the elements of the compensation program agree with the philosophy enunciated publicly.
8. Evaluate the roles played by consultants on executive compensation, and the human resources and treasury functions of corporate offices, in running the executive-compensation program.
9. Identify who chooses the compensation consultant and whether there has been a change in the past five years.
10. Assess the structure of the incentive programs; determine what objectives--stockholder and customer--they are designed to serve.
11. Evaluate how the incentive programs are intended to reward performance that corporate and utility employees have control over and that contribute to meeting utility customer-service and cost goals.
12. Identify the measures used to trigger payouts; assess the recent history of awards to determine if it demonstrates that performance is the determining factor; *i.e.*, whether awards adequately tied to actual performance.
13. Evaluate how any target-bonus percentages compare against the practices of the relevant market.

14. Determine how the design of the incentives of the executive-compensation program changed in the past five years.
15. Evaluate how the costs of director compensation are distributed among RG&E and NYSE&G.

f. Common Service Costs

Planning, Designing, and Measuring Common Service Effectiveness and Efficiency

1. Develop a detailed definition of the New York and supporting organizations, including all unit interfaces.
2. Define the principles and philosophy underlying the organizational design, including such elements as autonomy of various service functions, degree of control of services by the regulated utilities, design techniques to enhance synergies and other factors influencing organizational design decisions.
3. Define all functions provided in a “shared services” environment.
4. For all units providing “shared services”, define their:
 - a. Organizational structure
 - b. Nature of services provided
 - c. Staffing levels
 - d. Costs.
5. Define the organizational and business relationships between all providers and recipients.
6. Determine where New York regulated utilities also provide services to others (*i.e.*, are more than just a “customer,” but also the “server.”).
7. Evaluate the organizational placement and effectiveness of utility-to-utility services and services provided from within the line of business.
8. Evaluate the relationship between organizational structure and the management and tracking of service costs.
9. Review nature, content, and update frequency for Service Level Agreements (SLAs).
10. Determine who sits at each end of the negotiating table for SLAs and what process is followed to complete them.
11. Evaluate existing process (and effectiveness of its implementation) for the management of service costs and effectiveness.
12. Evaluate that the methods used to assure the cost and quality of internally provided services are reasonable and competitive.
13. Review any audits or other analyses of the effectiveness of internal service costs.

Controls to Prevent Cross Subsidization

1. Determine if required and appropriate approvals are obtained before engaging in affiliate service transactions with utilities and if transactions are substantiated by documentation showing that guidelines and requirements were met.
2. Evaluate the adequacy and completeness of bills submitted between the utilities and service affiliates.
3. Review the Cost Allocation Manuals (CAMs) and other governing and guiding documents outlining cost assignment and allocation policies, procedures, and practices.
4. Review the terms of any agreements (Service Level Agreements, or SLAs, for example) between the service companies and the utilities that affect the nature and level of services and the manner in which costs are assigned or allocated.

5. Review the terms of the utility mutual assistance agreements that might affect the manner in which costs are assigned or allocated among the utilities.
6. Determine how costs and revenues are assigned or allocated to the utilities from service company(ies).
7. Determine how costs and revenues are assigned or allocated among New York utility affiliates and any non-service-company affiliates, including other utilities.
8. Determine how costs and revenues are assigned or allocated between off-shore and operations in the U.S. generally and New York specifically.
9. Review documentation demonstrating the approval of the cost assignment and allocation procedures.
10. Determine the state and federal regulations governing cost assignment and allocation procedures, prices for inter-affiliate transactions, transactions between regulated utilities and non-regulated affiliates, and transfers of assets and intellectual property between affiliates.
11. Assess compliance of guidelines, policies, and procedures with state and federal regulations.
12. Review and evaluate the communication methods and training used to inform employees about cost allocation procedures and alert them to any changes in cost allocation procedures that may affect them.
13. Review and evaluate the change control process for cost allocation documentation and training and the controls used to assure consistent application of cost allocation methods.
14. Review and evaluate the procedures of any cost allocation review committee, and the documentation related to committee meetings.
15. Review the calculation of allocation factors and the frequency of their updates.
16. Determine and assess how affiliates are billed or otherwise assessed for inter-affiliate transactions.
17. Determine and evaluate the types of costs billed as overheads or loaders to other costs; examine the formulas used for calculating overheads and loaders.
18. Determine and evaluate the fraction of costs directly assigned, allocated based on cost-causative factors, and allocated using a general allocator.
19. Review and evaluate the processes used for assigning and allocating invoice amounts.
20. Review and evaluate the processes used for developing and clearing overheads.
21. Review and evaluate the processes used for building clearing accounts and clearing them.
22. Review and evaluate the process for assigning and allocating interest, depreciation, internal dividends, and taxes.
23. Identify all relevant expat policies; determine basis for decision-making (expat vs. local hire).
24. Identify range of general terms and conditions of benefits provided to expats.
25. Obtain the necessary data, via query reports to capture test data; trace total costs from the data base to the service company general ledgers.
26. Trace test transactions from the data base to source documents (time reports, expense reports, invoices, for example)
27. Test to verify bill payment.
28. Trace the billing and payment details to the books of the service company and the operating companies.
29. Evaluate employee time record keeping, allocations of employee salary costs, and development of overhead factors, with particular focus on shared employees.
30. Review and evaluate time reporting process and systems, controls, and training.

g. Title XIII of EISA

1. Determine where responsibility lies for examining industry and regulatory developments related to Smart Grid deployment.
2. Examine the methods used to consider the impact of a range of SmartGrid deployment plans on what services NYSE&G and RG&E can offer and at what cost.
3. Determine how NYSE&G and RG&E considers technological, regulatory, and other uncertainties associated with SmartGrid deployment in making future plans.
4. Examine NYSE&G and RG&E's current and anticipated role with other electricity distributors and with the Commission in addressing the development of standards, programs, service offerings, and cost recovery methods as progress continues to be made in defining specific expectations about SmartGrid deployment.
5. Determine how NYSE&G and RG&E do and propose to examine the potential for outside funding support for deployment.

h. Financial Insulation

1. Determine whether money pool operations allow borrowing and lending only among investment grade U.S. utilities.
2. Determine whether NYSE&G and RG&E have access to short-term funds through the money pool that are lower than market rates.
3. Determine the extent of parent holding company and unregulated affiliate participation in the operations and funding of the money pool.
4. Verify that holding companies participate only as lenders in utility money pools.
5. Ensure that no cross defaults provisions or potential pledge of utility assets are included in the debt instruments of any of the affiliates that could affect NYSE&G or RG&E.
6. Ensure that any cross default provision or pledge of utility assets that affect the utilities have been removed.
7. Assess whether the utility entities have full access to adequate liquidity to meet their needs in all potential situations.
8. Examine whether the utilities rely on consolidated lines of credit that include the parent company or unregulated affiliates that restrict the utilities' access to liquidity in any way.

4. Liberty Resource Assignments

Lead Consultants: Antonuk
Support: Vickroy (Corporate Planning and Financial Insulation), King (Affiliates), Freda (Affiliates), Falcone (Affiliates), Bilbao Interface Team (Folgueras Galan, Fende, and Lowe)

5. Potential Benefits and Costs

Governance and the establishment of overall plans, strategies, and resource commitments form the primary focus of this audit area. The failure to conduct these activities with proper recognition of New York needs can actually reduce costs in the short run. However, maintaining effective and reliable service in the absence of a sound approach can produce inefficiencies that run into the many tens of millions of dollars per year at electric and gas utilities such as NYSE&G and RG&E. To put it another way, short term savings gained by failings in this area

end up costing customers much more in the long term, once needed service corrections become matters of reaction instead of proaction. This area is thus essential to effective management of costs and service reliability and quality as well. Correcting governance and high-level corporate planning weaknesses is not likely to require significant expenditure.

Service-company and affiliate costs (assuring that services provided are the best competitive option and assigning/allocating their costs fairly) comprise the second important aspect of this audit area. Misallocations and inefficiencies here can have similar cost consequences. If improvements in assuring that service companies consider competitive alternatives prove to be necessary, they too are not likely to involve large costs. In most cases, correcting any cost allocations and assignment problems will also be low cost. The primary exception would be where there are significant systems weaknesses (*e.g.*, from failure to integrate systems and methods following mergers and acquisitions), which has been known to happen.

This audit area will also examine the financial insulation (money pool/cash management operations) that can also have a material impact on utility costs. Money pool operations that include borrowing by unregulated affiliates, the parent company or non-investment grade utilities can potentially increase the funding costs of the money pool above that of a stand-alone utility in more extreme situations. However, the primary affiliate impact of a poorly structured money pool would be the lending of utility funds to lower credit affiliate entities at an inappropriately low, cross-subsidized rate.

A more important impact of utility cash management operations and money pool operations is constant access to liquidity, especially during times of extreme need or market distress. Liberty has observed in some other holding companies that its utilities' access to liquidity was commandeered by the holding company to meet the needs of either the holding company or unregulated affiliates. The utilities can be left to "fend for themselves" to obtain needed funding, such as having to issue long-term debt in the extremely poor capital markets of late 2008. Utility liquidity needs must be protected from such potential situations.

B. Load Forecasting

1. Study Guidelines

Planning should reflect an integrated set of processes. Demand and use forecasting, resource planning, and system-operations planning are key elements of a properly integrated capital planning and budgeting program. Demand and use forecasting activities support many utility-planning functions. Capital-resource-requirement plans build from long-term aggregate forecasts of use and peak demand growth. More localized, area-level, growth forecasts (for example, number and type of customers, use, and contribution to peak) support planning for extension of distribution systems. Forecasts of operations and maintenance needs and increased customer-service requirements are used in the planning processes for personnel and service-support facilities. Effective forecasting also requires consideration of the effects of demand-side management, energy efficiency, weather, and other use-affecting requirements and developments.

Liberty will examine the models used to forecast load requirements, the processes for determining their key inputs and assumptions, and the appropriateness of the inputs and assumptions selected for use and how they have changed in recent years. Liberty will examine the accuracy of recent forecasts in order to assess whether any problems or gaps have substantially affected that accuracy. In performing this sample review, Liberty will remain mindful of the need to avoid hindsight analysis and of the fact that forecasting is, even when performed well, an uncertain venture. The goal will be to identify any changes that may lead to the potential improvements in future forecasts. The detail and accuracy of consumption data will be reviewed to determine its adequacy. Data should be specific to customer classes and, for very large consumers to those individual consumers.

Effective forecasting also requires well organized, experienced personnel. Liberty will determine where NYSE&G and RG&E have located forecasting responsibility and how they have coordinated forecasting needs and outputs among their electric and natural gas businesses. Liberty will also examine the affects that the New York System Operator (ISO) has on load forecasting for NYSE&G and RG&E, and how the companies have accommodated that role in their own processes and activities.

2. Evaluation Criteria

1. Forecasting should be supported by comprehensive, accurate models that are sufficiently robust to address the drivers and uncertainties faced by New York electricity and natural gas operations.
2. These models should be subject to continual revision and updating.
3. Forecasting should be conducted by well-trained and experienced personnel familiar with the capabilities and limits of models used, with recent and likely changes in economic and other factors that affect load in the serving area, with recent experience at other similarly situated enterprises, and with the differences in factors that affect NYSE&G and RG&E's electricity and natural gas businesses.
4. The accuracy of forecasts should be checked and appropriate adjustments made to future forecasts and methods.
5. To the extent that forecasting depends upon different organizations, there should be strong integration of efforts to assure consistency of assumptions, timely inputs, and coordination of results.
6. Forecasts should reflect public policies and guidelines for demand- and use-affecting programs, should include robust estimates of their effects, and should address their uncertainties fully.
7. Forecasting for the electric and natural gas businesses should use consistent assumptions, be conducted on a reasonably contemporaneous basis, and recognize interdependencies.
8. Forecasts presented to the Commission for use in regulatory proceedings should be current, use inputs consistent with those used for internal forecasting purposes, and be sufficiently transparent to support adequate stakeholder and Commission review.
9. Company forecasting processes and results should be consistent with what is needed for effective coordination with NYISO's role in forecasting for the state.

3. Work Activities

1. Examine and test the models used to make forecasts through review of user documentation, interviews, reviews of outputs, and sample runs.
2. Evaluate the accuracy of recent forecasts, and identify the reasons for any significant variances between them and actual results.
3. Review the availability and inclusion of weather variables.
4. Review any recent changes in the forecasting processes and the reasons for each one.
5. Evaluate methods for assuring data are complete and reliable.
6. Determine if forecasts are probabilistic; *e.g.*, expected projection, probable high projection and low projection.
7. Examine forecasts recently used in regulatory proceedings for consistency with those used internally.
8. Identify NYISO's role in forecasting and determine how NYSE&G and RG&E have tailored their forecasting structure, content, timing, and other factors to reflect that role.
9. Determine what public policies and requirements and what NYSE&G and RG&E programs exist with respect to demand and energy usage reduction.
10. Determine who is responsible for the development and implementation of such programs for NYSE&G and RG&E and how those resources involve themselves in forecasting their likely impacts.
11. Examine the methods used to forecast and bound the uncertainties associated with such programs.
12. Evaluate the term of the forecast for relevance with recent weather trends.
13. Evaluate the effect on NYSE&G and RG&E forecasting driven by the NYISO forecasting requirements, such as the annual peak load forecast used to set the installed capacity (ICAP) value for the following year.

4. Liberty Resource Assignments

Lead Consultants: Axelrod (Electric), Teumim (Gas)

Mr. Axelrod is knowledgeable in the factors that go into making demand and use forecasts, how they interrelate, and the types of methods and systems used. Liberty also brings to this effort significant knowledge about demand and usage reduction programs, which have become an increasingly important and challenging aspect of forecasting processes.

Mr. Teumim has lead Liberty reviews of natural gas load forecasting at Duke Energy Ohio (two audits), Vectren Energy Delivery of Ohio, Dominion East Ohio, and Columbia Gas of Ohio. Liberty also recognizes the closeness that should exist between forecasting and planning efforts. Liberty's assignments also bring to this effort significant knowledge about demand and usage reduction programs, which have become an increasingly important and challenging aspect of forecasting processes.

5. Potential Benefits and Costs

Forecasting, as an important driver of capital improvements, has significant impacts on utility costs. A tendency toward over conservatism, which Liberty has observed in a number of cases,

can have noticeable impacts for customers. In cases where stockholders share in the benefits of off-system sales, there is an added inducement to apply such conservatism. Liberty has generally found it a fairly straightforward matter to identify areas where the assumptions, approaches, alternatives, systems, and methods can be changed. It is also often possible to identify categorically what cost magnitudes can be associated with blocks of change in incremental resources. The special difficulty in quantifying savings in this area arises because it is generally not possible to identify the precise changes in forecasts that would result from a particular improvement. Without knowing that change, it is therefore also not possible to know what changes in future resources would result. Therefore, estimates of savings in this area are generally often rougher.

Like some others, this is also an area where changes may impose added systems or operating costs. Given the significant long-term cost consequences that can attach to marginal changes in forecasts, Liberty will therefore be willing to recommend changes where it is clear that a material change in forecast accuracy will result. If there should prove to be reason to conclude that the asset portfolio is “rich” and that forecasts have been high on a regular basis, more costly solutions will be justified.

C. Wholesale Market Issues

1. Study Guidelines

Liberty’s work will recognize the importance of an efficient wholesale market in sustaining the benefits that competition has already made in New York State. As the load serving entities, NYSE&G and RG&E serve integral roles by assuring adequate transmission interconnections for reliable generation supply, distribution system support of distributed energy resources, and the investment in advanced technologies that expand the opportunities for retail consumers to achieve the benefits that competitive markets can provide.

Roughly half of a consumer’s retail electric bill often goes to cover the cost of electric production and wholesale market transactions. The success of a competitive wholesale electric market as structured in New York State requires that the load serving entities, such as NYSE&G and RG&E, provide the planning, infrastructure and management of wholesale market responsibilities in a manner that fully enables retail customers to develop and execute both short- and long-term energy procurement and risk management practices. Whether it is a small residential customer who seeks to find a competent energy service provider that offers standardized procurement portfolios or a large industrial customer who wishes to develop its own portfolio of physical and financial transactions as well as a range of complementary initiatives such as demand management, renewable resources and distributed generation investments, both NYSE&G and RG&E need to provide the framework under which their consumers can attain a reasonable expectation of success.

NYSE&G and RG&E’s role is to provide the transmission and distribution infrastructure in an efficient and cost effective manner, so that retail customers can implement and achieve their own energy procurement strategy. Because this is an evolving process that reflects market changes directed by the New York Independent System Operator (NYISO), the New York Commission and the FERC, as well as the technological advancements deployed under Smart Grid initiatives

and RPS mandates, both companies should have by now institutionalized within their strategic planning processes very specific goals and objectives that address their identified strengths and weaknesses relative to their wholesale market responsibilities. Both short and long term tactical measures with direct linkage to its capital and operational budgets should be highly transparent.

NYSE&G and RG&E also continue to provide bundled electric delivery and supply services to those customers who have not chosen a competitive retail supplier. The companies' energy procurement, trading and risk management practices should similarly be well-managed, clearly documented and demonstrate a high degree of risk management protocols.

Liberty will examine the way that these companies address the dynamics of the wholesale markets through their strategic planning processes, how they reflect the needs of their retail customers including the companies' active participation in NYISO and FERC proceedings and the degree to which the companies apply best practices to their energy procurement and risk management responsibilities.

2. Evaluation Criteria

1. The transmission network should be maintained in such a fashion to meet the reliability needs for the delivery of electric supplies to all customers served by NYSE&G and RG&E. Furthermore, the transmission network should reasonably support access to a range of competitive suppliers to sustain New York's competitive wholesale market.
2. The distribution network should be maintained or modified as required to support the installation and operation of distributed energy resources including distributed generation systems and such renewable resources as solar electric storage and wind generation.
3. The companies' strategic plans should address the dynamics of the wholesale market and specifically identify goals and objectives that will support the needs of their retail customers in the wholesale supply and delivery of electricity.
4. The companies' capital and operating budgets should demonstrate a direct linkage between each major line item and a specific strategic objective identified in the strategic plans.
5. Each company should document energy procurement, trading and risk management protocols with well defined risk controls, risk tolerance measures and structured portfolio targets. Each company should be able to identify an officer of the company who serves as the chief risk officer who can independently monitor and approve financial and physical energy transactions.
6. The Board of Directors should enumerate its commitment to wholesale competitive markets as demonstrated by a continuum of communications that support investments in the companies' generation interconnection, and SmartGrid technologies, as well as other measures that protect the short and long term interests of its core customers.
7. The companies' energy procurement and trading desk should be managed by a team of highly competent procurement specialist who abide by a strict code of conduct and comply with all business and regulatory standards for such normal transactional activities as: counterparty credit control and derivative management and reporting pursuant to FAS 133: Accounting for Derivative Instruments and Hedging Activities.
8. The companies should demonstrate active participation in all NYISO proceedings that can affect the short and long term interests of its retail customers.

9. The companies should also be able to demonstrate how their participation supports the development of a more robust and efficient energy infrastructure via the support of Smart grid technologies, renewable resources and demand side management programs.
10. Similarly, the companies should be able to demonstrate how their participation in FERC proceedings has protected the short and long term interests of their customers.

3. Work Activities

1. Examine NYSE&G's and RG&E's strategic plans to determine if they adequately address wholesale market issues using a SWOT assessment to identify significant strengths, weakness, opportunities and threats.
2. Identify from the strategic plans, specific goal, objectives and tactical measures that support the competitive wholesale electric market.
3. Examine the annual operational and capital budgets to determine if there is a direct linkage between the strategic plans and the annual budgets.
4. Determine if there are adequate internal controls and performance incentives to assure compliance with the state objectives of the strategic plans.
5. Review the strategic planning and budgetary process and time schedule to determine the degree of participation and feedback offered by the Board of Directors.
6. Review and analyze the transmission and distribution systems of both companies to determine if reasonable efforts have been made to assure adequate interconnections with generation suppliers in support of the competitive wholesale market.
7. Determine if the companies have enlisted adequate resources that support the installation of Smart grid technologies and customer sponsored investments in distributed energy resources including renewable technologies.
8. Examine NYSE&G's and RG&E's energy procurement, trading and risk management practices and procedures.
9. Determine if each company complies with all aspects of its risk management program.
10. Also determine if there are adequate mechanisms in place to identify irregularities or possible violations of its risk management policies.
11. Review NYSE&G's and RG&E's participation in the NYISO proceedings.
12. Review NYSE&G's and RG&E's participation in FERC proceedings.

4. Liberty Resource Assignments

Lead Consultant: Axelrod
Support: Vickroy

Mr. Axelrod is highly experienced in the review and assessment of competitive wholesale market requirements. He has performed similar reviews for NYPA, the NYISO, and the Massachusetts Wholesale Electric Company (MMWEC) for which he also serves as its independent chief risk officer.

5. Potential Benefits and Costs

How well NYSE&G and RG&E address wholesale market issues may represent a cost to the utilities that is passed on to retail consumers, but more than offset by the benefits derived from a

more efficient competitive wholesale market. For example, transmission interconnection enhancements might open access to a greater number of competitive electric suppliers at a cost to NYSE&G or RG&E, but a net benefit to its core customers. On the other hand, some distributed energy resources could in fact lower the utilities' costs by deferring the need for stressed distribution network equipment. For example, the installation of a solar electric system could be used to reduce peak demand requirements of a fully loaded distribution substation and thus defer the need to add additional transformers.

For those findings and recommendations that can increase savings and other benefits to the utility, Liberty will apply a standard that quantifies the benefits, estimates implementation costs, and performs the requisite cost benefit analysis. For those findings and recommendations that provide a net benefit to consumers but will likely incur an added cost to either NYSE&G or RG&E we will use our best judgment to estimate how consumers will gain from the utilities' investment and what the incremental impact on retail electric prices net of production costs will be.

D. Supply Procurement

1. Study Guidelines

a. General and Electricity-Specific

Commodity prices have experienced significant overall price increases and volatility in the period following industry restructuring in most states. Changes in energy markets have thus contributed to significant rate increases; these increases have bordered on catastrophic for some customers. Effective management of price volatility simply cannot take place any more without the use of a structured, comprehensive, and flexible approach to portfolio design and risk management. The utility industry has thus undergone significant advancement in these areas in recent years.

Setting comprehensive and specific objectives lays the cornerstone of effective management of energy procurement. The old approach of many companies, which was to "stay close to the market," is rapidly, and fortunately, disappearing. There is no reason to believe that utilities, despite their especially large energy requirements, have special competence or foresight about market direction. Accordingly, they should adopt objectives, and support them with sound physical and financial transactions that do not speculate or attempt to divine market directions. Without first specifying objectives to offer guidance and limits, it is impossible to design and manage a portfolio effectively. Providing the required control also necessitates a portfolio that diversifies supply in many key parameters, which include but are not limited to term, firmness, supplier, sourcing region, volume flexibility, fuel quality, and transportation. With respect to hedging, it is also necessary to provide a clear definition of purposes, transaction types, counterparty qualification, and fuel use targets.

Goals and objectives must carefully balance price minimization, volatility mitigation, and supply reliability. Not all can be optimized at the same time. It is also important, which Liberty has stressed in a number of prior examinations of electric and natural gas energy procurement audits, that the utility and its regulators and stakeholders develop a mutual understanding of the way to

strike this balance. Otherwise, the same utility may find itself popular when it has hedged in times of rising prices and questioned when pursuing the same goals and hedging targets when prices fall. Even in generally rising markets over time, there can, as recent years demonstrate, still be significant periods of weakness in energy prices. Liberty will therefore pay special attention to how well the program objectives are defined and the degree of mutual understanding of those objectives between the Commission and NYSE&G and RG&E.

With respect to the direct procurement activities, utilities have far more experience, although NYISO operations, changes in capacity pricing and vagaries of the commodity markets make for a more complex undertaking. It will be important to assure that the process is efficient, conducted at arm's length, and transacted consistently with program objectives and that customers are getting prices favorably consistent with the market. The degree to which the Company facilitates a strong market response through its procurement processes will be of particular interest. Demand management should be fully explored as a supply resource in procurement planning and execution.

For the same reason, the need for strong controls and oversight is critical. A program handling volumes and sums of this magnitude must be above reproach, avoiding even the slightest appearance of conflict or impropriety. Liberty will focus on the control elements of the process including the oversight roles of management, risk management, auditing and other organizations as appropriate.

Liberty also understands that the Commission had before it an open proceeding intended to address a pattern of increasing energy use in the state. Liberty will determine whether this proceeding led to the adoption of an electric and natural gas Energy Efficiency Portfolio Standard (EPS) or similar result. If so, NYSE&G and RG&E may face targets for energy efficiency, similar to the existing Renewable Portfolio Standard and other programs. Liberty will examine overall NYSE&G and RG&E preparedness to respond to any existing requirements or to effectively and timely do so should the near future make such targets an element of its supply procurement processes.

b. Natural Gas

The particular questions relevant to assessing management of commodity and capacity planning and procurement differ. Key areas of inquiry for commodity supply include inventory levels, contract/spot mix, and short-term and long-term mix. Examining performance of the capacity part of the function includes inquiries into the adequacy of peak-day capacity resources; optimal mix of base-, intermediate- and peak-load delivery capacity for a given load shape, capacity planning for firm versus interruptible load, and the effectiveness of demand-side initiatives.

Capacity planning and acquisition is difficult for LDCs, who as a group have exhibited a natural tendency to retain more capacity than they really need. The FERC's preferred method of pipeline rate design, straight-fixed-variable (*SFV*), makes it expensive for an LDC to hold capacity that it under-utilizes. The *SFV* method loads all capacity costs into reservation fees, which firm customers typically bear. *SFV* rates also invite questions of equity among user classes, because interruptible customers may avoid paying any pipeline capacity costs. These concerns create

considerable pressure on LDCs to demonstrate that their performance of this part of the supply function is effective.

The cost of gas delivered to the city gate is far and away the most significant item in an LDC's or combination company's gas department cost structure. Comprehensive goals and objectives for the procurement and purchasing functions and activities form primary contributors to successful performance. Top management should devise measurable targets. On a more detailed level, policies and procedures provide added definition and control to the management and conduct of activities in the pertinent functions. Those policies and procedures should cover gas supply planning, short- and long-term procurement, establishment of pre-approved supplier lists, bidding procedures, documentation of contract negotiations, contract accounting and administration, measurement and sampling, among other items. Other written process definition and control measures, such as job descriptions, also evidence the degree of comprehensiveness and clarity management has provided for key activities and functions.

Evaluating the management of natural gas transportation and peaking portfolio assets, including pipeline capacity and storage contracts, peaking facilities, and contracts, comprises another key subject of Liberty's examination. An LDC's fundamental mission is to provide sufficiently reliable service at the lowest price reasonably securable. Most LDCs develop and maintain an asset portfolio incorporating a variety of sources and delivery paths, which display a range of price, quantity, contract-term, and delivery assurance. In successfully meeting the critical need to assure the availability of supply options stands, all LDCs face geographical and infrastructure constraints. An important inquiry is to determine whether and to what extent the LDC has examined all reasonable alternatives.

LDCs must use an in-depth understanding of current and anticipated load and of the relationships between load and the capacity portfolio to operate the supply portfolio so as to achieve deliveries having the appropriate degrees of reliability to customers at the lowest overall cost. Portfolio operation involves activities that take place throughout the year -- some seasonally, some monthly, and some daily. Activities include those necessary for delivery of supply to the city gates; equally important is placing into secondary markets that portion of the delivery capacity that is under contract, but is temporarily not required for serving on-system customers. Secondary-market transactions may involve additional gas deliveries, as in off-system sales, or the temporary assignment of delivery capacity to other users, through capacity releases. Regulators generally require the crediting of revenues realized from secondary-market activities to an LDC's purchased-gas cost mechanism. This approach lowers the effective cost of gas supplies to on-system customers.

Securing natural gas commodity will comprise the next major element of Liberty's review of gas procurement. Commodity purchasing processes should thoroughly evaluate available options, such as contract type and supplier alternatives. There should exist means for gathering market intelligence regularly, and the companies should pursue pre-qualification and verification of various suppliers in order to assure an adequate complement of alternatives when purchase commitments become necessary. Liberty will review process and supporting documentation for evaluating and selecting among alternatives, including selection criteria and relative weights given to factors such as price and diversity of supply. Physical and financial risk management

now supply an important dimension of gas supply management¹ in light of changes in wholesale gas markets. Liberty proposes to place particular emphasis on the LDC's relationships with wholesalers, including:

- What contractual arrangements do the LDCs have directly with wholesalers?
- Are any affiliates of the LDCs involved with wholesalers in any way that might affect the LDCs?
- What actions, if any, have the LDCs taken in light of changes in wholesale markets?

Transportation of customer-owned gas has made procurement more complex by requiring that purchased-gas cost computations recognize and allow for specific streams that enter the distributor's system at the same points as the supply-system customer gas. Customer-owned volumes being transported by the LDCs must bear a separate charge for any company-use gas and unaccounted-for gas volumes.

Another new problem arises from imbalances associated with customer-owned gas. These imbalances occur when the customer's supplier delivers into the LDCs' systems a quantity different from what the customer burns. Imbalances occur because of the physical design of the transmission and distribution system, and because of the nature of the measurement and billing process. On the system configuration side, the customers' gas and system-supply gas are co-mingled in the same pipe. If the quantities received differ from the quantities delivered, the customer must be made responsible for the difference in order to avoid imposing costs on system-supply customers. On the measurement and billing side, there exists a time lag between when the supplier puts gas in at the upstream end of the pipeline and when the customer takes gas out at the downstream end. Measurement and billing cycles must account for these lags.

Other complications also arise. Customer-owned gas may be subject to interruption on the pipeline system, upstream of the distributor. The customer may, however, choose to not interrupt its own usage. In that event, the customer's bill must reflect the gas actually used, rather than just the gas for which it contracted.

2. Evaluation Criteria

a. General and Electricity-Specific

1. A comprehensive, structured portfolio approach derived from appropriate pricing, reliability, and volatility mitigation goals should guide supply procurement.
2. Clear goals should be established for the risk management and hedging program including specifically targets relating to maximum rate impacts and out-of-market risk.
3. Program goals should be clearly communicated and mutual agreement established between the companies and the Commission.
4. Portfolio design should be continually evaluated for consistency with goals and objectives, desired results, and regulatory guidelines and requirements.

¹ Risk management as used here relates to the security of supply and the potential failure of a supplier to deliver, with the potential supply shortages and financial losses that may ensue. It is distinct from commodity price risk management, which is addressed in the next task area.

5. Portfolio design should incorporate the established objectives, expected results of, and uncertainties surrounding demand management and energy efficiency.
6. Portfolio design should incorporate the flexibility necessary to respond to other major uncertainties; *e.g.*, supply disruptions or customer migration to competitive suppliers.
7. There should be ongoing, senior management and board review of supply procurement effectiveness, including review of portfolio components and targets, conformity of purchases to the portfolio, compliance with price mitigation and risk management programs and targets, and performance benchmarking against energy markets and other utilities.
8. The companies should take a proactive approach to NYISO's operations and contemplated changes in order to mitigate consequences to supply costs and reliability where it may be able to influence them, and in order to respond as effectively as possible where it may not.
9. Procurement decisions should be consistent with portfolio design, should balance short- and long-term considerations appropriately, and should generally apply competitive approaches.
10. NYSE&G and RG&E should take steps to assure a robust response by suppliers to assure competitive results representative of market conditions.
11. Procurement and scheduling responsibility should be exercised by personnel with levels of experience commensurate with the size of the energy portfolio.
12. Procurement and scheduling decisions should be clearly documented, subject to levels of approval commensurate with their costs and risks, and made according to comprehensive, appropriate procedures.
13. Supply procurement performance should be continually monitored, evaluated and be part of employee performance reviews.
14. Non-competitive purchases should require and routinely exhibit sound and complete documentation of their justification.
15. Counterparty pre-qualification and credit limits should operate under structured and rigorously applied criteria, with exceptions and violations regularly and faithfully reported and subjected to affirmative response.
16. Hedging transactions should take place under a comprehensive program that applies volatility standards, identifies allowable transaction types, establishes targets for total and by-transaction type, appropriately limits authorized traders, requires regular reporting of results, and faithfully reports and provides for an effective response to exceptions and violations.
17. There should exist a comprehensive risk management program that is approved and overseen by the board and, in turn, an appropriate senior management committee.
18. The risk management program should contain all of the elements required to mitigate appropriately the risks that energy-related financial transactions impose.

b. Natural Gas

19. The organization structure should be consistent with established mission, goals and objectives of gas procurement groups.
20. There should adequate coordination with other corporate departments involved in or supporting gas procurement activities, and particularly with those responsible for electricity procurement.
21. Key managers' experience levels should be consistent with those generally found in the industry in similar positions.

22. Internal measurement systems should comprehensively address performance quality on a comprehensive, ongoing basis.
23. Approval processes should be consistent with magnitude and risk of commitments involved and with process applicable to other, major corporate commitments.
24. Gas procurement policies and procedures should be consistent with work requirements and gas procurement and marketing objectives.
25. There should exist well-defined document creation and maintenance objectives and requirements.
26. Documentation of procurement actions should be adequate to support regulatory oversight and review.
27. Capacity contracts should be consistent with quality and reliability objectives.
28. The companies should promote the identification and use of sufficient numbers and types of vendors to meet needs.
29. There should exist appropriate efforts to identify and establish alternate sources of supply.
30. There should be a close “fit” between capacity profile and load duration curves.
31. The interests of on-system customers should be the predominant drivers of policies and procedures for operation of the companies’ capacity portfolios.
32. Performance should be consistent with supply plans and supply asset specifications.
33. There should be aggressive marketing of unutilized assets.
34. Objectives for purchasing and price risk management activities should be clear, comprehensive, and supportive of utility needs.
35. There should be a strong focus on liquid, transparent markets in gas procurement and price risk management.
36. There should exist a sufficient number of suppliers identified and pre-qualified to meet likely short-term or emergency needs.
37. There should be adequate information maintained for identified and pre-qualified vendors.
38. Bid evaluations, including application of specific criteria, weightings, responsiveness, and supplier performance history should be conducted with analytical rigor and without bias.
39. Metering and testing programs should conform to industry standards.
40. Balancing strategy and practices should be fair to each customer class.

3. Work Activities

a. General and Electricity-Specific

1. Identify the process and participants in the portfolio design process.
2. Examine the goals, objectives and principles that drive portfolio design.
3. Examine recent changes in portfolio components and targets and determine the reasons for those changes.
4. Examine model results used to optimize hedging parameters.
5. Examine any recent evaluations conducted of portfolio effectiveness.
6. Determine what outside assistance and benchmarking information is used to assist in designing or gauging the effectiveness of portfolio performance.
7. Determine the process for incorporating demand management and energy efficiency programs and activities into portfolio design and into procurement decisions.
8. Examine recent forecasted and actual impacts of demand and usage affecting programs and identify any significant supply cost impacts that may have resulted from variances.

9. Examine recent forecasted and actual impacts of customer migration to competitive suppliers and identify any significant supply cost impacts that may have resulted from variances.
10. Determine the existence of and impacts of any recent supplier performance issues on supply reliability and cost; determine what actions were taken in the event of any significant issues of this type.
11. Review and evaluate NYSE&G's and RG&E's performance measurement against its own goals, the market and other utilities.
12. Determine senior executive management's role in and level of awareness of portfolio design and performance measurement.
13. Examine the process for amending, overseeing, reporting, responses to exceptions and violations associated with the risk management and hedging programs as they relate to energy procurement.
14. Review risk management and hedging plan documents, targets, transaction detail and results reporting, information provided to senior executive management and the board, and exception and violation reporting and processing.
15. Examine policies, procedures, and other controls applicable to the making of physical and financial energy transactions.
16. Review the qualifications and experience of personnel responsible for physical and financial energy transactions.
17. Examine the methods used to define personnel responsibilities, reporting, performance measurement, and rewards.
18. Select a sample of procurement decisions (both electricity and gas and both physical and financial) to test for conformity with procedures, good-utility practice, arm's-length dealing, and consistency with the assurance of supply reliability and economy.
19. Examine methods for measuring volatility and the impact of hedging transactions on volatility.
20. Review counterparty credit limits, value at risk, and other key risk management results reports for conformity with program requirements and with good utility practice.
21. Examine the process used to keep abreast of potential changes to NYISO requirements and activities, to assess their impacts on the companies, and to exert proper influence on the process of making those changes
22. Examine the experience and awareness of personnel responsible for interfacing and bidding into the NYISO's capacity and commodity markets.
23. Examine plans for addressing the possible supply impacts of the electric and natural gas Energy Efficiency Portfolio Standard.

b. Natural Gas

24. Identify and evaluate the organization responsible for gas supply planning, acquisition and management.
25. Examine the training, experience, and performance of gas procurement staff.
26. Evaluate whether there is a clear and definitive system of approval authority by: a) type of commitment, b) value of commitment, c) level of approval required, d) stage at which approval is required, and e) documentation of approval.
27. Identify and evaluate the policies and procedures that control procurement-related activities.

28. Examine documentation requirements concerning development and evaluation of alternatives.
29. Confirm that requirements are being observed and maintained.
30. Examine policy and practice regarding internal audit reviews of the gas procurement function.
31. Examine the rationale for the various capacity and storage services utilized by the utility.
32. Examine the various peaking facilities and contracts and other peaking services utilized by the utility.
33. Examine how relationships with affiliates affect management of the companies' capacity portfolio.
34. Examine whether and what improvements in contract terms and conditions are being sought during periodic negotiations.
35. Examine the performance of the companies' capacity portfolio during periods of peak demand.
36. Examine the performance of the companies' secondary-market program.
37. Examine the companies' philosophy and approach to commodity purchasing.
38. Examine the companies' efforts to find and qualify prospective suppliers.
39. Examine the companies' efforts to maintain diversity of supply sources and pricing mechanisms.
40. Examine the companies' strategies and programs for minimizing lost-and-unaccounted-for gas.
41. Examine the companies' approaches to balancing for each customer class.

4. Liberty Resource Assignments

Lead Consultants: Vickroy (Electric), Teumim (Gas)
Support: Axelrod (Electric; in recognition of coordination required with Wholesale Market Issues work)

The particular challenges of default supply differ considerably for electricity and gas. Both are large and complex and impose particularly large sources of customer cost. They also both depend on a number of common activity types and their relevant markets overlap to a degree. Nevertheless, those markets differ enough to merit the use of different, senior Liberty consultants, each of whom have highly focused skills and significant experience in utility procurement of each of the respective commodities. While each will concentrate on his own applicable area, they will jointly address the processes and activities carried out in common or subject to common outside forces, factors, and events. For example, hedging principles (but not necessarily targets) will be equally applicable and the same fundamentals should apply to both commodities. Such common areas will be defined completely in the work plan and managed so as to assure a consistent audit approach.

The phasing of this audit element is not considered critical in that the ties to other audit elements are relatively loose. The work will therefore be conducted in parallel with other audit elements.

5. Potential Benefits and Costs

This element of the audit has an above average potential for tangible financial benefits. This conclusion is based on the large sums involved and not any presumed weaknesses on NYSE&G and RG&E's part. Any procedural and control issues found are not as likely to lead to quantifiable benefits, while other areas may lend themselves to quantification. If possible, improved hedging protocols, process changes to achieve better pricing, initiatives to most effectively use the NYISO and bilateral markets, and portfolio management improvements are typical of potential benefits that can and will be quantified.

Cost benefit is somewhat less of an issue here because the cost of program implementation is likely to be small in comparison to supply costs. Nevertheless, Liberty will estimate implementation costs to assure a full and accurate assessment of all recommendations.

E. Long-Term System Planning

1. Study Guidelines

In the context of the logical flow of the nine audit elements, System Planning may be viewed in some ways as the keystone. It is the engine that is fueled by the companies' needs and then produces rational, economic solutions to those needs. This process will form the focus of our review. Issues to be addressed include expansion for new customer facilities, reinforcements for "normal" load growth, reliability improvements, replacement of old facilities, system redesign, cost effective loss reduction, and system changes to meet other local needs.

Of particular interest is the degree to which new technology can make a contribution. NYSE&G and RG&E invest in research, and the degree to which these investments come back to help system design will be evaluated. The role of "hot topics" such as smart grid initiatives, load management and advanced metering as well as NYSE&G and RG&E efforts to redesign their system with newer, more efficient, or faster operating equipment will be included.

In studying methods, Liberty will be especially focused on economic decision-making and the techniques NYSE&G and RG&E use to meet their objectives in the most cost-effective way. The models used, the guidelines applied, spending constraints, values for key planning parameters, methods for balancing capital and operating costs, ratemaking considerations and payback criteria will all be examined. Also, the techniques for incorporating non-financial benefits (reliability, safety, customer service) will be studied.

2. Evaluation Criteria

1. Long-term master plans should be in place; they should offer a credible strategy for how the system will evolve over an extended period, including expansion requirements, aging issues, reliability goals, growth of technology and other factors important to a long-term planning horizon.
2. Shorter term changes to the systems should be compatible with longer-term plans.

3. Strategies should be in place; they should describe how the systems will avoid over-extended lives for equipment and facilities, including an overall repair versus replace strategy.
4. Standard planning parameters should be published and updated as appropriate.
5. Guidelines for economic evaluations should be in place and uniformly applied.
6. Policies for weighting the benefits of non-financial attributes should be in place.
7. A system of prioritization of projects should be in place and uniformly applied.
8. Suitable investments should be made in defining new technologies that can be integrated into future system design or redesign of the existing system.
9. Optimum use of present technologies and the state-of-the-art should be an appropriate part of the planning processes.
10. NYSE&G and RG&E should have a system planning staff with the appropriate quantity and quality of skills.
11. Non-traditional and innovative options should be considered in the planning processes.
12. The inputs to the planning processes should be credible and in a form and content compatible with the planners' needs.
13. Major projects should be specified by planners in a way that permits their subsequent design and installation to be optimally managed.
14. Standard decision-making rules for design options (*e.g.*, overhead versus underground) should be documented.
15. Planning processes, guidelines and standards should reflect regional differences where appropriate.
16. A structured approach to cost benefit analysis should be in place, with specific instructions for the handling of various financial and non-financial benefits.
17. Decision-making processes should consider risk, preferably in a quantitative way.
18. Mechanisms should be in place to provide planners with feedback on field results that should influence future decisions.
19. Ratings for equipment loading should be in place; they should reflect the operation expected and should be determined to maximize equipment use while maintaining equipment integrity.
20. Models, both static and dynamic, should be appropriate for the conditions simulated and their limitations understood by those that use them.

3. Work Activities

1. Evaluate NYSE&G and RG&E's master plans for the long-term evolution of the system.
2. Evaluate the processes and procedures in use in the system planning functions.
3. Evaluate the organizational structure used for system planning functions and the skills and capabilities of the key personnel.
4. Evaluate the inputs that trigger system planning responses and their contribution to facilitating optimum outcomes.
5. Evaluate NYSE&G and RG&E's strategy for coping with the aging infrastructure issue and their specific tactics to assure the long-term viability of the system as a whole, as well as individual facilities and equipment.
6. Determine the degree to which NYSE&G and RG&E's current planning standards and processes can continue to meet long-term system needs, or if alternate approaches need to be considered.

7. Evaluate NYSE&G and RG&E's use of uniform planning parameters and the degree to which they are kept current.
8. Evaluate NYSE&G and RG&E's procedures and methodologies for economic evaluations, including how various parameters are used in the decision-making process (for example, capital versus O&M costs).
9. Study how NYSE&G and RG&E incorporate non-economic costs and benefits into the decision-making process.
10. Review how new projects are prioritized and the ramifications of those priority levels to getting the projects completed.
11. Evaluate the linkages from system planning to the capital budget, including how any financial ceilings are established and the voice of planning in project scope and budgets.
12. Evaluate NYSE&G and RG&E's investments in R&D as they relate to long-term system planning, including the degree of investment and the past history of payback.
13. Evaluate how current technologies are evaluated and brought into the planning processes.
14. Evaluate how non-traditional reinforcement options (distributed generation, load management, loss reduction, system redesign, for example) are brought into the planning processes.
15. Evaluate the policies and procedures guiding standard design strategies (*e.g.*, overhead versus underground).
16. Evaluate how NYSE&G and RG&E planning decisions vary among the two franchises and the degree to which they reflect local priorities.
17. Evaluate cost benefit techniques and how they relate to decision-making.
18. Evaluate risk analysis techniques and how they relate to decision-making.
19. Evaluate how planners remain current with field realities.
20. Determine the degree to which planners facilitate management of installation work through their specification of project requirements.
21. Evaluate the equipment ratings employed by NYSE&G and RG&E for duration and time.
22. Review the static and dynamic models used by NYSE&G and RG&E for appropriateness of application.

4. Liberty Resource Assignments

Lead Consultants: Axelrod (Electric), Teumim (Gas)
Support: Mazzini

Our intent is to take special care to maintain what might be extremely important "big picture" conclusions while giving proper attention to the more "nuts and bolts" system planning responsibilities. This is an area where dialog with Staff, including PSC staff personnel assigned to monitor NYSE&G and RG&E on an ongoing basis, will be especially critical and valuable. As noted, the stakes are high here, and it is imperative that the members of the team (Staff and consultants) are on the same page.

There is also an elevated need for integration with several other audit elements. The ties from load forecasting and to budgeting and project management are strong and important. Accordingly, aggressive steps to maintain close communications among the consultants assigned to each of these elements will be in order.

5. Potential Benefits and Costs

If and when reliability becomes the paramount issue for a utility, the balance shifts and cost increases become more likely than cost benefits. Our objective is to produce real tangible benefits for NYSE&G and RG&E and their customers, but that goal should not unduly prejudice us from recommending higher costs if there is a compelling need and clear service benefits, which could possibly be the case in this audit element. Liberty feels strongly, however, that in any such case, the burden is on the consultant to fully justify the need for any added costs.

We would also, of course, expect more traditional cost savings opportunities as well and will apply the same ground rules as used elsewhere in the audit: quantify the benefits, estimate implementation costs and perform the requisite cost benefit analysis where appropriate.

F. Capital and O&M Budgeting

1. Study Guidelines

The RPF sets forth an extensive list of the items to be examined under this audit element. Liberty has categorized them into the five principal processes we generally use for conducting reviews that address items such as these:

- Strategic Capital Allocation
- Planning and Analysis Processes
- Prioritization Techniques
- Management Reporting and Monitoring
- Post-Auditing.

The following list places the RFP list into these categories and into the general flow of issues that Liberty proposes to examine specifically:

a. Strategic Capital Allocation

- Roles of International, IUSA, NYSE&G and RG&E Boards of Directors and executive and senior management in budgeting processes
- How dollars are allocated to utility capital expenditures and O&M from a top-down perspective
- What strategic financial criteria and objectives must be met
- Level of detail and to what extent Boards are involved in the capital and operation and maintenance budgets
- Whether there is a “negotiation” with bottom-up budget requests
- Whether executive management sets a “hard cap” for capital and O&M levels
- Board approval responsibilities
- Whether allowed revenues/rates and financing opportunities or constraints affect budget levels and priorities

b. Planning and Analysis Processes

- Capital budgeting process, including project authorization, project appropriation, increase/decrease of authorization/appropriation, capital budget status reporting, validation in advance of appropriation, and funding controls
- Budgeting guidelines, practices and procedures, including “zero-based” and other alternative methods
- Economic analysis, modeling techniques and systems providing key financial inputs
- Bottom-up and top-down processes for developing the capital budget
- Roles and relationships of field and centralized planning and budgeting functions
- How management determines adequacy of capital and O&M planned expenditures
- Financing plan that supports the capital and O&M budgets
- Robustness of consideration of alternative methods of raising capital

c. Prioritization Techniques

- Methods for prioritizing and determining which capital projects get approved
- Examination of modeling software for capital and operation and maintenance budgeting
- Construction/capital priority setting decision process; consideration and balancing of economic feasibility and operational requirements
- How a top-down, “hard cap” on expenditures is used, if present. Involvement of International, IUSA and utility boards in capital prioritization.
- Optimization of repair versus replace decisions
- Balancing of safety, reliability and economics
- How incremental O&M associated with new construction factors into budgeting

d. Management Reporting and Monitoring

- Management reporting systems and processes used to monitor budget performance and variances
- Actions taken in response to budget variances; specific remedies and actions required
- Cost control systems and processes from a top-down and bottom-up perspective
- Sufficiency of controls to ensure that increases and decreases to the construction budget/expenditures are justified and appropriately approved
- Expenditure management and control in the field
- Methods to control and manage total company, program and project capital costs in the near and long term
- Comparison of planned/budgeted expenditures, rate case proposed expenditures, and actual expenditures
- How budget forecasts are incorporated into rate case revenue requirements

e. Post-Auditing

- Existence of a “feedback loop” for examining previous economic analyses and prioritization decisions to evaluate budget process effectiveness
- Whether any such effectiveness audits have caused the process to improve over time
- Specific auditing of management reporting processes for timeliness and effectiveness

Liberty will also examine the integration and coordination between capital-expenditure planning and financial market realities. It is important to verify that there exist proper strategies for responding to changing conditions in the financial marketplace. Financial planning should effectively support utility capital requirements, while also recognizing that constraints may arise that may require changes in spending plans to secure required funding at the overall lowest cost of capital, considering near- and long-term requirements.

The RFP indicates the need to analyze the capital budgeting process and the resulting capital allocations from both a top-down and bottom-up perspectives. The top-down perspective should provide the overall view of goals and objectives for the corporation and their incorporation into the capital and maintenance budgets. NYSE&G and RG&E should have clearly identified corporate goals and objectives that they should reflect at the state and local level through the capital budgeting and strategic planning processes. The companies should incorporate these strategic goals and objectives in planning guidelines or some similar types of directives furnished to planners. In addition to examining these top-down aspects of the capital budgeting process, Liberty will evaluate bottom-up budgeting that starts with engineering and field operations employees based on their view of local system requirements.

At the corporate level, there should exist an organization responsible for strategic and network planning directives. This organization should provide the engineering guidelines and planning analysis that supply the directives to the local planners and engineers to assist them in initiating, designing, and evaluating network rehabilitation projects and expansions. Such guidelines should be current.

A business analysis group or a similar financial management group is typically responsible for coordinating the capital budget process. Corporate financial objectives and evolving financial market conditions usually drive the total capital budget level. Changing financial conditions can result in additions to or reductions in the capital budget. Liberty will assess the process used to develop the capital budget at the corporate level and identify the factors used in allocating the capital budget among the various competing entities. This information will provide the Commission a clearer understanding of the importance that NYSE&G and RG&E place on infrastructure and quality of service.

Typically, a capital budget takes a multi-year view. The first two years or so are for immediate planning purposes while the remainder (often three years) provide strategic direction for the network. Liberty will verify that NYSE&G and RG&E have in place capital and maintenance budgets that are adequate for meeting growth and modernization requirements, obligatory capital projects, maintenance or operating improvements, and specific programs. Growth spending is typically driven by forecasts of increased usage, either overall or in particular areas of the serving region. Modernization projects are required to replace facilities to meet new service needs. Events such as relocation of facilities due to road construction drive obligatory types of spending. Maintenance or operating improvements are projects to replace or relocate existing facilities.

In Liberty's experience, corporate short-term net income objectives frequently dictate the overall maintenance budget. The maintenance budget typically includes preventive maintenance, corrective maintenance identified by the required by the National Electrical Safety Code inspections, and proactive repair programs. Because the primary expenditures are force driven, Liberty will concentrate its budget analysis on the effect of changes in the maintenance budget on force planning. In addition, Liberty will review accounting changes that may result in reallocation of hours charged between capital and expense. This is necessary to establish an accurate baseline for comparison of the year-over-year changes in the capital spending as it relates to quality of service.

Bottom-up budgeting consists of identifying the capital requirements starting on a project-by-project basis at the local level. In preparing the bottom-up view, NYSE&G and RG&E should have personnel responsible for implementing planning guidelines. These planners may be assigned either to a utility-wide or region level. Using network-engineering guidelines, planners identify growth requirements, facilities needs, technology improvements, public requirements, and service-improvement initiatives. Each category consists of the number of projects for each year during the planning period. The planner develops and prices out the project. In determining the capital requirements for each region, costs of all projects identified for that period are summed including routine expenditures and maintenance improvement programs along with line of business requirements and/or other company initiatives. This provides the bottom-up budget requirements for plant.

In preparing the bottom-up capital budgets, planners should quantify the effect on installation and maintenance head count for each project work plan. One effect may be a reduction in the number of dispatches. Liberty will compare budgets with any expected improvements in service quality metrics. In addition, with the reduction in dispatches, Liberty will examine changes in head counts both historically and on a prospective basis, comparing them against engineering plans, work orders, and force load models.

A number of companies have used the process of allocating the capital budget to each region from the top down. Liberty will assess the process used to allocate budgets among the various regions. After receiving its allocation, management at region state level is typically responsible for reconciling the bottom-up and top-down budget effort. Top-down budget allocations are generally not sufficient to fund all the requirements identified in the bottom-up budgeting process. Regional engineering management should assign priorities to the plans for funding purposes. Liberty will examine the methods used to assign priorities to the various projects. Liberty will evaluate whether quality of service analysis is included and the role it plays in setting the priorities for the competing plans and projects. An industry best practice is to perform risk analysis to assess the impact on service quality when assigning priorities to work items for the initial capital budgeting process and where it later becomes necessary to reduce approved expenditures. Prioritization by economic benefit is also important to maximize "bang for the capital buck."

2. Evaluation Criteria

1. Senior management and the board should take reasonable efforts to assure that NYSE&G and RG&E needs receive sufficient priority as overall spending priorities are set and budgets are consolidated at the parent level.
2. Senior NYSE&G and RG&E management and their boards should take reasonable efforts to balance the needs of the electric and gas businesses in the budgeting process.
3. The Boards of NYSE&G and RG&E should take direct responsibility for budget approval, and should support their responsibility to do so by securing from management information about expenditures, operations performance, and the relationship between the two.
4. The board, executive management, and managers with significant budget development roles should operate under a common understanding of the values, goals, and objectives that apply when setting expenditure priorities.
5. Those values, goals, and objectives should be consistent with good utility practice and with the expectations of the Commission with respect to promoting service adequacy, while considering efficiency and economy in the long run.
6. The capital budget should be derived primarily from a bottom-up examination of system needs; it should not be unduly driven by top-down financial considerations.
7. The detailed budgeting process should involve all of the organizations whose distinct contributions to utility service require material capital expenditures.
8. The budgeting process should take place under guidelines, procedures, and schedules that produce results that are sufficiently uniform to combine into a consolidated, overall budget.
9. Budgets approved should be structured to allow for meaningful measurement, approval, and control of increases that may prove to be required as projects progress.
10. Budget categories and details should as nearly as possible conform to cost management and measurement bases.
11. Items of expenditure (at both the project level and the categorical level) should undergo modeling under consistent methods and with similar tools, which should produce a sound basis for objectively estimating and comparing their initial and total-life costs, and for allowing a comparison of the costs of alternatives for meeting identified needs.
12. There should be comprehensive, documented cost analysis and budgeting procedures, and there should be sufficient reviews of modeling and budgeting results to allow for continuous methods and tools improvements.
13. Economic analysis should comprise an essential tool of capital requirements planning and should comprehensively capture annual and total-life O&M costs of capital additions.
14. There should be a clear and timely process for expenditure prioritization with as much objectivity as can be incorporated into that process.
15. There should be periodic, structured examinations of the ultimate effectiveness and economy of past prioritization efforts (i.e., projects that did and did not “make the cut”), in order to validate the effectiveness of prioritization processes and decisions.
16. Budget variances should be identified, evaluated, and corrective action taken to effectively manage the process.
17. Significant increases or decreases to the capital budget should be properly justified and approved by senior management and the Board.
18. Other financial constraints should not operate as a barrier to capital expenditures; sound analysis of financial alternatives and consequences should support the adoption of any financially-driven budget constraints.

19. Budgeting should not consider rate case proposed expenditures to act as a cap on expenditure levels.
20. Budgets developed and used for internal purposes should be consistent with those incorporated into revenue-requirements analyses used and presented for regulatory purposes.
21. Audited feedback loops should be in place and operated effectively so that both the management of the budget and the quality of the financial information on which decisions are made constantly improve.

3. Work Activities

1. Determine what role the International, IUSA and utility boards of directors and senior executive management have in budgeting and what documents determine, schedule, and show the results of the exercise of that role.
2. Examine how those roles have actually been carried out during recent budget cycles.
3. Examine the procedures, schedules, and process flows used for capital and for O&M budgeting. Determine actual constraints placed on capital and O&M spending on a “top-down” basis.
4. Review integration of budgeting and requirements funding planning.
5. Determine whether and how financing constraints more generally affect the budgeting processes and actual expenditures.
6. Determine whether and how rate case proposals and decisions are considered in budget development and in actual expenditures made against approved budgets.
7. Determine how responsibility is assigned (and who has exercised it) for the bottom-up needs identification, modeling, analysis and preliminary project planning work in each area that contributes significantly to capital and to O&M expenditures.
8. Examine the policies, procedures, schedules, modeling and analytical techniques and other controls that apply to these bottom-up activities.
9. Select and review a sampling of bottom-up budget preparation work products for conformity with processes, procedures, schedule, and work quality.
10. Determine all sequential steps required to authorize project commencement (*e.g.*, who must approve, how, and when, any authorization or appropriation for projects included in approved budgets).
11. Examine the controls that limit budgeted, authorized, and appropriate projects as to commencement date, completion date, and expenditure amount.
12. Identify the policy, goals, processes, and modeling/analytical techniques applied to evaluating annual and project-life O&M costs associated with capital improvements and additions.
13. Identify all other factors considered in modeling and evaluating potential expenditures and examine the policies, goals, processes and modeling/analytical techniques applied in connection with them.
14. Determine what benchmarking or other information underlies any applicable guidelines or metrics (*e.g.*, age, frequency of repair) used to guide replacement, maintenance, inspection, or other key budget-affecting decisions.
15. Identify when and how the process for prioritizing work among entities and among projects within NYSE&G and RG&E, and follow the continuation of the prioritization and re-prioritization processes through budget completion.

16. Examine any post-budget approval re-prioritization processes that take place as the budget year unfolds.
17. Determine the levels at which budget development and performance accountability is assigned and how that accountability corresponds to job responsibilities.
18. Examine the methods used to measure expenditures against budgets at each level monitored (*e.g.*, total company, program, project).
19. Examine processes and review and approval authorities for rolling-up individual budget preparation work into higher level categories.
20. Examine how the companies use multi-year experience in examining the need for expenditure reductions or reallocations.
21. Evaluate any auditing or organized feedback loop that analyzes management performance to budget levels.
22. Evaluate any organized feedback loop that investigates the quality of projected information used in economic analyses versus actual results experienced.
23. Identify any association in recent years between changes in budgets and expenditures with tangible measures of work performance (*e.g.*, backlogged maintenance items).
24. Determine how O&M expenses are adjusted to recognize the economic and work force effects of capital projects.
25. Verify the consistency of internally generated and used budgets with submissions made to support revenue requirements in regulatory proceedings.

4. Liberty Resource Assignments

Lead Consultant: Vickroy
Support: Antonuk, Kozlosky, Nunnery, Mazzini (primarily to provide input in the operations areas for which they are responsible)

Budgeting is generally coordinated by a central group in utilities, and it takes place at the overall direction of senior executive management and boards of directors. Liberty has assigned the lead role to a former utility manager with corporate budgeting responsibilities. He has examined budgeting in many Liberty engagements over 16 years, including Liberty's recent Management and Operations audit of Con Edison. His assignment brings to this audit element the technical, financial, and corporate experience it will take to examine effectively the budgeting processes and results at combination electric and gas utilities. Despite its importance and visibility at the senior corporate level, budgeting requires extensive participation by the organizations responsible for planning and operating the electric and gas businesses. This is so because both systems planning and project execution should have major impacts on the budgeting processes. Liberty therefore has assigned its lead in each of the two business areas of interest, electricity and natural gas, to this audit element.

5. Potential Benefits and Costs

The linkage between effective budgeting and cost efficiency is clear. Nevertheless, it is generally difficult to associate a particular improvement with a specific dollar magnitude of savings. Benefits of improved budgeting are more evident in the long term if budgeting is correctly linked to strategic plans and infrastructure development. Sound budgeting involves a sophisticated balancing of cost effectiveness and service needs. To the extent that budgeting is linked to the

other elements being studied in this audit, changes in budgeting may in fact support changes that are better able to be quantified in connection with those other elements.

The costs of budgeting changes typically is only marginal, unless the conclusion is that there is a wide-spread failing in budgeting support from line organizations, or substantial weaknesses in the systems used to support the processes involved. That has not been the case in Liberty's past experience, and we would not expect it at NYSE&G and RG&E, although the team is capable of responding to weaknesses like those, should they be found.

G. Program and Project Planning and Management

1. Study Guidelines

Firms requiring large investments in plant, like utilities, by necessity have developed their own approaches to project management. While some projects can at times lend themselves to "turn-key" efforts by contractors, they are the exception, not the rule. Project management is too important for the typical utility to delegate; therefore large utilities all have dedicated programs of project management, although they are of varying approach, sophistication and quality.

The fundamental notion behind project management in a utility is the coordination and management of multiple organizations for the completion of significant cross-functional endeavors. The test then for applying project management concepts is not accounting (capital versus O&M), nor size (large versus small), nor criticality, nor terminology (project versus program), although each has an important role. The critical test is the degree to which it is impractical to manage the overall challenge within the confines of a single organization, or "silo." The necessity to manage work that spans numerous organizations requires a cross-functional approach, and that forms the foundation for project management.



Project management programs come in many variations, but should all include a number of standard components to meet key requirements. The diagram illustrates them. An effective program will contain all of these elements and perhaps more, but three will always emerge as the bottom line objectives: cost, schedule and quality. And in fact, it is the balancing of these three parameters that represents the real challenge and skill of project managers.

Liberty has found utilities to employ two basic approaches, according to whether they use a "strong" or "weak" project manager. In the latter case, the project manager is charged with coordinating various organizations in a matrix-type relationship, but he or she has no real direct control over those organizations. The opposite is true in the strong approach, in which the project personnel report to and are directly accountable to the project manager. Needless to say, there are infinite variations in between designed to temper the negative features of each extreme.

The degree of support service provided to project managers is especially critical to success. In many organizations, the project manager is expected to perform many tasks, and is not provided with the skilled support necessary. This is especially true for planners, schedulers and cost engineers, and the lack of such professionals on large efforts will handicap a project management program and render the project manager ineffective.

Perhaps the single most important ingredient in project management is scope definition. Without such a strong baseline to begin the project, all of the key elements become moving targets, precluding any effective control. This makes the initial “hand-off” to the project manager especially critical. Liberty will focus on this “hand-off,” including the linkages from the other appropriate audit elements which in this case are System Planning and Budgeting. The success of a project is often directly proportional to the completeness and credibility of the initial baseline. Liberty will look for a logical flow to the project management process. This would generally include tasks such as:

- Definition of project charter
- Definition of project scope
- Preparation of a project management plan
- Direction and management of execution
- Monitoring and control of the work
- Control of changes
- Project closure.

Liberty will document this flow and examine how all of the project management elements (cost, schedule, quality, for example) are treated within that flow. The bottom line of this evaluation is the degree to which the project management program fills its role in the construction program chain of events.

Liberty will also select a sample of specific projects or programs for a more definitive “case study” approach, the purpose of which will be to examine how the policies, plans and procedures actually translate into results. Our sample will include projects in electric and gas and in each of the following three stages: early stage (<25%), mid-stage (30-70%), and completed. Each case study will consider how the various elements of the program contributed, or failed to contribute, to project success. We will be looking for corrective action opportunities that were taken or missed, and how the project management program facilitated, or should have facilitated, those opportunities.

Our criteria for selection of these case studies, in addition to their completion status, will include:

- The size of the project should be relatively large.
- All key organizations should be represented on the project.
- The project should be considered an important, or at least typical, element of the construction or O&M effort.
- The project should be traceable through our audit elements (*e.g.*, how was its need defined in load forecasting, how did its design emerge from system planning, and how did it get into the budget). This will also allow us to test the final compliance of the project with its originally defined needs.

Liberty will also take steps to determine the degree to which the case studies are truly representative of the full project management program.

The RFP also calls specifically for an examination of vegetation management. New York State does not necessarily offer many unique challenges in the vegetation management area, but those that apply are nonetheless challenging. The climate is friendly to growth for much of the year but then equally destructive via summer and winter storms. Any shortcomings in the companies' programs will eventually show in higher storm damage, longer restoration times and lower reliability. Tradition in the electric utility business makes "tree trimming" the first stop for budget cutters. There are many good reasons for this. While the program is a necessity, its level of effort is in the short term discretionary. Much of the work is also typically contracted, making the workforce flexible and the pain of internal cutbacks avoidable. While effective management respects the consequences of neglect, it also realizes that it takes time for consequences to show. Short-term thinking goes on to presume ample time to "catch up." Vegetation management can therefore demonstrate significant peaks and valleys, in which a few years of underspending are followed by increased activities.

Virtually all utilities contract much if not nearly all the physical work associated with vegetation management. The efficiency of the workforce and the effectiveness of the work therefore become primarily a function of the utility's ability to select good contractors, execute good contracts, and manage those contracts appropriately. This is the focal point of the utility management effort and this section of this audit. In addition, other important elements associated with contractor retention and management cannot be ignored. In particular, these very same contractors are often the key backup resources in times of emergency, and represent a critical part of the restoration effort in large storms. A key part of their obligation is the assurance that they will indeed be available.

Liberty will evaluate the management of contractors associated with the vegetation management program. The audit will include initial scoping of the work, contractor qualification, solicitation of bids, contractor selection, work assignment, management of the work, verification of results, reporting and payment.

2. Evaluation Criteria

1. A project management program should be in place that addresses all of the elements of project management and is targeted at appropriate cross-functional projects.
2. A team of project managers should exist that have experience in all elements of project management and have suitable credibility within the necessary work processes.
3. Large projects should be provided with dedicated support resources, including planning, scheduling and cost engineering skills.
4. The role and responsibility of the project manager should be clearly defined and understood throughout the organization.
5. Expectations for project managers should be consistent with the authority and resources given the project manager.
6. Project management requirements for project participants should be generally consistent across all projects.

7. Project management principles should also be applied to significant O&M efforts requiring cross-functional participation.
8. The philosophies, principles and methods of cost management that are described in further detail under “Work Management” should be applied in the project environment. This includes the holistic approach, appropriate systems, measures, analysis, reports and corrective action requirements.
9. Major components of the work should have their own tailored “cost management plan” that describes the baseline cost, who is accountable and how costs will be managed. Such plans should include the specific actions required of the cost manager and the supporting cost engineer.
10. Formal approval and kick-off of projects should not be permitted in the absence of reasonably firm scope definition and a cost estimate whose quality is consistent with the current design status.
11. Large projects should contain “exit ramps” early in the job to permit management re-consideration if costs begin to escalate.
12. A program of scope control should be in place that identifies scope deviations early, requires analysis of such deviations and the mandatory specification of alternates to mitigate the effects of the deviation.
13. The construction program should have provisions for the collective management of small projects, as opposed to the standard project management approach.
14. The project management program should apply to all organizations participating in a project, whether internal or contractors.
15. The role of quality and its relationship to cost and schedule achievement should be clearly defined and understood by all project participants.
16. There should be a clear linkage between project management and the budgeting systems, characterized by input from and feedback to those systems.
17. The relative priority of projects and programs should be defined in the planning and budgeting process and, once projects have been approved, assigned and scheduled, those priorities should be moot (i.e., the project manager should not have to compete for resources).
18. A process for the handling of contingencies should be defined and the “owner” of budgeted contingency funds for purposes of funding approvals should be identified.
19. Project management principles that define requirements for contractor project management programs on “turn-key” projects should be in force.
20. A documented process should be in place for the selection and award of contracts for the vegetation management program.
21. Contracts utilized for the vegetation management program’s physical work should include provisions that facilitate the utility’s management of the work.
22. Performance of various contractors should be compared regularly with the results used to minimize program costs on a continuing basis.
23. An adequate number of trained utility supervisors /contract managers should be assigned to the oversight of contractors.
24. There should be adequate oversight and audit of contractor management and payments.
25. Similar measures should exist for internally performed vegetation management activities.

3. Work Activities

1. Evaluate the approach to project management, including the PM approach (weak or strong), applicable projects and organizational dynamics.
2. Evaluate the quality of the project management and support organizations, including the skills and experience of the key incumbents.
3. Evaluate the degree of support given project managers and its consistency with the expectations for project managers.
4. Test the relationships among project managers and the functional organizations and the degree to which the organizations support and are supported by the project manager.
5. Evaluate the cost management systems in use for projects and the effectiveness of their utilization by the project managers and the functional organizations.
6. Evaluate the quality systems in use for projects and the effectiveness of their utilization by the project managers and the functional organizations.
7. Evaluate the schedule management systems in use for projects and the effectiveness of their utilization by the project managers and the functional organizations.
8. Evaluate project management expectations and performance in other critical project elements, including safety, procurement, materials management, communications, contractor interfaces, labor relations, HR, bookkeeping and administration.
9. Prepare at least six case studies of actual projects (for electric and gas, one <25% complete, one in mid-stage and one complete) and determine how project management systems have worked, where opportunities have been taken or missed, and where improvements may be possible.
10. Determine the degree to which case studies are representative of broad project management performance.
11. Evaluate how projects are initially prioritized and then slotted in the budget, and the impact of this decision on subsequent execution.
12. Evaluate how initial scope is defined, including its credibility, relative “sanctity” and its ability to serve as a good baseline for control. Determine if there are any propensities to approve and start projects without sound baselines for control.
13. Determine the degree to which mechanisms exist to stop, re-consider and, if appropriate, cancel projects that exhibit early out-of-control tendencies. Examine the triggers to alert management to the need for such a re-consideration.
14. Evaluate how the balance of the construction program (i.e., those projects that do not come under a project management approach) is managed.
15. Evaluate how contractors are managed within the context of the project management program, including those with turn-key responsibilities.
16. Determine how project managers are expected to balance cost, schedule and quality, among other priorities, and what guidelines, training, policies or other aids exist to help meet this challenge.
17. Evaluate how project managers maintain conformance to the project’s “intent” with the restraints experienced in day-to-day management (budgets, scope changes, contingencies, design errors, for example). How is the project manager’s ability to stay true to the intent monitored?
18. Evaluate the flow of projects from the budgeting process into the project management jurisdiction, including how project budgets are then set (in relation to what is in the capital or O&M budget) and how design intent is maintained.

19. Evaluate the approach to management of tree trimming contractors.
20. Review the effectiveness of the procurement process used to select tree trimming contractors.
21. Evaluate the effectiveness of the utility organization charged with contract management.
22. Review checks and balances associated with the management and payment for tree trimming contracts.
23. Evaluate the methods used for measuring and improving contractor performance and costs.

4. Liberty Resource Assignments

Lead Consultants: Nunnery (Electricity), Kozlosky (Gas)
Support: Berger, Mazzini

Project management is perhaps the most structured element of this audit. The standards applicable to its practice are better defined and more universally accepted than the other audit elements. It lends itself to academic considerations and much has been published about how to do it right.

However, there is also a softer side here, and one that is more correctly characterized as art rather than science. Because project management, by definition, spans many “silos,” it has a large people-component. And the coordination of those people is complicated by what is often a lack of authority, requiring the project manager to “jawbone” his or her way to success.

Liberty notes these academic and human elements in order to emphasize the importance of evaluating the program in the real world. In other words, consultants with both (1) the extensive technical knowledge of how project management and its systems work and (2) the experience of bringing disparate and at times competing organizations together for a common objective. (And any competent project manager has learned to respect the latter far more than the former.)

Liberty has proposed a team for this work that meets both criteria, having the technical skills required of a project manager and having the hands-on experience of managing across multiple “silos.” Only in this manner can both the science and the art of the program be effectively evaluated.

In managing this element, there are important interfaces with other audit elements. Liberty will coordinate this effort with the drivers of projects - load forecasting and system planning. Budgeting will play a big role and interfaces with that element and will likewise be managed. Finally, the work management element plays a large role in project management’s ability to control costs, both from the management of physical workers and the broader requirements of cost management discussed under that audit element.

5. Potential Benefits and Costs

Liberty is hopeful of making real contributions to project management efforts. Perhaps the current efforts are already quite effective, but in this arena, there is generally opportunity for improvement in even effective organizations. We respect that there are many approaches to effective project management and we hold no illusion that one approach is always best.

Recommendations will therefore only be made because they produce real and tangible benefits, and not simply because they are our ideas.

The structure of project management, and its clear objective of meeting cost, schedule and quality targets, makes the evaluation task somewhat easier than other areas of the audit. The activities of project management have a defined desired outcome, and that serves as a reasonable criterion from which to measure improvement.

As elsewhere in this audit effort, quantification of benefits is highly desirable, and it is our intention to provide such quantification in all possible cases. Similarly, implementation costs will be estimated and suitable cost benefit analysis provided as appropriate.

There are a number of features associated with vegetation management programs that make them reasonable targets for performance improvement and cost savings. The most important feature flows from the nature of the work, as traditionally managed in a utility. A large volume of work can be laid out well in advance, giving the contractor maximum flexibility on how to plan, schedule, and sequence his tasks. The volume of work often allows the selection of more than one contractor. This gives the opportunity for both competitive solicitations and annual ratcheting of performance expectations.

Liberty's examination of the process will be aimed at seeking potential improvements that allow and facilitate contractors in becoming more competitive and lower cost. This will allow a direct comparison to year-over-year unit costs and an annual measure of improvement.

H. Work Management

1. Study Guidelines

Effective work management is necessary to conduct work effectively and efficiently in large utility organizations. Other sets of processes may nominally have a bigger impact on the bottom line, or on other key operating parameters, but this element tells the observer a great deal about the quality of management, systems, people and a firm's ability to get things done. Therefore, its study has ramifications beyond the cost penalties or savings that emerge.

Liberty's approach to evaluating work management is likely to differ from the approaches traditionally taken by consulting firms who do audits of this type for regulators. That traditional approach focuses on cost systems and tools, both in terms of activity costs and costs per unit of output (productivity). Liberty has found this focus to be far too narrow for effective management. Rather, we encourage a more holistic approach, in which the cost challenge is attacked on a number of fronts. Without that broader approach, if all that exist are "systems and tools," however good, strong results should not be expected.

"Cost" is indeed the bottom line, and reflects the effectiveness of one's management approach. Nevertheless, focusing too narrowly on what drives costs can ignore the reality that tools and systems are merely vehicles and accomplish nothing in and of themselves. It is the surrounding culture, management philosophy, responsiveness of people, willingness to take corrective

measures, desire for continuous improvement, analytical skills, and allocation of remedial resources that drive results, and not just from a cost perspective. They drive the vehicle.

This more holistic view is essential to understanding cost effectiveness. This is not meant to minimize the importance of systems and tools; the bigger the organization the more important those systems and tools are. Liberty will therefore place a strong emphasis on the quality of tools as well as the many inputs and outputs. But it is their application and the surrounding attitudes and infrastructure supporting work management that will tell the more complete story.

Work management is a complex undertaking that is too readily thought of as a task any reasonable manager will just intuitively know how to do. This attitude gives short shrift to the knowledge and skills really needed in this endeavor. And those skills are extensive. Illustrative of the wide body of knowledge required for effective work management is the following list of attributes, each of which directly impacts the organization's ability to manage costs associated with physical work:

- The “cost culture” of the organization, which defines employee attitudes and underlying employee assumptions about cost management
- The philosophy of cost management, which indicates where cost lies in the hierarchy of the companies' priorities
- Management and worker attitudes towards “continuous improvement,” overall quality management, employee participation and other vehicles for efficiency improvement
- The effectiveness of work planning – the degree to which work packages facilitate timely and efficient completion of the work
- Scope control, preventing in-progress job growth
- Quality control, preventing unnecessary re-work
- Supervision
- Technical support
- Timely provision of materials
- Training
- Ample and effective equipment and vehicles
- Crew structures that enhance efficiency
- Enabling labor agreements and constructive relationships between management and the bargaining units
- A strong safety ethic and supporting program
- Controlled work hours preventing excessive productivity-robbing overtime
- Judicious use of contractors
- Judicious application of so-called “low end” resources to avoid applying higher-paid workers to routine unskilled tasks
- Accounting and cost collection systems that meet the needs of managers, and not just the needs of accountants
- Skilled cost analysts with the knowledge to identify corrective action opportunities from cost data
- Reports that do more than “report;” i.e., they also serve to stimulate management action.

This list, which is not necessarily complete, demonstrates that work management requires a complex set of integrated activities, which are best practiced by experienced and skilled professionals. The tendency to focus on just a few of the above attributes will lead to an ineffective evaluation and severely limit improvement opportunities. Liberty will therefore evaluate from this holistic approach in the confidence that such a broad yet coordinated study will unquestionably produce the best results.

2. Evaluation Criteria

1. The relative “place for cost” in the hierarchy of priorities (for example, with safety, quality, schedule, for example) should be clearly defined so as to be understood by all employees.
2. A culture of continuous improvement should be in place that encourages management and employees to enhance work processes.
3. Work packages for physical workers should be designed to clearly communicate the key elements of the work and allow employees to optimally complete the work.
4. Supervision should effectively function to facilitate the work, including assurance of adequate personnel, support resources where necessary, material availability, management of travel and other downtime, adequate work packages, crew instruction, safety measures and all other local facilitation activities.
5. An effective program of quality control should be in place that blends with the work flow and avoids checkpoints or delays that unnecessarily disrupt the work while also capturing defects early enough to minimize the need for extensive re-work.
6. Work crews should have timely access to good technical support.
7. A materials management program should be in place that is integrated with the work planning processes and assures timely availability of necessary components.
8. Training requirements for physical workers should be formally defined and compliance should be monitored.
9. Equipment and vehicles should be ample in quantity and their design should be consistent with efficient completion of the intended work.
10. Standard crew sizes, or crew structure tailored to specific projects, should be optimal.
11. Management should emphasize the need for efficient work rules and practices in labor agreements and ongoing negotiations.
12. A formal safety program should be in place, with suitable oversight by an independent organization.
13. Guidelines for the scheduling of overtime should be in place to prevent excessive overtime during normal operations. Similarly, guidelines for shift strategies for multi-shift operations should be in place.
14. The companies’ labor contracting strategy should be defined and should provide for the optimum use of the companies’ fixed resources.
15. Lesser cost resources should be used for “low end” work (flagging, digging, material delivery, clean up, for example) in order to optimize use of skilled resources.
16. A clearly defined work breakdown structure (WBS) should be in place that parses the work in logical categories consistent with the managers’ needs.
17. Costs should be collected consistent with the WBS and be structured to facilitate analysis.
18. Physical quantities (for example, feet of conduit, number of transformers, yards of concrete) should be collected consistent with the WBS and directly linked to their associated installation costs.

19. Productivity should be measured wherever practical and meaningful and compared to credible standards. Such measures should be on both a macro (collective) basis and micro (detailed tasks) basis. Definitive productivity standards should be cataloged for all standard work activities and specialized productivity standards designed for unique substantive tasks.
20. A credible estimating process should be in place with standard work tasks, procedures, unit rates, estimating guidelines and capable estimators.
21. Reports on work performance should relate costs to production and achievement of other job objectives. Credible analysis should be included in all management reports, and that analysis should include corrective action recommendations for cost deviations.
22. A management process should be in place that forces response to cost deviations.
23. The work management process, encompassing all of the above criteria, should link seamlessly with established project and program management systems.
24. The work management process should be consistent with the companies' budgeting system and link to that system where appropriate.

3. Work Activities

1. Evaluate the work management processes used for all types of physical work, including routine T&D work, routine new construction, major projects and extensive O&M endeavors.
2. Determine how all work management activities interrelate to form an integrated program.
3. Construct a logical diagram defining interfaces that should be in place. Use the diagram as a checklist in evaluating the degree to which all necessary work management elements are in place, integrated and effective.
4. Determine the degree to which workers receive the support necessary to perform optimally, including technical support, adequate supervision, clean and safe working conditions, timely material delivery and clear instructions.
5. Determine the extent to which supervision has the systems, tools, staff support, logistical support and analytical capability to optimally support the workforce.
6. Evaluate the effectiveness of the work planning processes and resulting packages that are used to define and structure work for physical workers.
7. Determine how the Company balances work-related costs and productivity with the other important priorities for the workforce, such as safety, quality and schedule, and the degree to which workers understand and effectively balance these priorities.
8. Evaluate reports relating to cost performance of the workforce.
9. Evaluate work breakdown structures used for various physical work projects.
10. Evaluate how work plans are linked to organizational budgets.
11. Evaluate how work management processes are applied in a project environment and linked with project or program management processes.
12. Evaluate the cost management tools and systems in place and their effectiveness in meeting management needs.
13. Evaluate management's response to cost reports and the degree of corrective action applied to cost deviations on a routine basis.
14. Evaluate benchmarking initiatives, including the Electric Utility Cost Group, and determine the effectiveness of such programs and their contributions to efficiency.
15. Evaluate the approach to productivity measurement and management. Review existing standards for common work tasks and processes for developing specialized unit rates.
16. Review the estimating process and estimating standards, guidelines and assumptions.

17. Evaluate how the Company collects production data (including commodity quantities and other measurable production units), and how those quantities are integrated with costs for effective performance measurement.
18. Evaluate applicable quality programs and the degree to which they facilitate “getting it right the first time.” Consider the impacts of inspection holds, inspector availability, and other necessary QC interactions on costs.
19. Evaluate the process by which materials are procured and/or requisitioned from inventory, made available to work crews and delivered to the work site.
20. Evaluate the scope and quality of training and its impact on worker effectiveness.
21. Evaluate the contribution of overtime to costs, including the degree to which overtime is large enough to cause productivity issues.
22. Evaluate labor agreements and work rules and the degree to which management and the bargaining unit work together to enhance efficiency.
23. Evaluate contracting strategies and practices. Evaluate where contractors are utilized, how management of contractor forces complies with the same work management principles discussed here for the companies and the relative effectiveness of contract labor.
24. Evaluate resource allocation strategies to assure the fixed staff is optimally applied, and that lower cost alternates are used for unskilled work.

4. Liberty Resource Assignments

Lead Consultant: Yu
Support: Mazzini, Kozlosky, Nunnery

Our approach to work management clearly requires leadership that is highly skilled and experienced in all elements of cost management, as well as the intricacies of utility field work in both construction and maintenance. The companies should display a high level of sophistication in terms of their programmatic approach and the skill of their hands-on managers and workers. It takes commensurate skills and experience to examine and evaluate their performance. Accordingly, we have carefully selected a team leader and supporting consultant who will be in a position to add substantial value to the audit and to future operations.

This team has special integration requirements in that its work links closely with the budgeting audit element and the project management audit element, both on the input side, and the performance measurement element on the output side. Liberty intends to phase the work accordingly; however, we see no harm in considerable overlap and will therefore not delay the start of this work significantly beyond the start of its predecessors.

5. Potential Benefits and Costs

This audit element is surely one that best lends itself to quantification of benefits as well as encouraging meaningful cost-benefit analysis. While improvements to systems and tools may be an exception to this expectation, most of the other components of Liberty’s evaluation should result in tangible, measured outcomes with estimated implementation costs.

Interestingly, this area is also somewhat vulnerable to what we might call negative contributions, and Liberty will take special care to avoid such recommendations. We have seen well-

intentioned firms and consultants add to administrative and overhead burdens in the belief that these will eventually lead to productivity improvements. In fact, investments in new controls, reports, systems and tools can often fall into this category. But this is a speculative approach, effectively forcing the utility to bet (with the customer's money) that added overheads invested today will produce direct savings tomorrow. Liberty has found that the status quo is often better than speculating on such future uncertain outcomes. In many cases, the physician's adage of "above all, do no harm" is particularly applicable to the auditor. Nevertheless, this audit element offers lucrative potential and it is Liberty's intention to manage the audit accordingly, with a focus on the real and the tangible.

I. Performance and Results Measurement

1. Study Guidelines

The RFP lists a number of specific areas of inquiry for this audit element:

- Verifying that there exist appropriate processes for: (a) measuring performance (*e.g.*, cost, schedule, quality, reliability, productivity) against applicable elements of mission and objectives, and (b) linking measurement to improving processes, redirecting resources, and changing priorities
- Director and senior executive management engagement in performance measurement
- Management accountability for making improvements in cost, productivity, and effectiveness of capital and O&M programs and projects
- Existence of measurable goals and targets and corresponding performance metrics
- Use of benchmarking to develop goals and targets and gauge performance
- Application of effective performance improvement and change management processes
- Consideration of measured performance in setting compensation
- Identification of additions metrics or indicators needed.

The RFP section for this area also requires a review of the companies' distribution vegetation management program practices and performance. It takes a programmatic approach to manage and conduct vegetation maintenance activities effectively, economically, timely, and in accord with landowner and public expectations and requirements. Liberty's plans call for the review of distribution-system vegetation control in the Program and Project Planning and Management portion of the audit. The review there will cover all of the RFP requirements here, and will further subject these activities to the same types of review that apply to other electricity distribution programs. Placement of the issue in that portion of audit work will subject it to integrated review with other distribution programs and place it under Liberty's very experienced team addressing that audit area. Rarely are expenditures for vegetation control not examined in connection with other distribution programs. The reason is, rightly or wrongly, that vegetation control is often considered one of the most readily deferred (for the very short run only, one would hope) sets of distribution activities when expenditures must be curbed.

Discussing the area of performance and results measurement requires another significant cross referencing to the other portions of these work plans. The areas that precede this one in the work plans will already have addressed much of the guidelines and many of the criteria and work activities applicable here. That result will occur because Liberty considers setting proper goals

and targets, taking comprehensive measures that relate to them, and holding management accountable for performance in accord with them to form integral, critical elements of program and project planning and management. Moreover, director and senior executive level substantial and routine engagement in setting the goals and targets and in overseeing success in achieving them makes their activities in performance and results measurement an important focus of the first audit area (*Corporate Mission, Objectives, Goals, and Planning*).

The work plans for this area (to avoid repetition) therefore do not have the length and detail given to preceding audit element work plans. This brevity does not indicate that Liberty attaches less significance to this element. It holds no less importance than those that precede it, but forms with them an integrated, iterative set of audit work activities. In fact, it is precisely the interdependence of all the audit activities that leaves less “new” to say when one reaches the discussion of the last one.

As the RFP’s list of measurement inquiry areas makes clear, measurement has two important goals. The first is to assure that there is a sound basis for measuring in the short term the effectiveness and efficiency of the use of budgeted and assigned resources against clear and comprehensive benchmarks. The second purpose supports the somewhat longer term goal of seeking improvements. It is also somewhat broader, in that those improvements need not come only in improved project execution, but also in improvements in the other elements that the audit will address; *e.g.*, needs identification, system planning, budget development, and work force management. The key to successful accomplishment of the second purpose is to identify, take, report, use, and hold people accountable for a sufficiently broad and deep set of measures. At the same time, care must be taken to avoid the creation of reporting requirements for information that does not prove material to managing. It can take substantial resources to measure results effectively and timely. Measuring data that is not material can waste resources and divert attention from the real drivers of effective and economical performance.

Measurements must also be tailored to each of the different levels of people who need to use them. Obviously, data reported at varying levels of detail need to roll up accurately from the most detailed to the most general levels. The failure to use consistent sets of data must inevitably cause either a false sense of success or a misdirection of effort toward problems that either do not exist or have less importance than they may appear to show.

At the top level, Liberty has found that providing meaningful data to boards of directors to be probably the most problematic. It ultimately does not serve a board’s purposes well to provide sophisticated, glossy budget presentations if the board does not get on a regular basis the data it needs to see: (a) if the work ends up consuming the levels of anticipated resources, and (b) the performance of the work actually produces the benefits that justified its authorization. Without good performance information, board budget involvement eventually becomes a blind process. Similarly, board questioning of management effectiveness in producing expected service results becomes hollow. The board needs good performance information to deal effectively with the need to relate performance and personal rewards, both when it sets executive information and when it reviews the pools that assign rewards to lower levels on a group basis.

A board of directors thus not only needs information generally, it needs it specifically when it performs what are generally milestone events in their yearly cycle of operations; *e.g.*, budget and compensation review and approval. Board members also need to see information that crosses the artificial (but useful) calendar separators (*e.g.*, calendar/fiscal, quarter/yearly) used to plan and budget work, in order to have the data needed to assess the propriety of future hopes (expected plans and activities) against past realities.

Turning now from a view from the top down to one from the bottom up, performance data needs to be collected, analyzed, and disseminated in a manner that is consistent with job responsibilities and accountabilities, at whatever management or supervisory level is relevant. Failure to do so makes it unnecessarily difficult for individuals to measure their own success, and for those to whom they report to do the same. This vertical integration of information reporting is not the only critical dimension, however. Horizontal integration is necessary to ensure that the results of those with similar responsibility in different geographical areas are consolidated accurately. Horizontal reporting is also important for identifying groups or regions that have particular strengths or weaknesses, in order to promote a culture of continuous improvement. Horizontal integration also matters for groups that are divided not by territorial region, but by functional responsibilities that are separate, but must work effectively together. Effective reporting uses measures that help identify on which side of the activity “border” lie the roots of performance weaknesses. Such reporting can also help identify when the problem is not on either side, but result from an inadequately designed hand-off process.

Effective reporting in large organizations also requires the support of systems and people. Data collection, analysis, and reporting can become unduly burdensome in large, complex organizations. There is clearly too much data for those who do the work to have too much of the burden for measuring the work. Dedicated work groups, supported by reasonably automated data systems are necessary for several reasons: (a) simply to spend the time necessary to get the data properly entered, (b) to aggregate the data into useable form, (c) to provide sufficiently for data completeness, accuracy, and integrity, (d) to design, populate, and assure the timely dissemination of a coordinated reporting system that must communicate at many different levels on a wide variety of measured performance, and (e) allow for the development of sufficient expertise to spot trends and anomalies, think “outside the box” about possible ways to move performance in a positive direction, and have the credibility with senior and line management to spur dialogue with responsible departments about structural, process, personnel, or other possible areas of change.

2. Evaluation Criteria

1. Directors and senior executive management should actively and regularly establish and maintain an environment that strongly emphasizes the need for performance accountability and for defining and controlling it by requiring comprehensive and, wherever practicable, quantifiable performance measurement against clearly established goals and targets.
2. These goals should be supported by a comprehensive set of metrics and key performance indicators addressing cost and service quality.
3. There should be a clear process for establishing and revisiting the performance metrics used, in order to assure that they address all material attributes of service effectiveness and

- efficiency including such items as overall system reliability, reliability of local areas, and loss reduction.
4. These metrics should correspond to specific, measurable goals and objectives at the detailed (lower) levels of the organization, at which day-to-day responsibility for conducting activities lies; they should bear a close relationship to the discrete activities necessary for accomplishing detailed goals and service-affecting processes.
 5. There should be a dedication of specific resources, supported by sufficient automated systems, to assuring that all data necessary for addressing established metrics is: (a) collected, (b) verified, (c) aggregated by appropriate class, (d) stratified for use by ascending levels of supervision and management, (e) reported meaningfully, (f) analyzed for trends and concerns, and (g) used as a basis for identifying improvements in efficiency and effectiveness.
 6. Such information should be benchmarked internally (e.g., trends over time, differences among regions) and externally through the use of comprehensive, current industry information.
 7. Measurements applied to individual departments, work groups, activities, and individuals should conform to their responsibilities and accountabilities.
 8. Measured performance information should be directly and substantially tied to individual and group rewards as part of the compensation program.
 9. Performance measurements at sufficiently highly aggregated levels should be available to the board of directors when it performs key annual activities, such as budgeting and executive compensation reviews.

3. Work Activities

1. Determine what linkage exists between corporate, department, work group and other specific goals and objectives and the performance metrics applicable to them.
2. Verify that performance metrics are comprehensive and quantifiable wherever practicable.
3. Determine whether metrics fail to include any key performance areas.
4. Identify those responsible for assuring that performance metrics are sufficient, regularly reviewed and updated, and accurately carried out.
5. Identify how the company uses performance information specifically to adjust plans and budgets mid-year, and to consider future changes as part of the ensuing planning and budgeting cycles.
6. Determine the scope, contents, cycle, and distribution of key metrics reports.
7. Construct and execute a sampling test of the consistency between data sources, completeness, and vintage/timeliness and metric design.
8. Discuss with personnel at all organizational levels their use of performance information.
9. Verify that board members and executive management have access to sufficient performance information, are able to and do examine recent performance data as part of key annual planning, budgeting, and compensation review activities.
10. Identify the internal and external benchmarks used to assess performance.
11. Through a sampling of positions, verify that job descriptions and individual understandings of responsibilities and measurement bases conform to measurements actually taken and used to assess performance and individual rewards.
12. Verify the existence of and study specific examples of structural, process, responsibility, and activity changes or enhancements resulting from use of metrics.

13. Determine whether there is focused responsibility for instigating change at the detailed activity level and for supporting that responsibility with specific performance information.
14. Assess the sufficiency of use of outside experts to assist in reviewing performance information and in identifying improvement opportunities.

4. Liberty Resource Assignments

Lead Consultant: Antonuk

Support: Team (All team members will be required to provide as part of their work products defined contributions to this task area).

Liberty considers there to be an especially close linkage between the planning-oriented elements of Work Element I and performance and results measurement. Therefore, we have provided for common leadership of the two elements. Moreover, measurement is an important element of all work and therefore of the work of all the consultants on this engagement. In order to promote job efficiency, they will be asked by the lead consultant to provide specific data and analysis to support the work here. This work is expected to be less extensive in the supply and forecasting areas; therefore, no separate time has been budgeted for the team members examining those areas. Nevertheless, they, as all team members, will provide for Mr. Antonuk's assembly and analysis the information needed to produce an integrated evaluation of this element.

5. Potential Benefits and Costs

As is true for budgeting, it is easier to see the connection between measurement and cost effectiveness than it is to quantify it with precision. In addition, improvement costs are generally marginal, unless there is a major failing in the commitment to measurement, the creation of comprehensive metrics, or the assignment of accountability for taking measurements.

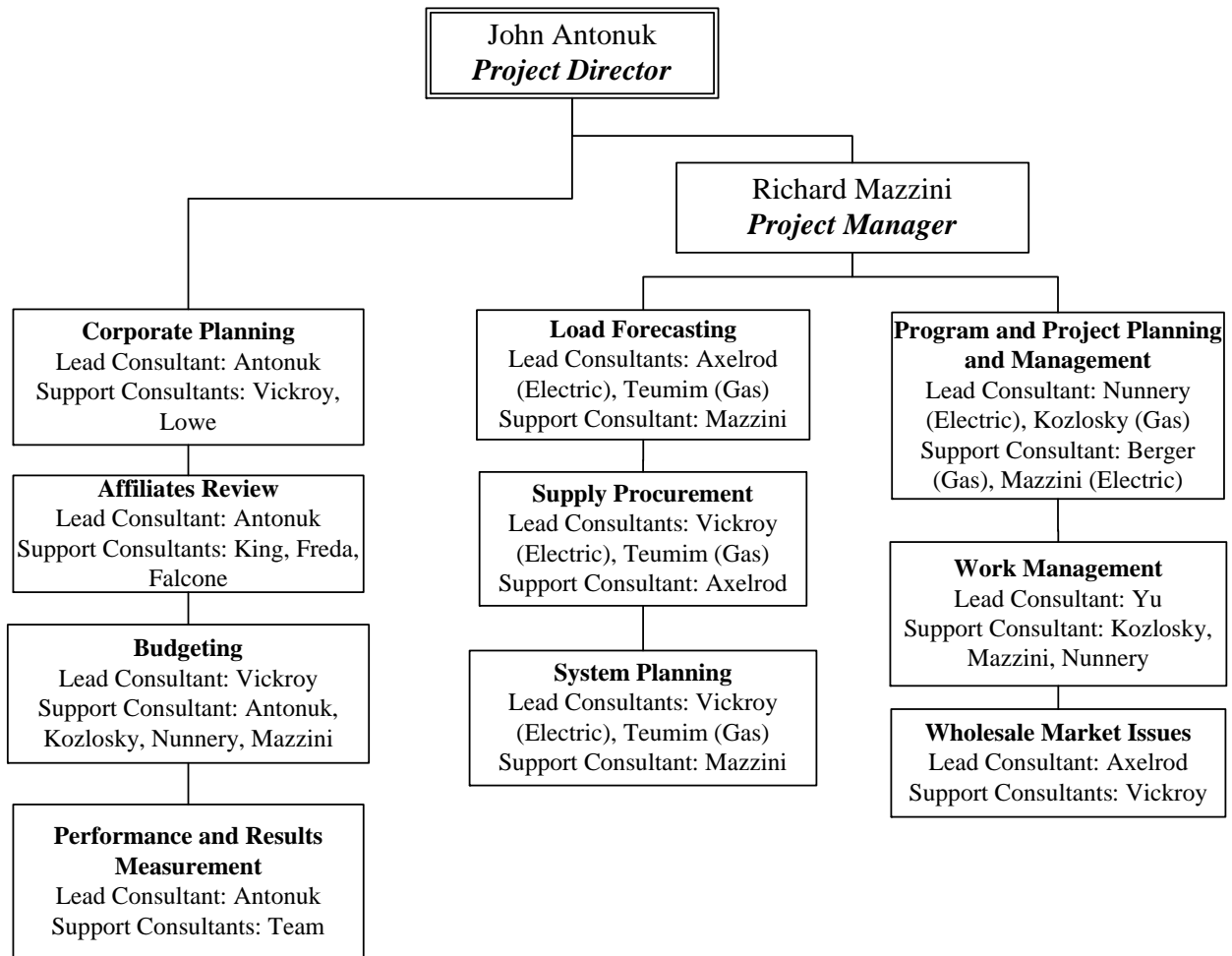
V. Project Team and Responsibilities

A. The Proposed Team

Liberty has assembled a project team that has the depth and breadth to meet the challenges of this audit. The similarities between this audit and the review of Consolidated Edison put Liberty and Staff in a unique position to secure enormous intellectual and quality synergies. To maximize these efficiencies, Liberty is recommending a very largely common project team as used for the Con Edison audit reviews. This team is a known quantity to the Staff and can avoid a whole new learning cycle that would be required for another consultant.

B. Project Organization

The following chart shows the team organization Liberty proposes for this engagement.



C. Personnel and Resumes

Highlights of the senior team members' experiences and capabilities follow directly below. Appendix A to this proposal sets forth detailed resumes for all members of Liberty's proposed

team. For references associated with these projects please see Section VII of this proposal and Appendix B: Project Summaries and References.

The following table shows that Liberty's core team has long experience with the firm. That experience included, for a number of Liberty's team members four prior management audits of New York electric and gas utilities (including Liberty's recent Management and Operations audit of Con Edison for the NY PSC), a number of management audits of the New York Power Authority for the state controller's office, and a review of CECONY's affiliate operating nearby, in the state of New Jersey.

Team Experience with Liberty

Consultant	Tenure	Projects
J. Antonuk	24 th year	150+
R. Mazzini	4 th year	12
R. Vickroy	17 th year	36
C. Kozlosky	17 th year	15
P. Teumim	7 th year	19
L. Nunnery	4 th year	4
C. King	8 th year	32
G. Freda	4 th year	6
R. Falcone	7 th year	12
D. Berger	4 th year	5
A. Yu	4 th year	5
M. Antonuk	8 th year	52

Liberty's president (and the director for this project) has known Dr. Howard Axelrod for more than a decade. Liberty's project manager for this engagement has had the opportunity to work with him on a number of engagements. This would, however, represent Howard's first formal engagement for Liberty. He has more than 40 years of experience in management consulting, strategic planning, and marketing in the electric and gas industry. His prior work includes focused experience in the areas that Liberty proposes him for in this audit. Liberty specifically sought out Dr. Axelrod for his expertise in one of this RFP's newly emphasized areas, *Wholesale Market Issues*. His summary experience, described below, and his full professional resume, contained in Appendix A to this document, give confidence in Howard's clear ability to handle the areas to which he has been assigned.

Paulino Folgueras Galan (a business and administrative lawyer) and Michele Fende (an English teacher to Spaniards and a Spanish/English translator) have both worked for more than 30 years in northern Spain's business community. One is a native Spaniard; the other is a native American. They have not previously worked with Liberty, but they and Virginia Lowe have known each other for more than 30 years. John Antonuk is also acquainted with both of our exceptional, Spanish-resident experts, who will assist in addressing language and business cultural issues.

Virginia Lowe has worked with Liberty since its founding in 1987. Ginger's work across the past three years has concentrated on management of the firm, which she serves as its chief administrative officer. Ginger received a bachelor of arts degree, majoring in Spanish and International Studies, from the Miami University of Ohio. She has taught English in Spain and South America. She is also a licensed Pennsylvania attorney and her experience includes the practice of corporate law for a major mid-Atlantic electricity generation and distribution utility. Her fluency in Spanish, her background in electric utility corporate law, and her long-time acquaintance with our Spain-resident Bilbao interface team, makes her especially suited to the governance and senior executive management-related work that will take place primarily in Spain.

In all, Liberty offers what we consider to be a team that optimizes the benefits of:

- Beginning from a core that has long experience working together on energy audits and examinations for utility regulators
- Seasoned operations managers who learned the “nuts and bolts” of energy utility construction and operations by doing them as utility managers, and who have broadened that background by performing office and field examinations addressing the drivers of operational costs and service reliability
- Specialists whose specific backgrounds are specifically suited to particular elements of focus in the RFP
- Continuity in team membership and a smooth work transition from the Con Edison audit
- Uniquely well qualified for the language and business cultural issues with which this audit will have to deal if it is to meet key governance issues head on and with the right combination of both firmness and tact.

Liberty also offers a team whose members are largely regionally based:

- The project director and project manager (a registered engineer) hail from central and eastern Pennsylvania.
- The team includes three engineers resident and registered in New York, and three other engineers.
- Two other consultants are based in northern New Jersey.
- The team's analyst works from a Hoboken, NJ location.

D. Team Members

Given the large and complex nature of the engagement, Liberty has divided direct project management responsibilities into three substantive sections, which correspond to the backgrounds of the two team members responsible for them:

- The first focuses on the audit work elements that are more corporate-oriented (Work Elements I [(including that sections review of Affiliates), VI, and IX]). John Antonuk has been examining corporate governance, executive management, organization, planning, and fuel and energy supply activities at energy and telecommunications utilities over two decades for regulators. He will personally direct audit activities in these four work elements.
- The second focuses on activities whose principal execution lies with energy planning, construction, and operations groups (Work Elements II, IV, VI, VII, and VIII). Rich

Mazzini's energy utility management background led to his assignment as project manager for the work in these four audit elements.

- The third focuses on coordinating the preparation of the detailed work plans, directing the work of Liberty's analyst throughout the project, and project management reporting to Staff. Liberty considers it important to conduct such activities through a single person, in order to optimize scheduling and performance of common, administrative and analytical support work. Rich Mazzini will fill this role.

1. John Antonuk

Project Director and Lead Consultant for Corporate Planning and for Performance and Results Measurement; Support Consultant for Capital and O&M Budgeting

John Antonuk will serve as project director, in order to provide for a single source of overall accountability within Liberty for assuring successful satisfaction of all project commitments. John has managed or directed nearly all of Liberty's management examinations for public service commissions. This includes Liberty's recent management and operations audit of Con Edison. John is serving as project director of Liberty's examination of National Grid U.S. affiliate relationships and transactions. He has directed efforts in all of the audit's areas, and has focused particularly on cost allocation methods, expatriate costs, detailed transaction testing. He has served for Liberty as project manager or engagement director on:

- More than 15 management and operations audits of public utilities
- More than 20 examinations of electric and gas utility fuel and energy procurement
- 7 utility governance examinations (4 involving utility holding company structures), three of which included Sarbanes Oxley and controls as a focus area
- 30 utility affiliate relationships and transaction reviews
- 2 examinations for district heating companies of a variety of construction, operations, and rate matters.

John manages the firm's work for public service commissions. He managed Liberty's commission audits of Arizona Public Service Company, Commonwealth Edison Company, and New Jersey Natural Gas Company. Since our last proposal to the NY PSC, John has directed to following Liberty audit work:

- Arizona Public Service Benchmarking – For the Arizona Corporation Commission, Liberty performed a benchmarking analysis of Arizona Public Service. This study covered a ten-year audit period and benchmarked Arizona Public Service's performance with the following metrics:
 - Operational Performance, including safety, customer satisfaction, reliability, coal plant performance, nuclear performance, and sustainability.
 - Cost Performance, including O&M expenditures, capital expenditures, and management and regulatory expense
 - Financial Performance, including overall financial performance, cash flow metrics and financial risk measures
 - Affiliate Expenses
 - Hedging & Risk Management.

Liberty designed four separate panel groups of peer companies in order to perform this benchmarking study.

- Duke Energy Affiliates Audits - A comprehensive, detailed affiliate relationships and transactions audit for the North Carolina Utilities Commission staff.
- Delmarva Affiliates Audit - Liberty completed for the Delaware Public Service Commission a diagnostic audit of the affiliate costs borne by Delmarva Power, a member of the multi-state holding company, PHI. This review included an examination of the central services organization structure and operations, the procedures and methods used to allocate and assign costs, and test work to verify that execution of methods and procedures conforms to company procedures and to good utility practice.
- AEPSCO - Liberty completed for the Arizona State Corporation Commission) an audit of fuel procurement and management, bulk electricity purchases and sales, power plant management, operations and maintenance, energy clause design and operation, and other issues affecting the prudence, reasonableness, and accuracy of costs that pass through the fuel and energy clause.
- SWTC - Liberty completed for the Arizona Commission a companion examination of the transmission cooperative that is owned and operated in parallel with Arizona Electric Power Cooperative (a generation cooperative). Among the issues examined in this audit were line losses.
- SPS - Liberty is finalizing an audit for the New Mexico Public Regulation Commission of Southwestern Public Service Company (SPS) that included a management review of the prudence of SPS' transactions under the Renewable Energy Credit tracker as conditionally approved by the Commission and a financial review of both revenues and expenses in order to provide an analysis of any under-recovery or over-recovery. Similarly, Liberty performed an evaluation of SPS' fuel clause process and regulations and a financial audit of fuel clause computation. In addition reviews of purchases of coal, natural gas, oil, and purchased power, power plant operations, line losses, and cost allocation and assignment were also performed.
- EKPC Governance, Planning, Finance, and Budgeting - Liberty performed for the Kentucky Public Service Commission an examination of governance at a generation and transmission cooperative which serves 16 distribution cooperatives across the state.
- Potomac Edison Distribution System Transfer - For the Virginia State Corporation Staff, Liberty examined the public interest questions associated with the transfer by Allegheny Energy's utility operating subsidiary (Potomac Electric) of all of its electricity distribution operations business and facilities in Virginia to two rural electric cooperatives. This engagement included a review of infrastructure plans, performance, and costs, comparing them between those likely under continued utility ownership versus cooperative ownership.

The breadth of John's work for public service commissions is shown by the following highlights:

- Manager or director of management and operations audits of:
 - Three New York electric and gas utilities
 - All three Connecticut natural gas LDCs
 - All three New Jersey natural gas LDCs
 - A Tennessee natural gas LDC
 - A Pennsylvania electric utility
 - Two audits of the largest New Hampshire electric utility
 - State operations of two major RBOCs

- Sale by Verizon of its northern New England land line business
- Code-of-conduct compliance audits of all four New Jersey electric utilities
- Public Service Electric & Gas: Affiliate cost assignment and allocation; corporate structure
- Merger Compliance/Affiliates Audit of Duke Energy Ohio
- Fuel and Energy Procurement and Affiliates audits of Nova Scotia Power
- Baltimore Gas & Electric: Development of code of conduct to manage relationships, information sharing, joint services between utility and non-utility segments (provided testimony before the Maryland Public Service Commission)
- Acquisition of UniSource (Arizona) and Portland General Electric (Oregon) by private equity firms
- All Delaware Electric Utilities: Review of restructuring filings, including code of conduct provisions
- Personal advisor to commissioners of the District of Columbia on restructuring and on transmission-line siting
- Northeast Utilities: Affiliate cost assignment and allocation (provided testimony before the New Hampshire Public Utilities Commission)
- Virginia Power: Affiliate cost assignment and allocation, corporate structure and governance relating to non-utility business segments
- K N Energy: Gas transportation and supply contracts from an affiliate of a local gas distribution utility in Wyoming.

His work for Liberty includes the provision of overall direction to Liberty's project for NorthWestern Energy to formulate long-range integrated infrastructure plans for its multi-state electric and natural gas distribution utilities. This project includes consideration of how to incorporate "Smart Grid" technology into infrastructure plans in a manner that will enable the Company to roll out new capabilities and services as technology makes them available, without undue acceleration of capital spending as uncertainties in this new marketplace become resolved.

John received a bachelor's degree in liberal arts from Dickinson College and a juris doctor degree from the Dickinson School of Law (both with honors). He has spoken on a variety of utility issues before a number of panels sponsored by NARUC's committees and regional associations, state bar associations, and as an invited panelist before the U.S. FERC commissioners on utility financial insulation in holding company structures.

2. Richard Mazzini

Project Manager, Support Consultant for Load Forecasting and System Planning Corporate Planning, Wholesale Market Issues, System Planning, Supply Procurement, Capital and O&M Budgeting, Program and Project Planning and Management, Work Management, and Performance and Results Measurement

Richard Mazzini will serve as Project Manager for this engagement, and will report directly to John Antonuk. Rich's work is familiar to the Staff; he served as Project Manager for the Con Edison audit and recently served as a lead consultant in the audit of Con Edison's emergency planning and response capabilities. Rich will continue the strong team relationship he has

demonstrated with Staff. He will foster a constructive audit environment. Importantly, his extensive utility experience is aligned with subject areas that form primary focuses of this audit. His work for Liberty includes serving as lead consultant for Gas and Electric Distribution Infrastructure Improvement on Liberty's project for NorthWestern Energy to formulate long-range integrated infrastructure plans for its multi-state electric and natural gas distribution utilities. This project includes consideration of how to incorporate "Smart Grid" technology into infrastructure plans in a manner that will enable the Company to roll out new capabilities and services as technology makes them available, without undue acceleration of capital spending as uncertainties in this new marketplace become resolved.

Rich is managing the Liberty team that is examining organization and service agreement issues in Liberty's examination of National Grid U.S. affiliate relationships and transactions. He is also serving as project manager to control project cost and schedule.

Rich's other recent work for Liberty includes:

- APS Benchmarking – Rich managed Liberty's benchmarking of Arizona Public Service's operational performance, cost performance, financial performance, affiliate expenses, and hedging and risk management. Rich also oversaw the panel selection process, and led the examination of operational performance.
- Duke Energy Affiliates Audits – Rich served as a consultant for Liberty's comprehensive, detailed affiliate relationships and transactions audit for the North Carolina Utilities Commission staff.
- AEPSCO - Rich served as a lead consultant for an audit Liberty completed for the Arizona State Corporation Commission of fuel procurement and management, bulk electricity purchases and sales, power plant management, operations and maintenance, energy clause design and operation, and other issues affecting the prudence, reasonableness, and accuracy of costs that passing through the fuel and energy clause.
- SWTC - Rich served as a lead consultant for an audit Liberty completed for the Arizona Commission a companion examination of the transmission cooperative that is owned and operated in parallel with Arizona Electric Power Cooperative (a generation cooperative). Among the issues examined in this audit were line losses.
- EKPC Governance, Planning, Finance, and Budgeting - Rich served as a lead consultant for an audit Liberty performed for the Kentucky Public Service Commission examining governance at a generation and transmission cooperative which serves 16 distribution cooperatives across the state.
- Potomac Edison Distribution System Transfer - Rich served as a lead consultant for an audit Liberty performed for the Virginia State Corporation Staff. Liberty examined the public interest questions associated with the transfer by Allegheny Energy's utility operating subsidiary (Potomac Electric) of all of its electricity distribution operations business and facilities in Virginia to two rural electric cooperatives.

Rich has more than 35 years of experience in the utility business, and served in executive positions with global consulting firms, including ABB, Navigant Consulting and the Washington International Energy Group. Prior to entering the consulting business in 1995, he had a long career in key management positions at Pennsylvania Power & Light Company (now PPL Corporation).

He has expertise in all elements of electric operations, and has consulted extensively in the areas of utility operations, cost management, power procurement (including energy marketing, trading and risk management), strategic business planning, strategic alliances, new business design and startup, restructuring and competitive repositioning for utilities, and asset valuation and optimization.

His clients have included investor-owned utilities, municipal and other consumer-owned utilities, Canadian provincial utilities, European utilities, Caribbean utilities, large energy consumers, regulatory bodies and various collective organizations representing electric suppliers or consumers. His assignments have particularly focused on improving operating and business results.

Mr. Mazzini has been a lead consultant in numerous management audits including:

- Seattle City Light, emphasizing risk management and sponsored by the City Council.
- The California ISO, emphasizing governance and market structure and sponsored by FERC.
- Consolidated Edison, covering emergency planning and response and sponsored by the New York Public Service Commission.
- St. Vincent Electricity Services (St. Vincent and the Grenadines), covering all elements of utility operations and sponsored by the Board and Prime Minister.
- The New York Power Authority, emphasizing risk management and sponsored internally.
- The New Jersey gas distribution companies, examining gas procurement hedging strategies and sponsored by the New Jersey Board of Public Utilities.

He has a B.E.E. (Electrical Engineering) degree from Villanova University and an M.S. degree in Nuclear Engineering from Columbia University. He is a Registered Professional Engineer in Pennsylvania, and is a member of the American Nuclear Society and the Institute of Electrical and Electronic Engineers. Rich works for Liberty under a personal services contract.

3. Randall Vickroy

Lead Consultant for Electricity Supply Procurement and for Capital and O&M Budgeting and Support Consultant for Corporate Planning, Wholesale Market Issues, and Performance and Results Measurement

Randy Vickroy has worked for Liberty across a period of more than 16 years. He has had major roles in many of the directly relevant projects that Liberty has completed in the past several months, or is completing now. He has examined finance, planning, and budgeting of the AGLR/ETG management audit for the BPU. He examined electricity supply in Liberty's audit of Con Edison for the New York Public Service Commission. He was the lead in Liberty's audit of affiliate relationships and transactions of Duke Energy Indiana and Duke Energy Kentucky, in addition to two separate audits of affiliate relationships and transactions, financial separation, merger conditions, and cash management of Duke Energy Carolinas. He was also an expert witness in the Delmarva debt issuance matter.

Randy is serving as a lead consultant on the Liberty team that is examining cost systems and financial issues in Liberty's examination of National Grid U.S. affiliate relationships and transactions. He is focusing on billing, calculation of finance related costs, and common service provider transactions involving financial organizations. He is also supporting the analysis of expatriate costs borne by U.S. utility affiliates. Randy recently led Liberty's Financial Performance review work for Liberty's ten-year benchmarking study of Arizona Public Service which was performed for the Staff of the Arizona Corporation Commission.

As part of Liberty's comprehensive, multi-year examination for the Illinois Commerce Commission of transmission and distribution expenditures of Commonwealth Edison (the Exelon subsidiary whose service territory is dominated by the Chicago metropolitan area), Randy was lead consultant in the evaluation of capital program planning, budgeting, and reporting, and he supported the review of O&M spending. His other examinations of budgeting in management and operations audits for regulatory authorities include:

- New York Power Authority (State Controller's Office): Two projects. Included capital budgeting and power contracting alternatives
- Connecticut: Three projects at separate natural gas utilities, each including capital and O&M budgeting
- New Jersey: Four projects at separate natural gas utilities (subsidiaries of AGLR/ETG, NUI/ETG, SJI and NJR), each including capital and O&M budgeting
- East Kentucky Power Cooperative
- United Cities Gas: capital and OM budgeting
- GTE South
- Bell Atlantic : Capital and O&M budgeting
- Verizon New Jersey.

His other reviews of energy utility budgeting include:

- Pacific Gas and Electric: Budgeting and analysis systems
- Delmarva
- Kentucky Utilities
- Big Rivers Electric
- Dayton Power and Light: Capital project analysis.

In addition to Leading Liberty's review of Electric Supply Procurement during the Management and Operations audit of Con Edison, Randy has examined similar functions on the following commission-sponsored Liberty engagements:

- Arizona Public Service
- Arizona Electric Power Cooperative
- Southwestern Public Service Company
- Nova Scotia Power (two separate audits).

Randy holds a B.A. in Business Administration from Monmouth College and an M.B.A. in Finance from the University of Denver

4. Dr. Howard Axelrod

Lead Consultant for Load Forecasting (Electric), Wholesale Market Issues, System Planning (Electric); Support Consultant for Electricity Supply Procurement

Howard J. Axelrod has more than 40 years of experience in management consulting, strategic planning and marketing for the electric and gas industry. He is founder of Energy Strategies, Inc. and serves as the firm's President and Chief Executive Officer. He is also the acting Chief Risk Officer for a New England based municipal wholesale electric company. With proficiencies in economics, marketing, and power systems planning, he provides a multi-disciplinary approach to resolving complex business and regulatory issues. He has performed numerous studies and led in the development of strategies addressing such issues as competitive restructuring, strategic business and market planning, organizational development, and business risk analysis.

Howard has also managed best practice assessments relating to strategic and business planning, utility outage preparedness and enterprise risk management. He has testified before numerous state regulatory agencies and FERC on such topics as resource planning, power contract management, utility operations and management and productivity.

Howard has also been actively involved in the development and continuous improvement of competitive wholesale electric markets. He has been retained by the New York Independent System Operator and has participated in market development activities at the ISO-NE, PJM, MISO and CAISO.

Howard had served as the Executive Director of CCAS (Coalition for the Commercial Application of Superconductors) a technology-based trade organization.

Howard was awarded his Doctorate in Managerial Economics from Rensselaer Polytechnic Institute, an MBA from SUNY Albany and MSEE and BSEE degrees in Power Systems from Northeastern University. He also completed General Electric's 3-year Application Engineering Training Program. Howard has over 25 publication and presentation citations and has testified in over 40 regulatory proceedings. His professional associations include Senior Membership in the Institute of Electrical and Electronic Engineering, Senior Membership in the Power and Energy Society, Member of the Profession Risk Managers Association and Professional Engineer (retired license in New York).

5. Phillip Teumim

Lead Consultant for Natural Gas Supply Procurement, System Planning (Gas), and Load Forecasting (Gas)

Phillip Teumim is an expert in utility operations, strategic and business planning, corporate governance and regulatory matters, and has extensive and varied experience as a regulator and a consultant. Liberty offers him as the lead for the work in gas planning, forecasting and supply areas.

Phil was lead consultant for Liberty's management audits of some or all of the following areas -- gas supply planning, load forecasting, supply procurement and operations -- for a number of gas utilities or gas businesses of combination utilities, including Duke Energy Ohio (two audits), Vectren Energy Delivery of Ohio, Dominion East Ohio, and Columbia Gas of Ohio. He also reviewed more specialized aspects of the gas businesses in Liberty's audits of NUI/Elizabethtown Gas, SJI/South Jersey Gas, NJR/New Jersey Natural Gas and in Liberty's focused examination of AGLR/Virginia Natural Gas. In Liberty's audit of Con Edison for the PSC, he was the lead consultant for the Planning Issues component of Corporate Planning and a Support Consultant for Performance Measurement. Phil is managing the examination of expatriate costs in Liberty's examination of National Grid U.S. affiliate relationships and transactions. Phil's work for Liberty includes serving as lead consultant for Gas Distribution Infrastructure Improvement on Liberty's project for NorthWestern Energy to formulate long-range integrated infrastructure plans for its multi-state electric and natural gas distribution utilities. This project includes consideration of how to incorporate "Smart Grid" technology into infrastructure plans in a manner that will enable the Company to roll out new capabilities and services as technology makes them available, without undue acceleration of capital spending as uncertainties in this new marketplace become resolved. Phil recently led Liberty's affiliate expenses analysis for Liberty's ten-year benchmarking study of Arizona Public Service which was performed for the Staff of the Arizona Corporation Commission.

He has also examined a variety of issues in a number of regulatory management audits before joining Liberty. They include audits of Consolidated Edison, LILCO, The New York Power Authority, Washington Gas Light, Niagara Mohawk, and the North Carolina Electric Membership Cooperative. Phil began working with Liberty under a personal services contract after serving as a Director with the New York Public Service Commission. There, he was responsible for a number of additional examinations of planning and budgeting, which addressed all of the state's major natural gas and water utilities.

As a Director for the New York PSC, he has reviewed the strategic direction and planning of New York's energy utilities in a number of areas. For example, after FERC Order 636 was issued, the NY PSC instituted a proceeding to determine whether and to what extent changes were necessary at the state level to accommodate FERC's changes and to determine the strategic direction of the natural gas industry in New York. Mr. Teumim was personally involved in assessing the LDCs' strategic direction at the time, the extent to which changes in LDC behavior and regulatory policy were required, and in negotiating with LDC executives to institute such changes. He also established the Natural Gas Reliability Advisory Group and chaired its meetings until he left the Commission in 2002.

Phil holds M.B.A. and B.S. degrees (Electrical Engineering) from Rensselaer Polytechnic Institute, Troy NY.

6. Dr. Charles King

Support Consultant for Corporate Planning (Affiliates)

Chuck has worked with Liberty for eight years, during which time he has been a lead consultant or project manager for a number of different projects involving utilities. Chuck has 31 years of

broad experience expertise in systems and operations, public policy and regulatory affairs, data analysis, and project management. His recent work for Liberty includes: (a) lead roles in Liberty's review of National Grid service company operations and charges (the functions provided by the service company include a wide array of customer services activities), and (b) the audit of Elizabethtown Gas for New Jersey's utility regulatory authority. Dr. Charles King has managed a large number of engagements designed to test the completeness and accuracy of large, new customer information systems. Additionally, Chuck oversaw Liberty's transaction-testing activities for the Liberty's 2010-2011 audit of the affiliate transactions of Duke Energy for the North Carolina Utilities Commission. Chuck is managing the Liberty team that is examining cost allocation methods, time reporting, and transaction testing issues in Liberty's examination of National Grid U.S. affiliate relationships and transactions.

Chuck recently served as lead consultant and day-to-day project manager for a major Liberty review involving detailed examinations of major, new customer information systems. This review came in the context of Liberty's review of the FairPoint purchase of Verizon's northern New England land line business for the New Hampshire PUC Staff. That work involved new systems designed to support customer service operations across three states and more than a million land lines. He provided expert testimony on operations issues and helping with the settlement negotiations. He also project manages the Liberty team that has been monitoring for all three northern New England states the transition of FairPoint's systems and operations and the impact of this transition on customers, for which he has also testified as an expert witness before the Maine, New Hampshire, and Vermont commissions.

Chuck was the project manager for Liberty's audit involving extensive field reviews of customer installations by Verizon for the New York Public Service Commission. He also managed a review, for the Pennsylvania PUC, of customer-affecting field work. He examined Verizon's reported progress in implementing its Network Modernization Plan including extensive site visits to inspect Verizon facilities. Chuck was project manager for Liberty's audits of Verizon's service quality measurements and performance assurance plans in the District of Columbia, Maryland, Virginia, and West Virginia. He managed similar projects for the service quality measurements and performance assurance plans of BellSouth for the Florida commission and of Qwest for the fourteen state utility commissions in Qwest's territory. He also served as the project manager for a thorough review of the Qwest performance assurance plans for eleven state commissions.

Prior to joining Liberty, Chuck was employed by BearingPoint (formerly KPMG Consulting) and was heavily involved with BearingPoint's third-party evaluations of various Bell Operating Companies' capability to provide access to Operation Support Systems (OSS) for CLECs as part of these companies' applications for Section 271 authorization to provide interexchange service. This work included engagement or project management of many of these evaluations. Prior to joining BearingPoint, Chuck was employed by AT&T, where he had extensive experience with telecommunications pricing, price cap regulation, regulated financial matters, and access issues.

Dr. King holds a Ph. D. in physics from Yale University, a M. Phil. in Physics from Yale University, and a B.A., Physics from Northwestern University.

7. Christine Kozlosky

Lead Consultant for Natural Gas Program and Project Planning and Management; Support Consultant for Capital and O&M Budgeting, Work Management, and Performance and Results Measurement

Ms. Kozlosky has worked with Liberty on 13 projects over a period of more than 15 years. On this engagement, Chris would be leading Liberty's review of Natural Gas Program and Project Planning and Management. Ms. Kozlosky has extensive experience in assessing key elements of the planning and execution of LDC operations activities. As part of various management audits and company-initiated improvement efforts, Ms. Kozlosky has reviewed operations functions and processes of gas, electric, water, and telephone companies, including AT&T, Exelon, Verizon, Entergy, Yankee Gas, Washington Gas Light, Jacksonville Electric Authority, Nashville Electric Service, and FirstEnergy. Most recently she examined gas operation issues for Liberty at several natural gas utilities, including Elizabethtown Gas, New Jersey Natural, and South Jersey Gas.

As part of other Liberty engagements, she also recently conducted a management review of outage communications at Ameren Illinois for the Illinois Commerce Commission and at Nova Scotia Power for the Utility and Review Board of Nova Scotia.

Chris also has extensive experience in competitive, functional, and process-based benchmarking, both inter-company and multi-company performance comparisons. Her experience in this area includes the design and development of a multi-level performance measurement framework for customer service functions, including customer relations, customer call center operations, credit, collection, billing, remittance processing, field services, meter reading, meter services, front office operations, and customer satisfaction measurement. She has extensively benchmarked the credit and collections functions of hundreds of utilities and non-utilities.

Chris has a B.S. in Information & Computer Science from Georgia Institute of Technology.

8. Albert Yu

Lead Consultant for Work Management and Support Consultant for Performance and Results Measurement

Al Yu has more than 30 years of experience in utility cost management more generally, and in workforce management specifically. Al has served in key management positions with a large utility and two major construction firms where he specialized in all elements of cost management associated with capital projects, large-scale O&M programs, continuing maintenance work and outage management. Al served as Lead Consultant for Work Management during Liberty's audit of Con Edison for the New York Public Service Commission. Al is supporting Liberty's review of organization and service agreement issues in Liberty's examination of National Grid U.S. affiliate relationships and transactions. Al recently led Liberty's Cost Performance analysis for Liberty's ten-year benchmarking study of Arizona Public Service which was performed for the Staff of the Arizona Corporation Commission.

Al's most recent work for Liberty includes:

- NorthWestern Energy – Al served as Lead Consultant for Project and Cost Management on Liberty's project for NorthWestern Energy to formulate long-range integrated infrastructure plans for its multi-state electric and natural gas distribution utilities. This project includes consideration of how to incorporate "Smart Grid" technology into infrastructure plans in a manner that will enable the Company to roll out new capabilities and services as technology makes them available, without undue acceleration of capital spending as uncertainties in this new marketplace become resolved.
- Potomac Edison Distribution System Transfer - For the Virginia State Corporation Staff, Liberty examined the public interest questions associated with the transfer by Allegheny Energy's utility operating subsidiary (Potomac Electric) of all of its electricity distribution operations business and facilities in Virginia to two rural electric cooperatives. This engagement included a review of infrastructure plans, performance, and costs, comparing them between those likely under continued utility ownership versus cooperative ownership.

Al Yu's most recent experience has included more than 10 years in the management of physical work for T&D projects. In this capacity, he had "cradle-to-grave" responsibility for execution costs, including estimates, budgets, standard productivity rates, cost collection, cost analysis, reporting and corrective action for cost deviations.

Al is a leader in his field as demonstrated by his key role in the industry's Electric Utility Cost Group (EUCG), serving as Treasurer and a member of the Board. As the only utility-sponsored benchmarking organization, EUCG provides utilities with a wealth of credible cost data that is simply not available anywhere else. Mr. Yu was responsible for development of several of the most important EUCG data bases, including the nuclear O&M and nuclear retrofit programs. He also contributed to the development of the EUCG T&D program.

As a Certified Cost Engineer, Mr. Yu has been recognized by his peers as a practitioner of the highest caliber. Certification demonstrates a high skill level and a three year recertification cycle requires continuing education, self-improvement and contributions to the profession.

Al has a B.S. degree in Electrical Engineering and is a Registered Professional Engineer in New York.

9. David Berger

Support Consultant for Natural Gas Program and Project Planning

Mr. Berger specializes in gas-infrastructure asset management, gas system operation, pipeline and system integrity management and security corrosion control. Dave has had the lead role in examining gas operations in two of the directly relevant examinations Liberty has completed in the past several months or is now completing for other public service commissions: AGLR/ETG for the New Jersey BPU and Con Edison for the New York Public Service Commission. David served as Division Manager at KeySpan Energy, a large urban-suburban local gas distribution company (LDC). At KeySpan Energy, he managed programs in pipeline integrity (transmission system), system integrity (now known as distribution integrity), gas-metering operations,

pressure regulation and gate stations, and corrosion control. While working in industry, Mr. Berger was the American Gas Association (AGA) representative on the joint industry-government task group that assisted the United States Department of Transportation (USDOT) in preparing the gas-transmission integrity-management rule. He was involved in writing the ECDA and ICDA industry standards through NACE (National Association of Corrosion Engineers) and GTI (Gas Technology Institute). He was also selected to be on a USDOT advisory panel for targeting federal grants to integrity and corrosion control research and development projects. Lastly, he was Chairman of the AGA Integrity Task Force and the AGA Corrosion Control Committee for several years in the early 2000s and was named Distribution Engineer of the Year 2002.

David has a lead role in Liberty's current examination for the Illinois Commerce Commission of the pipeline infrastructure of Peoples Gas, the LDC serving the Chicago metropolitan area. He is the author and instructor at Transportation and Safety Institute (TSI) on training modules for a number of areas involving pipeline integrity. In addition to his teaching assignment for the USDOT Pipeline and Hazardous Material Safety Administration (PHMSA), he assists in audits of interstate pipeline for integrity management (IM) under the recently passed transmission IM regulations.

David received a B.S. Ch.E. in Chemical Engineering from New York University, and has completed 32+ credits of course work toward an M.S. in Environmental Engineering from the University of Delaware, and is a Registered Professional Engineer in New York.

10. Larry Nunnery

Lead Consultant for Electricity Program and Project Planning; Support Consultant for Management, Budgeting, Work Management, and Performance and Results Measurement

Larry Nunnery has over 30 years of professional experience in the electric utility industry specializing in distribution engineering. Larry served as the lead on electricity distribution planning, budgeting, construction, and program management in Liberty's management and operations audit of Con Edison for the New York Public Service Commission. He has also conducted distribution system line inspections and evaluated distribution engineering standards in Liberty's review for the Illinois Commerce Commission of the infrastructure of the Ameren Illinois Companies. Larry served as Lead Consultant for Liberty's review of Program and Project Management – Electric during its audit of Con Edison. Larry Nunnery is serving as a lead consultant on the Liberty team that is examining cost allocation methods, time reporting, transaction testing issues in Liberty's examination of National Grid U.S. affiliate relationships and transactions. He is concentrating on service company transactions in electricity design, construction, procurement, contractor management, and operations.

Larry's other recent work for Liberty includes:

- NorthWestern Energy – Larry served as lead consultant for Electric Distribution Infrastructure Improvement for a project Liberty is performing for NorthWestern Energy to formulate long-range integrated infrastructure plans for its multi-state electric and natural gas distribution utilities. This project includes consideration of how to incorporate "Smart Grid" technology into infrastructure plans in a manner that will enable the

Company to roll out new capabilities and services as technology makes them available, without undue acceleration of capital spending as uncertainties in this new marketplace become resolved.

- Potomac Edison Distribution System Transfer - For the Virginia State Corporation Staff, Liberty examined the public interest questions associated with the transfer by an Allegheny Energy's utility operating subsidiary (Potomac Electric) of all of its electricity distribution operations business and facilities in Virginia to two rural electric cooperatives. This engagement included a review of infrastructure plans, performance, and costs, comparing them between those likely under continued utility ownership versus cooperative ownership. The engagement encompassed a similar comparative review of wholesale power supply (currently provided entirely through market purchases and to be supplied through a combination of owned/operated Old Dominion Electric Cooperative units and market purchases).

As a consultant, Larry wrote distribution engineering training course modules for one electric utility and a training course on the National Electrical Safety Code for another. For Progress Energy in Raleigh, NC, Larry worked in the distribution standards group and retired as a Principal Engineer. He led a team of engineers responsible for distribution material specifications, distribution construction standards, and distribution manuals. The scope of his distribution system responsibility included both the Florida and Carolinas service areas with about three million customers. In earlier experience with Progress Energy, Larry worked in local district offices in various roles. He served as Area Distribution Manager with responsibility for line and service and engineering personnel. He also worked in a division office as a Division Engineering Supervisor.

Larry holds a B.S. in Electrical Engineering with honors and a B.S. in Civil Engineering from North Carolina State University. He is a Registered Professional Engineer in North Carolina and South Carolina.

11. Giulio Freda

Support Consultant for Corporate Planning (Affiliates)

Giulio Freda has over 25 years of senior level accounting and finance experience, with expertise in accounting and finance, regulatory affairs, analysis and project management. He has held senior finance positions in a number of major telecommunications carriers throughout the United States, including both local exchange and interexchange carriers. He served as controller for a multi-state utility telecommunications provider. During his career, Mr. Freda has been involved with a wide variety of activities involving financial and accounting operations. These include cost allocation methods; affiliate agreements; financial planning and analysis; evaluations of mergers, acquisitions, and property sales; cost study evaluations; analyzing and crafting inter-company compensation arrangements. Mr. Freda is a Certified Public Accountant in the state of Ohio.

Among his projects for Liberty, Giulio served as lead consultant for examining cost allocations and accounting and property records in the focused audit of Elizabethtown Gas Company/AGLR (performed for the New Jersey Board of Public Utilities) and for the review of Delmarva cost

allocations for the Delaware Public Service Commission. Giulio also served as lead consultant for Liberty's second review of Duke Energy Carolinas' affiliate relationships and cost allocation methods for the North Carolina Public Utilities Commission. Giulio Freda is serving as a lead consultant on the Liberty team that is examining cost allocation methods, time reporting, and transaction testing issues in Liberty's examination of National Grid U.S. affiliate relationships and transactions. He is Liberty's lead in addressing accounting and control issues and he is testing calculations of cost elements (e.g., labor cost overheads and burdens) that apply across all or most functions provided centrally.

He also was a member of Liberty's team specializing in accounting and accounting systems in support of the New Hampshire Public Utilities Commission Staff in its review of the sale of Verizon's business in northern New England to FairPoint Communications. Subsequently he was part of the Liberty team monitoring for the Maine, New Hampshire, and Vermont regulators the cutover of operations from Verizon to FairPoint; responsible for monitoring financial, supply chain, and human resources systems. Mr. Freda was also the lead team member responsible for financial records and accounting methods in Liberty's audit of Verizon's reported progress in implementing its network modernization plan in Pennsylvania.

Prior to his work with Liberty, Mr. Freda held a number of financial management positions with telecommunications carriers, including controller, and director of financial planning and analysis, among others. He also participated in a major project to develop financial and regulatory support systems for a new telecommunications carrier in Hawaii.

Giulio holds a B.B.A. in Accounting from Cleveland State University and an M.S. in Business Ed. from University of Central Arkansas.

12. Robert Falcone

Support Consultant for Corporate Planning (Affiliates)

Robert Falcone is serving as a lead consultant on the Liberty team that is examining cost allocation methods, time reporting, and transaction testing issues in Liberty's examination of National Grid U.S. affiliate relationships and transactions. He is coordinating efforts to assure the development of a comprehensive list of test items that cover a sufficient breadth of transaction types, and is examining cost elements that affect multiple functions from among those provided centrally. Bob supported Liberty's review of cost allocation methods, time reporting, and transaction testing issues in Liberty's audit of Duke Energy Carolinas.

Mr. Falcone will draw on his 40 years of broad experience in operations, engineering and regulatory affairs to analyze the appropriateness of the source data used for the metric results, the gathering and storage of this data and the application of the business rules to the data to calculate the results. Mr. Falcone was a lead consultant on Liberty's performance measure and incentive plan audits of Verizon-New Jersey, of BellSouth for the Florida commission and of Qwest for the 14 state utility commissions in Qwest's territory. He was also a major contributor to Liberty's work analyzing the transfer of assets from Verizon to FairPoint for the New Hampshire Commission and was a lead in monitoring FairPoint's OSS cutover for Maine, New Hampshire, and Vermont commissions. This work has allowed him to develop an intimate knowledge of

FairPoint's systems, operations, and personnel. For BearingPoint, Mr. Falcone played a key role in its OSS testing in the Qwest states and was part of the team in the OSS tests in New York, Pennsylvania, New Jersey, Virginia, Florida and the five former Ameritech states.

Bob has a B.S. in Business Administration from Adelphi University.

13. Virginia Lowe

Bilbao Interface Team

Virginia has been a Liberty consultant for some twenty years. She worked on many projects before turning to the management of Liberty's operations. Her Liberty consulting work focused on consulting project administration, and her substantive work has included reviews of major construction projects, legal services, customer service, human resources, and board of director oversight issues. Her prior engagements include Liberty's past audits of NYSE&G and Central Hudson for the New York Commission. She has for the past three years served as our chief administrative officer. She is a licensed attorney in the Commonwealth of Pennsylvania, and has served Pennsylvania Power & Light Company (now PPL) as a corporate attorney.

Ginger graduated with a bachelor's degree, majoring in Spanish and International Studies from the Miami University of Ohio, and a J.D. from the Temple University School of Law. She taught English in Spain and Colombia. She has also traveled extensively in Spain, Portugal, and Latin America.

14. Michael Antonuk

Senior Analyst

Michael Antonuk specializes in energy and telecommunications data system analysis and research and project management. On Liberty's recent audit of Con Edison, Michael served as Project Coordinator and Senior Analyst. Michael served on the Liberty team that performed for the Illinois Commerce Commission a massive, detailed, multi-year evaluation of the T&D capital and O&M planning, budgeting, and expenditures of the electric utility serving the Chicago metropolitan region (Commonwealth Edison, a part of Exelon). Michael Antonuk is providing analytical support in Liberty's examination of National Grid U.S. affiliate relationships and transactions.

Michael has most recently served as Senior Analyst on the following Liberty audits:

- Arizona Public Service Benchmarking Study
- Duke Energy Affiliates Audits
- Delmarva Affiliates Audit
- Arizona Electric Power Cooperative
- Southwestern Transmission Cooperative
- Southwestern Public Service Company
- EKPC Governance, Planning, Finance, and Budgeting
- Potomac Edison Distribution System Transfer,

He has also served as Project Coordinator and Senior Analyst for Liberty's review of procurement activities at Arizona Public Service, Nova Scotia Power, New Jersey Natural Gas,

South Jersey Gas, Elizabethtown Gas, People's Energy, and Virginia Natural Gas. These audits involved extensive reviews of natural gas sales and purchases conducted by both regulated and non-regulated entities and the controls systems related to these transactions. Michael has participated in over 50 Liberty engagements in the gas, electric, water, and telecommunications sectors, assisting in reviews of affiliate relationships, fuel procurement, EDECA, executive compensation, and utility finance issues.

Michael holds a B.A. in finance from Lehigh University, and his work location is in Hoboken, NJ.

E. Consultant Assignment Matrix

Liberty's proposed Consultant Assignment Matrix can be found on the next page.

F. Absence of Conflict of Interest

Neither Liberty nor any of its employees, nor any team member for this project has any conflict or appearance of conflict as contemplated by "The Guide."

G. Matrix of Team History

Consultant	Con Edison	National Grid	NorthWestern Energy	AGLR & Elizabethtown Gas	Arizona Public Service
<i>Type of Audit</i>	<i>Management and Operations Audit</i>	<i>Affiliate Relationships and Transactions</i>	<i>Management and Operations Audit</i>	<i>Management and Operations Audit</i>	<i>Benchmarking Study</i>
J. Antonuk	Project Director and Task Area Leader (Supply Procurement, Corporate Planning, Budgeting, Performance Results Management)	Project Director and Task Area Lead (Efforts in all of the audit’s areas; particular focus on Cost Allocation Methods, Expatriate Costs, Detailed Transaction Testing)	Project Director and Lead Consultant	Project Manager and Lead Consultant (Executive Management and Corporate Governance, Affiliate Relationships, Human Resources, Planning)	Project Director
R. Mazzini	Assistant Project Manager and Task Area Leader (System Planning, Forecasting, Work Management, Program and Project Planning and Management)	Assistant Project Manager to Control Cost and Schedule, Lead Consultant (Organization, Service Agreement Issues)	Assistant Project Manager to Control Cost and Schedule and Lead Consultant (Distribution Infrastructure Improvement – Gas and Electric)		Assistant Project Manager and Lead Consultant (Operations Performance)

R. Vickroy	Lead Consultant for Supply Procurement (Electric) and Capital and O&M Budgeting)	Lead Consultant (Costs Systems, Financial Issues), Support Consultant (Expatriate Costs)		Lead Consultant (Finance, Cash Management), Support Consultant (Planning)	Lead Consultant (Financial Performance)
P. Teumim	Lead Consultant (Corporate Planning, Performance Results Measurement)	Lead Consultant (Expatriate Costs)	Lead Consultant (Distribution Infrastructure Improvement – Gas)	Lead Consultant (Market Conditions)	Lead Consultant (Affiliates Expenses)
C. Kozlosky		Consultant		Lead Consultant (Customer Service, Contractor Performance, System Operations and Maintenance)	
A. Yu	Lead Consultant (Work Management)	Support Consultant (Organization and Service Agreement Issues)	Lead Consultant (Project and Cost Management)		Lead Consultant (Cost Performance)
D. Berger	Lead Consultant (Program and Project Planning and Management - Gas), Support Consultant (Capital/O&M Budgeting, Work Management)			Lead Consultant (System Operations and Maintenance)	

L. Nunnery	Support Consultant (Program and Project Planning and Management – Electric, Capital and O&M Budgeting, Work Management)	Support Consultant (Cost Allocation Methods, Detailed Transaction Testing – Service Company Transactions in Electricity Design, Construction, Procurement, Contractor Management, Operations)	Lead Consultant (Distribution Infrastructure Improvement – Electric)		
C. King		Lead Consultant (Managing the team responsible for: Cost Allocation Methods, Time Reporting, Detailed Transaction Testing)		Lead Consultant (Support Services, EDECA), Support Consultant (Affiliate Relationships, Cost Allocations)	
G. Freda		Lead Consultant (Accounting and Controls Issues, Cost Allocation Methods, Time Reporting, Detailed Transaction Testing)		Support Consultant (Affiliate Relationships, Cost Allocations)	

R. Falcone		Support Consultant (Cost Allocation Methods, Detailed Transaction Testing)			
M. Antonuk	Senior Analyst & Project Coordinator	Senior Analyst	Senior Analyst	Senior Analyst & Project Coordinator	Senior Analyst

VI. Schedules and Budgets

The project schedule follows later in this section. The page following that sets forth the project cost estimate. The estimate separates for estimating purposes the costs of professional services, travel expenses and other expenses (primarily support services and copying). At present, Liberty does not have a basis for separating individual time between discovery and analysis as illustrated in Exhibit 2 of The Guide.

Liberty offers to perform the services described in this proposal for a not-to-exceed project cost of **\$1,543,425**, inclusive of all expenses associated with the creation of the deliverable, including travel and incidentals. This not-to-exceed cost includes a price reduction that Liberty offers the Commission of \$50,000 from the costs generated by Liberty's estimates of audit fees and expenses. This not-to-exceed cost includes the production of all draft reports, and 10 hard copies of the final report. If Liberty is required to provide additional printed final copies, it will do so under separate cost reimbursement.

Liberty will bill for services at the billing rates per day shown in the following cost estimate. In addition to these audit fees, expenses are also separated and shown in the cost estimate. Team members will charge time by the hour, rather than by the day; therefore, invoices will show (by individual) hours worked, with each hour charged at 1/8th the daily rate. For any day in which an individual works more than 8 hours, the charge for that day shall not exceed the daily rate.

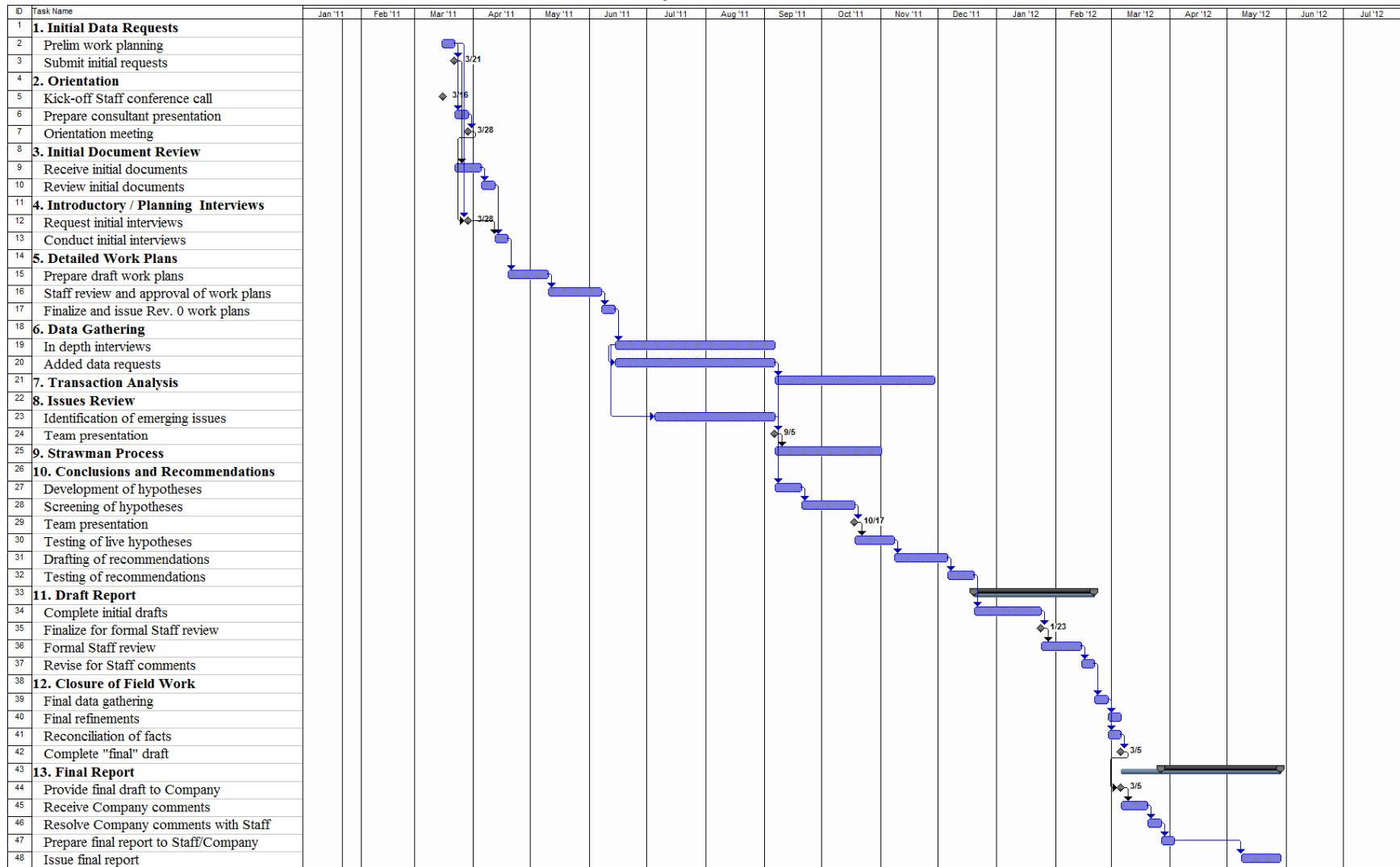
A number of factors in this RFP drive the cost budget somewhat differently than was the case for the ConEd audit (and presumably the Niagara Mohawk and Central Hudson engagements as well). For example, this audit will require an examination of operations spread across nearly the whole of New York, while ConEd and Central Hudson operate in very confined geographic areas. The engagement covers both electric and gas utility operations, while the Niagara Mohawk audit addressed only electric operations. This audit addresses four operations conducted by two legacy utilities. It also includes a review of separate U.S. and European holding companies, located in Maine and Spain, respectively. The RFP also adds emphasis in a number of significant areas, which include:

- Governance
- Common Service Costs (arising from affiliation and a common service company)
- Consolidation of New York Operations and Rates
- Wholesale Market Issues
- Plans and Strategies for Acquisitions and Divestitures
- Compliance with Merger Order Financial Insulation Requirements
- Vegetation Management.

Liberty's work plans uniquely and specifically address all of these factors. They also respond directly and meaningfully to the language and business cultural imperatives that the RFP correctly notes as material to successful audit performance. Accordingly, when considering the added issues, operations characteristics, and complexity of IBE/IUSA/NYSE&G/RG&E, Liberty's cost proposal is very competitive. It provides for the commitment of resources necessary to get to the bottom of the issues that the RFP lists and emphasizes, and it does so

under the direction of a very strong and senior team whose experience working together will assure the kinds of results that will drive constructive meaningful change for the benefit of New York customers.

Preliminary Audit Schedule



Audit Costs

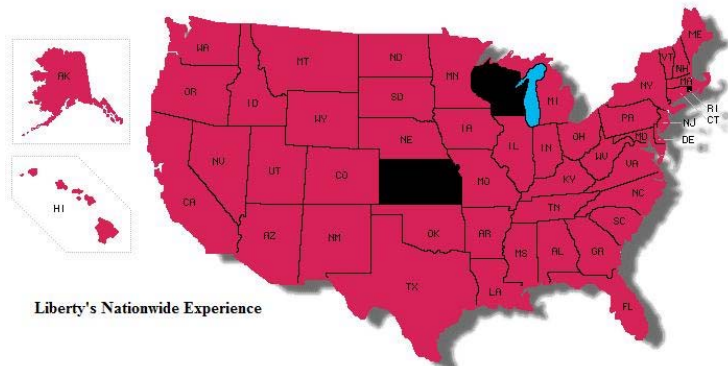
Task Area	J. Antomak	R. Mazzini	R. Vickroy	P. Teumin	H. Axelrod	C. Kozlosky	A. Yu	D. Berger	L. Nunnery	C. King	G. Freda	R. Falcone	V. Lowe	M. Antomak	Total
I. Orientation	6	8	5	4	5	4	2	2	4	3	1	1	1	2	48
II. Technical Review															
1. Corporate Planning	44	6	6										8		64
1. a. Affiliates Review	15									30	22	20			87
2. Load Forecasting		2		15	20										37
3. Wholesale Markets		2	4		30										36
4. System Planning															
a. Electricity		3			40										43
b. Natural Gas		2		20											22
5. Supply Procurement															
a. Electricity		1	30		2										33
b. Natural Gas		1		18											19
6. Budgeting	2	2	40			2			2						48
7. Program & Project Planning & Management															
a. Electricity		10							58						68
b. Natural Gas		2				20		20							42
8. Work Management		5				4	32		4						45
9. Performance and Results Measurement	16	4	8			2	6		4						40
Sub-total	83	48	93	57	97	32	40	22	72	33	23	21	9	2	632
III. Report Preparation	5	10	3	3	3	3	1	1	3	4				2	38
IV. Project Management	7	26													33
V. Analytical Support														60	60
<i>Total Days</i>	95	84	96	60	100	35	41	23	75	37	23	21	9	64	763
Cost Information															
Billing Rate \$/Day	\$2,200	\$2,000	\$1,855	\$1,855	\$1,895	\$1,855	\$1,855	\$1,855	\$1,855	\$1,855	\$1,855	\$1,855	\$1,600	\$1,080	
Total Fees	\$209,000	\$168,000	\$178,080	\$111,300	\$189,500	\$64,925	\$76,055	\$42,665	\$139,125	\$68,635	\$42,665	\$38,955	\$14,400	\$69,120	
Total Consulting Fees	\$1,412,425														
Travel Expenses	\$130,000														
Bilbao Support Team	\$35,000														
Other Expenses	\$16,000														
Total Expenses	\$181,000														
Total Cost (Before Liberty Reduction)	\$1,593,425														

As previously discussed, per the hours and expenses budgeted by Liberty, the total audit cost generated is \$1,593,425. Liberty however is proposing a \$50,000 reduction to that final cost number; therefore our not-to-exceed cost figure is **\$1,543,425**.

VII. Qualifications

A. Nationwide, Multi-Decade Service to Utility Regulators

Liberty has performed comprehensive and focused management audits, fuel and energy procurement and management audits, reviews of corporate governance in utility holding company structures, focused reviews of construction program expenditures and results, and reliability assessments, and other consulting engagements for over two-thirds of the country's state public service commissions, which the table below lists.² Liberty has performed or is performing many projects for U.S. regulators, and has conducted management, operations, and affiliate reviews for utility authorities in Canada and in Central America.



Liberty's North American Utility Regulatory Clients

Alberta	Idaho	Nebraska	Ontario
Arizona	Illinois	New Hampshire	Oregon
Arkansas	Indiana	New Jersey	Pennsylvania
Colorado	Iowa	New Mexico	South Dakota
Connecticut	Kentucky	New York	Tennessee
Delaware	Maine	North Carolina	Utah
District of Columbia	Maryland	North Dakota	Vermont
Florida	Minnesota	Nova Scotia	Virginia
Georgia	Mississippi	Ohio	Washington
Hawaii	Montana	Oklahoma	Wyoming

A testament to the strength of Liberty's performance is the number of commissions that asked the firm back to perform repeat engagements, sometimes in circumstances or on subject areas far different and more challenging than those under which Liberty first served them. The unifying attribute of Liberty's work for commissions in its long service to them is the ability to help them to deal with the especially difficult regulatory challenges that take place when regulatory policy intersects with complicated operations requirements. Liberty does its best work in managing the "traffic" that flows through these crossroads. Dealing with highly technical or controversial management or operations issues that fall out from important changes in regulatory policy or major unforeseen events have characterized Liberty's work for commissions. Appendix B contains Liberty's project list.

² These other projects include evaluating restructuring proposals and impacts, affiliate examinations, assessments of utility financial separation and integrity, merger and acquisition reviews, revenue requirements analysis, among others.

B. Utility Industry Experience

Liberty's understanding of the utility business comes from much more than its work for commissions, although that work has been very extensive in its own right. Most of Liberty's senior consultants developed significant experience as utility managers before beginning their consulting careers. Moreover, Liberty has performed many engagements for more than 40 electric and gas public utilities across the country. These engagements included a wide variety of management, technical, operating, finance and accounting, and other subjects. Liberty's work specifically includes examinations of electric and gas reliability, customer service, affiliates, and many assessments of a broad range of electric and gas operations issues. Appendix B also lists Liberty's industry engagements.

C. Directly Relevant Projects

1. Management and Operations Audits

Liberty is a national leader in the performance of management and operations audits of public utilities, predominantly in the electricity and natural gas industries. These projects routinely include an examination of customer service, and Ms. Kozlosky, who will lead the review here, has been addressing this component of Liberty's management and operations work for many years.

Liberty has performed over 20 such reviews at energy utilities across a period of over 20 years. Liberty has performed management and operations audits of electricity utilities, including investor-owned, cooperative, municipal, and statewide authority entities. The following table lists many of Liberty's prior management audits.

Alabama Electric Coop G&T	East Ky. Coop. (G&T)	So. Connecticut Gas
AGLR/Elizabethtown Gas	NJR/New Jersey Natural Gas	SJI/South Jersey Gas
Arkansas Western Gas	NYSEG	United Cities Gas
Central Hudson G&E	NY Power Authority	West Penn Power
Connecticut Natural Gas	NU/Public Service NH	Yankee Gas
Consolidated Edison of NY	NorthWestern Energy	A major municipal elect. utility
Dayton Power & Light	NUI/Elizabethtown Gas	Bell Atlantic

In addition to the audits summarized in the table, Liberty has performed the following recent Management and Operations Audits, discussed below in detail.

a. Con Edison Management and Operations Audit

Liberty performed a management and operations audit of Consolidated Edison Company of New York for the New York Public Service Commission. This audit came in response to a commission request for detailed analysis of the forces and factors producing what has become for the company a greater than \$2 billion annual construction budget, as it strives to address aging infrastructure in the country's most densely populated metropolitan area. Construction program planning and execution for the company's three utility businesses (electricity, natural gas, and steam) formed a major focus of this audit. Liberty also examined governance, planning, budgeting, work force management, contractor management, field procurement and fleet management, performance measurement, and compensation. Other focus areas included the procurement of electricity capacity, energy, and ancillary services (including hedging), and the development and management of a natural gas supply, transportation, storage, and hedging portfolio, the procurement of natural gas commodity, and the maximization of portfolio value (through, *e.g.*, off-system sales and capacity releases).

Liberty recommended and performed an audit that examined the Commission's established focus areas as elements in a cycle of inter-related functions and activities that combined to drive the utility's expenditures. This audit was also notable for its experimental approach seeking to build consensus among utility, commission, and Liberty about the most significant findings and conclusions (and particularly recommendations to address improvement needs found) while audit field work remained underway.

b. NorthWestern Energy

Even more recently, Liberty has for some time been assisting NorthWestern Energy in the ongoing development of a major, long-term infrastructure improvement plan. That work includes participation in a broadly-based stakeholder group, which has been engaged with NorthWestern in a many-month process of sharing ideas about service objectives, capital and O&M programs, Smart Grid development, costs of alternative future program, and future ratemaking alternatives.³ Liberty's work includes assistance in identifying, prioritizing, planning, budgeting, and subjecting to project management and performance measurement systems major infrastructure improvement needs affecting both electricity and natural gas delivery networks. The engagement includes an overall assessment of U.S. infrastructure (energy and non-energy) declines, major governmental support initiatives for infrastructure improvement, Smart Grid opportunities and risks, novel utility/regulator plans for participatory infrastructure planning and cost recovery methods, the merging of urban and rural service expectations, the particular difficulties in maintaining rural reliability in normal and transient conditions, and other issues surrounding the full integration of capital and O&M planning across both short and very long horizons.

c. AGLR/ETG Affiliates and Management Audit

Liberty completed a management and operations audit of AGLR/Elizabethtown Gas. This is the third such audit Liberty has performed of New Jersey natural gas LDCs for the Board of Public Utilities. Its scope included, among other issues, reviews of organization structure; risk

³ See <http://www.northwesternenergy.com/documents/isg/Sept-09/rowepresentation9-24-09.pdf> for a brief description of the process being supported by Liberty.

management; utility focus within a holding company structure; transactions between the utility and affiliates; performance of centralized services by the corporate entity; resource numbers and qualifications; and procedures, policies, systems, practices, and activities associated with the planning, execution, and details of energy purchases and sales and of corporate and infrastructure planning, budgeting, performance measurement, compensation, system construction, operations, maintenance, and customer service.

2. Commonwealth Edison Capital and O&M Spending Audit

Liberty performed an audit of Commonwealth Edison's (ComEd's) capital and O&M expenses across a multi-year period in order to determine the impacts from the Company's massive responses to the consequences of a series of significant outages. Liberty's audit sought to determine whether ComEd's revenue requirement elements, *i.e.*, operating expenses or rate base, reflected any atypical, abnormal, or unreasonable costs that arose from the commitments that the company had made following the outages. Liberty investigated and analyzed ComEd's capital and O&M planning, budgeting, scheduling, program and project management, performance measurement, use of contractors, and management of internal resources.

3. Electric Systems Operations and Reliability

Liberty has performed many focused reviews of electric system reliability within the past five years. Both commissions and utilities have taken advantage of Liberty's expertise in examining system planning, design, dispatch, maintenance, and operations in an effort to improve service reliability and to identify the causes of persistent problems or major outages. Liberty's prior work includes a six-year program of work, during which Liberty has examined the reliability of Commonwealth Edison. The following table lists the focused examinations that Liberty has performed in the past five years – many of them within the past two. The NorthWestern Energy work preceded the work currently being performed by Liberty there, and it included both electric and gas systems. Multiple listings mean that Liberty performed a number of distinct engagements involving the same utility.

Ameren Illinois	Consolidated Edison	Public Service NH
Commonwealth Edison	Bangor Hydro	Nova Scotia Power
Commonwealth Edison	Central Maine Power	NorthWestern Energy
Commonwealth Edison	Eastern Maine Elec. Coop.	Alabama Power
Commonwealth Edison	Maine Public Service Co.	Georgia Power

More detailed explanations of these engagements follow. The Commonwealth Edison and Ameren work related to emergency preparedness and response involved a specially identified focus area of the broader systems operations and reliability work addressed below.

a. Ameren Illinois

Liberty performed an assessment of whether three different Ameren Illinois utilities:

- Appropriately planned, designed, constructed, inspected, and maintained their electric delivery systems.

- Adequately planned, prepared, and executed storm-service restoration efforts following a July 2006 windstorm and a November 2006 ice storm that affected hundreds of thousands of customers.

The windstorm caused service interruptions to almost one million customers in St. Louis and parts of southern and central Illinois. Over 300,000 electric customers lost service in Illinois. Restoring service completely took over a week. The winter storm caused nearly 235,000 Ameren Illinois customers to lose electric service and caused extensive tree damage, broken poles, downed lines, and the loss of nearly 100 distribution feeder circuits.

Liberty's review of Ameren was also extremely comprehensive. Liberty provided a comprehensive written report providing separate findings and recommendations for each of the three utilities. The report included the investigations' conclusions, an evaluation against each of the two major criteria noted above, and detailed recommendations for improvement that each utility can implement. Liberty is now engaged in providing quarterly verifications (for a period of up to three years), against specific implementation plans and schedules, that each utility has implemented the recommendations and any initiatives each utility may plan to undertake.

Liberty's comprehensive written report addressed the following requirements that the Commission established for the engagement:

- One: Storm Description and Analysis
 - Complete and factual description of the July and November/December storms
 - The provision of data and information related to the amount of ice/snow on lines and structures, wind velocities, broken poles, other equipment damage, and company information on the effects of the storm
 - An evaluation of the accuracy of the companies' service interruption information
- Two: T&D Planning, Design, Protection, and Construction
 - Reports on: (1) the companies' planning, design, and construction of transmission, distribution, and substation facilities in general, and (2) any aspect of T&D planning, design, or construction that contributed to the ill effects of the 2006 storms
 - Evaluation of T&D lightning and animal protection systems and practices
 - Evaluation of T&D line and substation fault protection designs
 - Review of engineering resources available to perform planning, design, and construction tasks; a determination of the degree of engineering centralization and differences in engineering practices among the utilities
 - Assessment of the design criteria for physical loading on structures and overhead lines, including a determination of whether: (1) the loadings created by the 2006 storms exceeded the design criteria and (2) the storm damage caused by physical loadings in excess of design criteria
 - Review of T&D equipment ratings
- Three: Maintenance, Inspection, and System Conditions
 - Evaluation of the companies' T&D line, pole, substation, and relay maintenance and replacement programs, practices, and results
 - Evaluation of the companies' T&D line, pole, and substation inspection programs, practices, and results

- Appraisal of the vegetation management program and practices
- Root the causes of T&D line and substation outages
- Assessment of T&D and substation system conditions
- Review of the companies' work forces
- Assessment of the degree to which maintenance and inspection practices and system conditions contributed to the effects of the 2006 storms
- Four: Emergency Planning
 - Assessment of the companies' emergency plans and storm preparations, including the companies' training and drill procedures for emergency response
 - Review of the companies' practices related to weather and load monitoring and pre-event mobilization and communications
 - Examination of the following topics:

General Information	Administration/Resources	Recovery
Planning Process	Testing the Dry Run	Protection
Employee Services	Hazard Analysis	Disposal
Restoration Activities	Authority	Transportation
Inventory Control	Organizational Structure	Personnel Support
External Services	Communications	Equipment Maintenance
Customer Services	Emergency Plan	Procurement
Customer Types	Discharge Control	Documentation
Auditing & Accounting	Assessment	Capability Assessment
Environmental Response	Containment	Facilities
Pre-Event Activities	Post-Event Activities	Training and Drills
- Five: Restoration Performance
 - Evaluation of the companies' weather and load monitoring activities, event prediction activities, pre-event alert process, mobilization of the emergency response organization, performance of the emergency response centers, performance of field command centers, and the use of outside resources
 - Evaluation of the companies' outage management systems, restoration status monitoring and reporting, and damage assessment
 - Evaluation of the companies' event communications and performance of call centers
 - Evaluation of the performance of the companies' support organizations such as safety, security, logistics, materials, and transportation
 - Evaluation of the companies' field restoration organization, processes, and performance
 - Evaluation of the companies' post-event processes and performance such as ramp-down, clean-up, and post-event critiques.

b. Nova Scotia Power

Liberty performed for the Nova Scotia Utility and Review Board an examination of the transmission system of Nova Scotia Power. The assignment came in the wake of a 100,000-customer, fall 2004 outage that produced pole, tower, and conductor failures that left many without electricity for days. The outage also overwhelmed the utility's call center. Liberty's review examined: (1) system maintenance, inspection, structural design, materials, staffing, and related matters, (2) system planning, operations, system design, lessons learned, and other

matters, and (3) utility communications, call center operations, staffing, outage management system, lessons learned, and related matters.

Liberty's examination included the following subjects:

- System Maintenance and Design
- Field examination of structures to determine general condition
- Field examination of structures to determine failure causes and prevalence of dangerous conditions
- Utility assessments of failure causes
- Pole, tower, hardware, and conductor inspection, maintenance and testing programs
- Inspection records to assess adequacy of dangerous condition identification and response
- Inspection frequency, documentation, quality, and conformity with company procedures and good-utility practice
- Prioritization of corrective maintenance tasks identified by its inspection program and tracking and monitoring of corrective maintenance tasks to completion
- Vegetation management program compared to programs employed by other North American utilities
- Protective relay scheme designs, relay scheme maintenance programs, actual maintenance practices
- Outage event review process
- Process for identifying incoming major storms, precautionary actions, and operator training for major storm events
- Controls for assuring operation of the system according to planning and ratings criteria
- Dispatching of line technicians and materials, construction methods, and the level of staffing of line technicians
- Inventorying of replacement poles, towers, hardware, and conductors
- Emergency supply agreements with suppliers and other utilities
- Pole and tower design criteria, including material and construction specifications
- Process for incorporating lessons learned from prior events
- Transmission System Planning and System Design
- Single-line diagrams, load flow and other data and analysis concerning constraints to electricity flow in the system
- Adequacy of the system to meet contingencies in accordance with applicable system design criteria
- Monitoring program ability to isolate and minimize outage areas
- Adequacy of fault indication devices
- Adequacy of system design criteria and conformance with, coordinating council design and operations criteria
- Load forecasting techniques
- Ratings applied to system components to ensure they are not overstressed
- System models employed and suitability for prediction of system study results
- Operator procedures and capability at the Energy Control Centre during incidents
- Communications and Outage Response
- Call center ability to handle normal and emergency call volumes

- Staffing levels of call center during normal and emergency operation, benchmarked against other North American utilities
- Outage management system capabilities and performance
- Basis for outage notification.

c. Commonwealth Edison

Liberty was engaged from 2000 through 2008 in a very extensive program of work for the Illinois Commerce Commission, for which Liberty has performed a variety of comprehensive investigative, monitoring, and ratemaking assignments associated with the Company’s transmission and distribution reliability. This work began with a 2000 comprehensive examination of events surrounding and responses to a major series of outages experience in Chicago. Liberty undertook as part of this examination a review of transmission and distribution management, operations, and supporting systems and a review of the reliability of Commonwealth Edison’s transmission and distribution systems. These projects have included:

- 2000 Investigation: Comprehensive examination of T&D and supporting management systems and review of the reliability of Commonwealth Edison’s transmission and distribution systems following major outages.
- 2002-2004 Reliability Monitoring: On-site, quarterly monitoring of corrective actions to address T&D management and operations improvement needs, and on-call consulting services to investigate any significant outages.
- 2003 Rate Examination: Investigation of the degree to which outage recovery costs affected test-year expenses as part of unbundled distribution service rate filing by Commonwealth Edison.
- 2004 Review: Detailed review of the performance capabilities of Commonwealth Edison’s transmission system adequacy to prevent system blackouts in the wake of the major 2003 blackout.
- 2005 Investigation: Root cause analysis of major substation fire.

d. Maine’s System Reliability

For the Maine Public Utilities Commission, Liberty examined the reliability of the four largest electric T&D companies in the state of Maine. The areas that Liberty examined generally fell into the following categories:

Budgeting and Expenditures	System Reliability	System Planning	System Design
Equipment Ratings	Inspections	Maintenance	Vegetation Management

e. Southern Services Company

Liberty performed assessments of T&D standards and practices in two separate engagements conducted on behalf of Alabama Power Company and Georgia Power Company. The areas examined included:

System Protection	System Operations	Underground Network
Maintenance	Inspections	Distribution Mapping

f. Montana T&D Reliability

NorthWestern Corporation, which purchased the utility system of Montana Power, provides electricity and natural gas to over 600,000 customers in Montana, South Dakota and Nebraska. The electric system has more than 29,000 miles of transmission and distribution lines and associated facilities serving 299 communities and surrounding rural areas covering two-thirds of Montana, eastern South Dakota, and Yellowstone National Park in Wyoming. The Montana Public Service Commission became concerned about the maintenance of NorthWestern Energy’s transmission and distribution system reliability resulting from financial problems experienced in non-utility operations. The Company selected Liberty because it was a firm recognized to be experienced in the field and having substantial credibility with regulators for candor and objectivity to perform an evaluation of the utility’s overall transmission and distribution systems. Liberty’s review addressed the following subjects:

- Inspection, maintenance, replacement, and upgrading of equipment and overall transmission and distribution system
- System performance compared to other similarly situated utilities
- Collection, analysis, use, and adequacy of system reliability data and indices to evaluate system reliability
- Work priority guidelines and the sufficiency of the resulting expenditures
- Comparison of existing T&D standards and practices with good-utility standards and practices.

Liberty’s examination addressed and produced recommendations in the following specific areas:

Interruption Frequency	Equipment Failures	Vegetation Management
Relays	Substation Maintenance	Pole Maintenance
Inspection Program	Distribution Planning	Cable Failures
Animal Induced Failures	Inspection Schedules	Financial Forecasts
	Staffing	

g. New Hampshire Public Utilities Commission

As part of restructuring efforts, Liberty examined the management and operations of all corporate functions, including transmission and distribution, and performed a detailed analysis of the revenue requirements necessary to assure continuation of safe and reliable delivery service after divestiture of the Company’s generation and power supply portfolio. Liberty completed a follow-up management audit of PSNH. Reliability formed a focus of that engagement.

Many of Liberty’s broader-scope examinations for commissions have included reviews of electric T&D delivery system management, operation, maintenance, and reliability. The following table lists them. Multiple listings mean that Liberty performed a number of distinct engagements for a client involving the same utility.

Client	Utility	Client	Utility
Arizona CC	UniSource/Tucson Electric	New Hampshire PUC	Public Service NH
Alabama Elec. Coop.	Alabama Elec. Coop.	New Hampshire PUC	Public Service NH
Belize Electric	Belize Electric	New York PSC	Central Hudson G&E
Colorado OCC	Public Service of Colorado	New York PSC	NYSEG
Industrial Customer Group	Portland General Electric	Pennsylvania PUC	APS/West Penn
Kentucky PSC	East Ky. Coop. (G&T)		

4. Gas Operation, Systems, and Safety Practices

a. NiSource Maine (Northern Utilities Gas Company)

Liberty conducted for the Maine Public Service Commission a management audit of the company's safety operations and practices, which will produce a report setting forth findings on the adequacy of gas safety management and operations, and making any recommendations appropriate to improving them. This audit came in response to a growing series of problems with NUI's gas safety operations and practices, driven by a series of commission examinations of potential violations of state and federal regulations.

b. Peoples Gas of Chicago

Liberty performed for the Illinois Commerce Commission a review and evaluation of Peoples Gas' overall operations and maintenance activities and its pipeline safety program to determine:

- Compliance with federal and state regulations
- Conformance of those activities and program with industry best practices and best practices determined by the ICC Staff in consultation with Peoples Gas.

Upon the completion of this baseline assessment, Liberty monitored the efforts of Peoples Gas to implement recommendations from our audit. Specific focus areas of the audit include:

- Excavation Damage Prevention
- Corrosion Control
- Management and Maintenance of System Assets
- Operator Qualification
- Construction System Support, Programs, and Records.

c. WGL Gas Pipe Leaks

Liberty served as technical consultant to the District of Columbia PSC as they examined the usage and cost recovery of a hexane injection strategy used by Washington Gas Light. Liberty prepared a report and assisted in the preparation of testimony relating to the:

- Prudence of the hexane injection strategy of Washington Gas Light (WGL) to respond to the effects of massive injections of liquefied natural gas into its distribution system
- Recovery of hexane injection costs
- Planning and recovery of costs associated with a significantly accelerated program for correcting increased leaks associated with the facilities affected by the introduction of LNG
- Safety and cost impacts on the District and its customers.

d. Consolidated Edison

Liberty completed a management and operations audit of Consolidated Edison Company of New York for the New York Public Service Commission. This audit included a review of supply procurement for both electricity and natural gas. Construction program planning and execution for the company's three utility businesses (electricity, natural gas, and steam) also formed a major focus of this audit. Liberty's audit work also emphasized work force management, contractor management, and field procurement and fleet management.

e. Other Examinations of Gas Operation, System, and Safety Practices

Many of Liberty's broader-scope examinations have included reviews of natural gas delivery system management, operation, maintenance, and safety. The following table lists them. Multiple listings mean that Liberty performed a number of distinct engagements for a client involving the same utility.

Central Hudson G&E	NYSEG	United Cities Gas
Connecticut Natural Gas	South Jersey Gas	Dayton Power & Light
Elizabethtown Gas	So. Connecticut Gas	Yankee Gas

5. Energy Procurement – Electric Companies

a. Arizona Public Service Company

Liberty completed an extensive review of fuel procurement and management at Arizona Public Service Company (the state's largest electric utility) for the Arizona Corporation Commission. This audit included reviews of all physical and financial purchases of both gas and electricity, and a review of procurement relationships between the utility and an affiliate. The work also included a review of the fuel and energy adjustment cost recovery, and an evaluation of the mechanism itself and its extensive plan of administration for possible adjustment to conform them to experience in other states and circumstances particular to the utility. Liberty provided expert testimony on the results of the audit (addressing base fuel costs and costs recovered through the clause) and on recommendations for changes to the automatic recovery mechanism.

b. Nova Scotia Power

Liberty completed for the Nova Scotia Utility and Review Board the conduct of an extensive series of stakeholder sessions designed to design the first-ever fuel and energy cost adjustment mechanism for the province's electric utility company. The engagement included the consideration of clauses in other jurisdictions and unique circumstances applicable to the company's fuel and energy costs, and the preparation of detailed clause mechanics and formulas, an extensive plan of administration, report formats (monthly, quarterly, and annual), a procedural schedule for allowing stakeholder input (informal dialogue and hearings) into recovery changes and reconciliation, and other clause administration matters. Liberty witnesses have testified a number of times (in the last four annual rate cases, in which fuel and energy were the primary driver of cost changes) for the staff of the utility regulatory authority on the prudence of fuel and energy costs, base rate amounts to be recovered, the propriety of automatic clause recovery, the design and adoption of a recovery mechanism, and other fuel and energy related subjects in a variety of rate and rate related dockets.

c. Duke Energy of Ohio

Liberty completed a two-phased management/performance audit and financial audit of coal procurement and management of Duke Energy Ohio for the Public Utilities Commission of Ohio (PUCO). The first phase was completed in late 2007 and the second in mid 2009. The overall purpose of each of the audits was to identify and evaluate the Company's policies, procedures and performance for fuel procurement, fuel utilization, purchased power, and capacity purchases, as well as the accounting treatment of all related costs. Central to these audits is examination of coal management, evaluation of coal prices, assessment of environmental compliance and power plant performance.

d. Arizona Electric Power Cooperative

Liberty has just completed for the Staff of the Arizona Corporation Commission an examination of fuel, purchased power, and plant operations policies, activities, and costs of Arizona Electric Power Cooperative, Inc. (AEPCO), based in Benson, Arizona. The objective of Liberty's review was to verify that AEPCO acted prudently and reasonably in assuring cost and operational effectiveness in areas related to fuel and purchased power procurement, and the associated policies, goals and strategies. The project also examined the overall organization and decision making structure. Included was an examination of the fuel adjustment clause, and plant operating availability, equivalent availability, and capacity factors and impacts of any observed declines.

e. Southwestern Public Service Company

Liberty is finalizing an audit for the New Mexico Public Regulation Commission of Southwestern Public Service Company (SPS) that included a management review of the prudence of SPS' transactions under the Renewable Energy Credit tracker as conditionally approved by the Commission and a financial review of both revenues and expenses in order to provide an analysis of any under-recovery or over-recovery. Similarly, Liberty performed an evaluation of SPS' fuel clause process and regulations and a financial audit of fuel clause computation. In addition reviews of purchases of coal, natural gas, oil, and purchased power, power plant operations, line losses, and cost allocation and assignment were also performed.

f. Energy Clause Audits of Electric Companies for the PUCO

Over a period beginning 10 years ago, Liberty has performed many management and performance audit of fuel policies and practices of Ohio electric utilities. Liberty performed these audits for the Public Utilities Commission of Ohio, which oversees fuel and purchased power costs recovered through an automatic adjustment clause. The audits examined whether the companies applied procurement and management practices and policies to assure availability of sufficient supplies of adequate quality to permit efficient operation of generating stations at least cost. The audits examined coal, natural gas, and oil. The audits also sought to determine whether bulk power system dispatch, economy sales, and emergency and reliability transfers were conducted to promote least cost operation. An examination of fuel or power transactions with affiliates also fell within the scope of these audits. Liberty's work also addressed whether plans and activities for compliance with the Clean Air Act Amendments were reasonably designed and cost effective. The Commission has used the reports of these audits in regular Electric Fuel

Clause (EFC) hearings to address the reasonableness and accuracy of recovery from utility customers.

The companies whose management and operations Liberty has examined across its long period of service for the Ohio Commission include:

- American Electric Power
- Cincinnati Gas & Electric
- Cleveland Electric Illuminating
- Monongahela Power
- Ohio Edison
- Ohio Power
- Toledo Edison.

g. Northeast Utilities

Liberty completed an audit of accuracy and prudence of costs that Public Service Company of New Hampshire recovers through its fuel and energy adjustment clause for The New Hampshire Public Utilities Commission. The major focus of this work was on coal contracts and coal management.

h. LIPA Evaluation of Fuel and Purchased Power Cost Adjustment

Liberty was selected by the Long Island Power Authority (“LIPA”) to conduct an independent evaluation of LIPA’s recovery of costs through its Fuel and Purchased Power Cost Adjustment (FPPCA) clause. This evaluation included an examination of:

- The reasonableness of costs recovered
- The accuracy of the costs recovered through the FPPCA clause
- Board authorization of the clause
- Comparison to other clauses.

i. Other Reviews of Electric Utility Solid-Fuel Management

Liberty has also performed for other public utility regulators focused examinations of fuel and energy procurement and sale by electric utilities:

- Kentucky PSC: Focused management audit of all operational and managerial aspects of the fuel procurement functions of Kentucky Utilities, including an examination of the organizational structure and the operational interrelationship of fuel procurement management among affiliates. Fuels involved included coal, natural gas and fuel oil.
- Kentucky PSC: Focused management audit of all operational and managerial aspects of the fuel procurement functions of Louisville Gas & Electric, including an examination of the organizational structure and the operational interrelationship of fuel procurement management among affiliates. Fuels involved included coal, natural gas and fuel oil.
- Nova Scotia UARB: Review, evaluation, and ratemaking adjustments of Nova Scotia’s 2005 fuel and energy costs based on an examination of fuel and energy procurement and management, and a review of the reasonableness of major fuel procurement transactions.
- Nova Scotia UARB: Review, evaluation, and ratemaking adjustments of Nova Scotia’s 2006 fuel and energy costs based on an examination of fuel and energy procurement and management, and a review of the reasonableness of major fuel procurement transactions.

- Nova Scotia UARB: Review, evaluation, and ratemaking adjustments of Nova Scotia's 2007 fuel and energy costs based on an examination of fuel and energy procurement and management, and a review of the reasonableness of major fuel procurement transactions.

In addition to the preceding focused examinations of fuel and energy, Liberty has performed for public service commissions a number of general management and operations audits whose scope included an examination of fuel and energy management by electric utilities. These engagements include:

- New York PSC: Consolidated Edison of New York
- Kentucky PSC: East Kentucky Power Cooperative (Generation and Transmission Cooperative)
- New Hampshire PUC: Northeast Utilities/Public Service Company of New Hampshire
- New York OSC: New York Power Authority
- New York PSC: Central Hudson Gas & Electric
- New York PSC: New York State Electric & Gas
- Pennsylvania PUC: West Penn Power Company

Liberty has also performed a number of fuel and energy purchasing and management engagements for electric public utilities. They include:

- Central Illinois Public Service Company
- East Kentucky Power
- Potomac Electric Power
- Public Service of Colorado
- Alabama Electric Cooperative.

6. Supply Planning and Energy Procurement – Natural Gas Companies

a. Consolidated Edison

Liberty completed a management and operations audit of Consolidated Edison Company of New York for the New York Public Service Commission. This audit included a review of supply procurement for both electricity and natural gas. Construction program planning and execution for the company's three utility businesses (electricity, natural gas, and steam) also formed a major focus of this audit. Liberty's audit work also emphasized work force management, contractor management, and field procurement and fleet management.

b. Peoples Energy Audit

Liberty performed for the Illinois Commerce Commission a major focused audit of natural gas forecasting, portfolio design and implementation, gas purchase and sale transactions, controls, organization and staffing, asset management, off-system sales, storage optimization, and all other issues related to gas supply over a period of eight years.

c. Arizona Corporation Commission (Arizona Public Service Company)

Liberty completed an analysis of the generation-fuels and purchased-power management policies and practices of Arizona Public Service Company for the Arizona Corporation Commission

(“ACC”). Part of that assignment was evaluating the performance of APS’s new power supply adjustment (“PSA”) mechanism, approved by the ACC in early 2005.

Liberty also served as the ACC’s fuels expert in a pending rate case for APS. As with the PGA mechanism in Connecticut, a base amount of fuel cost is included in the Company’s base rates, and the PSA mechanism adjusts that base amount.

Liberty’s work included the identification of any required, specific adjustments to the Company’s proposed fuel costs, net of various offsets (such as off-system sales), for the Rate Year (2006). Liberty analyzed APS’s fuel accounts and supporting work papers as part of this effort.

d. Natural Gas Procurement Audits for the New Jersey Board of Public Utilities

Liberty performed a focused audit of NUI and its affiliates, which included a major New Jersey LDC and an energy marketing and trading affiliate responsible for managing the utility’s energy purchases and sales. Liberty also performed a comprehensive management audit of the parent, its natural gas LDC, and all affiliate relationships and transactions. Liberty evaluated the interactions between the utility and the affiliate. This evaluation included the suitability of the corporate and subsidiary organization structure and staffing to support utility energy portfolio management needs and to provide proper risk controls. The evaluation also used structured, very detailed transaction testing that uncovered patterns of favoritism of affiliate interests at the direct and substantial cost to utility operations, costs, and customer rates.

The patterns discovered by Liberty included the use of intermediaries in linked transactions that had the effect of inflating prices on utility purchases and deflating prices of utility sales, in both cases, producing added margins for the affiliate. The work also included a comprehensive examination of comparable transactions with third parties, in order to assure fair and equitable dealing with the utility in transactions of similar date and time, length, delivery commitment, transportation usage, and other relevant factors.

The evaluation’s assessment of structural issues included a detailed review of the organization structure and the staffing used to ensure that decisions and their review by management, all the way to the board of director level, gave due consideration and priority of utility interests. Liberty’s work also looked at the potential for other types of misuse of utility assets, in areas such as hedging, payment terms and conditions, and storage arbitrage. Risk management, Sarbanes-Oxley compliance, and accounting and controls issues that affected the utility within the holding company formed areas of particular focus.

Liberty’s work led to a major refund for customers to make them whole for lost utility opportunities and overcharges. Liberty’s work was also instrumental in the production of a plea agreement with the office of the state Attorney General regarding compliance by the corporation with the criminal laws of the State of New Jersey.

In the following years, Liberty was subsequently selected by the New Jersey Board of Public Utilities to perform three additional audits, each of which, as part of a broader scope, included an extensive eight-year review of natural gas procurement. These audits include:

- SJI/South Jersey Gas
- NJR/New Jersey Natural Gas
- AGLR/Elizabethtown Gas.

e. Sequent/Virginia Natural Gas Audit: 2006

Liberty performed a detailed examination, in concert with the staff of Virginia's utility regulatory commission (the State Corporation Commission), of energy purchases and sales between the state's largest natural gas LDC, Virginia Natural Gas, and Sequent, which is the energy marketing and trading arm of AGLR, one of the country's largest holding companies in the natural gas distribution business. This audit examined the parent, service-company, and utility organizations and resources that performed material roles in the purchase and sale of energy whose costs flow through an automatic adjustment clause in Virginia. This examination included structured, wide-ranging tests to compare transactions of the affiliate with third parties, in order to assure that transactions with its Virginia utility affiliate were at arm's length, and reflected similar prices, terms, and conditions for comparable transactions. As Liberty did in the case of the NUI/ETG and SJI/SJG examinations, the audit team established objective criteria for determining which transactions were comparable, using structured, rigorous screens for assuring that the comparisons produced were meaningful. Liberty also examined closely the controls systems used to assure that the information recorded and reported was complete and reliable.

f. Gas Cost Adjustment Audits for the PUCO

Liberty has also been auditing natural gas procurement and portfolio management for the Ohio PUC for more than 10 years. The scope of these management/performance audits have routinely included supply planning, organization, staffing and control, gas acquisition strategy and transactions, transportation, affiliate transactions, balancing, regulatory management, and response to changes in regulation. In addition to the above three most recent Liberty audits of Ohio LDCs, Liberty has also audited the following LDC for the PUCO:

- CG&E
- Columbia Gas of Ohio
- Duke Energy Ohio
- East Ohio Gas
- Eastern Natural Gas
- Pike Natural Gas
- Vectren.

g. Focused Audits of Gas Procurement and Portfolio Management

Liberty has performed for three other commissions detailed reviews of natural gas procurement, portfolio design and operation, affiliate transactions, and maximization of portfolio value through off-system sales or use of portfolio elements designed to meet peak conditions, but

providing at many times during the year more capacity than is necessary for utility customer needs. These projects include companies with a variety of size and system conditions:

- New Hampshire: KeySpan
- Virginia: AGLR/Virginia Natural Gas
- Wyoming: KN Energy

h. Other Gas Procurement and Portfolio Management Examinations

Liberty has performed many general management and operations audits of natural gas LDCs for public service commissions. Energy procurement and portfolio management have been primary focus areas in all of them. The companies Liberty has audited include:

- Arkansas: Arkansas Western Gas
- Connecticut: Connecticut Natural Gas
- Connecticut: Southern Connecticut Gas
- Connecticut: Yankee Gas
- Kentucky: Columbia Gas
- Kentucky: Delta Natural Gas
- Kentucky: Louisville Gas & Electric
- Kentucky: Union Light, Heat & Power
- Kentucky: Western Kentucky Gas
- Tennessee: United Cities Gas.

Liberty has also conducted evaluations of gas supply matters for utilities:

- Atmos
- Dayton Power & Light
- National Fuel Gas.

7. Holding Company/Utility Governance, and Financial Insulation

Liberty has particularly broad experience in examining governance. Liberty's examinations of board structure, membership, governing documents, and operation now extend to more than 20 engagements for public service commissions. Liberty's work is also extremely current; the firm has already examined Sarbanes Oxley Section 404 compliance at three different utility companies operating as part of a holding company structure.

Liberty began almost 15 years ago to examine utility governance and the implications of poor non-utility financial performance on utility subsidiaries. In a groundbreaking study for the New Jersey Board of Public Utilities, Liberty conducted a detailed examination of how well the PSEG governing structure served its major subsidiary, PSE&G, which was one of the country's very large electricity utilities. That study followed poor performance by non-utility ventures, and included a focused examination of the impacts of historical non-utility performance on utility financial condition and a similar assessment of likely future harm to the utility.

Liberty examined the reasons for a widely publicized dispute between the directors and executive management of Virginia Power (the state's largest electricity provider) and their counterparts at the holding company, Dominion Resources (DRI). Faced with the need for a real-

time response to a significant and very public governance crisis, the Virginia Commission asked Liberty to examine governance in detail.

Liberty's pre-eminence in this field has continued to the present. Liberty examined and prepared testimony for Commission Staff in an electric and gas utility acquisition proceeding, addressing a variety of governance and utility financial protection issues. Liberty's observations, conclusions and recommendations proved to be material factors in eventual public service commission rejection of the acquisitions. Liberty analyzed for the Staff of the Arizona Commission the proposed acquisition of UniSource by a group of private investors, whose purchase would end UniSource's history as a publicly traded company. UniSource owns three Arizona utilities: two electric and one natural gas. Additionally, Liberty recently completed a review of affiliate transactions of the Nova Scotia Power Company for the regulatory Board in that province. Liberty has just completed for the New Hampshire Public Utilities Commission an examination of whether the acquisition by FairPoint Communications of the New Hampshire, Maine, and Vermont landline telecommunications business of Verizon is in the public interest. Among many other issues, that examination included an assessment of board structure, governance, and senior management capability.

Within recent years, Liberty has conducted focused examinations of governance at seven holding company/utility subsidiary entities for the New Jersey Board of Public Utilities. At all four New Jersey electric companies, Liberty's governance review addressed the separation requirements imposed by comprehensive EDECA standards applicable to holding companies operating non-utility businesses in parallel with utility operations.

Among these recent reviews for the New Jersey Board, Liberty completed a focused audit of NUI and its affiliates. This engagement came in the wake of multiple downgrades of holding company and utility debt by rating agencies and an emerging threat of bankruptcy. Liberty looked in detail at governance and at the structure and transactions among utility and non-utility affiliates. This recent and important examination led or contributed ultimately to major changes in management at the holding company and utility, strong action by the Board of Public Utilities to strengthen utility financial ring-fencing to protect it from problems at the holding company level, and the eventual sale of the holding company/utility to resolve the financial crisis.

Subsequently, the New Jersey Board asked Liberty to perform audits of two other major state gas utilities and holding companies, South Jersey Industries/South Jersey Gas and New Jersey Natural Gas/New Jersey Resources. Liberty examined in detail ring fencing and governance issues.

The following table summarizes Liberty's work in this area:

Client	Utility	Client	Utility
Arizona PSC	UniSource	New Jersey BPU	NUI/Elizabethtown Gas
Delaware PSC	Delmarva	New Jersey BPU	AGLR/Elizabethtown Gas
Indiana Commission	Duke Indiana	New Jersey BPU	SII/South Jersey Gas
Kentucky PSC	Duke Kentucky	New Jersey BPU	Verizon-NJ
New Jersey BPU	Con Edison/O&R	New Hampshire PSC	FairPoint
New Jersey BPU	PSE&G	Kentucky PSC	East Kentucky Power Coop.

New Jersey BPU	PSE&G	NC Comm. Staff	Duke North Carolina
New Jersey BPU	PEPCO	NC Comm. Staff	Duke North Carolina
New Jersey BPU	PEPCO	Nova Scotia UARB	Nova Scotia Power

8. Affiliates Audits

Liberty has been performing affiliate transaction and relationships audits nearly continuously since beginning in this field more than ten years ago. Liberty has examined affiliate relations and transactions in more than 30 different engagements, which it has performed for regulators in Arkansas, Connecticut, the District of Columbia, Hawaii, Illinois, Kentucky, Maryland, New Hampshire, New Jersey, New York, Pennsylvania, Tennessee, and Virginia. These engagements include a focused examination of affiliate issues for the New Jersey Board of Public Utilities at all seven of New Jersey's major electric and gas utilities. Liberty is especially well versed in examining for public service commissions the affiliate transactions and relationships of multi-state holding companies.

Liberty's experience in affiliate audits includes some of the country's largest holding companies and utilities. They include Duke Energy, First Energy, APS, Pepco, Consolidated Edison, and Public Service Enterprise Group. Liberty has also performed examinations of Northeast Utilities and DRI in the electricity business and AGL in the natural gas industry, all of whom are major players in the U.S. energy business.

Liberty's extensive experience in auditing affiliate relationships and transactions extends as well to America's largest telecommunications enterprises. By contrast, the country's major telecommunications companies have very large affiliate operations, widely dispersed utility operations, and affiliate structures, procedures, and operations, all of which historically have been far more complex than those of their energy counterparts.

Finally, as is true for its management and operations work, Liberty has examined affiliate relationships and transactions for a number of utilities.

The table that follows summarizes Liberty's prior affiliate examinations. Multiple listings mean that Liberty performed a number of distinct engagements for a client involving the same utility.

Client	Utility	Client	Utility
Arizona PSC	Unisource	New Jersey BPU	Con Edison/O&R
Arkansas PSC	Arkansas Western Gas	New Jersey BPU	PSE&G
Connecticut DPUC	Connecticut Natural Gas	New Jersey BPU	PSE&G
Connecticut DPUC	So. Connecticut Gas	New Jersey BPU	GPU/JCP&L
Connecticut DPUC	Yankee Gas	New Jersey BPU	PEPCO
Delaware PSC	Delmarva	New Jersey BPU	NUI/Elizabethtown Gas
Delmarva	Delmarva	New Jersey BPU	AGLR/Elizabethtown Gas
District of Columbia PSC	Bell Atlantic - DC	New Jersey BPU	SII/South Jersey Gas
Hawaii OCC	HEI/Hawaii Electric	New Jersey BPU	Verizon-NJ
Illinois CC	Ameritech/Ill Bell	NC Comm. Staff	Duke North Carolina
Indiana URC	Duke Indiana	NSUARB	Nova Scotia Power
Kentucky PSC	GTE South	NSTAR	Boston Edison
Kentucky PSC	Duke Kentucky	New York PSC	Verizon/NYNEX-NY
MD PSC	Bell Atlantic-MD	Ohio PUC	Vectren Energy (Gas)
New Hampshire PUC	NU/Public Service NH	Pennsylvania PUC	Verizon/BA-PA
New Hampshire PUC	NU/PSNH	Tennessee RA	United Cities Gas
New Hampshire PUC	Verizon - NH	Virginia SCC	AGLR/VA Nat Gas
NH Governor	Con Edison/NU	Virginia SCC	DRI/VA Power

a. National Grid

Liberty is performing for National Grid U.S. a comprehensive review and evaluation of the comparatively very extensive affiliate relationships and transactions that arise from the nature of its organization and operations, which include a British holding company and a large number of electric and gas utility operations in Europe and in four U.S. states (New York, Massachusetts, Rhode Island, and New Hampshire). Liberty's work includes examination of transactions involving the British holding company (and any other potential off-shore source of charges to U.S. utility affiliates), four separate service companies, all U.S. utility and gas operations in the four U.S. states served, non-utility affiliates, extensive operations and power services provided to the Long Island Power Authority in its provision of retail electricity services.

Liberty undertook the National Grid U.S. engagement on a basis like that under which it would perform a similar scope of services for the state commissions that regulate the Company's rates and service. The basis for judging such comparability is Liberty's performance of more than thirty affiliates reviews for utility regulatory commissions. The essential work characteristics that Liberty required to be in existence are independence in determining the required work activities, transparency of conclusions and recommendations and their support, and sufficient schedule time to assure full addressing of audit issues. Liberty anticipates presenting in February a report addressing conclusions about areas that may warrant change and improvement, and specific recommendations for addressing any such areas. The scope of Liberty's review is extremely broad, encompassing:

- Business Unit Structure and Interactions: National Grid operates on a transatlantic basis under a line-of-business, rather than a utility operating company defined basis
- Examination of agreements and operating methods guiding service types and levels provided commonly to support electricity distribution, electricity transmission, and natural gas distribution services
- Cost Allocation Manuals, Policies, Procedures, Guidelines (6 weeks)

- Nature and extent of Affiliate Transaction Data Collected and Retrievable
- Methods for Collecting, Allocating, and Reporting Affiliate Costs
- Systems Used to Collect and Distribute Costs
- Time and Cost Reporting by Common Service Employees and Contractors
- Rationale for Assignment and Allocation Factors Used
- Testing of Sample Transactions.

b. North Carolina Utilities Commission: Duke Energy Carolinas

Liberty has conducted the last two audits of the compliance of Duke Energy Carolinas with a series of regulatory conditions and code-of-conduct issues stemming from the merger with Cinergy. As part of these reviews, Liberty analyzed the company's affiliate relationships and agreements, affiliate transactions, cost assignment and allocation methods, and financial separation, among other issues.

c. Kentucky Public Service Commission: Duke Energy Kentucky

Liberty completed a comprehensive audit addressing compliance with affiliate standards applicable to the Company in the wake of the acquisition of Cinergy by Duke Energy. Liberty also performed a companion audit of compliance with the merger-related agreements that formed part of the Kentucky Public Service Commission's approval of that acquisition. This second audit included a comprehensive examination of cost allocation and assignment systems, methods, procedures, calculations, organizations, and results, as well as a similar review of the multiple agreements governing services among affiliates and the Kentucky utility operations that came to Duke Energy as part of the Cinergy acquisition. This audit followed Liberty's comprehensive, detailed affiliate relationships and transactions audit for the North Carolina Utilities Commission staff. That audit addressed many of the same functions, organizations, systems, and activities, and also addressed compliance with affiliate-related merger conditions required in North Carolina.

d. Indiana Utility Regulatory Commission: Duke Energy Indiana

Liberty completed a comprehensive audit addressing compliance with affiliate standards applicable to the Company in the wake of the acquisition of Cinergy by Duke Energy. Liberty also performed a companion audit of compliance with the merger-related agreements that formed part of the Indiana Utility Regulatory Commission's approval of that acquisition. This second audit included a comprehensive examination of cost allocation and assignment systems, methods, procedures, calculations, organizations, and results, as well as a similar review of the multiple agreements governing services among affiliates and the Indiana utility operations that came to Duke Energy as part of the Cinergy acquisition. This audit followed Liberty's comprehensive, detailed affiliate relationships and transactions audit for the North Carolina Utilities Commission staff. That audit addressed many of the same functions, organizations, systems, and activities, and also addressed compliance with affiliate-related merger conditions required in North Carolina.

e. Delmarva Affiliates Audit

Liberty completed for the Delaware Public Service Commission a diagnostic audit of the affiliate costs borne by Delmarva Power, a member of the multi-state holding company, PHI. This review

includes an examination of the central services organization structure and operations, the procedures and methods used to allocate and assign costs, and test work to verify that execution of methods and procedures conforms to company procedures and to good utility practice.

f. New Jersey Board of Public Utilities: Four Electric Companies

Liberty performed compliance audits of PSE&G, Jersey Central Power & Light (First Energy), ACE (Conectiv), and Orange & Rockland (Consolidated Edison). The scope of these audits included issues related to affiliate cost assignment and allocation, required organizational structure separation, affiliate transaction prohibitions, arm's-length dealing in the sale of short and long-term energy between the utility and affiliates, information-sharing prohibitions, and preclusion of favoritism to an affiliate in energy and other transactions.

g. Virginia State Corporation Commission: DRI/Virginia Power

Liberty examined corporate and financial relationships between Dominion Resources, Inc. (DRI) and its wholly owned and largest subsidiary, Virginia Power Company. This study addressed all significant facets of the corporate governance, operating relationships, and affiliate-arrangement interrelationships between the two.

h. New Jersey Board of Public Utilities: PSE&G

Liberty conducted one of the country's pioneering efforts in the examination of affiliate transactions at utilities. Some ten years ago, Liberty performed an affiliates examination of one of the country's largest combined electric and gas utilities, PSE&G. This examination addressed corporate governance, management structure of affiliates and utility operations, methods for assuring arm's-length transactions, comparability of utility with non-utility transactions, and a detailed review of the energy business of affiliates, as they affected utility operations and costs.

i. Arizona Corporation Commission: UniSource

Liberty's examination of and testimony about the benefits and detriments of the proposed acquisition of UniSource (the parent of two electric utilities and a natural gas distribution utility) included a review of and recommendations concerning the control of affiliate transactions and relationships.

j. New Jersey Board of Public Utilities: NUI/Elizabethtown Gas

In 2003/2004, Liberty conducted a focused audit of NUI and its affiliates. Liberty performed a comprehensive management audit of the parent, its utility, and all affiliate relationships and transactions. This evaluation included the suitability of the corporate and subsidiary organization structure and staffing to support utility needs and to provide proper risk controls. The evaluation also used structured, very detailed transaction testing to verify arm's-length dealing and proper costs assignment/allocation.

In 2009 Liberty finalized a similar audit of ETG include those same relationships with ETG's new parent, AGLR.

k. New Jersey Board of Public Utilities: SJI/South Jersey Gas

Liberty performed a comprehensive management audit of the parent, its utility, and all affiliate relationships and transactions. The scope was similar to that of the NUI audit, including the reviews of organization structure, risk management, utility focus within a holding company structure, and transactions between the utility and affiliates.

l. New Jersey Board of Public Utilities: NJR/New Jersey Natural Gas

Liberty performed a comprehensive management audit of the parent NJR, its utility, and all affiliate relationships and transactions. The scope was similar to that of the NUI audit, including the reviews of organization structure, risk management, utility focus within a holding company structure, and transactions between the utility and affiliates.

m. Nova Scotia Utility and Review Board: Nova Scotia Power

Liberty reviewed the annual affiliate transactions reported by Nova Scotia Power (a subsidiary of the holding company, Emera) to its utility regulators, and assessed the company's transfer pricing practices, cost allocation methods, and relationships with affiliates.

n. New Hampshire Public Utilities Commission: Verizon

Liberty conducted a financial audit of the operations of Verizon New Hampshire. The audit included any services provided by affiliates, the allocation of costs between regulated and non-regulated activities, all other expense areas, assets, and revenues. This audit took place in the context of an examination of Verizon's costs and earnings, as part of consideration of a change from traditional ratemaking.

o. Hawaii Office of Consumer Advocate: Hawaiian Electric Company

Liberty evaluated a report prepared by a consultant to the Hawaii Public Utilities Commission on the relationship between Hawaiian Electric Industries (HEI), a diversified utility-holding company, and Hawaiian Electric Company (HECO), its principal subsidiary and operating electric utility. The issues included in Liberty's assessment included corporate governance, affiliate transactions and cost allocations, and credit support.

p. Pennsylvania Public Utility Commission: Verizon

Liberty performed a comprehensive management audit of the functional operations of Bell Atlantic–Pennsylvania. The audit included in-depth reviews of accounting functions and finance, including cost accounting, managerial accounting, budgeting and control, internal auditing, and rates, among other issues. The review also included an in-depth analysis of the relationships and transactions, including detailed examinations and testing of cost assignment and allocation among affiliates.

q. Maryland Public Service Commission: Verizon

Liberty performed a focused affiliates audit of Bell Atlantic–Maryland. The audit included in-depth reviews of accounting functions and an in-depth analysis of the relationships and transactions, including detailed examinations and testing of cost assignment and allocation among affiliates.

r. New York Public Service Commission: Verizon

Liberty performed an analysis of the propriety and reasonableness of cost assignment and allocations of transactions among New York Telephone and its affiliates. This review involved the development of a comprehensive collection of factual information, determining the reasonableness of affiliate transactions and the management processes and performance associated with them, testing a sample of transactions, and quantifying the financial impact of transactions and performance on customers.

s. Management Audits of Bell Atlantic (PA, MD, DC) – Affiliate Costs

A major focus area of these audits (the only focus area in the Maryland engagement) was to examine affiliate costs in detail. In doing so, Liberty developed a broad understanding of the holding company, service-company, and non-regulated affiliate structure of Bell Atlantic before its merger with either NYNEX or GTE. Liberty developed a very detailed knowledge of how these other entities interacted with three different operating telephone companies in three different Bell Atlantic jurisdictions. This knowledge included all of the major kinds of transactions, the policies and methods for pricing them, the overall contribution that affiliate costs made to regulated intrastate revenue requirements, and the particular strengths and weaknesses that existed in Bell Atlantic's practices and methods applicable at the time.

t. New Jersey Board of Public Utilities: Financial Review of Verizon–New Jersey

In this project, a major area that Liberty addressed was that of affiliate costs, and in particular the methods for allocating affiliate costs, the reasonableness of allocated affiliate costs, and compliance with applicable allocation rules on costs and revenues.

u. Kentucky Public Service Commission: Affiliate Relationships Audit of GTE Kentucky

Liberty conducted a management audit of GTE South of Kentucky on behalf of the Kentucky Public Service Commission. A focus of the audit was affiliate relationships and their affects on the Kentucky operations of this national telecommunications company, with particular emphasis on the quality of service provided to Kentucky customers, alternative regulatory methods, and the company's readiness for competition. The audit also included other traditional focus areas, such as strategic planning, organization, finance, marketing, and human resources. The audit also addressed GTE's preparedness for competition, including wholesale relationships with competitors for its retail customers.

v. Connecticut Department of Public Utility Control: Three Connecticut Gas LDCs

Liberty performed for the Connecticut DPUC management audits of the three major LDCs serving in Connecticut: Southern Connecticut Natural Gas, Connecticut Natural Gas, and Yankee Gas. Each of those audits included an examination of the relationships and transactions among the LDCs and their parents and affiliates.

w. Arkansas Western Gas

Liberty conducted an independent audit of Arkansas Western Gas for the Arkansas Public Service Commission, the Attorney General, and the Company. The areas of inquiry were cost allocation, executive compensation, and the company's staffing and allocation of labor costs to and from affiliated companies.

9. Arizona Public Service Benchmarking

For the Arizona Corporation Commission, Liberty performed a benchmarking analysis of Arizona Public Service. This study covered a ten-year audit period and benchmarked Arizona Public Service's performance with the following metrics:

- Operational Performance, including safety, customer satisfaction, reliability, coal plant performance, nuclear performance, and sustainability
- Cost Performance, including O&M expenditures, capital expenditures, and management and regulatory expense
- Financial Performance, including overall financial performance, cash flow metrics and financial risk measures
- Affiliate Expenses
- Hedging & Risk Management.

Liberty designed four separate panel groups of peer companies in order to perform this benchmarking study.

10. Representative Client List

Several of Liberty's major and most relevant projects are detailed in the preceding sections of this document. For a full list of Liberty projects, please also see Appendix B to this document. Liberty would be pleased to provide copies of any publicly-available report or testimony from any of these engagements at the NY PSC's request.

Liberty submits the following list of individuals as references to Liberty's prior work.

Management and Operations Audits

William T. Rhoads
General Manager
NorthWestern Energy Distribution Operations
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(406) 497-3496
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Art Gallin
Division of Audits
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Mr. John Rogness, Manager Audit Branch
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211 Sower Boulevard
Frankfort, Kentucky 40601
(502) 564-3940
jarogness@ky.gov

Hon. Thomas B. Getz, Chairman
NH Public Utilities Commission
21 South Fruit Street
Concord, New Hampshire 03301
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tom.getz@puc.nh.gov

Commonwealth Edison Capital and O&M Spending Audit

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Illinois Commerce Commission
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Electric Systems Operations and Reliability

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Roy Buxton, Manager, Engineering
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Public Utilities Commission, State of Maine
242 State Street, State House Station 18
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William T. Rhoads, General Manager
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Daniel Lane
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Southern Company Services
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Gas Operation, Systems, and Safety Practices

Dr. Joseph Nwude
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Office of Tech. & Reg. Analysis
DC Public Service Commission
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Energy Procurement – Electric Companies

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Matthew Lovato, Chief Financial Officer
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Mr. Chris Kempley, General Counsel
AZ Corp. Commission
Utilities Division
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Supply Planning and Energy Procurement – Natural Gas Companies

Tommy Oliver
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Thomas C. Pearce II
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Dennis Moran, Director, Division of Audits
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Holding Company/Utility Governance, and Financial Insulation

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Affiliates Audits

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Art Gallin
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Tommy Oliver
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tommy.oliver@scc.virginia.gov

Arizona Public Service Benchmarking Study

Ms. Terri Ford, Utilities Division
AZ Corporation Commission
Utilities Division
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VIII. Offer to Serve

This proposal constitutes an offer to provide the services described in this proposal under the terms and conditions hereof. This offer shall remain in effect through the close of business on July 23, 2011, and, in the event it is accepted, its terms and conditions, except as may be modified by any final contract, shall continue in force thereafter till completion of all Liberty's responsibilities hereunder or under the RFP to which it responds. Liberty indicates its agreement to be bound by the terms of this offer by the signature of its duly authorized officer, which appears below. This officer is authorized to negotiate an agreement to perform the services described in this proposal.

Accepted for:

The Liberty Consulting Group
65 Main Street
P.O. Box 1237
Quentin, Pennsylvania 17083
717-270-4500

by:

John Antonuk
President

This 24th day of January, 2011

Appendix A: Resumes



John Antonuk	A-2
Richard Mazzini.....	A-11
Randall E. Vickroy.....	A-17
Howard J. Axelrod, PhD.....	A-22
Phillip S. Teumim	A-30
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Virginia A. Lowe	A-57
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John Antonuk

Areas of Specialization

Executive management; management audits and assessments; service quality and reliability management and measurement, utility planning and operations; litigation strategy; management of legal departments; human resources; risk management; regulatory relations; affiliate transactions and relations; subsidiary operations; and testimony development and witness preparation.

Relevant Experience

Electricity

Project Director and lead consultant on Liberty's management and operations audit of the electricity, natural gas, and steam operations of ConEd for the New York Public Service Commission.

Project Manager for Liberty's comprehensive, detailed affiliate relationships and transactions audit of Duke Energy Carolinas for the North Carolina Utilities Commission staff.

Project Manager for the performance of Liberty's audit for the Delaware Public Service Commission of a diagnostic audit of the affiliate costs borne by Delmarva Power, a member of the multi-state holding company, PHI. This review included an examination of the central services organization structure and operations, the procedures and methods used to allocate and assign costs, and test work to verify that execution of methods and procedures conforms to company procedures and to good utility practice.

Project Manager for Liberty's work for NorthWestern Energy to formulate long-range integrated infrastructure plans for its multi-state electric and natural gas distribution utilities. This project includes consideration of how to incorporate "Smart Grid" technology into infrastructure plans in a manner that will enable the Company to roll out new capabilities and services as technology makes them available, without undue acceleration of capital spending as uncertainties in this new marketplace become resolved.

Project Manager for Liberty's audit of Arizona Electric Power Cooperative for the Arizona State Corporation Commission which included reviews of fuel procurement and management, bulk electricity purchases and sales, power plant management, operations and maintenance, energy clause design and operation, and other issues affecting the prudence, reasonableness, and accuracy of costs that passing through the fuel and energy clause.

Project Manager for Liberty's audit of Southwest Transmission Cooperative for the Arizona Commission, a companion examination of the transmission cooperative that is owned and operated in parallel with Arizona Electric Power Cooperative (a generation cooperative). Among the issues examined in this audit were line losses.

Project Manager for Liberty's audit of Southwestern Public Service (SPS) for the New Mexico Public Regulation Commission that included a management review of the prudence of SPS' transactions under the Renewable Energy Credit tracker as conditionally approved by the Commission and a financial review of both revenues and expenses in order to provide an analysis of any under-recovery or over-recovery. Similarly, Liberty performed an evaluation of SPS' fuel clause process and regulations and a financial audit of fuel clause computation. In addition reviews of purchases of coal, natural gas, oil, and purchased power, power plant operations, line losses, and cost allocation and assignment were also performed.

Project Manager for Liberty's audit of East Kentucky Power Cooperative, which included examinations of Governance, Planning, Finance, and Budgeting. Liberty performed for the Kentucky Public Service Commission an examination of governance at a generation and transmission cooperative serving 16 distribution cooperatives across the state. This study came in the wake of significant financial difficulties and also addressed planning, budgeting, financial, and risk functions and activities.

Project Manager for Liberty's audit for the Virginia State Corporation Staff of Potomac Edison Distribution System Transfer. Liberty examined the public interest questions associated with the transfer by an Allegheny Energy's utility operating subsidiary (Potomac Electric) of all of its electricity distribution operations business and facilities in Virginia to two rural electric cooperatives.

Project Manager for Liberty's audit of the fuel and purchased-power procurement practices and costs of Arizona Public Service Company for the Arizona Corporation Commission. Liberty completed audits relating to fuel procurement and management and on rate and regulatory accounting for related costs at Arizona Public Service Company for the Arizona Corporation Commission.

Project Manager for Liberty's audit of Duke Energy Carolinas for the North Carolina Utilities Commission. Scope included compliance with regulatory conditions and code of conduct imposed by the Commission after the merger with Cinergy, and affiliate transactions and cost allocation methods.

Project Manager for Liberty's audit of affiliate transactions of Nova Scotia Power on behalf of the Nova Scotia Utility and Review Board.

Project Manager for Liberty's audit for the New Jersey Board of Public Utilities of the competitive service offerings of the state's four major electric companies. Scope included corporate structure, governance, and separation, service company operations and charges, inter-affiliate cost allocations, arm's-length dealing with respect to a variety of code-of-conduct requirements, and protection of customer and competitor proprietary information.

Project Manager and witness for the staff of the Arizona Corporation Commission addressing the merits of the proposed acquisition of UniSource by a group of private investors.

Project Manager and witness before the Oregon Public Utility Commission addressing the merits of the proposed acquisition of Portland General Electric by a group of private investors.

Engagement Director for Liberty's provision of engineering and technical assistance to the Vermont Public Service Board in connection with review of public necessity and convenience related to the Northwest Reliability Project, which would add a major new 345kV transmission plan to provide an additional source of electricity to serve Vermont's major load growth in its northwest region. The project involved transmission reinforcements at lower voltages and significant substation upgrade work. The proceedings had numerous public, private, and government interveners, who raised issues regarding project need, available electrical alternatives, routing and design, and electromagnetic radiation.

Project Manager for Liberty's support for the New Hampshire Public Utilities Commission in its charge to oversee the divestiture of the Seabrook nuclear plant as part of a major restructuring settlement. The sale produced record high compensation for nuclear facilities in the country.

Project Manager and witness for Liberty's assessment of fuel procurement, affiliate transactions, and automatic adjustment clause implementation for the staff of the Nova Scotia Utility and Review Board in rate case of Nova Scotia Power.

Project Manager for Liberty's engagement on behalf of Boston Edison to examine the company's affiliate relations, including issues of the valuation of assets transferred to an affiliate. Testified in proceedings before the Massachusetts Department of Telecommunications and Energy (formerly the Department of Public Utilities) on several telecommunications issues, including: (a) development of competition, and legislative and regulatory-policy changes supporting it, (b) electric-utility entry into telecommunications markets, (c) costs, prices, and market value of network elements, (d) requirements of the Telecommunications Act of 1996, (e) assessment of compliance with commission orders, company procedures, and service agreements regarding limits on affiliate interactions, (f) inter-company loans, guarantees, and credit support among utilities and their affiliates, (g) accounting for affiliate transactions, (h) obligations to allow nondiscriminatory access to network infrastructure to third parties, and (i) cost pools, overhead factors, and allocation of common costs among utility and non-utility affiliate activities and entities.

Project Manager for Liberty's major consulting engagement for the New Hampshire Public Utilities Commission. Liberty examined management, operations, and costs at Public Service Company of New Hampshire/Northeast Utilities, which is engaged in the operational and cost-accounting separation of its network into segments, for the purposes of restructuring service offerings to allow competition in certain aspects of electric-energy supply. This engagement included an assessment of valuations of nuclear and fossil units, as well as supply contracts with independent-power producers. Liberty also assisted in efforts to settle rate case and restructuring disputes involving, among other issues, stranded costs associated with power plants. The scope

of Liberty's work included the development of plans and protocols for power plant (fossil, hydro, and nuclear) and power supply contract assets, as well as the oversight of activities associated with asset auctions.

Engagement Director for Liberty's evaluation of corporate relations and affiliate arrangements of Dominion Resources, Inc. and Virginia Power for the Virginia State Corporation Commission. This project addressed all significant aspects of corporate governance, operating relationships, and affiliate arrangements between the two entities.

Project Director for Liberty's evaluation of a report prepared by a consultant to the Hawaii Public Utilities Commission on the relationship between Hawaiian Electric Industries (HEI), a diversified utility-holding company, and Hawaiian Electric Company (HECO), its principal subsidiary and operating electric utility.

Project Director for all aspects of Liberty's comprehensive management and operations audit of West Penn Power Company for the Pennsylvania Public Utilities Commission. Managed focused reviews of the Company's affiliated costs, power dispatch and bulk power transactions, customer services, finance, and corporate services. Presented testimony before the PAPUC on behalf of the Office of Trial Staff regarding the results of the audit in West Penn's rate case.

Lead Consultant for affiliate relations for Liberty's assignment of providing assistance to Delmarva Power & Light Company in developing and implementing self-assessment and continuous-improvement processes.

Project Director for Liberty's reviews of fossil-fuel procurement and administration in Liberty's management/performance audits of the Centerior Energy Company's operating companies- Cleveland Electric Illuminating Company and Toledo Edison Company- and Ohio Edison, Monongahela Power (an Allegheny Power System operating company), and Cincinnati Gas & Electric, for the Public Utilities Commission of Ohio.

Served as advisor to the administrative law judge of the Delaware PSC responsible for hearing cases regarding the implementation of the new law that restructures the electric-utility industry in Delaware.

Engagement Director for nuclear-plant performance-improvement projects that Liberty conducted for Duquesne Light Company, Centerior Energy, Nebraska Public Power District, and Pennsylvania Power & Light Company (PP&L).

Engagement Director for a Liberty assignment for Florida Power Corporation, regarding a proposal by the Tampa Electric Company to construct transmission lines to serve the cities of Wauchula and Fort Meade, Florida. Liberty's testimony helped convince the Florida Public Service Commission that Tampa Electric Company's proposed line was uneconomic.

Directed Liberty's engagement to assist a regional electric generation and transmission cooperative, whose members' combined operations make it a major competitor in the state's

electricity business, to conduct its first-ever comprehensive and formal strategic-planning process.

Natural Gas

Project Manager for Liberty's examination of safety programs and activities of NiSource's Maine subsidiary Northern Utilities for the Maine Public Service Commission.

Project Manager for Liberty's focused and general management audits of NJR, New Jersey Natural Gas, and affiliates for the New Jersey Board of Public Utilities. This project included detailed examinations of affiliate relationships, governance, financing and utility ring-fencing, compliance with New Jersey EDECA requirements for affiliate separation, protection of confidential information, non-discrimination against third-party competitors with utility affiliates, and other code-of-conduct issues. Personally performed the reviews of governance, EDECA requirements compliance, and legal services.

Project Manager on a major focused audit of Peoples Gas/Integritys that Liberty performed for the Illinois Commerce Commission. Audit topics included natural gas forecasting, portfolio design and implementation, gas purchase and sale transactions, controls, organization and staffing, asset management, off-system sales, storage optimization, and all other issues related to gas supply over a period of eight years.

Project Manager and witness on three recent audits of fuel (primarily coal and natural gas) procurement and management practices of Nova Scotia Power, a review of the merits and mechanics of a company-proposed automatic recovery method for energy costs, and an audit of affiliate relationships (including coal, electric power, and natural gas procurement activities) performed for the Nova Scotia Utility and Review Board.

Project Manager for Liberty's focused and general management audits of SJI, South Jersey Gas, and affiliates for the New Jersey Board of Public Utilities. This project included detailed examinations of affiliate relationships, governance, financing and utility ring-fencing, compliance with New Jersey EDECA requirements for affiliate separation, protection of confidential information, non-discrimination against third-party competitors with utility affiliates, and other code-of-conduct issues. Personally performed the reviews of governance, EDECA requirements compliance, and legal services.

Project Manager for Liberty's work with staff of the Virginia State Corporation Commission to evaluate the services of an affiliate providing gas portfolio management services under an asset management agreement with Virginia Natural Gas, an operating utility subsidiary of Atlanta-based AGLR.

Project Manager for Liberty's focused audit of NUI Corporation and NUI Utilities. This audit included a detailed examination of the reasons for poor financial performance of non-utility operations, downgrades of utility credit beneath investment grade, and retail and wholesale gas supply and trading operations. Also examined performance of telecommunications, engineering

services, customer-information-system, environmental, and international affiliates. The audit included detailed examinations of financial results, sources and uses of funds, accounting systems and controls, credit intertwining, cash commingling, and affiliate transactions, among others. Liberty's examination included very detailed, transaction-level analyses of commodities trading undertaken by a utility affiliate both for its own account and for that of utility operations.

Project Manager for Liberty's comprehensive management audit of United Cities Gas Company for the Tennessee Public Service Commission. Responsible for the focused reviews of affiliate interests, executive management and corporate planning, and vehicle management.

Lead Consultant in Liberty's management audit of Connecticut Natural Gas Company for the Connecticut Department of Public Utility Control (DPUC). Responsible for reviews of organization and executive management and legal management.

Lead Consultant in Liberty's management audit of Southern Connecticut Gas Company for the DPUC. Responsible for organization and executive management, affiliates, and legal management. Included valuation of a major, rate-based LNG facility being offered for sale.

Directed Liberty's management audit of Yankee Gas Services Company for the DPUC.

Engagement Director for Liberty's evaluation of regulatory needs and alternatives for the Georgia Public Service Commission in regulating the state's local-gas-distribution companies in the aftermath of FERC Order 636.

Project Director for Liberty's review of gas-purchasing policies and practices at Pike Natural Gas Company and Eastern Natural Gas Company for the Public Utilities Commission of Ohio. Responsible for the review of organization and staffing and regulatory-management issues.

Combination Utilities

Engagement Director for Liberty's examination of the cost-allocation methods of Baltimore Gas & Electric Company and its affiliates for the Maryland Office of People's Counsel.

Project Director for Liberty's focused management audit of affiliate transactions of Public Service Electric & Gas Company (PSE&G) and the unregulated subsidiaries of Public Service Enterprise Group, Inc., the parent, for the New Jersey Board of Regulatory Commissioners. Task leader for the review of organization and planning, and executive management.

Project Director for Liberty's management and operations audit of New York State Electric & Gas Corporation for the New York Public Service Commission (NYPSC). Responsible for managing the review of corporate planning and organization, service centralization, specific corporate services, and finance and accounting.

Project Director for Liberty's management and operations audit of Central Hudson Gas & Electric Corporation for the NYPSC.

Telecommunications

Arbitrator named by the District of Columbia Public Service Commission to address industry-wide need for amendments to interconnection agreements as a result of the FCC's Triennial Review Order.

Project Manager for assistance being provided to the Administrative Law Judge of the Delaware Public Service Commission hearing the arbitration to address industry-wide need for amendments to interconnection agreements as a result of the FCC's Triennial Review Order.

Project Manager for Liberty's engagement to serve as advisors to commissioners of the District of Columbia Public Service Commission in their review of the Section 271 application of Verizon to provide in-region, interLATA service in the District.

Project Manager for Liberty's engagement to serve as advisor to the administrative law judge of the Delaware Public Service Commission in the review of the Section 271 application of Verizon to provide in-region, interLATA service in the state.

Retained by the Idaho Public Utilities Commission to serve as administrative law judge in complaint proceedings involving three paging companies and Qwest, involving a variety of financial disputes arising out of interconnection and tariff purchases.

Conducted wholesale performance metrics training for staff members and commissioners of the Pennsylvania Public Utility Commission as part of efforts to monitor service quality and payments under the Verizon Performance Assurance Plan adopted in connection with the RBOC's entry into the in-region inter-LATA market in Pennsylvania.

Engagement Director for Liberty's comprehensive financial review of Verizon New Jersey Inc. (VNJ) for the New Jersey Board of Public Utilities. The review had three parts: a financial evaluation; a review of merger costs and savings; and an assessment of affiliate costs and transactions.

Engagement Director for Liberty's audit of Ameritech-Ohio policies, procedures and compliance with service quality performance requirements under Ohio's Minimum Telephone Service Standards.

Engagement Director for Liberty's audit of Qwest's performance measures for the Regional Oversight Committee (ROC). Responsible for the evaluation of the processes and data tracking of several hundred wholesale and retail performance indicators including service areas such as provisioning, OSS access, maintenance and repair, and billing.

Project Manager and hearing administrator for Qwest's 271 hearings for the commissions of Idaho, Iowa, Montana, New Mexico, North Dakota, Utah, and Wyoming.

Engagement Director for Liberty's assistance provided to the Staffs of the Virginia State Corporation Commission and the New Jersey Board of Public Utilities in the implementation of the 1996 Telecommunications Act.

Project Manager for Liberty's assistance to Delaware PSC arbitrators in seven different interconnection cases arising out of the Telecommunications Act.

Served on an arbitration board in Mississippi, and as the sole arbitrator in two cases in Idaho regarding interconnection agreements between incumbent local-exchange companies and new entrants to the local telephone market.

Engagement Director for Liberty's work determining permanent prices for the unbundled-network elements of Southwestern Bell Telephone for the Oklahoma Corporation Commission.

Engagement Director for Liberty's provision of arbitration services to the North Dakota Public Service Commission and Nebraska Public Service Commission in cases involving implementation of the Telecommunications Act of 1996.

Engagement Director for Liberty's combined comprehensive management/affiliate-relations audit of Bell Atlantic - Pennsylvania for the PAPUC, and affiliate relations audit of Bell Atlantic - District of Columbia for the Public Service Commission (DCPSC) of the District of Columbia. Served as team leader with responsibility for the coordination of the review of executive management, finance, and support services.

Engagement Director for Liberty's examination of the accounting and allocation on lobbying costs of Bell Atlantic for an eight-year period for the DCPSC. Engagement included an examination of the propriety of policies and procedures for assigning and allocating lobbying costs.

Engagement Director for a management audit of GTE South, Inc. for the Kentucky Public Service Commission. This examination included a review of GTE's affiliate transactions.

Project Director for Liberty's evaluation of New York Telephone's transactions with affiliates for the NYSPC. Responsible for the review of affiliates involved in directories publishing, government affairs, international activities, information services, and the legal-affairs entity.

Project Director for Liberty's management audit of the affiliated interests of C&P Telephone of Maryland performed on behalf of the Maryland Public Service Commission.

Engagement Director for Liberty's two assignments for the DCPSC in reviewing Bell Atlantic - District of Columbia's construction-program planning and quality-of-service standards.

Other Companies

Set up and managed service and facilities section of the PP&L Regulatory Affairs Department. Counseled utility management on regulatory and legislative matters. Litigated rate related and facility construction proceedings before agencies and the courts.

Attorney for the PAPUC. Assigned as counsel to the Commission's Audit Bureau in developing a comprehensive management-audit system. Negotiated contracts for the first commission-ordered management audits in Pennsylvania. Revised Commission organization and practice to conform to regulatory-reform legislation.

Testimony

Nova Scotia Utility and Review Board – Testimony on the prudence of fuel procurement, affiliate relationships associated with fuel management, and use of an automatic adjustment clause to recover fuel costs.

Arizona Corporation Commission – Testimony on the merits and conditions of the proposed acquisition of UniSource by private investors.

Oregon Public Utility Commission – Testimony on the merits and conditions of the proposed acquisition of Portland General Electric by private investors.

Virginia State Corporation Commission - Testimony in arbitration cases regarding interconnection agreements between Bell Atlantic - VA and competing local exchange companies.

PAPUC - Presentation of management-audit recommendations and benefits for selected conclusions in West Penn Power Company request for rate increase.

Maryland Public Service Commission - Presentation and defense of management-audit conclusions, recommendations, and cost implications in C&P Telephone Company of Maryland (Bell Atlantic) rate case.

Illinois Commerce Commission - Testimony about fuels organization, procurement, and management in fuel-cost reconciliation proceedings.

Maryland Public Service Commission - Testified regarding Baltimore Gas & Electric Company's affiliate relations.

Tennessee Regulatory Authority - Testified regarding Liberty's recommendations in a management audit of United Cities Gas Company.

Education

J.D., with academic honors, Dickinson School of Law
B.A., cum laude, Dickinson College

Richard Mazzini

Areas of Specialization

Management and regulatory audits; utility operations, including nuclear and other power production; power marketing and risk management; strategic planning; organization analysis and competitive re-structuring; project management; cost management; and tariff design and management.

Relevant Experience

The Liberty Consulting Group

Public Service Commission of New York – A management audit of Con Edison. Project Manager for a 13-member Liberty consultant team.

Maine Public Utilities Commission – Lead Consultant for the review and analysis of proposed new transmission project, the Maine Power Reliability Project (MPRP). Lead Consultant for economic analysis.

Public Service Commission of Maryland – Lead Consultant supervising the various auctions for procurement of power for Maryland’s standard offer service (SOS) customers and support for the PSC in their analysis of new approaches to SOS supply.

Lead Consultant for Gas and Electric Infrastructure Improvement on Liberty’s work for NorthWestern Energy to formulate long-range integrated infrastructure plans for its multi-state electric and natural gas distribution utilities. This project includes consideration of how to incorporate “Smart Grid” technology into infrastructure plans in a manner that will enable the Company to roll out new capabilities and services as technology makes them available, without undue acceleration of capital spending as uncertainties in this new marketplace become resolved.

Lead Consultant for Liberty’s audit of Arizona Electric Power Cooperative for the Arizona State Corporation Commission which included reviews of fuel procurement and management, bulk electricity purchases and sales, power plant management, operations and maintenance, energy clause design and operation, and other issues affecting the prudence, reasonableness, and accuracy of costs that passing through the fuel and energy clause.

Lead Consultant for Liberty’s audit of East Kentucky Power Cooperative, which included examinations of Governance, Planning, Finance, and Budgeting. Liberty performed for the Kentucky Public Service Commission an examination of governance at a generation and transmission cooperative serving 16 distribution cooperatives across the state. This study came in the wake of significant financial difficulties and also addressed planning, budgeting, financial, and risk functions and activities.

Lead Consultant for Liberty's audit for the Virginia State Corporation Staff of Potomac Edison Distribution System Transfer. Liberty examined the public interest questions associated with the transfer by an Allegheny Energy's utility operating subsidiary (Potomac Electric) of all of its electricity distribution operations business and facilities in Virginia to two rural electric cooperatives.

Management Audits

Public Service Commission of New York – An operational audit of Con Edison's reliability and emergency response planning and processes. Lead Consultant for corporate strategy and priorities, emergency planning and organization.

Federal Energy Regulatory Commission (FERC) – A review of the California ISO. Examined governance issues, operating procedures, transmission planning and analysis, organizational issues, interfaces with stakeholders and recommendations for the restructuring of the California market.

City of Seattle (Washington) – Review of the City's utility, commissioned by City Council and the Office of City Auditor, to analyze financial strategies, power market and risk management strategies and governance schemes. Lead Consultant for risk management.

St. Vincent Electricity Services, Ltd. – A management audit commissioned by the Board of Directors. Scope included generation, transmission, distribution, organizational assessment, safety, procurement and fuel.

New Jersey Bureau of Public Utilities – Evaluation of the gas supply and hedging programs of the four New Jersey gas distribution companies.

New York Power Authority – Consulting support for an internally sponsored audit of energy risk management functions.

Strategic Business Planning

Barbados Light & Power Company – Project Manager and Lead Consultant for a strategic planning initiative. Major areas of attention included new generation options, regulatory strategies, competitive threats, tariff design, new business opportunities, human resource issues, and planning processes.

Barbados Light & Power Company – Project Manager and Lead Consultant for the development of a model for the risk analysis of various new generation investments.

Electricité de France – Provided business planning and analysis services in the furtherance of the utility's wholesale and retail businesses. The work included research and analysis of potential gas partnerships, trading alliances and development of new retail markets throughout Europe.

SaskPower (Saskatchewan) – Project Manager and Lead Consultant for development of a strategic plan for the Power Production Business Unit. The project included asset valuation and optimization, transmission plans and strategies, efficiency improvement, market analysis and organizational options.

Omaha Public Power District – Project Manager and Lead Consultant for an extensive strategic business planning initiative. This multi-phase project spanned one year and included (1) asset evaluation, estimation of potential stranded costs and stranded cost mitigation strategies; (2) business growth strategies, including retail retention and expansion, new products and services, new utility businesses, wholesale marketing and bulk power trading; (3) corporate restructuring through the formation of four new business units; (4) organization design, including the creation of two new marketing organizations and a new trading floor; and (5) regulatory and legislative strategy development.

Omaha Public Power District – Project Manager and Lead Consultant for a follow-up analysis to the above project a year later to recommend added steps and course corrections. Provided new recommendations on organization design, customer service, stranded costs, energy marketing and trading initiatives, risk management, new business development, new products and services and strategic planning processes.

A Large Canadian Provincial Electric Utility – Strategic planning and business support in the analysis of future generation and transmission options associated with a major new generation construction project.

Tennessee Valley Public Power Association - Project Manager and Lead Consultant for development of a comprehensive new business strategy that reinvented the Association for a competitive environment. Key elements of the plan included a new expanded focus on government relations and the influencing of public policy, as well as the creation of four newly created business units and business endeavors.

City Council of Los Angeles (California) - Advice to the Council on the strategic plans of its municipal electric utility. Conduct of a workshop for the Council and staff on restructuring and competitive issues. Review of power marketing alliance strategies.

Riverside Public Utilities (California) - Analysis of the potential to sell all or part of the utility. Development of a new business vision and strategy. Analysis of outsourcing and alliance possibilities. Development of a power supply alliance, including design of the venture, development of RFP, evaluation of bidders, selection of finalist and negotiations. Organizational design and implementation. Planning and project management support for activities leading to open access.

Lower Colorado River Authority – Consulting support for strategic review and development of alliance strategies. Facilitation of management workshop to develop strategic responses to key issues and to examine options for strategic alliances.

ElectriCities of North Carolina – Business simulations and strategic planning for the North Carolina Power Agencies.

ElectriCities of North Carolina – Analysis of the Carolina P&L – Florida Progress merger with resulting strategies and negotiations on behalf of ElectriCities.

4–County Electric Cooperative - Strategic planning support for the Chief Executive Officer and Board of Directors. Designed and facilitated a planning workshop for the Board of Directors and key managers. Followed up with subsequent action plan for the Board.

Project and Cost Management

Omaha Public Power District (OPPD) – Lead Consultant responsible for design and implementation of a cost management program for a major overhaul of the Fort Calhoun Station. This \$400 million project involved replacement of the two steam generators, pressurizer and reactor vessel head.

Power Marketing, Procurement and Risk Management

Public Service Commission of Maryland – Consultant supervising the various auctions for procurement of power for Maryland’s standard offer service (SOS) customers and support for the PSC in their analysis of new approaches to SOS supply.

Electricité de France – Supporting services for the implementation of a large trading and marketing alliance in Europe, including reporting and control processes and training workshops for employees.

SaskPower - Project Manager and Lead Consultant for the expansion of the bulk power marketing program and creation of an energy trading floor. Work included extensive recommendations on corporate structure, organization, trading and marketing strategies, trading floor characteristics, management controls, risk management strategies, training, alliance building and external interfaces.

Public Service Commission of Maryland – Provided consulting support to the PSC in the approval of the settlement agreement relating to Standard Offer Service (SOS).

New Businesses

BGE Corporation (Constellation Nuclear Services) – Project Manager and Lead Consultant for the business analysis, planning, design and startup of a new subsidiary business for the client. The business, provision of nuclear related services to U.S. and international utilities, was successfully started in July 1999.

Electricité de France – Provided support in the planning, analysis, structure and negotiation of a large international energy trading and marketing alliance (EDF Trading, based in London).

Tennessee Valley Public Power Association – Project Manager and Lead Consultant for a survey and analysis of the Association’s more than 150 member utilities. Produced an analysis with recommendations for the products and services that can best serve the members in a deregulated environment.

Municipal Electric Association (Ontario) – Project Manager and Lead Consultant for the development of a definitive business plan for a new power procurement business on behalf of the Association’s more than 250 municipal electric utilities. Work included initial feasibility assessments followed by a complete actionable plan for the creation of the new organization, including structure, organization, staffing, financing, market analysis, contingency plans, product offerings and promotional strategies. The resulting new company became a reality in late 1997.

ENERconnect (Ontario) – Served as interim Vice President of Marketing and Customer Service for the startup of this new power procurement and services company. Project Manager and Lead Consultant for the development of a detailed operational plan for startup. Assisted in all aspects of startup including organizational design, business strategies, product design and development and support to executive management and the Board.

ABB Energy Solution Partners – Consulting support for ESP-sponsored projects, including customer and project research, project structure, energy supply options, alliances and preparation of proposals. Included regulatory research and discussions in Nevada, Michigan, New Jersey and New York.

Ambient Corporation – Consulting support for strategic and tactical business planning for this startup firm specializing in power line communications (PLC), including development of commercialization plan and supporting management processes, support of business plan, product and service development, regulatory strategies and financing documentation.

PacifiCorp - Customer research with two groups of large industrial and commercial customers. Designed and managed interactive workshops to obtain their input, served as subject matter expert for the sessions, produced and presented comprehensive analyses of the results with strategic insights for the client’s marketing initiatives.

T&D Support

Alberta Electric System Operator – Analysis of transmission loss methodologies for the Alberta market.

A Large Canadian Provincial Electric Utility - Business planning support for the transmission business unit. Analysis of the business potential of new transmission opportunities. Analysis of U.S. transmission policies and their potential impact on a Canadian player in the U.S. markets.

Utility Management

Pennsylvania Power & Light Company - Served in a variety of management positions in a long career with the utility. Responsible for strategic business planning, rates, bulk power marketing, system operation, management of non-utility generation contracts, rate design, market research and contract negotiations with large customers. Key management roles in cost management, planning and scheduling for all Susquehanna nuclear station design, licensing, and startup activities including outage management.

Other Consulting Positions

Senior Vice President for ABB Energy Consulting, responsible for managing consulting engagements for a variety of U.S. and European energy firms.

Principal for Navigant Consulting, Inc., involved in numerous consulting engagements serving the electric utility industry in competitive initiatives.

Senior Vice President for the Washington International Energy Group, responsible for the firm's competitive positioning practice.

Education

M.S., Nuclear Engineering, Columbia University
B.E.E., cum laude, Villanova University

Registrations

Registered Professional Engineer – Pennsylvania

Memberships

Institute of Electrical and Electronics Engineers, American Nuclear Society

Randall E. Vickroy

Areas of Specialization

Mr. Vickroy has over 20 years of experience in the utility industry, including ten years as a management consultant. He has managed and performed numerous high-level consulting assignments at companies and utility commissions in over 25 states. His areas of expertise include corporate finance and treasury management; capital markets and financing vehicles; utility industry restructuring; utility rates and pricing; non-regulated lines of business and affiliations; strategy and planning issues; asset valuations and decision-making; capital and expense budgeting and forecasting; corporate resource allocation; and financial and economic analysis.

Relevant Experience

Lead Consultant on electrical energy and capacity purchases and sales and hedging and capital budgeting on Liberty's management and operations audit of the electricity, natural gas, and steam operations of ConEd for the New York Public Service Commission.

Lead Consultant for Liberty's comprehensive, detailed affiliate relationships and transactions audit of Duke Energy Carolinas for the North Carolina Utilities Commission staff.

Lead Consultant for the performance of Liberty's audit for the Delaware Public Service Commission of a diagnostic audit of the affiliate costs borne by Delmarva Power, a member of the multi-state holding company, PHI.

Lead Consultant for Liberty's audit of Arizona Electric Power Cooperative for the Arizona State Corporation Commission which included reviews of fuel procurement and management, bulk electricity purchases and sales, power plant management, operations and maintenance, energy clause design and operation, and other issues affecting the prudence, reasonableness, and accuracy of costs that passing through the fuel and energy clause.

Lead Consultant for Liberty's audit of Southwestern Public Service for the New Mexico Public Regulation Commission of SPS that included a management review of the prudence of SPS' transactions under the Renewable Energy Credit tracker as conditionally approved by the Commission and a financial review of both revenues and expenses in order to provide an analysis of any under-recovery or over-recovery. Similarly, Liberty performed an evaluation of SPS' fuel clause process and regulations and a financial audit of fuel clause computation. In addition reviews of purchases of coal, natural gas, oil, and purchased power, power plant operations, line losses, and cost allocation and assignment were also performed.

Lead Consultant for Liberty's audit of East Kentucky Power Cooperative, which included examinations of Governance, Planning, Finance, and Budgeting. Liberty performed for the Kentucky Public Service Commission an examination of governance at a generation and transmission cooperative serving 16 distribution cooperatives across the state. This study came in the wake of significant financial difficulties and also addressed planning, budgeting, financial, and risk functions and activities.

Lead Consultant for Liberty's audit for the Virginia State Corporation Staff of Potomac Edison Distribution System Transfer. Liberty examined the public interest questions associated with the transfer by an Allegheny Energy's utility operating subsidiary (Potomac Electric) of all of its electricity distribution operations business and facilities in Virginia to two rural electric cooperatives.

Served as Lead Consultant in an audit of the fuel and purchased-power procurement practices and costs of Arizona Public Service Company for the Arizona Corporation Commission. Responsible for reviews of its contracting and supply-management practices for natural gas. His assignment in the Arizona project included an examination of the reasons for differences in off-system sales between Arizona Public Service, including specifically PNM and Salt River Project.

Led the review of finance and the protection and insulation of the utility from parent and non-utility operations and finances on Liberty's focused and general management audits of NJR, New Jersey Natural Gas, and affiliates for the New Jersey Board of Public Utilities. This project included detailed examinations of affiliate relationships, governance, financing and utility ring-fencing, compliance with New Jersey EDECA requirements for affiliate separation, protection of confidential information, non-discrimination against third-party competitors with utility affiliates, and other code-of-conduct issues.

Lead Consultant in Liberty's audit of Duke Energy Carolinas for the North Carolina Utilities Commission, focusing on issues of compliance with regulatory conditions and code of conduct.

Led the review of finance and the protection and insulation of the utility from parent and non-utility operations and finances on Liberty's focused and general management audits of SJI, South Jersey Gas, and affiliates for the New Jersey Board of Public Utilities. This project included detailed examinations of affiliate relationships, governance, financing and utility ring-fencing, compliance with New Jersey EDECA requirements for affiliate separation, protection of confidential information, non-discrimination against third-party competitors with utility affiliates, and other code-of-conduct issues.

Lead for examination of financing and risk management on Liberty's focused audit of NUI Corporation and NUI Utilities. This audit included a detailed examination of the reasons for poor financial performance of non-utility operations, affect of affiliate operations, including commodity trading on utility credit and finance, downgrades of utility credit beneath investment grade, and retail and wholesale gas supply and trading operations. The audit included detailed examinations of financial results, sources and uses of funds, accounting systems and controls, credit intertwining, cash commingling, and affiliate transactions, among others. Liberty's

examination included very detailed, transaction-level analyses of commodities trading undertaken by a utility affiliate both for its own account and for that of utility operations.

Served as Lead Consultant in Liberty's review of acquisitions of UniSource (Arizona) and Portland General Electric (Oregon) focusing on utility financial insulation, governance, service reliability, access to information, and community presence issues.

Lead Consultant in Liberty's comprehensive analysis of the ratemaking implications of Commonwealth Edison's Chicago electric service outages for the Illinois Commerce Commission. Responsible for investigating and analyzing ComEd's capital budgeting, resource allocation, project management, expenditure levels and rate base impacts for operations leading up to and in response to the outages.

Lead Consultant in Liberty's review of the financial integrity and earnings of Verizon New Jersey's rate regulated and competitive businesses for the New Jersey BPU. Responsible for the financial evaluation of VNJ's earnings, capital structure, rates of return, dividend policies, credit ratings, financial reporting, SEC reporting, and BPU surveillance reports.

Lead Consultant in Liberty's financial audit for ratemaking purposes of Verizon New Hampshire for the New Hampshire Public Utilities Commission. Responsible for a broad and comprehensive analysis of the financial status of VNH, including an audit of the books and records of the Verizon parent, in order to assist the commission in determining rate base, rates of return and appropriate adjustments for the test year.

Project Manager for the development and implementation of regulatory financial systems and models for deregulated ratemaking at Pacific Gas and Electric Company. The project involved developing regulatory strategy, California PSC earnings monitoring models, data bases, analytical models and reporting for all regulatory requirements of PG&E's regulated businesses.

Led the development of a framework and strategy to resolve all electric industry restructuring issues between the State of New Hampshire, Public Service Company of New Hampshire, and the NHPSC. Project included assessment and valuation of all key assets and development of a disposition strategy for all generation assets, contracts and obligations. The project also included the assessment of alternative rate paths; planning for the securitization and recovery of stranded costs; and the development of provisions for power supply purchases during a transition period.

Team leader for the review of the New York Power Authority's profitability, financial reporting, rate competitiveness, pricing policies, power plant economics and economic development programs in this management audit for the state of New York. NYPA is the largest generator and carrier of power in New York, providing over 25 percent of the electricity sold.

Team leader in providing consulting assistance to Kentucky Utilities in preparing its 1993 application for implementing an environmental surcharge. Responsibilities included analyzing legislation, analysis of capital expenditures, analysis of KU's Clean Air Act compliance plan, analysis of costs recoverable under the surcharge, and developing testimony, exhibits, special accounting systems, and rate tariffs.

Project Leader for providing consulting assistance to Big Rivers Electric in preparing its 1994 application for implementing an environmental surcharge. Responsibilities included a review and evaluation of the economics of a major investment in a flue gas scrubber, analysis of Big Rivers' Clean Air Act compliance plan, evaluating cost recoverable under the surcharge, and developing surcharge testimony, exhibits, accounting systems and rate tariffs.

Consultant in Liberty's management audit of GTE South - Kentucky for the Kentucky Public Service Commission. Responsible for the analysis of the financial-management of GTE as it relates to the operation of its GTE South subsidiary.

Lead Consultant in Liberty's management audit of Bell Atlantic - Pennsylvania and Bell Atlantic - District of Columbia for their respective commissions. Responsible for reviewing Bell Atlantic's capital structure, finance and controller functions, financial systems, and treasury operations. Focus areas included the impact of telephone industry competition on capital budgeting, financial management strategy, and treasury operations.

Leader for all financial areas in the review of affiliate transactions among Public Service Electric and Gas, its holding company parent, and the extensive diversified businesses of the holding company. Responsible for evaluating PSE&G's consolidated finance functions to determine whether the financial integrity, flexibility, and cost of capital of the regulated utility had been adversely affected by the activities of diversified affiliates. Work included the review and analysis of the long-term financing, cash management, direct and indirect credit support mechanisms, investor relations, and all transactions between and among the affiliates.

Led the review of finance, cash management, budgeting, and rates in Liberty's comprehensive management audit of Southern Connecticut Gas for the Connecticut DPUC. Responsibilities included operational audits of all finance, regulatory and budgeting processes of SCG.

Led the review of the finance, cash management, budgeting, accounting and rate functions in Liberty's comprehensive management audit of Connecticut Natural Gas for the Connecticut DPUC. Work also included a focus on the financial impacts of CNG's non-regulated businesses, which includes a large steam system in downtown Hartford.

Led the review of the finance, cash management, budgeting, rates, and tax functions in Liberty's comprehensive management audit of Yankee Gas for the Connecticut DPUC. Evaluation included an in-depth analysis of the effectiveness of Yankee's capital and expense budgeting processes and the integration of market and competitive components into these processes.

Led the review of the finance, regulatory and accounting functions in Liberty's management audit of United Cities Gas for the Tennessee Public Service Commission. Responsibilities included a review of all financial functional areas, as well as a review of the impact of all affiliate transactions between the regulated and non-regulated businesses.

Led the evaluation of the financial relationships between Hawaiian Electric Industries and Hawaiian Electric Company for the Hawaii Department of Commerce and Consumer Affairs.

The focus of the review was the credit and financial support provided by the utility company to the holding company and its diversified businesses.

Led the review and analysis of corporate governance, financial relationships and affiliate transactions between Virginia Power and its parent, Dominion Resources for the Virginia State Corporation Commission. The review included an evaluation of all utility and non-utility financing, governance and economic impacts. The engagement was in response to a well-publicized dispute between the holding company and Virginia Power.

Led the consulting and monitoring of contracting for electric supply by Western Massachusetts Power following the sale of its generation assets under electric deregulation.

Led the review and evaluation of the financial management practices of a major utility holding company. Engagement included an assessment of overall financial management and crisis-liquidity plans; strategic and business planning; asset valuations and their accounting impacts upon deregulation; independent power contract buy-downs; and rate reduction strategies.

Led the evaluation and recommendation of strategic lines of business for a major municipal utility facing industry deregulation.

Led the development of a strategic framework for the establishment and growth of non-regulated businesses for a major international electric holding company.

Led the development, analysis, and recommendation of alternative electric generation and power resource strategies for a regional generation and transmission company in preparation for electric deregulation.

Led the review and evaluation of all utility and non-utility financing, financial relationships, and affiliate transactions between a major utility holding company and its electric company subsidiary.

Leader for all financial areas in the evaluation of the diversified businesses of a major utility holding company. Engagement determined the impact on financial integrity, financial flexibility, credit mechanisms, and the cost of capital of the substantially diversified businesses of the holding company.

Led the development of an overall gas business strategy, capital asset allocation methods, financial analysis programs and gas main extension policy for a Midwestern combination utility.

Education

M.B.A., Finance, University of Denver
B.A., Business Administration, Monmouth College

Howard J. Axelrod, PhD

Areas of Specialization

Enterprise risk management, risk and uncertainty analysis, strategic planning, executive management consulting, regulatory economics, energy planning and forecasting, prudence review, management audits and assessment, wholesale market practices and procedures, energy trading and power contract management, counterparty credit risk assessment, merger and acquisition analysis, emerging energy technology market valuation and outage preparation and storm restoration best practice assessment.

Relevant Experience

Energy and Load Forecasting

Over 40 years of expertise with energy and peak demand forecasting including econometric modeling, Box Jenkins, neural-networks and end-use model. Early background included development of econometric models as a NYPSC staff member for the first introduction of long range electric planning in New York State (then referenced as 149b proceedings and later relabeled 5-112 proceedings under the auspices of the State Energy Office.) Later, as Director of Utility Intervention for the NYS Consumer Protection Board, developed short term electric and gas forecasting models to assess utility rate applications and revenue requirements and long term models to evaluate long range generation plans including the prudence of the Nine Mile 2 and Shoreham nuclear plants. Also appointed by Governor Mario Cuomo as chief economist assigned to the Shoreham Commission.

As a management consultant for over 25 years, have developed independent load and energy forecast for a range of applications including nuclear “need for power” prudence reviews, integrated resource planning, nuclear relicensing assessment, distributed generation applications and sales and revenue forecasting. The following is a list of representative load forecasting assignments:

- Retained by a major generation supplier in New York City to participate in the NYISO’s 2010 Load Forecast Task Force development of the peak load forecast used to develop the 2011 Installed Capacity (ICAP) requirement.
- Task leader of a New York PSC sponsored management review of Consolidated Edison’s Westchester and Long Island City outage responsible for assessing “best practice” applications associated with storm preparation and outage management. This task included the review and evaluation of weather forecasting and short term load forecasting.

- Lead consultant retained by Georgia Power to perform independent assessment of all long range planning studies including load and energy forecasting methodologies leading to the construction and completion of the Vogtle 1 and 2 nuclear plants.
- Lead consultant retained by Northeast Utilities to perform independent assessment of all long range planning studies including load and energy forecasting methodologies leading to the construction and completion of the Millstone 2 and 3 nuclear plants.
- Strategic advisor to United Illuminating as it developed its first base rate case in over ten years following a rate moratorium as Connecticut introduced wholesale competition in the state. Primary focus was directed at sales and revenue forecasts, revenue impacts associated with energy conservation and demand side management initiatives undertaken by the company.
- For Unutil, a New Hampshire based electric and gas utility, developed forecasting models and tools to evaluate the economic value of distributed energy resource (DER) applications and investments sought by the company.

System Planning

Dr. Axelrod is a trained power system planner with Bachelor's and Master's degrees in Electrical Engineering – Power Systems and the completion of General Electric's three year Application Engineering training program. While GE's training program included a range of disciplines including transmission and distribution analysis, Dr. Axelrod's focus was on generation planning and the influence of load growth on reserve margins and the sizing and timing of base load generation. His doctoral thesis received from Rensselaer Polytechnic Institute dealt with decisions models relating to optimized generation expansion planning.

The following is a list of representative system planning assignments:

- For PSEG, performed a range of system planning studies including such topical issues as:
 - The conversion of coal fired generation to natural gas as a means to capture CO₂ emissions credits pursuant to emerging Kyoto Accord opportunities
 - The economic benefit and impact of the acquisition of Niagara Mohawk's Albany Steam Plant leading to the development of the Bethlehem CCGT Plant.
- For the New Hampshire Public Service Commission, performed an independent system planning assessment using a comprehensive risk model to assess the conversion of a PSNH coal plant to wood chips.
- For Santee Cooper Power, one of the Nation's largest municipal electric systems, performed an independent risk assessment of its long range generation plan including a

mix of coal, nuclear and CCGT base load generation. Dr. Axelrod has developed a proprietary planning model that evaluated the relative risk of a range of base load generation technologies including new nuclear, nuclear life extension, conventional and clean coal, combined cycle generation and a range of renewable technologies.

- For Unitil, developed a comprehensive planning tool to evaluate the relative economics of distributed energy resource applications as a potential offset to distribution and transmission investments. Such DER applications might include solar electric installations at the customer site to reduce peak demand and associated capital requirements at stressed distribution networks.

Wholesale Market Issues

Dr. Axelrod has been actively involved in the development of competitive wholesale markets since its inception in the late 1990's. He has supported the formation of efficient and effective markets in New York, New England, and PJM. Dr. Axelrod's clientele have included a broad range of market participants including regulators, trade organizations, large energy users, independent power producers and wholesale traders and risk managers.

As leading energy economists, Dr Axelrod was invited in 2006 to join a small group of noted economists including the late Dr. Alfred Kahn and Nobel Laureate Vernon Smith to jointly prepare an open letter to regulators and other policy makers to refrain from abandoning the development of competitive wholesale markets because of the well publicized rate increase sought by Baltimore Gas and Electric in Maryland.

Dr. Axelrod has also been a leading advocate of enterprise risk management (ERM) as a best practice for controlling transactional risks and has been retained by a number of institutions to support the implementation of such programs. His clients have included the NYISO, NYPA and Southern Company.

The following is a list of representative wholesale market assignments:

- For the NYISO, Dr. Axelrod was retained to perform an independent assessment of the ISO's risk profile. Based on his assessment numerous changes were authorized by its Board of Directors and the framework for an ERM process was authorized. The NYISO has subsequently been nationally recognized for its ERM program.
- Dr. Axelrod has also been retained by the NYISO to study other wholesale market issues. For example he analyzed why approximately 50 percent of all wholesale electric transaction were bilateral contracts while the remainder were executed in the NYISO's Day Ahead markets. He was also asked to study the potential effects of electric vehicle penetration on wholesale markets including the potential opportunities for vehicle to grid (V2G) applications.

- For the New York Power Authority, Dr. Axelrod led a management review of NYPA's wholesale marketing practices including procurement protocol and risk management procedures.
- Dr Axelrod was again retained by NYPA to assist in the development and implementation of an enterprise-wide risk management program.
- For a range of independent power suppliers, Dr. Axelrod has been retained to support the development of competitive market strategies. Such clients have included: Cogentrix (a subsidiary of Goldman Sachs), Mirant, PSEG Trading, Sempra, and USPG.
- For Roseville Municipal Electric system, Dr. Axelrod performed a "best practice" assessment of its wholesale market practices and procedures including electric and gas portfolio management, power contract management, risk management protocol and counterparty credit and collateral management.

Strategic Planning, Merger and Acquisition Analysis

Dr. Axelrod has extensive experience in the areas of strategic planning and merger and acquisition analysis. He has supported a number of electric and gas utilities develop strategic and business plans. On several instances he has facilitated senior management strategic retreats. Dr. Axelrod has also performed independent studies assessing the acquisition of electric and gas utilities. For Commonwealth Edison he was instrumental in the company's successful defense of a City of Chicago takeover bid. He also performed acquisition studies of Long Island Lighting Company's gas division, Finger Lakes Gas Company and Savannah Electric. For a major southeast utility, he performed risk analysis of a number of gas acquisition opportunities.

Dr. Axelrod has completed strategic planning, merger and acquisition analysis assignments on behalf of Ameritech, Commonwealth Edison, Brooklyn Union Gas, The Village of Urbana, NY and other confidential utilities.

Market Analysis, Marketing and Competitive Assessment

Dr. Axelrod has performed a wide range of studies in the areas of market analysis, sales forecasting and economic development. He is an experienced strategic planner, marketing facilitator and process analyst. He has supported a number of major utilities develop comprehensive business and marketing strategies focused for both customer retention and expansion. He has also been retained to review and assess planning, forecasting and marketing processes and recommend changes in response to the transition to a competitive energy market. He has helped utilities develop customized marketing programs for key customers accounts, area and economic development, electric and gas technology assessment, gas main extension strategies and natural gas vehicle programs.

His clients have included Unitil, Ameritech, Super Power, Public Service Electric and Gas, Commonwealth Energy, Brooklyn Union Gas, Orange & Rockland Utilities, Georgia Power, Oglethorpe Power, New York State Electric & Gas, and Western Resources Commonwealth Energy, and Unitil.

Utility Rate-making and Regulatory Policy Analysis

Dr. Axelrod has extensive ratemaking experience having served as a staff member of the New York Public Service Commission and as Director of Utility Intervention for the New York Consumer Protection Board. He has testified in over 75 proceedings and managed over 200 rate cases. As a management consultant for the last 18 years, Dr. Axelrod has supported the development of a range of regulatory strategies for major electric and gas utilities.

Dr. Axelrod has provided expert testimony in areas addressing cost of capital, wages and salaries, labor and total factor productivity, energy and sales forecasts, excess capacity, rate phase-ins, economic impact, nuclear "need for power" prudence, affiliate transactions and promotional rate practices. He has also been lead consultant in rate settlement proceedings before state and federal regulators.

His clients have included Georgia Power, Northeast Utilities, Western Resources (KPL), Brooklyn Union Gas, Boston Edison, Eastern Utilities Associates, Midwest Resources (Iowa Power), Oglethorpe Power, Northern Indiana Public service, Old Dominion and New York State Electric and Gas.

Previous Professional Experience

1995 – Present	Energy Strategies, Inc., Founder and President
1994 - 1995	R. J. Rudden Associates, Vice President
1988 - 1994	Resource Management International (now Navigant), Vice President
1984 – 1988	Planmetrics, Vice President, Regulatory Strategy
1981 - 1984	NYS Consumer Protection Board - Director
1980 - 1981	NYS Energy Research and Development Authority - Project Manager
1976 - 1980	NYS Consumer Protection Board - Chief Engineer
1971 - 1976	NYS Public Service Commission - Sr. Research Analysis
1965 – 1971	General Electric Company, Application Engineer

Professional Affiliation

Senior Member, Institute of Electrical and Electronics Engineers
Professional Engineer - Licensed in the State of New York (retired)
Member, Professional Risk Managers International Association

Education

Rensselaer Polytechnic Institute in Troy, New York, Ph.D., Managerial Economics.
State University of New York in Albany, MBA, Organizational Theory and Marketing.
Union College, Schenectady, NY, Graduate Courses in Industrial Engineering.
Northeastern University in Boston, Massachusetts, M.S.E.E., Power Systems.
Northeastern University in Boston, Massachusetts, B.S.E.E., Power Systems.

Publications and Presentations

“Comments of Dr. Howard J. Axelrod Energy Strategies, Inc. In Response to Downeast LNG’s Revised Purpose and Need Statement Filed August 21, 2009 Accession Number 20090821-5025 (FERC)” prepared on behalf of Three-Nation Alliance (Save Passamaquoddy Bay-U.S., Save Passamaquoddy Bay-Canada, Inc., and Nulankeyutomonen Nkihtahkomikumon) and its individual members / interveners.

“An Assessment of Energy Needs in Westchester County: The Economic Impact of Rising Energy Prices and Shortages in Supplies,” Axelrod, H., prepared for the Westchester Business Alliance, January, 2008.

“An Independent Assessment of the Environmental and Economic Impacts Associated with the Closing of the Vermont Yankee Nuclear Plant,” Axelrod, H. prepared for the Vermont Energy Partnership, November, 2008.

“The Fallacy of High Prices,” Axelrod, H., DeRamus, D., and Cain, C., Public Utility Fortnightly, November, 2006.

“Sarbanes-Oxley: Implications for Public Power,” Northeast Public Power Association Annual Conference, August, 2006.

“POLR in Pennsylvania,” presentation to the Pennsylvania Energy Associations’ Annual Conference, September, 2000.

“Brand Management: A Primer on Branding,” an EPRI White Paper, December, 1999.

“An Assessment of the Market of the Market Potential for Value Added Services,” unpublished, June, 1997.

“Strategies to Develop a National Customer Base,” presented at the 1997 Annual Executive Marketing Conference sponsored by the Institute of Gas Technologies.

“Value-Based Pricing: Being Competitive and Profitable,” presented at the DA/DSM Annual Conference, January 28 - 29, 1997.

"The Role of Peak Shaving in an Open Access Industry," presented at the Institute of Gas Technology conference on Peak-shaving: Issues, Answers & Strategies, June 24-26, 1996.

"Financial Implications of a Changing Natural Gas Marketplace," presented at the Institute of Gas Technology conference on Energy Marketing, December, 1995.

"Where Will New Energy Markets Emerge and How Quickly?," presented at the Institute of Gas Technology conference on Natural Gas Marketing, September, 1994.

"The DSM-Marketing Linkage," paper presented at the GRI and A.G.A. Workshop on Gas Load Research and Demand Analysis, May, 1994.

"Managing Your Gas IRP," paper presented at the Northeast Gas Market Annual Meeting, June, 1993.

"Risk and Uncertainty in Utility Planning," with James Letzelter, Resource, Volume 4, Number 2, Summer, 1992.

"Was Your Winter Cold Enough?" Resource, Volume 4, Number 1, Spring, 1992.

"Rocky Mountain Pumped Storage Validation Report," prepared for Oglethorpe Power, June, 1991.

"Putting Your Forecasters Back to Work," Resource, Volume 1, Number 1, Spring, 1991.

"An Independent Assessment of the Costs, Benefits and Risks Associated with a Municipal Takeover of Commonwealth Edison's Chicago Divisions," prepared for Commonwealth Edison Company, 1988.

"The Economic Impact of Electric Rate Increased Options in Georgia," prepared for Georgia Power November, 1986.

"Predicting the Next Regulatory Crisis: An issues Management Approach," appeared as a chapter in a book entitled The Future of Electrical Energy: A Regional Perspective of an Industry in Transition, 1986.

"Analysis of Brooklyn Union Gas Company's Proposal to Purchase the Long Island Lighting Company's Gas Operation," prepared for Brooklyn Union Gas Company, July, 1985.

"Economic Analysis of Incremental Electric Generation Sizing and Timing," Doctoral Thesis, Rensselaer Polytechnic Institute, May, 1981.

"Factors Influencing Industrial Coal Conversion in New York State," with Dr. Fred Strinisa, paper presented at the Governor's Conference on Expanding the Use of Coal in New York State, May, 1981.

"Utilization of Solid Waste in New York: A State Governor's Positive Action Program," paper presented at the First International Conference on Conversion or Refuse to Energy, Montreux, Switzerland, November, 1975.

"Measuring Electric Utility Productivity," appeared as a chapter in a book entitled, Public Utility, August 1975.

"Prospects of New and Evolving Technologies," with P. Mathusa, D. Stricos, H. Guttman and B. Dwyer, New York Public Service Commission, April, 1975.

"Urban Applications of Fuel Cells," with Parker Mathusa, Electric Light and Power, April, 1972.

Phillip S. Teumim

Areas of Specialization

Forty years of experience as a consultant and regulator in the utility industry. General experience in all facets of the electric and gas businesses from senior level policy issues to technical matters. Specific experience in the areas of corporate and project management; planning and budgeting; regulatory and competitive policy development and implementation; full spectrum of customer interfacing, including marketing, sales, and customer service; rate proceedings and ratemaking; and development and enforcement of gas safety and reliability requirements for pipelines and distribution companies.

Relevant Consulting and Regulatory Experience

Project Manager for a management audit of a large Northeastern public power authority for a state agency; lead consultant in the areas of governance, organization, strategic and corporate planning, and ratemaking. Included an evaluation of executive and project management and the composition of and performance of the Board of Trustees.

Lead Consultant for Gas Distribution Infrastructure Improvement on Liberty's work for NorthWestern Energy to formulate long-range integrated infrastructure plans for its multi-state electric and natural gas distribution utilities. This project includes consideration of how to incorporate "Smart Grid" technology into infrastructure plans in a manner that will enable the Company to roll out new capabilities and services as technology makes them available, without undue acceleration of capital spending as uncertainties in this new marketplace become resolved.

Lead Consultant in an audit of the governance, corporate structure and planning of a multi-board generation and transmission cooperative, purchasing agent and trade organization owned by the electric distribution cooperatives in a large Eastern state. Performed diagnostics and restructured three separate boards of directors into a nine-member executive board and a plenary board.

Project Manager for a management audit of a Middle Atlantic LDC for a regulatory commission; lead consultant in the areas of organization, corporate governance and strategic and corporate planning.

Evaluated the effectiveness of a proposed system-wide advanced metering infrastructure installation by a mid-sized Northeast electric utility, including costs and benefits, roll-out strategy, potential applications to various end user classes and individual customers, and comparison with the current automated metering system in place.

Examine O&M expenditures of a mid-sized Northeast electric utility in the context of an electric rate proceeding, with emphasis on line clearance and other expenditures related to reliability.

Served as Office Director, for the New York State Public Service Commission for electric, gas and water matters. Senior policy and technical advisor to the Commission on all electric, natural gas and water matters, and technical and administrative director of the office. Responsibilities included regulatory and competitive policy development and implementation, rate proceedings and ratemaking, annual reviews of utility performance, enforcement of gas safety requirements for interstate pipelines and facilities as agents for the federal DOT/Office of Pipeline Safety and for LDCs and intrastate facilities for New York State.

Project Director for the PSC's prudence investigation of the Nine Mile II nuclear plant construction cost overruns, and lead consultant in the areas of project management and owner oversight for the investigation of the Shoreham nuclear plant.

Section Chief in the Consumer Services Division of the New York State Public Service Commission, responsible for regulatory oversight of the utility-customer interface for all New York utilities, including customer affairs, customer service, and marketing and sales. Included policy development and enforcement of compliance with regulations and Commission directives.

Specific accomplishments and activities at the NY PSC included:

- Lead role in conducting a series of some 15 roundtables, with a broad spectrum of gas industry stakeholders in the Northeast, on development of competitive policies.
- Developed white paper that was subsequently adopted by the Commission, laying out a vision and policy for the natural gas industry in New York.
- Lead negotiator in negotiating settlements of multi-year rate and competitive issues with several large LDCs; senior team advisor on all such negotiations and settlements with all New York LDCs.
- Developed and implemented, after Commission approval, a policy statement on gas purchasing practices and risk management, which lays out the general guidelines for LDCs use of financial instruments ("hedging").
- Lead role in development and oversight of agency's positions as an intervener in FERC proceedings and rulemakings. Included appearances and testimony at various FERC technical conferences.
- Established and chaired New York's Natural Gas Reliability Advisory Group, a 24 member council, representing all stakeholder groups, which addresses pipeline capacity issues.
- Lead negotiator in the restructuring of an electric utility, including divestiture of generation, development of a multi-year rate plan, and implementation of a customer choice program.
- Technical lead in a management audit of Consolidated Edison of New York, Inc., in the areas of strategic and corporate planning, supply planning, fuel procurement, and nuclear operations.

Lead Consultant in evaluation of marketing and sales, rates and pricing, and transportation of customer-owned gas on Liberty's audit of affiliated transactions between South Jersey Gas and South Jersey Industries and its affiliates and general management audit of South Jersey Gas

Company for the New Jersey Board of Public Utilities. Areas addressed included an evaluation of the implementation of the retail choice program, whether and to what extent the utility affiliate may have been shown any favoritism, and the treatment of wholesale and retail marketers by the utility.

Lead Consultant in an evaluation of the asset management services provided by Sequent, an affiliated wholesaler, to Virginia Natural Gas (VNG) for the Virginia Corporation Commission. Specific areas addressed included an analysis of the terms and conditions of the asset management agreements between Sequent and VNG, and other affiliated utilities and non-affiliated utilities, and the actual services provided by Sequent. Also included an analysis of all other services provided by Sequent and the affiliated service company to VNG, and the management of utility-owned and affiliate-owned propane peaking facilities.

Lead Consultant addressing executive management, corporate governance, Board of Directors' performance, and planning on Liberty's focused audit of NUI Corporation and NUI Utilities for the New Jersey Board of Public Utilities. This audit included a detailed examination of the reasons for poor financial performance of non-utility operations, downgrades of utility credit beneath investment grade, and retail and wholesale gas supply and trading operations. Also examined performance of telecommunications, engineering services, customer-information-system, environmental, and international affiliates.

Senior Consultant and Task Area Leader for several task areas in Liberty's Management/Performance audit of gas supply procurement at Dominion East Ohio for the Public Utilities Commission of Ohio. Included testimony before the Commission.

Senior Consultant and Task Area Leader for several task areas in Liberty's Management/Performance audit of gas supply procurement at Cincinnati Gas and Electric Company for the Public Utilities Commission of Ohio.

Senior Consultant and Task Area Leader for several task areas in Liberty's Management/Performance audit of gas supply procurement at Vectren Energy Delivery of Ohio for the Public Utilities Commission of Ohio. Included testimony before the Commission.

Lead Consultant on an investigation of the response to a series of gas leaks by a major metropolitan East Coast gas utility, including field response, technical analysis, public relations and future plans from dealing with an ongoing problem apparently caused by the introduction of LNG into the system.

Lead Consultant on the investigation of the application of tariff charges for new service lines and main extensions as the tariff has been applied by a major metropolitan East Coast gas utility, including customer contributions assessed, cost components, and cost allocations.

Advisor and technical consultant to the presiding commissioner and technical staff of a Northeastern regulatory commission on engineering and policy issues in rate proceedings filed by large investor-owned water utilities. Key issues included depreciation expense, O&M expenses, and treatment and use of proceeds from the sale of a large parcel of land.

Facilitator and advisor for a statewide planning council retreat in a Northeastern state, which has responsibility for all water planning activities state-wide. The council, and its supporting technical working group, includes representatives from all significant stakeholder groups, including state agencies, municipal water utilities, investor-owned water utilities, conservation groups, recreational water use groups, and other parties.

Lead Consultant on an examination of wholesale water rates from a large Northeastern municipality to a group of smaller municipalities and investor-owned water companies. Key components include net plant investment, costs of debt, operations, maintenance and administrative expenses, cost and revenue allocations, and lost and unaccounted for water.

Project Manager for a study of the gas supply and integrated resource planning, and affiliate relationships for a large, vertically integrated LDC in the Southwest; Lead Consultant in the area of organization, strategic planning and affiliate relations and transactions. Included testimony before the state commission.

Additional Relevant Experience:

Frequent speaker on energy, water and regulatory matters before utility groups, industry organizations, trade associations, NARUC conferences and committees. Guest instructor at Camp NARUC and various trade and industry conferences. Testified in regulatory proceedings in New York, Connecticut, Ohio, and Utah and appeared before FERC and various New York legislative committees. Chaired and facilitated statewide and regional conferences on a variety of technical issues.

Education

M.B.A., B.S. (Electrical Engineering), Rensselaer Polytechnic Institute, Troy NY

Christine Kozlosky

Areas of Specialization

Ms. Kozlosky has 27 years of consulting experience with regulated industries. Her areas of expertise include customer-service operations, performance measurement and benchmarking, innovation and best-practice discovery, business-process re-engineering, and information-systems management.

Relevant Experience

Task Area Leader of Liberty's investigation of Ameren-Illinois storm response in the areas of communications, outage management systems, and call center performance. Performed verification of the implementation of recommendations resulting from that investigation.

Completed a follow-up review of outage communication improvements at Nova Scotia Power. This review followed a management study conducted in 2006 that examined Nova Scotia Power's storm response and communications during major ice storm. Ms. Kozlosky assisted the utility in the implementation of recommendations, including upgrades to the Customer Information System and Outage Management System, the addition of a third-party overflow service to handle peak calling periods, and changes to the Customer Service storm communications response plan.

Lead Consultant for review of customer service on Liberty's focused and general management audit of New Jersey Natural Gas, and affiliates for the New Jersey Board of Public Utilities. This project included detailed examinations of affiliate relationships, governance, financing and utility ring-fencing, compliance with New Jersey EDECA requirements for affiliate separation, protection of confidential information, non-discrimination against third-party competitors with utility affiliates, and other code-of-conduct issues.

Lead Consultant for a management review of customer service operations of Elizabethtown Gas Company, a subsidiary of AGL Resources. This review, as part of a commission-mandated audit, examined the management and operations of all functions within customer service, including: Meter Reading, Call Center Operations, Billing, Credit & Collection, Field Service, Revenue Protection, and Business Office Operations. As part of this review, Ms. Kozlosky reviewed the operations and performance of the off-shore outsourcing company that is currently handling the majority of customer service calls for the utility; including the decision to outsource, review of the service contract, service level performance, costs, and impact to the natural gas company's overall service delivery and customer satisfaction. Additionally, Ms. Kozlosky reviewed the subsequent decision to bring these capabilities back in-house, as well as the establishment and start-up of a New Jersey-based call center.

Task Area Leader for review of customer service on Liberty's focused and general management audits of SJL, South Jersey Gas, and affiliates for the New Jersey Board of Public Utilities. This project included detailed examinations of affiliate relationships, governance, financing and utility ring-fencing, compliance with New Jersey EDECA requirements for affiliate separation, protection of confidential information, non-discrimination against third-party competitors with utility affiliates, and other code-of-conduct issues.

Conducted an Electronic Payment Processing Assessment for Greater Cincinnati Water Works. The purpose of the Electronic Payment Processing (EPP) project is to help GCWW quickly define a knowledgeable path forward related to outsourcing of credit/debit card processing, including, defining outsourcing options, identifying the impact of outsourcing on GCWW's business processes and customers, and developing a recommended path forward. As part of this project, Ms. Kozlosky is conducting a diagnostic review of GCWW's current payment processing capabilities and conducting industry market and benchmarking research of payment processing options and practices.

Assisted Macon Water Authority with the implementation of an automated field order processing system. Mobile laptops with 3G broadband capabilities have been deployed in the field, allowing technicians access to service orders as well as customer account information. Orders status is updated in real-time as orders are worked in the field. Ms. Kozlosky is working closely with field personnel to adapt MWA's business process to maximize effectiveness.

Revised credit and collection policies and procedures for the City of Denton's Customer Service organization. As part of a prior management review, Ms. Kozlosky recommended improvement in the City of Denton's collection practices, including risk-based treatment of delinquent accounts, revised credit requirements, a more condensed collection timeline, writing off bad debt, and metrics to track performance. Part of this effort included evaluating payment channels available to customers, including the acceptance of credit/debit cards, e-payment through website and kiosk, and other forms of electronic payment. The city is currently investigating whether to continue accepting credit/debit card payments through its third-party vendor and the implications on accepting payments in person, over the phone, IVR, and web. The City of Denton has already proceeded with many of the changes and is currently pursuing City Council approval for those impacting the City Ordinance.

Assisted Macon Water Authority with the implementation of a new check imaging remittance-processing solution. Following recommendations from a prior Customer Service diagnostic review conducted by the Ascent Group, Macon Water Authority replaced its outdated check processing equipment with a solution that provides accounts receivables conversion (ARC) to ACH. The new solution will improve cash flow, reduce banking fees, and streamline cash processing. In-person payments by check will also be converted on-the-spot to ACH, thereby increasing same-day fund availability and eliminating paper check handling and processing.

Assisting Motion Picture Industry Pension and Health Plans with the consolidation of three call centers into one. While multiple call centers were providing specialized services for plan members and providers, they were creating barriers and confusion for customers, leading to a high number of transferred calls, longer wait times, increased repeat calls, disjointed customer

service, and caller dissatisfaction. In phase one of the assignment, Ms. Kozlosky conducted an As-Is Evaluation of MPIPHP's call center practices and performance. Recommendations were then presented to merge the centers and implement practices to improve member and provider satisfaction, achieve higher first call resolution, and increase contact quality. Implementation of these recommendations will proceed throughout 2010.

Reviewed First Contact Resolution strategies for AT&T to identify best practices and techniques to measure and improve first contact resolution. Ms. Kozlosky also benchmarked AT&T's National Consumer Sales organization's performance against a panel of similar companies. Recommendations were presented to improve AT&T's first contact resolution performance as well as the internal processes supporting the achievement of first contact resolution.

Conducted a management review of outage communications at Nova Scotia Power for the Utility and Review Board of Nova Scotia. This review examined Nova Scotia Power's storm response and communications. Numerous recommendations were made to improve call center performance and overall outage communications, including a framework for early ETRs (Estimated Time of Restoration), more proactive communication with customers during the storm, third-party call overflow handling, and the staging of customer service representatives. Ms. Kozlosky also testified in a public hearing in regard to this review.

Completed a review of Washington D.C. Metro Area Transit Authority people processes for its front-line customer service employees—train operators and bus drivers. Ms. Kozlosky benchmarked WMATA's practices against "best in industry" in the areas of hiring, training, and performance. Ms. Kozlosky presented findings and recommendations for improvement to WMATA's CEO and upper management.

Conducted a study of customer service performance for the American Water Works Association Research Foundation (AWWARF). This study developed and deployed a customer service benchmark framework for 1,000 member utilities. As part of the study, an interactive web-based benchmarking tool was developed to collect benchmark data and disseminate benchmark results. Additionally, a customer satisfaction survey was deployed to measure satisfaction among the member utilities. These tools were then handed over to the AWWARF for ongoing benchmark comparisons and continuous improvement of its member utilities.

Project Manager for a study funded by the Cooperative Finance Network of the National Rural Electric Cooperative Association (NRECA) to identify e-commerce initiatives and solutions for utilities and telecommunications firms. Ms. Kozlosky identified more than 400 initiatives involving utilities and use of the Internet for both business-to-business and business-to-consumer products and services. Ms. Kozlosky designed a database and published the study results on a web site designed exclusively for use by NRECA member cooperatives.

Lead Consultant for a research study of billing operations for more than a dozen utilities. The study focused on how companies are looking to new billing products and services as the industry moves to deregulation and competition. Companies were interviewed to understand how quickly services like Internet bill presentation and payment and "weatherized" bills are being adopted and implemented.

Recently interviewed and researched “best in industry” leaders to document call center and customer care best practices and lessons learned. Companies included in the review: Southwest Airlines, FedEx, Tesco, First Direct, The Ritz-Carlton, USAA, Southern Company, State Farm, Dell, Lexus, and Yellow Freight.

Assisted Jacksonville Electric Authority’s customer service re-engineering team in the identification and presentation of recommendations to improve JEA’s customer service delivery. JEA had identified a goal of being the best service provider in the U.S. by 2007. Recommendations were provided to reorganize around key business processes, implement new technologies, change existing processes to be more efficient and effective, implement additional training and development, and empowerment of front-line employees. JEA will implement the recommendations concurrently with the selection and implementation of a new Customer Information System.

Project Manager and Lead Facilitator for a “best in class” benchmarking study of Entergy’s Retail Operating Support organization. Ms. Kozlosky was responsible for directing the benchmarking efforts of four company teams. Areas studied in detail included: telephone center operations, meter reading, billing, remittance processing, credit and collections, and payment agency operation. The study focused on Entergy’s performance in a competitive environment.

Assisted a start-up Internet company with the design and development of a data acquisition and publication system for selling and syndicating content over the Internet. Ms. Kozlosky was responsible for designing the input mechanism and developing specifications for the development of the Internet knowledge-base distribution mechanism.

Conducted a competitive assessment of the many ways in which utility companies are acquiring new products and services to prepare for the competitive marketplace. For the past year, she examined the utility and telecommunications industries to understand the range of competencies that are being acquired through joint ventures, partnerships, acquisitions, and alliances. The research was conducted for Entergy’s Marketing organization.

Project Manager for a benchmarking study of Integrated Voice Response Technology within ten industries. The study was commissioned by Illinois Power Company. Ms. Kozlosky was responsible for securing participation from companies and interviewing participants about their IVR strategy and deployment. The study examined how companies are deploying the technology, how it comes into play from a customer perspective, and how it fits into an overall customer service strategy.

Lead Consultant for customer service areas in Liberty’s comprehensive examination of transmission and distribution (T&D) for the Illinois Commerce Commission following concerns about Commonwealth Edison’s (ComEd’s) performance in meeting its public service responsibilities. Evaluated ComEd’s customer service performance, organization, staffing levels, and organizational effectiveness. Examined costs associated with customer service and communications contained as part of Liberty’s investigation of ComEd rate filing.

Lead Consultant in Liberty's management audit of Bell Atlantic-Pennsylvania and Bell Atlantic-District of Columbia for their respective commissions. Responsible for review of customer service, including sales, service and support organization, credit and collections, billing, remittance, and staff support. Also included in the study was the review of the information systems supporting customer service, billing, and collections.

Consultant for Liberty's audit of Ameritech-Ohio policies, procedures and compliance with service quality performance requirements under Ohio's Minimum Telephone Service Standards (MTSS).

Lead Consultant in Liberty's management audit of Southern Connecticut Gas Company, conducted for the Connecticut Department of Public Utility Control. Responsible for reviewing the company's customer-service organization, including planning, credit and collections, billing, remittance, telephone operations, business offices, and staff support. Also included in the study was the review of the information systems supporting customer service, billing, and collections.

Lead Consultant for the review of the work-management and manpower-planning processes of Rochester Telephone Company, performed for the New York State Public Service Commission. Provided recommendations to improve existing and planned work-management and manpower-planning processes in the engineering, operations, and customer service functions.

Project Manager for the design and pilot implementation of an automated workforce management and manpower planning system for New York Telephone Company, in an engagement for the New York State Public Service Commission. Responsible for ensuring that previous audit recommendations were fulfilled, as well as providing functional design guidance.

Consultant in Liberty's management audit of Yankee Gas Services Company, conducted for the Connecticut Department of Public Utility Control. Responsible for detailed analysis of selected customer-service issues.

Lead Consultant for a research study of billing operations for more than a dozen utilities. The study focused on how companies are looking to new billing products and services as the industry moves to deregulation and competition. Companies were interviewed to understand how quickly services like Internet bill presentation and payment and "weatherized" bills are being adopted and implemented.

Recently conducted market research for a large underground facilities locating firm based in Atlanta, Georgia. The research determined market size and potential for locating services throughout the United States.

Recently worked with a team to design and implement call center technology for the Electricidad de Caracas in Venezuela. Ms. Kozlosky provided assistance with procedural and systems development as well as best practice implementation.

Project Manager for a study of business office operations within five utilities that still operate full-service, walk-in customer service centers. The study focused on how these offices fit into an

overall customer service strategy and how they impact customer satisfaction. Ms. Kozlosky also looked at the future of face-to-face customer service. The study was conducted for Entergy.

Lead Consultant on Liberty's study for Colorado Springs Utilities to assist this utility in addressing the organizational impacts associated with a transition to automated meter reading (AMR). Liberty's work included a survey of the experiences and lessons learned from 25 utilities that had already experienced the transition to AMR.

Project Manager for a multi-company meter-reading comparative-practices study. Detailed review of the meter-reading organization, practices, policies, and management of more than 20 electric, gas, and water utilities located across the U.S., Canada, and the U.K. Areas researched include: emerging technologies used in route optimization and meter automation, staffing strategies, training, performance-incentive programs, and approaches to resolve inaccessible meters, reduce off-cycle reads, address high-read-cost meters. Study findings were presented at a National Meter Reading Conference.

Project Manager for a study to determine the cost of service for the appliance-repair activities of Providence Gas Company.

Lead Consultant in a study that helped a large western electric utility's Distribution Business Unit develop its strategic plan. Tasks included identifying information-systems needs to prepare for deregulation and open access, support new product/service offerings, and improve customer service. This involved identification of new, strategic systems as well as modifications and enhancements to existing legacy systems. Also provided financial analysis to support strategic action items.

Lead Consultant for the review of performance-reporting systems for the distribution operations of a southwestern electric utility. Led a client team in the design and implementation of a Crew Performance Reporting System to track regional performance of T&D line crews. The system provided information on crew productivity, job backlog, work flow, and job-completion status. Modified an existing Field Service Management system to better measure and track serviceman performance. Detailed action plans were developed to facilitate a successful implementation of recommendations.

Project Manager for an internal benchmarking performance study of Delmarva Power & Light's twelve district customer-services offices. Identified opportunities for improvement within the customer-call center, business-office operations, remittance processing, meter reading, field services, credit and collection, and customer accounting. Activity based analysis provided the foundation for a more balanced allocation of resources to the operating districts.

Project Manager for a diagnostic assessment of Detroit Edison's Customer Service operating performance compared against an industry benchmarking panel of more than 25 electric utilities. Presented findings to all levels of management in the Customer Service organization, conducted focus-group reviews for: business-office operations, remittance processing, meter reading, field services, credit and collection, and customer accounting. Recommended practices for improvement teams to evaluate for implementation.

Lead Consultant for the review of the human-resource functions and work-management /manpower-planning processes of Washington Gas Light Company for the Maryland Public Service Commission. Provided observations and recommendations to improve existing and planned work-management and manpower-planning processes and human-resource processes and systems. Areas reviewed included: customer contact, meter reading, billing, collections, servicemen and appliance repair, and public affairs and community relations.

Project Manager and Lead Facilitator for the development of an executive-level conceptual design of a customer-response system for Boston Edison Company. The project developed an integrated vision for responding to customer inquiries that optimizes the use of information systems and technology. Facilitated an inter-departmental team in the design of the response system, drawing together industry best practices, process-mapping findings, and technology expertise.

Project Manager for a study to analyze and redesign Boston Edison Company's collection and customer-service correspondence. Recommendations were made to eliminate unnecessary correspondence and all remaining correspondence was rewritten to be more professional and more customer sensitive.

Project Manager for a study of customer expectations at Nashville Electric Service (NES). The study developed a baseline understanding of NES's customer and employee expectations and satisfaction. At the same time, an internal diagnostic of NES's business processes and practices identified areas of improvement opportunity as well as potential weaknesses in delivering customer service. The project then matched customer expectations and satisfaction feedback to the internal process-review results to delineate specific areas for improvement or process realignment. The customer-measurement process used to gather mail-survey, telephone-survey, and focus-group feedback was also established so that customer feedback can be obtained and reviewed by NES staff on an on-going basis.

Conducted and published the 1993-94 Electronic Data Interchange Billing Practices Utility Industry Study. This research study surveyed more than 160 electric, gas, water, and telecommunications companies to identify the use of Electronic Data Interchange for producing customer bills. Companies using this technology were profiled in detail, including: length of time that the service has been in place, participation level by customer segment, software and hardware specs required to offer service, marketing plans, and plans for expansion.

Project Manager for a custom-tailored assessment of Empire District Electric's Customer Service operating performance as compared to an industry benchmarking panel of more than 25 electric utilities. Presented findings to senior management as well as the entire customer-service management team.

Project Manager for a diagnostic assessment of Southern California Edison's Customer Service operating performance as compared to an industry panel of more than 35 utilities. Presented findings to all levels of management and staff through a series of focused review sessions. Areas

evaluated included: telephone-center and business-office operations, meter reading, field services, credit and collection, and customer accounting.

Project Manager for an annual multi-company benchmarking study of customer service in the electric utility industry, for three years. Functions benchmarked by the study included: front-office operations, meter reading, customer accounting, field and meter services, telephone-center operations, remittance processing, and credit and collections. Designed, developed, and provided detailed industry comparison of operating-company expenditures, productivity measures, and key service-level indicators. Analysis highlighted the best performers in each function and detailed interviews were conducted with these companies to identify innovative practices.

Lead Consultant for a cost-reduction study of customer-service operations at General Public Utilities. Analyzed remittance processing, billing, customer-service operations, energy programs, and meter-reading work practices and procedures. Encompassed in the study was a detailed industry comparison of operating-company operation and maintenance expenditures and key service-level indicators. Identified significant manpower and dollar savings.

Engagement Director for focus-group research conducted with call-center customer-service representatives, collectors, and meter readers at Boston Edison, Sierra Pacific Power, Northeast Utilities, Duke Power, and Illinois Power. Focus groups were conducted to ascertain perceptions and effects of changes in the utility industry, including mergers and acquisitions, work group consolidation, office closings, and corporate re-engineering and downsizing.

Project Manager for the review of customer payment processing capabilities of Central Power & Light. Led a client team in a feasibility study to determine the cost/benefit of centralizing the payment processing facilities. Recommended remittance processing equipment, staffing, and processing procedures. Detailed action plans were developed to facilitate a successful implementation of recommendations.

Project Manager for a benchmarking study of integrated-voice-response technology for Illinois Power Company. Responsible for securing participation of companies from many industries and interviewing participants about their IVR strategy and deployment.

Project Manager for a study to uncover innovative products and services for the electric and gas utility industry. Coordinated a multi-client survey and investigation to detail the range of products and services currently offered; directed an intense literature search to document innovative products and services outside the industry that could be applied to the client; and developed a framework for assessing new products and services that fit with the client's current business strategy. The results from this study have been used to focus and enhance the product and service development efforts of Pacific Gas & Electric.

Education & Certifications

B.S. Information & Computer Science, Georgia Institute of Technology.

Certified Female Business Enterprise: State of Illinois, Commonwealth of Pennsylvania, State of New York, and the City of Philadelphia.

Publications

The Ascent Group has conducted significant research into customer care best practices, process improvement, and performance benchmarking and maintains an extensive database of customer service metrics from companies in all industries. Additionally, The Ascent Group offers an online benchmarking service to assist companies in ongoing performance measurement and best practice discovery.

The Ascent Group's publications include:

- Call Center Strategies
- Call Quality Improvement
- Credit & Collections Practices
- Achieving First Call Resolution
- IVR Improvement Strategies
- Reward & Recognition Program Profiles & Best Practices
- Improving Front-line Recruitment & Hiring
- Improving Front-line Training
- Improving Front-line Performance
- Billing & Payment Profiles & Best Practices
- Meter Reading Profiles & Best Practices

Charles H. King

Areas of Specialization

Executive management; project management; service quality measurements; telecommunications operations support systems; arbitration support; third-party assessments of telecommunications operations; third-party test design; regulatory financials; regulatory relations; access charges; telecommunications pricing; demand modeling and forecasting; quantitative analysis and modeling.

Relevant Experience

Dr. King has 31 years of broad experience in telecommunications, with expertise in systems and operations, public policy and regulatory affairs, analysis, and project management.

Project Manager for Liberty's support of the New Hampshire Public Utilities Commission Staff in its review of the sale of Verizon's business in northern New England to FairPoint Communications. Led the team analyzing the proposed sale, provided expert testimony before the Commission, and supported Staff in negotiations with Verizon and FairPoint.

Project Manager for Liberty's monitoring of the transition of the telephone operations and systems from Verizon to FairPoint Communications for the staff of the Maine Public Utilities Commission, New Hampshire Public Utilities Commission, and Vermont Department of Public Service. Led the team reviewing and assessing the development and testing of the new FairPoint systems, the development and testing of new business processes, and the hiring and training of staff to replace Verizon centralized operations. Provided expert testimony about FairPoint's readiness to cutover to the new systems and processes before the Maine Public Utilities Commission, New Hampshire Public Utilities Commission, and Vermont Public Service Board.

Project Manager for Liberty's review of Verizon's compliance with the New York Public Service Commission's requirements for broadband installations. Liberty's team physically inspected a random sample of broadband installations at customers' premises throughout New York State and assessed compliance with the New York Commission's grounding requirements.

Project Manager for Liberty's review of Verizon's reported progress in implementing its network modernization plan in Pennsylvania for the Pennsylvania Public Utility Commission. This project involved the review of Verizon's progress in providing broadband and other advanced services in the state, including a review of the accuracy of Verizon's records and reported results, site visits to field locations throughout the state to verify the implementation of the plan, observations of tests to verify the broadband capability of a sample of circuits, and reviews of Verizon's reporting process, and reviews of Verizon's capital expenditures and capital budgeting processes.

Project Manager of Liberty's review for 11 of the 14 states in the Qwest operating region of the Qwest Wholesale Performance Assurance Plans and performance measures for the purpose of recommending modifications of the plans and measures.

Project Manager for Liberty's review of Qwest's wholesale loop qualification process for the Arizona State Corporation Commission.

Project Manager for Liberty's audit of Qwest's performance measures and performance assurance plans for 13 states in the Qwest operating region. Also, leading the team to evaluate the effectiveness of the Qwest performance assurance plans for 12 of the 14 Qwest states.

Project Manager for Liberty's audits of BellSouth's wholesale performance assessment plan for the Florida Public Service Commission.

Project Manager and member of Liberty's team reviewing Verizon's wholesale performance metrics and performance incentive plans for the District of Columbia Public Service Commission, the Maryland Public Service Commission, and the Virginia State Corporation Commission.

Advisor to the Delaware hearing examiner in the arbitration of an interconnection agreement between Verizon and Intrado.

Advisor to arbitrator in the District of Columbia and the hearing examiner in Delaware in the arbitration of amendments to interconnection agreements between Verizon and CLECs to address changes resulting from the FCC's Triennial Review and Triennial Review Remand Orders.

Advisor to and technical expert for the hearing examiner and staff of the Delaware Public Service Commission in its Triennial Review Order proceedings to evaluate Verizon's petition for non-impairment for mass market switching and dedicated transport.

Reviewer for the Arizona State Corporation Commission of Qwest's process for and compliance with the rules for filing of intercarrier agreements.

Project Manager for a third-party evaluation by BearingPoint (formerly KPMG Consulting) for the New Jersey Board of Public Utilities of Verizon's capability to provide access for CLECs to its Operation Support Systems (OSS). Managing Director for BearingPoint's third-party evaluations of Verizon's OSS for the Pennsylvania Public Utility Commission, the Rhode Island Public Utilities Commission, and the Virginia State Corporation Commission. Member of the team performing the third-party evaluation of Verizon's OSS for the New York Public Service Commission. This work was used to assess Verizon's 271 applications in these jurisdictions. Managed teams of more than 100 consultants investigating Verizon's provision of various wholesale services, including pre-ordering, ordering, provisioning, maintenance, repair, billing, collocation, change control, CLEC training, documentation, and account management. The work of the team involved interviewing Verizon and CLECs; setting up wholesale electronic OSS interfaces with Verizon; creating and transmitting electronic and manual wholesale transactions

with Verizon, and measuring Verizon's performance in processing these transactions; observing wholesale operations; and evaluating Verizon's systems for reporting wholesale metrics, including review of metrics processes, analysis of the integrity of the metrics data, recalculation of metrics results, and review of metrics change control. Also provided testimony in formal and informal hearings of the New York Public Service Commission, the Pennsylvania Public Utility Commission, the New Jersey Board of Public Utilities, and the Rhode Island Public Utilities Commission.

Managing Director for BearingPoint's assessment of the similarity of Verizon's OSS in the District of Columbia, Maryland, Virginia, and West Virginia for the District of Columbia Public Service Commission, the Maryland Public Service Commission, the Virginia State Corporation Commission, and the West Virginia Public Service Commission. This work was used as part of the assessment by these commissions as to whether the results of the detailed third-party evaluation performed in Virginia could be used to support Verizon's 271 application in the other three jurisdictions.

Managing Director for BearingPoint's audit of BellSouth's wholesale service quality measurements for the Georgia Public Service Commission and the Louisiana Public Service Commission. Work involved review of metrics processes, analysis of the integrity of the metrics data, recalculation of metrics results, review of metrics change control, and review of the performance incentive plan.

Co-director of BearingPoint's support operations for its third-party evaluations of BellSouth's OSS for the Florida Public Service Commission, specializing in service quality measurements, test design, and test bed development.

Co-director of BearingPoint's support operations for its third-party evaluations of SBC Ameritech's OSS for the Illinois Commerce Commission, the Indiana Utility Regulatory Commission, the Michigan Public Service Commission, the Public Utilities Commission of Ohio, and the Wisconsin Public Service Commission, specializing in service quality measurements, test design, test bed development, and provisioning evaluations. Co-inventor on United States Patent 6636585, "Metrics-related testing of an operational support system (OSS)."

Co-director of BearingPoint's support operations for its third-party evaluation of Qwest's OSS in thirteen states for the Regional Oversight Committee (ROC), specializing in test design and test bed development.

Managed consulting engagements at several existing and prospective Competitive Local Exchange Companies, analyzing and improving competitive local service operations, measuring OSS performance, and developing operational strategies for competitive local service entry.

Developed and managed teams developing market research methods and market demand models for a major interexchange carrier.

Directed analysis and model development to support AT&T's local telecommunications service entry strategy. Directed the design and development of a computerized strategic planning model

to develop optimum local service investment strategies for each of the over 20,000 local serving areas in the U.S.

Helped organize and became Vice Chairman of the Local Competition Users Group, a leading industry group fostering local telecommunications competition in the U.S. Participated in the development of proposed metrics for assessing the performance of operational support system access provided by incumbent local exchange carriers and chaired a subcommittee that developed a common position and produced a public policy paper on the need for the Unbundled Network Elements Platform.

Orchestrated a team of subject matter experts who worked for AT&T to develop standards within the Alliance for Telecommunications Industry Solutions. The team successfully advocated detailed specifications of national standards to support operational interfaces between local telecommunications carriers for ordering, provisioning, maintenance, and billing.

Directed an analytical team to support negotiations for AT&T's purchase of a \$300 Million interexchange telecommunications provider. Developed the business case for the purchase and was principal analyst on the negotiating team. Formed and directed a multi-disciplinary transition team to manage all aspects of the change of ownership, including finance, marketing, sales, legal, network, human resources, billing, access, government affairs, and public relations.

Represented AT&T at the Federal Communications Commission, developing and advocating public policy positions on access and regulatory financial issues. Managed the organization responsible for regulatory financial reports.

Managed the strategic pricing and forecasting of all regulated domestic consumer services for AT&T.

Testimony

FairPoint Communications' readiness to cutover from Verizon's to its newly developed systems and processes – testimony before the Maine Public Utilities Commission, the New Hampshire Public Utilities Commission, and the Vermont Board of Public Service.

Whether the transfer of Verizon's land-line business to FairPoint Communications is in the public interest – testimony before the New Hampshire Public Utilities Commission.

Section 271 third-party operations support system testing – testimony at the New York Public Services Commission, New Jersey Board of Public Utilities, Pennsylvania Public Utility Commission, and Rhode Island Public Utilities Commission on the results of third-party tests of Verizon's wholesale operations support systems.

Education

Ph.D., Physics, Yale University

M. Phil., Physics, Yale University

B.A., Physics, summa cum laude, Northwestern University

Graduate of the Wharton Business School's Advanced Management Program

Member of Phi Beta Kappa

Giulio G. Freda

Areas of Specialization

Executive financial management; management and regulatory financial reporting; development of financial, operations and regulatory performance metrics; GAAP and regulatory accounting, executive level wireless partnership management; interconnection agreement negotiations; strategic financial planning and analysis; budgets and forecasts; project management; rate case development, mergers and acquisitions.

Relevant Experience

Mr. Freda has over 25 years of senior level accounting and finance experience in telecommunications (wireless and wireline), with expertise in accounting and finance, regulatory affairs, analysis and project management.

Lead Consultant for audit of affiliate relationships and cost allocations Liberty's management audit of Elizabethtown Gas Company for the New Jersey Board of Public Utilities.

Lead Consultant for investigating cost allocations and accounting and property records in Liberty's audit of Duke Energy Carolinas for the North Carolina Utilities Commission.

Member of Liberty's team specializing in accounting and accounting systems in support of the New Hampshire Public Utilities Commission Staff in its review of the sale of Verizon's business in northern New England to FairPoint Communications. Member of the Liberty team monitoring for the Maine, New Hampshire, and Vermont regulators the cutover of operations from Verizon to FairPoint; responsible for monitoring financial, supply chain, and human resources systems.

Lead team member responsible for financial records and accounting methods in Liberty's audit of Verizon's reported progress in implementing its network modernization plan in Pennsylvania.

Management reporting team and functional lead for BearingPoint's (formerly KPMG Consulting) Enterprise Performance Measurement Group on the Hawaiian Telcom project. Developed functional requirement documents for 23 executive level management reports and 79 performance metrics. Developed the functional requirements and logic to convert retail and wholesale billed revenue to earned revenue to satisfy Hawaiian Telcom's accounting and finance requirements.

Region Controller for ALLTEL's northeast region serving 6 states (PA, OH, NY, MI, IL, and WV). Consolidated region accounting centers for efficiencies and synergies, directed debt restructuring for Ohio companies which was approved by the Public Utilities Commission of Ohio. Led the effort to implement FAS 109 and 106, Deferred Income Taxes and OPEB's while Chairman of the Ohio Telephone Association Finance Committee. Directed the due diligence

efforts for the purchase and sale of selected telecommunications properties. Prepared rate case filings and submitted testimony for ALLTEL's Ohio companies.

Corporate Director, Financial Planning and Analysis for ALLTEL's 25 state operations. Developed strategic plans, budgets and forecasts for ALLTEL's 25 state operations which included wireline, wireless, long distance, Internet and PCS reporting segments. Developed scenarios for potential mergers, acquisitions, sales and swaps of properties.

Corporate Director, Partnership Affairs – Represented ALLTEL as its General Partner by managing more than 80 wireless majority and minority owned partnership properties which accounted for more than half of ALLTEL's total revenues. Responsible for administering and negotiating all partnership agreements, including revenue and switch sharing agreements. Directed all sales, purchases and property swaps related to partnership equity interests. Directed all aspects of the sale/lease and monetization of the wireless partnership towers.

Negotiated interconnection agreements for MCI, Inc. and provided financial expertise to support negotiations. Participated in MCI's bankruptcy settlements process and negotiations valued at more than \$1B.

Project managed regulatory, financial planning and accounting issues for TXU Communications which provided wireline (ILEC/CLEC), long distance, and Internet services. Developed first ever enterprise level business plan and budget. Aligned accounting, planning and regulatory functions for enhanced regulatory reporting. Proposed accounting changes to realign costs and revenues to minimize over earnings issue related to rate of return. Directed revenue assurance effort for the Sarbanes-Oxley remediation.

Education

B.B.A., Accounting, Cleveland State University
M.S., Business Ed., University of Central Arkansas

Professional

Certified Public Accountant (CPA), Ohio

Memberships

Past Chairman – Finance Committee (Ohio Telephone Assoc.)
Past Finance Committee member of the OH, IL, PA and NY Telephone Associations

David Berger

Areas of Specialization

Mr. Berger specializes in pipeline integrity management, corrosion control, gas-infrastructure asset management, and gas system operation and security.

Relevant Experience

Lead Consultant for review Program and Project Planning and Management – Natural Gas, as part of Liberty’s Management and Operations Audit of Consolidated Edison for the New York Public Service Commission.

Lead Consultant for Liberty’s project for the District of Columbia PSC to examine the usage and cost recovery of a hexane injection strategy used by Washington Gas Light.

Lead Consultant for reviews of Contractor Performance and of System Operations and Maintenance as part of Liberty’s Management and Operations Audit of Elizabethtown Gas for the New Jersey Board of Public Utilities.

Task area leader for the areas of corrosion control and emergency plans in Liberty’s investigation of Peoples Gas pipeline safety for the Illinois Commerce Commission. The audit seeks to review and evaluate Peoples Gas’ overall operations and maintenance activities and its pipeline safety program to determine the degree to which they are in compliance with federal and state regulations, and conformance of those activities and program with industry best practices and best practices determined by the ICC Staff in consultation with Peoples Gas.

Mr. Berger is under contract to United States Department of Transportation (USDOT) Pipeline and Hazardous Materials Safety Administration (PHMSA) to assist in developing and implementing a gas and liquid pipeline integrity management program and to assist in inspecting operators of pipelines through Cycla Corporation. He is the author and instructor at Transportation and Safety Institute (TSI) on direct assessment training modules for External Corrosion Direct Assessment (ECDA) (including a new course on ECDA indirect inspection techniques) Internal Corrosion Direct Assessment (ICDA), Stress Corrosion Cracking Direct Assessment (SCCDA), and Confirmatory Direct Assessment (CDA). In addition, he is a consultant to PHMSA on integrity management notifications and corrosion control issues.

Consulted with the Washington Utilities and Transportation Commission for corrosion control issues and expert testimony from an incident that resulted in a house explosion and death. Technical consultant for a risk model regarding distribution integrity issues with the LDC.

Mr. Berger is the lead author of a primer on corrosion control and cathodic protection for upper level USDOT administrators.

Until July 2004, Mr. Berger was the Division Manager, Asset Management, for KeySpan Energy. In this capacity, he managed a group of engineers, clerks, technician assistants, supervisors, and field labor to maintain and improve the asset management of the gas infrastructure and the cathodic protection systems on all KeySpan Energy gas and electric facilities (Long Island, New York City, New England). He was the process owner of KSE's gas transmission system and directed the overall integrity management program for all KSE assets (gas, electric, electric generation). He provided guidance to corporate security on gas operation security issues and implemented security plans for the gas infrastructure in all service areas. He was a developer of the direct assessment method of determining gas pipeline integrity.

Also while at KeySpan, he provided strategic direction to reduce costs while improving the overall effectiveness of corrosion control to facilities. He was instrumental in reducing the hand-offs in constructing corrosion control repairs and improvements by bringing construction activities under one group from the several previously involved. He developed and implemented the complete rebuilding of the gas shop test equipment and data acquisition systems and updated them from 1960s technology to the most technologically advanced in New York State. He also directed the improvement and streamlining of the work methods and planning of the Regulator and Instrumentation group. He started computerization of the division by instituting the reporting of field test results via laptop computers for routine and periodic testing. He designed and instituted the installation of AMR (Automated Meter Reading) systems for large gas and electric account gas meters to more closely monitor gas usage during curtailment periods and to provide special billing to customers.

In the position of section head of the Environmental Engineering Department for KeySpan, Mr. Berger managed a group of engineers that was responsible for all of the hazardous waste, industrial waste and petroleum storage facilities for the company. He negotiated permits and compliance schedules with all levels of regulatory officials (local, county, state and federal). He prepared and submitted all superfund and other legal notifications. He provided support to operating organizations, legal, and fuel management personnel for environmental matters.

Prior to his employment at KeySpan, Mr. Berger was the Director of Operations for Russell Plastics Technology Inc. and a Plant Manager for ICI Americas, Inc. - Aerospace Division.

Education

University of Delaware, course work (32+ credits) for M.S. in Environmental Engineering
New York University, B. Ch.E. (Chemical Engineering)

Other Honors, Societies, and Papers

Member A.I. Ch. E.

Member AWMA

Author and co-author of papers in WPCF, AGA, NACE

AGA Corrosion Control Committee Chairperson

AGA Distribution Engineer of the Year, 2002

CIS, PCM and ACVG Corrosion Tools

AGA Achievement Awards, 2003, 2004

Bass Trigon Corrosion Control Data Base

Numerous papers in various pipeline technical journals and NACE publications

Larry Nunnery

Areas of Specialization

Mr. Nunnery has over 30 years of professional experience in the electric utility industry. He specializes in distribution engineering and has expertise on the National Electrical Safety Code. Larry has degrees in Electrical and Civil Engineering, and is a registered professional engineer.

Relevant Experience

Worked as a Lead Consultant for Electric Distribution Infrastructure Improvement consultant with NorthWestern Energy – Montana to develop a 15 year distribution infrastructure plan.

Conducted a distribution system inspection and a review of planned capital and maintenance programs in Liberty's investigation of the transfer of the Allegheny Power Company assets for the Virginia State Corporation Commission.

Served as Lead Consultant on Liberty's management and operations audit of the electricity, natural gas, and steam operations of ConEd for the New York Public Service Commission.

Conducted distribution system line inspections and evaluated distribution engineering standards in Liberty's investigation and verification of wind and ice storm preparedness and restoration of the Ameren Illinois Companies.

Worked as a Consultant for Synergetic Design to prepare a National Electrical Safety Code training course for Orange & Rockland.

As a consultant, Larry wrote distribution engineering training course modules for Progress Energy.

For Progress Energy in Raleigh, NC, Larry worked in the distribution standards group and retired as a Principal Engineer. He led a team of engineers responsible for distribution material specifications, distribution construction standards, and distribution manuals. The scope of his distribution system responsibility included both the Florida and Carolinas service areas with about three million customers. He was responsible for an annual distribution-material purchase volume of \$250 million, and the content and publication of Overhead Construction Manuals, Underground Construction Manuals, and various engineering manuals.

From 1990 to 2005, he was a member of the System Storm Center staff. He was a leader of the Crew Mobilization Team, responsible for mobilization of distribution line and service, and tree crew resources for all major storms. He developed a storm-modeling tool for crew resource predictions, designed and developed a system storm center website, and worked on a team to

design and implement a web-based crew and storm personnel-tracking system. He drafted and maintained the company's Distribution System Storm Plan manual.

In earlier experience with Progress Energy, Larry worked in local district offices in various roles. He served as Area Distribution Manager with responsibility for line and service and engineering personnel. He also worked in a division office as a Division Engineering Supervisor.

Education

B.S. in Electrical Engineering with honors and B.S. in Civil Engineering from North Carolina State University

Registration and Affiliations

Southeastern Electric Exchange (SEE) Experience:

- Chairman – Overhead Distribution Committee (1994)
- Chairman – Mutual Assistance Committee (2002 and 2003)
- Coordinated Progress Energy mutual assistance with other SEE utilities

Registered Professional Engineer in North Carolina and South Carolina

Licensed Electrical Contractor in North Carolina

Currently works as a Team Leader with Waste Reduction Partners, a volunteer engineer organization, to conduct commercial and industrial energy audits in conjunction with the NC State Energy Office.

Albert M. Yu

Areas of Specialization

Cost engineering and management; work management; capital and O&M budgeting; productivity measurement, analysis and improvement; benchmarking; T&D construction and maintenance; power plant construction and maintenance; and project management.

Relevant Experience

Lead Consultant for Work Management on Liberty's management and operations audit of the electricity, natural gas, and steam operations of ConEd for the New York Public Service Commission.

Lead Consultant for Project and Cost Management on Liberty's work with NorthWestern Energy – Montana to develop a 15 year distribution infrastructure plan.

Omaha Public Power District – Developed and carried out an extensive cost management program for a \$400 million nuclear retrofit project. The program had a critical role in producing savings in the many millions of dollars and a completion of the project ahead of schedule and under budget. Key elements of the designed program included culture, cost philosophy, systems, tools, scope control, accountability, productivity measurement and improvement, reporting and innovative approaches to facilitating corrective actions.

Pennsylvania Power & Light Company – Served in a variety of management positions, all of which addressed the cost management needs of the Company, with a focus on construction costs. Also served in a leadership capacity for the industry's Electric Utility Cost Group (EUCG), responsible for benchmarking initiatives in T&D and nuclear. Specific management assignments over a more than 20 year career at PP&L included:

- Cost management of T&D operations, including productivity measurement and improvement, benchmarking, production analysis, budgeting, cost analysis, reporting and corrective action for performance deviations.
- Cost management of the mobile work force, which was the corporate-wide group of physical workers that supplement local forces for construction and large O&M projects in T&D and power plants.
- Cost management of nuclear construction, maintenance and outages, including budgeting, productivity standards, outage planning, reporting and benchmarking.
- Cost estimating for construction work, including the creation of the estimating organization, development of standards, hiring of professional personnel, design of procedures and implementation of the process.

Stone & Webster Engineering and Construction – Served in key management positions during the construction of the Shoreham Nuclear Station, including:

- Supervisor of Electric Construction, responsible for electrical equipment and conduit installation, contractor oversight, engineering interfaces, resource planning and cost analysis.
- Chief Cost Engineer, responsible for cost management, analysis, productivity monitoring, reporting, forecasting and estimating.

Bechtel Power Corporation – Cost engineering, including field cost management, analysis, productivity studies and cost forecasting.

Education

B.S.E.E. – Ohio University
Graduate studies at Washington University

Registrations

Registered Professional Engineer – New York
Certified Cost Engineer

Virginia A. Lowe

Areas of Specialization

Ms. Lowe has over 20 years of consulting experience with regulated utilities and public service commissions and 5 years of legal experience prior to consulting. Her areas of expertise include utility customer-service and analysis of disputed issues in administrative proceedings; equal employment and affirmative action; retrospective reviews of management performance on complex projects; litigation strategy, testimony development and witness preparation.

Relevant Experience

Virginia has been a Liberty consultant for some twenty years. She worked on many projects before turning to the management of Liberty's operations. Her Liberty consulting work focused on consulting project administration, and her substantive work has included reviews of major construction projects, legal services, customer service, human resources, and board of director oversight issues. Her prior engagements include Liberty's past audits of NYSE&G and Central Hudson for the New York Commission. She has for the past three years served as our chief administrative officer. She is a licensed attorney in the Commonwealth of Pennsylvania, and has served Pennsylvania Power & Light Company (now PPL) as a corporate attorney.

In Liberty's engagement for the Delaware Public Service Commission review of Verizon Delaware's 271 compliance, conducted a detailed review of company and intervener filings, prepared issue and evidence digest, assisted in recommendation development and draft report preparation.

For Liberty's engagement in the Qwest 271 multi-state proceeding, provided administrative coordination and support, and conducted research and analysis for the moderator.

Consultant in Liberty's management audit of Bell Atlantic-Pennsylvania and Bell Atlantic-District of Columbia for their respective commissions. Assisted in reviewing customer service, billing and collection, pay telephones, and equal employment opportunity and affirmative action.

Examined customer service issues at Central Hudson Gas & Electric Corporation as part of Liberty's management and operations audit for the New York Public Service Commission; focused on whether Central Hudson's customer service operation was meeting the diverse needs of customers in its service territory.

Consultant on Liberty's New York Public Service Commission-sponsored management audit of New York State Electric & Gas Corporation. Responsibilities included the review of legal services; customer service; and equal employment opportunity, affirmative action and MWBE programs.

Prepared expert testimony relating to the Nuclear Regulatory Commission's involvement at a canceled nuclear plant, and conducted witness preparation sessions; provided detailed review and analysis of reports and testimony of several consultants to assist in the development of strategy, discovery and rebuttal testimony; reviewed and analyzed legal documents, project reports and consultant reports to provide an outline and scope for an in-depth review of a nuclear project.

Involved in litigation relating to six nuclear power plants. Prepared discovery materials and conducted witness training and preparation programs. Prepared testimony for expert witnesses and assisted in report preparation for prudence reviews and historical assessments. Reviewed and analyzed testimony of numerous expert witnesses and prepared rebuttal testimony and related reports. Assisted in conducting retrospective evaluations of management performance.

As corporate attorney for Pennsylvania Power & Light Company handled labor, personnel, employment discrimination, affirmative action, and other employment-related matters. Provided advice and counsel to client departments, handled litigation, and coordinated legal representation of corporation. Prepared and conducted management training seminars and witness preparation sessions. As regulatory affairs attorney, represented company in administrative hearings before the Pennsylvania Public Utility Commission, including major rate-related cases and prepared and coordinated pleadings, discovery, pre-filed testimony and briefs. Counseled customer services managers and line personnel on regulatory requirements, customer service practices, procedures and disputes.

Other Professional Experience

Provides legal research and document preparation to local attorneys in complex civil cases.

Staff attorney, Legal Aid of Chester County. Managed extensive civil case load that included litigations, appellate practice in state and federal courts, and administrative law. As a legal intern for this program, handled all immigration matters.

Education

B.A., Spanish and International Studies, Miami University of Ohio
J.D., Temple University School of Law

Professional Affiliations

Licensed Pennsylvania Attorney (inactive)
Member, Pennsylvania Bar Association
Member, Public Utility Law section, Pennsylvania Bar Association

Robert V. Falcone

Areas of Specialization

Telecommunications network design and engineering, telecommunications operations, telecommunications operations support systems, telecommunications regulation, project management.

Relevant Experience

Mr. Falcone has 40 years of broad experience in the telecommunications industry with expertise in service provisioning and service maintenance and repair operations, network design and engineering, operational support systems and regulatory matters. For the past twelve years Mr. Falcone has been an independent consultant working on a diverse range of engagements including:

- Consultant for investigating cost allocations and accounting and property records in Liberty's audit of Duke Energy Carolinas for the North Carolina Utilities Commission.
- Consultant to the New Hampshire, Maine and Vermont state regulatory Staffs to oversee the development and to determine the adequacy of FairPoint's newly developed operations support systems, which will replace the Verizon systems that FairPoint is currently using under contract with Verizon for its operations in these three states. Also provided input to the three state commission Staffs on FairPoint's progress with the development of its business process, the staffing of its open positions and the training of its staff members on the newly developed systems in preparation of a declaration of cutover readiness by FairPoint indicating that it is ready to transition from Verizon's systems and business processes. Provided expert testimony about FairPoint's readiness to cutover to the new systems and processes before the Maine Public Utilities Commission, New Hampshire Public Utilities Commission, and Vermont Public Service Board.
- Analyzed the operational capabilities of FairPoint Communications and provided advice and input to the New Hampshire PUC with regard to the proposed FairPoint purchase of Verizon's wire-line assets and operations in that state. Developed pre-filed testimony and served as a witness on the docket to determine whether the sale of Verizon's assets should be approved by the state PUC.
- Directed a team of Liberty's consultants who physically inspected Verizon's broadband installations as part of Liberty's review of Verizon's compliance with the New York Public Service Commission's grounding requirements. Liberty's team physically inspected a random sample of broadband installations at customers' premises throughout New York State and assessed compliance with the New York Commission's requirements.
- Lead Consultant for Liberty Consulting in its analysis and audit of Verizon's progress toward the network modernization plan commitments Verizon made to the

- Pennsylvania PUC. Work involved reviews of the accuracy of Verizon's records, site visits to Verizon network facilities, and observations of network tests.
- Lead Consultant in Liberty's review for 11 of the 14 states in the Qwest operating region of the Qwest Wholesale Performance Assurance Plans and performance measures for the purpose of recommending modifications of the plans and measures.
 - Lead Consultant for Liberty's review of Qwest's wholesale loop qualification process for the Arizona State Corporation Commission.
 - Lead Consultant for Liberty's audit of Qwest's performance measures and performance assurance plans for 13 states in the Qwest operating region. Also, leading the team to evaluate the effectiveness of the Qwest performance assurance plans for 12 of the 14 Qwest states.
 - Lead Consultant in Liberty's audit of Verizon wholesale performance measures and incentive plan on behalf of the Virginia, Maryland, West Virginia, and District of Columbia Commissions, focusing on ordering measures.
 - Lead Consultant in Liberty's audit of BellSouth wholesale performance measures and incentive plan on behalf of the Florida Commission, focusing primarily on provisioning measures.
 - Developed advocacy white papers and advised and assisted in negotiating interconnection agreements.
 - Developed pre-filed testimony and analyzed network cost studies submitted by parties and advised client on areas of concern regarding cost overruns associated with these cost studies.
 - Consultant for BearingPoint in its development of operations support systems for Hawaiian Telcom, with responsibilities in the wholesale and regulatory reporting areas. Responsibilities included development of supplier performance and other regulatory reports required by the Hawaii Public Service Commission and the Federal Communications Commission, outside vendor management, development of methods and procedures, training development and delivery, user test coordination and test execution and acting as a general telecommunications subject matter expert.
 - Team leader for BearingPoint in the development of the test plans and in the successful execution of the third party tests of Verizon's, Qwest's, Ameritech's and BellSouth's operations support systems in various state jurisdictions that were part of the evaluation of these companies' satisfaction of the Telecommunications Act's Section 271 requirements.
 - For a major telecommunications carrier, performed an audit of the monthly wholesale carrier access bills rendered to the carrier by Verizon.

While he was employed by the AT&T Corporation from 1970 through 1998, Mr. Falcone held a number of positions in the areas of network design, project management, process development, and telecommunications operations. These assignments included:

- Designing and managing the implementation of various telecommunications networks.

- Managing the forecasting of network needs and the modeling of cost effective network designs.
- Managing the implementation of network maintenance and operations support systems.
- Managing teams responsible for operations software and provisioning of new service, and acting as a central office technician.

Testimony

FairPoint Communications' readiness to cutover from Verizon's to its newly developed systems and processes – testimony before the Maine Public Utilities Commission, the New Hampshire Public Utilities Commission, and the Vermont Board of Public Service.

Whether the transfer of Verizon's land-line business to FairPoint Communications is in the public interest – testimony before the New Hampshire Public Utilities Commission.

Expert witness on telecommunications networks and operations support systems for various clients before numerous regulatory commissions in the Verizon, Ameritech, Qwest, BellSouth and SBC service territories.

Education

B.S., Business Administration, Adelphi University

Michael Antonuk

Areas of Specialization

Energy and telecommunications data system analysis and research, project management and business planning.

Relevant Experience

Senior Analyst for Liberty's management/performance audit and financial audit of coal procurement and management of Duke Energy Ohio for the Public Utilities Commission of Ohio (PUCO).

Senior Analyst on three recent audits of fuel procurement and management practices of Nova Scotia Power, a review of the merits and mechanics of a company-proposed automatic recovery method for energy costs, and an audit of affiliate relationships (including coal, electric power, and natural gas procurement activities) performed for the Nova Scotia Utility and Review Board.

Senior Analyst in an audit of the fuel and purchased-power procurement practices and costs of Arizona Public Service Company for the Arizona Corporation Commission. Responsible for reviews of the gas and power transactions of the utility and a wholesale marketing affiliate.

Senior Analyst on Liberty's management and operations audit of the electricity, natural gas, and steam operations of ConEd for the New York Public Service Commission.

Senior Analyst on Liberty's management and operations audit of Columbia Gas of Ohio for the Public Utilities Commission of Ohio.

Project Coordinator and Senior Analyst for Liberty's focused and general management audits of NJR, New Jersey Natural Gas, and affiliates for the New Jersey Board of Public Utilities. Personally performed the reviews of all gas transactions of the Utility and a wholesale gas marketing affiliate, assisted in the review of EDECA requirements compliance.

Project Coordinator and Senior Analyst on Liberty's focused management and affiliates audit of People's Energy/Integrus for the Illinois Commerce Commission. Responsible for reviews of natural gas transactions of two regulated utilities, a retail energy affiliate, and a wholesale marketing affiliate.

Project Coordinator for Liberty's focused and general management audits of SJI, South Jersey Gas, and affiliates for the New Jersey Board of Public Utilities. This project included detailed examinations of affiliate relationships, governance, financing and utility ring-fencing, compliance with New Jersey EDECA requirements for affiliate separation, protection of confidential information, non-discrimination against third-party competitors with utility affiliates, and other code-of-conduct issues. Analyzed commodity trade transaction and

accounting information for gas purchases and sales by an affiliate conducting trades for utility and non-utility operations. Examined financial results, sources and uses of funds, accounting systems and controls, credit intertwining, cash commingling and affiliate transactions.

Analyst for Liberty's work with staff of the Virginia State Corporation Commission to evaluate the services of an affiliate providing gas portfolio management services under an asset management agreement with Virginia Natural Gas, an operating utility subsidiary of Atlanta-based AGLR. Analyzed commodity trade transaction and accounting information for gas purchases and sales by an affiliate conducting trades for utility and non-utility operations. Reviewed and assessed controls systems related to transactions and sharing of value between the utility and the affiliates.

Project Coordinator on Liberty's focused audit of NUI Corporation and NUI Utilities, responsible for communication and data exchange between Liberty and NUI. Analyzed commodity trade transaction and accounting information for gas purchases and sales by an affiliate conducting trades for utility and non-utility operations. Examined financial results, sources and uses of funds, accounting systems and controls, credit intertwining, cash commingling and affiliate transactions.

Performed research and analysis as part of Liberty's audit of the competitive service offerings of New Jersey's four main electric companies on behalf of the New Jersey Board of Public Utilities, focusing on cost allocation issues and compliance with the separation guidelines within the New Jersey Energy Competition Standards.

Responsible for designing and implementing sample reviews and analysis of cost data sets as part of Liberty's transmission and distribution revenue requirements audit of Commonwealth Edison for the Illinois Commerce Commission. Performed extensive, detailed examinations of utility cost and operations data.

Analyst for Liberty's audit of Ameritech-Ohio policies, procedures and compliance with service quality performance requirements under Ohio's Minimum Telephone Service Standards (MTSS). Performed in-depth analysis of methods used by Ameritech to calculate performance measures, and conducted extensive recalculation of MTSS and merger-related performance measures.

Analyst for Liberty's review of performance measures of Verizon New Jersey on behalf of the New Jersey Board of Public Utilities. Examined metric change control notifications and ordering, billing and collection measures.

Education

B.S. in Business and Economics, Finance Major, Lehigh University

Appendix B: Project Summaries and References



A list of Liberty clients and a summary of the work performed follows. Liberty’s strong rate of growth in customer base demonstrates Liberty’s ability to provide cost-effective, timely work products for its clients.

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A. Directly Relevant Projects

1. Management and Operations Audits

Client: New York Public Service Commission
Client Contact: Henry Leak, Management Audit Unit
NYS Department of Public Service
Empire State Plaza
Agency Building 3
Albany, NY 12223-1350
(518) 486-2478

Summary: Liberty performed a management and operations audit of the electricity, natural gas, and steam operations of ConEd for the New York Public Service Commission. Task areas include: Corporate Planning, Forecasting, System Planning, Supply Procurement, Budgeting, Program and Project Planning and Management, Workforce Management, and Performance and Results Measurement.

Client: NorthWestern Energy
Client Contact: William T. Rhoads, General Manager – NorthWestern Energy Distribution Operations
NorthWestern Energy
40 E. Broadway
Butte, MT 59701
(406) 497-3496

Summary: Liberty has for some time been assisting NorthWestern Energy in the ongoing development of a major, long-term infrastructure improvement plan. That work includes participation in a broadly-based stakeholder group, which has been engaged with NorthWestern in a many-month process of sharing ideas about service objectives, capital and O&M programs, Smart Grid development, costs of alternative future program, and future ratemaking

Client: Connecticut Department of Public Utility Control (*auditing Southern Connecticut Natural Gas Company*)

Client Contact: David Shapiro
Connecticut Department of Public Utility Control
Utilities Operations and Management Analysis Unit
10 Franklin Square
New Britain, Connecticut 06051
(860) 827-2687

Summary: Liberty conducted a comprehensive diagnostic management audit of Southern Connecticut Natural Gas Company (SCG). The scope of the study also included the following special issues: policies and procedures in the area of credit and collections and the collection of uncollectibles; expenditures for coal-tar remediation; the internal-audit function; purchasing and contracting; SCG's new service center in Orange; SCG's customer-service center in Bridgeport, with particular attention on how complaints, terminations, inquiries, and billing disputes are handled; how SCG is preparing to unbundle its services; and gas-procurement operations, in light of increasing competition and FERC orders, including FERC Order 636.

Client: The Dayton Power and Light Company

Client Contact: Judy W. Lansaw, Group Vice President
The Dayton Power and Light Company
P. O. Box 8825
Dayton, Ohio 45401
(513) 259-7201

Summary: Liberty assisted this combination gas- and electric-utility company with a review of its strategy for its gas business. The focus of this review was preparing for competition. Principal areas of concern were gas-main extension policy, gas rates and service offerings, financial performance of the gas business, the company's approach to gas marketing, and the potential for competitors to affect the company's electric business.

Client: Kentucky Public Service Commission (*auditing East Kentucky Power Cooperative, Inc.*)

Client Contact: Charles Bright, Staff Project Officer
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40601
(502) 564-3940

Summary: Liberty completed the 2001 management and operations audit of East Kentucky Power Cooperative, Inc. (EKPC). EKPC is a 2300 MW not-for-profit generation and transmission cooperative supplying electric power to 17 member distribution cooperatives and non-member utilities. The overall objective of this project was to perform a detailed, focused review of EKPC's efforts to prepare itself to effectively compete in deregulated energy markets and its efforts to enhance the quality and delivery of services offered to its member cooperatives and their customers.

Client: New Hampshire Public Utilities Commission (*auditing Public Service New Hampshire*)

Client Contact: Thomas B. Getz, Chairman
New Hampshire Public Utilities Commission
21 South Fruit Street
Concord, NH 03301-2429
Concord, New Hampshire 03301-7319
(603) 271-2431

Summary: Liberty performed a management and financial audit of Public Service Company of New Hampshire (PSNH) for the Commission. This audit was conducted during the course of the Commission's review of a rate filing by the company. A significant component of this investigation was an examination of the fuel management practices and procedures of the utility that burned a mix of coal, fuel oil and natural gas. The examination of such costs was of material assistance to the Commission in examining the projected profitability of the various business segments under a range of assumptions about the future regulatory and market environments in which those segments would operate. Liberty assumed a principal role in negotiating outstanding restructuring issues and litigation between the

NHPUC and PSNH, and is supporting the settlement in testimony before the Commission and the New Hampshire legislature. Liberty also provided on-going oversight of PSNH's preparations to sell its fossil-fueled and hydroelectric power plants through an auction, on behalf of the NHPUC. Monitoring activities included: meeting with PSNH and its investment banker and counsel to check on preparation progress, reviewing draft descriptive memoranda, providing comments to PSNH about terms and conditions of the proposed divestiture, and reporting on progress and issues to the NHPUC's senior Staff.

Client: New Jersey Board of Public Utilities (*Focused and Management Audit of NJR and its Affiliates*)
Client Contact: Arthur Gallin, Division of Audits
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102
(973) 648-4437

Summary: Liberty conducted a focused and general management audit of NJR, New Jersey Natural Gas, and affiliates for the New Jersey Board of Public Utilities. This project included detailed examinations of affiliate relationships, governance, financing and utility ring-fencing, compliance with New Jersey EDECA requirements for affiliate separation, protection of confidential information, non-discrimination against third-party competitors with utility affiliates, and other *code-of-conduct* issues.

Client: New Jersey Board of Public Utilities (*Focused and Management Audit of SJI and its Affiliates*)
Client Contact: Arthur Gallin, Division of Audits
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102
(973) 648-4437

Summary: Liberty conducted a focused and general management audit of SJI, South Jersey Gas, and affiliates for the New Jersey Board of Public Utilities. This project included detailed examinations of affiliate relationships, governance, financing and utility ring-fencing, compliance with New Jersey EDECA requirements for affiliate separation, protection of confidential information, non-discrimination against third-party competitors with utility affiliates, and other *code-of-conduct* issues.

Client: New Jersey Board of Public Utilities (*Focused Audit of NUI Corp. and its Affiliates*)
Client Contact: Art Gallin, Division of Audits
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102
(973) 648-2162

Summary: Liberty performed a focused audit of NUI Corp. and its affiliates, which included operating gas LDCs in three states, an energy trading and brokering affiliate, a competitive retail energy supplier, an energy services company, a telecommunications equipment company, a local/long-distance/wireless telecommunications service provider, and environmental remediation subsidiary, and international ventures company, a utility billing and customer information system subsidiary, and a utility engineering services company. The board commissioned the audit after a series of credit downgrades, in the wake of poor non-utility financial performance which caused the utility subsidiary to experience downgrades to below investment-grade. Liberty conducted detailed reviews of the planning for, investments in, performance of, and sources and uses of funds involving all of the subsidiaries. Liberty also examined in detail financial and accounting systems and controls, affiliate transaction cost assignment and allocation, energy commodity trading transactions, corporate governance, executive compensation, and all other matters with the potential for affecting utility cost and service reliability and cross-subsidization of affiliates.

Client: New York Public Service Commission (*auditing New York State Electric & Gas Corp.*)
Client Contact: Ron Pelinski, Management Audit Section
New York Public Service Commission
State of New York
Three Empire Plaza
Albany, New York 12223

(518) 486-2480

Summary: Liberty performed a comprehensive management and operations audit of all areas of the company affected by a major corporate reorganization. Additional, special focus areas included business unit restructuring, change management, performance planning and measurement, human resources, construction program planning, affiliate transactions, and central services for multiple utility and non-utility units.

Client: The New York Public Service Commission (*auditing Central Hudson Gas & Electric*)
Client Contact: James Lyons, Management Audit Section
New York Public Service Commission
Three Empire Plaza
Albany, New York 12223
(518) 486-2480

Summary: Liberty performed a management and operations study of Central Hudson Gas & Electric, focusing on the designated areas of human resources, construction program planning, corporate budgeting, consumer services, computerized information systems, and economic development.

Client: Office of the State Comptroller (*auditing the New York Power Authority*)
Client Contact: Gerald Tysiak, Audit Manager
Office of the State Comptroller, State of New York
A. E. Smith State Office Building
Albany, New York 12236
(518) 473-6015

Summary: Liberty conducted the 2002 management audit of New York Power Authority (NYPA), the nation's largest non-federal public-power organization in the United States. NYPA operates 10 generating facilities that produce one quarter of the electricity consumed in the state of New York. The purpose of the audit was to evaluate NYPA's plans to build and operate power plants in New York City. NYPA's plans were evaluated and compared to other power supply alternatives available. Liberty concluded that NYPA management had not effectively evaluated its power market alternatives prior to committing to its power.

Client: Pennsylvania Public Utility Commission (*auditing West Penn Power Company*)
Client Contact: Glenn Bartron, Bureau of Audits
Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, Pennsylvania 17120
(717) 783-5000

Summary: Liberty performed a broadly-based management and operations audit of all areas of the company, including activities of the Allegheny Power System of which West Penn Power Company is a part. Additionally, special focus areas included affiliate costs, staffing and compensation, management information services, bulk power transactions, engineering and construction, transmission and distribution, Clean Air Act Amendment planning, and power interruptions.

Clients: Pennsylvania Public Utility Commission (*auditing Bell Atlantic - Pennsylvania*) and District of Columbia Public Service Commission (*auditing Bell Atlantic - District of Columbia*)
Client Contacts: Kathy Swords, Bureau of Audits (PA) and Dwayne Boyd, Chief Auditor (D.C.)
Pennsylvania Public Utility Commission
901 N. Seventh Street - Rear
Harrisburg, Pennsylvania 17105-3265
(717) 772-0315

Public Service Commission of the District of Columbia
450 5th Street, N.W.
Washington, D.C. 20001
(202) 626-5100

Summary: Liberty performed a comprehensive management audit of the functional operations of Bell Atlantic - Pennsylvania and Bell Atlantic - District of Columbia, operating companies of Bell Atlantic, one of the largest

telecommunications organizations in the world. The audit included in-depth reviews of accounting functions and finance, including cost accounting, managerial accounting, budgeting and control, internal auditing, rates, cash management, financial-requirements planning, financing methods, and asset transfers. Liberty's review of compensation and benefits was performed because the area was identified as a special area warranting focused review. The review also included an in-depth analysis of the relationships and transactions of Bell Atlantic - Pennsylvania and Bell Atlantic - District of Columbia and their Bell Atlantic affiliates.

Client: City of Stillwater, Oklahoma
Client Contact: Carl Weinang, City Manager
P.O. Box 1449
723 South Lewis
Stillwater, Oklahoma 74074
(405) 742-8201

Summary: To help the City of Stillwater prepare for changes in the electric-power industry, Liberty performed a competitive assessment of its electric utility. The municipality owns and operates about 30 megawatts of generation, and purchases a considerable amount of electricity. Loss of any of the utility's large industrial customers would threaten the revenue stream the city derives from operations. Liberty, in a teaming arrangement with another consultant, evaluated operations efficiency, developed a strategy to improve competitiveness, and helped the utility move to a more-competitive business position. All business and operations functions were evaluated, with particular emphasis on customer service, management of key industrial accounts, operations efficiency, maintenance policies and practices, and work-control and work management.

Client: Tennessee Public Service Commission (*auditing United Cities Gas Company*)
Client Contact: William H. Novak, Utility Rate Division Manager
Tennessee Public Service Commission
460 James Robertson Parkway
Nashville, Tennessee 37243-0505
(615) 741-2792

Summary: This comprehensive management audit covered the traditional functional areas of executive management and corporate planning, financial systems, system operations, customer services, human resources, and support functions, as well as specific issues, including: main extension policies; vehicle management; affiliate interests and leases; advertising, sales, and promotion expenses; continuing property records; procurement and vendor relations; comparative rates; and comparative salaries and wages. Liberty's review of financial systems included requirements planning, accounting, budget management and control, rates, internal auditing, cash management, taxes, forecasting, compensation and benefits, and construction management. United Cities Gas Company accepted most of Liberty's 70 recommendations for improvements. The Tennessee Public Service Commission asked Liberty's consultants to testify on a few areas of disagreement as expert witnesses in a rate case.

2. Commonwealth Edison Capital and O&M Spending Audit

Client: Illinois Commerce Commission (*auditing Commonwealth Edison*)
Client Contact: Roy Buxton
Illinois Commerce Commission
527 E. Capitol Avenue
Springfield, IL 62706
(217) 785-5424

Summary: Liberty performed an audit of portions of Commonwealth Edison's (*ComEd's*) delivery service tariff filing, focusing on those matters related to the Company's responses to various reports that followed significant outages in 1998 and 1999. Liberty's audit sought to determine whether ComEd's revenue requirement elements, *i.e.*, operating expenses or rate base, reflected any atypical, abnormal, or unreasonable costs that arose from the commitments that the company had made following the outages. Liberty investigated and analyzed ComEd's reliability-related expenditures for capital, O&M, and administrative and general costs, as well as customer service and account and informational costs.

3. Electric Systems Operations and Reliability

Client: Illinois Commerce Commission
Client Contact: Roy Buxton
Illinois Commerce Commission
527 E. Capitol Avenue
Springfield, IL 62706
(217) 785-5424

Summary: Liberty was selected by the Illinois Commerce Commission to perform an audit of whether Ameren Illinois appropriately planned, designed, constructed, inspected, and maintained their electric delivery systems, and specifically, whether Ameren Illinois adequately planned, prepared, and executed storm-service restoration efforts following a July 2006 windstorm and a November 2006 ice storm that affected hundreds of thousands of customers. The windstorm caused service interruptions to almost one million customers in St. Louis and parts of southern and central Illinois. Over 300,000 electric customers lost service in Illinois. Restoring service completely took over a week. The winter storm caused nearly 235,000 Ameren Illinois customers to lose electric service and caused extensive tree damage, broken poles, downed lines, and the loss of nearly 100 distribution feeder circuits. On December 4, the company announced that about 150,000 customers remained without electric service.

Client: Nova Scotia Utility and Review Board
Client Contact: Mr. George Smith
Nova Scotia Utility and Review Board
3rd Floor, 1601 Lower Water Street
P.O. Box 1692, Unit "M"
Halifax, Nova Scotia B3J 3S3
(902) 424-4448

Summary: Liberty provided an assessment of the transmission system and customer communications of the Nova Scotia Power Inc. This assessment included a broad review transmission system design and engineering, operations, planning, staffing, and maintenance. Liberty also performed specific analyses of (1) the separate effects of the storm resulting from failures in the transmission system and from the distribution system, and (2) the failure of several transmission structures. Liberty testified before the Board regarding its findings and recommendations. As a follow-up to issues raised during the hearings, the Board retained Liberty to (1) conduct an on-site inspection and evaluation of portions of the company's distribution system and to assess the reliability of the distribution system, (2) to perform a structural evaluation of distribution system poles, and (3) to assess the frequency of transmission system relay testing and calibration.

Client: Illinois Commerce Commission
Client Contact: Roy Buxton
Illinois Commerce Commission
527 E. Capitol Avenue
Springfield, IL 62706
(217) 785-5424

Summary: Liberty has been engaged for many years in a very extensive program of work for the Illinois Commerce Commission, for which Liberty has performed a variety of comprehensive investigative, monitoring, and ratemaking assignments associated with the Company's transmission and distribution reliability. This work began with a 2000 comprehensive examination of events surrounding and responses to a major series of outages experience in Chicago. Liberty undertook as part of this examination a review of transmission and distribution management, operations, and supporting systems and a review of the reliability of Commonwealth Edison's transmission and distribution systems.

Client: Public Utilities Commission, State of Maine
Client Contacts: Mr. Ralph Howe or Mr. Charles Cohen
Public Utilities Commission, State of Maine
242 State Street, State House Station 18
Augusta, ME 04333
207-287-1371

Summary: Liberty provided technical expertise to the Commission on the public necessity and convenience of a new 345 kV and a new 138 kV transmission interconnection with New Brunswick Power.

Client: Public Utilities Commission, State of Maine
Client Contacts: Mr. Ralph Howe or Mr. Charles Cohen
Public Utilities Commission, State of Maine
242 State Street, State House Station 18
Augusta, ME 04333
207-287-1371

Summary: Bangor Hydro-Electric Company (“BHE”) filed a petition for a certificate of public convenience and necessity to construct a \$99 million, 85-mile, 345kV transmission line to the Canadian border, in order to provide an interconnection (called the *Northeast Reliability Interconnect*, or “NRI”) with New Brunswick Power. The interconnection’s purpose is to provide an additional transmission link (to the single existing one) to improve system reliability, increase import/export transmission capacity and reduce line losses. Liberty assisted the Maine Public Utilities Commission in the proceedings addressing the BHE request. The proceedings included 19 parties. The Commission eventually approved the petition upon stipulation. The stipulation, accepted by many of the parties to the proceeding, came after extensive data requests and five technical conferences, in which Liberty participated as part of Commission advisory staff. The issues addressed were similar in nature to those described in connection with the MPS New Brunswick Interconnection and included evaluation of inter-regional power pool economics under differing market paradigms.

Client: Public Utilities Commission, State of Maine
Client Contacts: Mr. Ralph Howe or Mr. Charles Cohen or Mr. James Buckley
Public Utilities Commission, State of Maine
242 State Street, State House Station 18
Augusta, ME 04333
207-287-1371

Summary: Central Maine Power Company filed a petition for certificate of public convenience and necessity to construct a double circuit 115kV transmission line from the Loudon Substation in Loudon, Maine to the new Ross Road Substation 7 miles distant near Old Orchard Beach to maintain the reliability of the local Saco Bay region. The case went to settlement with the intervenors trying to provide an alternative location for the facilities for a portion of the line. Liberty reviewed the engineering aspects of the proposed line and assisted the Commission in analyzing the technical benefit of the proposed line.

Client: Public Utilities Commission, State of Maine
Client Contacts: Mr. Ralph Howe or Mr. Charles Cohen or Mr. James Buckley
Public Utilities Commission, State of Maine
242 State Street, State House Station 18
Augusta, ME 04333
207-287-1371

Summary: Bangor Hydro-Electric Company filed a petition for certificate of public convenience and necessity to construct a 15kV transmission line from the Ellsworth Substation in Ellsworth, Maine to the new Trenton Substation 14 miles distant in Trenton, Maine to maintain the reliability of the local Mount Desert Island region. Liberty reviewed the engineering aspects of the proposed line and assisted the Commission in analyzing the technical benefit of the proposed line.

Client: Public Service Commission, District of Columbia
Client Contact: Dr. Joseph Nwude, Deputy Executive Director
District of Columbia Public Service Commission
1333 H Street, NW
Suite 200, West Tower
Washington, DC 20005
202-626-5156

Summary: Liberty provided technical expertise to the Commission on the public necessity and convenience of four new 69kV and 230 kV transmission line to replace the Potomac River Generating Plant shutdown because of its inability to meet environmental requirements.

Client: Kentucky Public Service Commission (*Big Rivers*)
Client Contact: John Rogness, III, Manager – Management Audit Branch
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40601
502-564-3940

Summary: Liberty reviewed the Big Rivers’ analysis of the ability of existing 161 kV and 69 kV facilities to reliably serve existing and expected load in the Meade County area of Kentucky. Included in the work was Liberty’s analysis of Big Rivers’ power flow analyses and long range plans. Liberty also performed an assessment of the actual need for the proposed transmission line and alternative solutions, including upgrading existing facilities, wheeling through neighboring systems, as well as the use of generation, in terms of long-range system development.

Client: Kentucky Public Service Commission (*Louisville Gas and Electric Co. and Kentucky Utilities*)
Client Contact: John Rogness, Manager – Management Audit Branch
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40601
502-564-3940

Summary: Liberty reviewed the LG&E/KU analyses of the need for three separate 345 kV and 138 kV transmission lines in Kentucky, and the ability of these proposed lines to reliably serve existing and expected load in Kentucky. Included in the work was Liberty’s analysis of the LG&E/KU power flow analyses and long range plans. Also included in Liberty’s assessment of the need for the facilities was an evaluation of alternative solutions, including upgrading existing facilities, wheeling through neighboring systems, as well as the use of generation, in terms of long-range system development.

Client: Kentucky Public Service Commission (*Louisville Gas and Electric Co. and Kentucky Utilities*)
Client Contact: John Rogness, Manager – Management Audit Branch
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40601
502-564-3940

Summary: Liberty reviewed the LG&E/KU analyses of the need for a 345 kV transmission line originally denied by the Commission. Included in the work was Liberty’s analysis of the applicability of previous LG&E/KU power flow and other analyses. Also included in Liberty’s assessment of the facilities was an evaluation of the process used by LG&E/KU to identify alternative solutions.

Client: Kentucky Public Service Commission (*East Kentucky Power Cooperative -EKPC*)
Client Contact: John Rogness, III, Manager – Management Audit Branch
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40601
502-564-3940

Summary: Liberty reviewed EKPC’s analysis of the need for a 345kV transmission line in Clark, Garrard and Madison counties of Kentucky. Included in the work was Liberty’s analysis of EKPC’s power flow analyses and long range plans. Liberty also performed an assessment of the actual need for the proposed transmission line and alternative solutions, including upgrading existing facilities, wheeling through neighboring systems, as well as the use of generation, in terms of long-range system development.

Client: Vermont Public Service Board
Client Contacts: Mr. John D. Burke, Commissioner
Mr. Kurt R. Janson, General Counsel
Vermont Public Service Board
112 State Street
Montpelier, VT 05620
802-828-2358

Summary: Liberty provided technical expertise to the Commission on the public necessity and convenience of a new 345 kV and a new 138 kV transmission interconnection with New Brunswick Power.

Client: Illinois Commerce Commission
Client Contact: Roy Buxton
Illinois Commerce Commission
527 E. Capitol Avenue
Springfield, IL 62706
(217) 785-5424

Summary: Liberty conducted a comprehensive investigation into the reliability of Commonwealth Edison's transmission and distribution systems. This year-long project involved all aspects of the design, planning, management, operation, and maintenance of T&D systems and components. There are two follow-on projects to this original project. The first is an ongoing audit to assess ComEd's compliance with Liberty's recommendations from the first audit. The second project is Liberty's audit of the transmission and distribution revenue requirements of ComEd with respect to the proper revenue requirements associated with ComEd's reliability programs, as analyzed in the first referenced project.

Client: Illinois Commerce Commission
Client Contact: Roy Buxton
Illinois Commerce Commission
527 E. Capitol Avenue
Springfield, IL 62706
(217) 785-5424

Summary: Liberty investigated the causes of a substation outage that affected downtown Chicago in 2000. Liberty also evaluated and made recommendations regarding the corrective actions that the utility should take to prevent similar occurrences.

Client: Illinois Commerce Commission (*auditing Commonwealth Edison*)
Client Contact: John Stutsman
Illinois Commerce Commission
527 E. Capitol Avenue
Springfield, IL 62706
(217) 524-0337

Summary: Liberty conducted a focused audit of Commonwealth Edison's transmission protection system. This project involved an evaluation of the design and maintenance of the protection against cascading electric outages. It also included an assessment of the ratings used on protective equipment, studies of the stability of the electric delivery system, and the settings of protective relays.

Client: Illinois Commerce Commission (*auditing Commonwealth Edison*)
Client Contact: John Stutsman
Illinois Commerce Commission
527 E. Capitol Avenue
Springfield, IL 62706
(217) 524-0337

Summary: Liberty performed a root cause analysis of a substation fire that left many customers without power, some for up to two days. Liberty's work included an assessment of the likelihood of similar events and a method to prioritize mitigation efforts. Liberty also provided a template for evaluating the complete loss of any substation.

Client: Public Utilities Commission, State of Maine (*auditing Four Maine Electric Utilities*)

Client Contacts: Mr. Ralph Howe or Mr. Charles Cohen
Public Utilities Commission, State of Maine
242 State Street, State House Station 18
Augusta, ME 04333
207-287-1371

Summary: Liberty examined the reliability of the T&D systems for the four largest electric utilities in the state of Maine. The review considered budgeting, maintenance, inspections, planning, and other matters.

Client: Nova Scotia Utility and Review Board

Client Contact: Mr. George Smith
Nova Scotia Utility and Review Board
3rd Floor, 1601 Lower Water Street
P.O. Box 1692, Unit "M"
Halifax, Nova Scotia B3J 3S3
(902) 424-4448

Summary: Liberty provided an assessment of the transmission system and customer communications of the Nova Scotia Power Inc. This assessment included a broad review transmission system design and engineering, operations, planning, staffing, and maintenance. Liberty also performed specific analyses of (1) the separate effects of the storm resulting from failures in the transmission system and from the distribution system, and (2) the failure of several transmission structures. Liberty testified before the Board regarding its findings and recommendations. As a follow-up to issues raised during the hearings, the Board retained Liberty to (1) conduct an on-site inspection and evaluation of portions of the company's distribution system and to assess the reliability of the distribution system, (2) to perform a structural evaluation of distribution system poles, and (3) to assess the frequency of transmission system relay testing and calibration.

Client: NorthWestern Energy and Montana PSC (*auditing NorthWestern Energy*)

Client Contact: Mr. William T. Rhoads, General Manager,
Montana Distribution Operations,
Butte, MT
(406) 497-3496

Summary: Liberty performed an operations audit and reliability assessment of the company's electric and gas T&D systems.

Client: The New York Public Service Commission (*auditing Central Hudson Gas & Electric*)

Client Contact: James Lyons, Management Audit Section
New York Public Service Commission
Three Empire Plaza
Albany, New York 12223
(518) 486-2480

Summary: Liberty performed a management and operations study of Central Hudson Gas & Electric, focusing on the designated areas of human resources, construction program planning, corporate budgeting, consumer services, computerized information systems, and economic development.

Client: Kentucky Public Service Commission (*auditing East Kentucky Power Cooperative, Inc.*)

Client Contact: Charles Bright, Staff Project Officer
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40601
(502) 564-3940

Summary: Liberty completed the 2001 management and operations audit of East Kentucky Power Cooperative, Inc. (EKPC). EKPC is a 2300 MW not-for-profit generation and transmission cooperative supplying electric power to 17 member distribution cooperatives and non-member utilities. The overall objective of this project was to perform a detailed, focused review of EKPC's efforts to prepare itself to effectively compete in deregulated energy markets and its efforts to enhance the quality and delivery of services offered to its member cooperatives and their customers.

Client: New York Public Service Commission (*auditing New York State Electric & Gas Corp.*)
Client Contact: Ron Pelinski, Management Audit Section
New York Public Service Commission
State of New York
Three Empire Plaza
Albany, New York 12223
(518) 486-2480

Summary: Liberty performed a comprehensive management and operations audit of all areas of the company affected by a major corporate reorganization. Additional, special focus areas included business unit restructuring, change management, performance planning and measurement, human resources, construction program planning, affiliate transactions, and central services for multiple utility and non-utility units.

Client: Office of the State Comptroller (*auditing the New York Power Authority*)
Client Contact: Gerald Tysiak, Audit Manager
Office of the State Comptroller, State of New York
A. E. Smith State Office Building
Albany, New York 12236
(518) 473-6015

Summary: Liberty conducted the 2002 management audit of New York Power Authority (NYPA), the nation's largest non-federal public-power organization in the United States. NYPA operates 10 generating facilities that produce one quarter of the electricity consumed in the state of New York. The purpose of the audit was to evaluate NYPA's plans to build and operate power plants in New York City. NYPA's plans were evaluated and compared to other power supply alternatives available. Liberty concluded that NYPA management had not effectively evaluated its power market alternatives prior to committing to its power.

Client: New Hampshire Public Utilities Commission (NHPUC)
Client Contact: Thomas B. Getz, Chairman
New Hampshire Public Utilities Commission
8 Old Suncook Road
Building No. 1
Concord, New Hampshire 03301-7319
(603) 271-2431

Summary: Liberty performed a management and financial audit of Public Service Company of New Hampshire (PSNH) for the Commission. This audit was conducted during the course of the Commission's review of a rate filing by the company. A significant component of this investigation was an examination of the fuel management practices and procedures of the utility that burned a mix of coal, fuel oil and natural gas. The examination of such costs was of material assistance to the Commission in examining the projected profitability of the various business segments under a range of assumptions about the future regulatory and market environments in which those segments would operate. Liberty assumed a principal role in negotiating outstanding restructuring issues and litigation between the NHPUC and PSNH, and is supporting the settlement in testimony before the Commission and the New Hampshire legislature. Liberty also provided on-going oversight of PSNH's preparations to sell its fossil-fueled and hydroelectric power plants through an auction, on behalf of the NHPUC. Monitoring activities included: meeting with PSNH and its investment banker and counsel to check on preparation progress, reviewing draft descriptive memoranda, providing comments to PSNH about terms and conditions of the proposed divestiture, and reporting on progress and issues to the NHPUC's senior Staff.

Client: Pennsylvania Public Utility Commission (*auditing West Penn Power Company*)
Client Contact: Glenn Bartron, Bureau of Audits
Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, Pennsylvania 17120
(717) 783-5000

Summary: Liberty performed a broadly-based management and operations audit of all areas of the company, including activities of the Allegheny Power System of which West Penn Power Company is a part. Additionally,

special focus areas included affiliate costs, staffing and compensation, management information services, bulk power transactions, engineering and construction, transmission and distribution, Clean Air Act Amendment planning, and power interruptions.

Client: Southern Company Services – Alabama Power Company
Client Contact: Dan Lane
Manager, Internal Auditing
dllane@southernco.com
(205) 257-3011

Summary: Liberty assessed the T&D standards and practices of Alabama Power Company against good utility practices. The review considered all aspects of T&D design, planning, maintenance, and operations.

Client: Belize Electricity Limited
Client Contact: Lynn R. Young, CEO
Belize Electricity Limited
115 Barrack Road
P. O. Box 327
Belize City, Belize, C. A.
(501) 2-33357

Summary: Liberty undertook a re-engineering and organization study for Belize Electricity Limited, the electric utility that serves the country of Belize. Liberty designed a new organization structure for the company, which was implemented. Major areas of emphasis in the re-engineering include customer service (eliminating business offices, reducing theft of service, and improving installations of new services), distribution operations (work management), materials management (forecasting material needs,) economic dispatch and system control, and human-resources management (streamlining and automating transactions).

Client: Southern Company Services – Georgia Power Company
Client Contact: Dan Lane
Manager, Internal Auditing
dllane@southernco.com
(205) 257-3011

Summary: Liberty assessed the T&D standards and practices of Georgia Power Company against good utility practices. The review considered all aspects of T&D design, planning, maintenance, and operations.

Client: Rochester Gas & Electric Corporation
Client Contact: Charles Keele
Rochester Gas & Electric Corporation
89 East Avenue
Rochester, NY 14649
(716) 724-8662

Summary: Liberty worked with a group of RG&E managers to re-engineer the project-controls, work-management, and manpower-planning processes for electric T&D operations. The group included the work-scheduling section, general foremen, and T&D department managers. The Liberty/RG&E team built a system that ties together all identified projects, spreads resource requirements across the duration of each project, and calculates aggregate manpower requirements, along with administrative and non-work time, such as training, sick days, safety meetings, *etc.* The idea was to draw together all work requirements, assign priorities, and compare the results to available T&D crews. The project was generated by senior management's concern that labor costs, and specifically contractor crews, were increasing, but projects were not getting accomplished, and outages were too high. Most outages were linked to identified, but still-open, system-deficiency reports. By using the system RG&E was able to eliminate the problems and cut contractor costs in half.

Client: City of Stillwater, Oklahoma
Client Contact: Carl Weinang, City Manager

P.O. Box 1449
723 South Lewis
Stillwater, Oklahoma 74074
(405) 742-8201

Summary: To help the City of Stillwater prepare for changes in the electric-power industry, Liberty performed a competitive assessment of its electric utility. The municipality owns and operates about 30 megawatts of generation, and purchases a considerable amount of electricity. Loss of any of the utility's large industrial customers would threaten the revenue stream the city derives from operations. Liberty, in a teaming arrangement with another consultant, evaluated operations efficiency, developed a strategy to improve competitiveness, and helped the utility move to a more-competitive business position. All business and operations functions were evaluated, with particular emphasis on customer service, management of key industrial accounts, operations efficiency, maintenance policies and practices, and work-control and workforce management.

4. Gas Operation, Systems, and Safety Practices

Client: Maine Public Utilities Commission (*auditing Northern Utilities Gas Company – NiSource-ME*)
Client Contact: Joanne Steneck, General Counsel
Public Utilities Commission, State of Maine
242 State Street, State House Station 18
Augusta, ME 04333
(207) 287-1390

Summary: Liberty conducted for the Maine Public Service Commission a management audit of the company's safety operations and practices, which will produce a report setting forth findings on the adequacy of gas safety management and operations, and making any recommendations appropriate to improving them. This audit came in response to a growing series of problems with NUI's gas safety operations and practices, driven by a series of commission examinations of potential violations of state and federal regulations.

Client: Illinois Commerce Commission (*auditing People's Gas*)
Client Contact: John Stutsman
Illinois Commerce Commission
527 E. Capitol Avenue
Springfield, IL 62706
(217) 524-0337

Summary: Liberty performed for the Illinois Commerce Commission a review and evaluation of Peoples Gas' overall operations and maintenance activities and its pipeline safety program to determine:

- Compliance with federal and state regulations
- Conformance of those activities and program with industry best practices and best practices determined by the ICC Staff in consultation with Peoples Gas.

Upon the completion of this baseline assessment, Liberty monitored the efforts of Peoples Gas to implement Liberty's audit recommendations. Specific focus areas of the audit include:

- Excavation Damage Prevention
- Corrosion Control
- Management and Maintenance of System Assets
- Operator Qualification
- Construction System Support, Programs, and Records.

Client: District of Columbia, Public Service Commission (*auditing Washington Gas Light*)
Client Contact: Dr. Joseph Nwude, Deputy, Executive Director - Office of Tech. & Reg. Analysis
DC Public Service Commission
1333 H Street NW
Suite 200, West Tower
Washington, DC 20005
(202) 626-5156

Summary: Liberty served as technical consultant to the District of Columbia PSC as they examined the usage and cost recovery of a hexane injection strategy used by Washington Gas Light. Liberty prepared a report and assisted in the preparation of testimony relating to the:

- Prudence of the hexane injection strategy of Washington Gas Light (WGL) to respond to the effects of massive injections of liquefied natural gas into its distribution system
- Recovery of hexane injection costs
- Planning and recovery of costs associated with a significantly accelerated program for correcting increased leaks associated with the facilities affected by the introduction of LNG
- Safety and cost impacts on the District and its customers.

5. Energy Procurement – Electric Companies

Client: New York Public Service Commission
Client Contact: Henry Leak, Management Audit Unit
NYS Department of Public Service
Empire State Plaza
Agency Building 3
Albany, NY 12223-1350
(518) 486-2478

Summary: Liberty performed a management and operations audit of the electricity, natural gas, and steam operations of ConEd for the New York Public Service Commission. Task areas include: Corporate Planning, Forecasting, System Planning, Supply Procurement, Budgeting, Program and Project Planning and Management, Workforce Management, and Performance and Results Measurement.

Client: Arizona Corporation Commission (*auditing Arizona Public Service*)
Client Contact: Chris Kempley, General Counsel
Arizona Corporation Commission
Utilities Division
1200 West Washington
Phoenix, AZ 85007-2996
(602) 542-4251

Summary: Liberty completed audits relating to fuel procurement and management and on rate and regulatory accounting for related costs at Arizona Public Service Company for the Arizona Corporation Commission. The fuel and purchased power audit included extensive reviews of all physical and financial transactions of both the utility and a wholesale marketing affiliate, including the relationship between the two entities.

Client: New Mexico Public Regulation Commission (*auditing Southwestern Public Service Company*)
Client Contact: Mr. Matthew Lovato, Chief Financial Officer
Public Regulation Commission of New Mexico
PERA Building – Room 335
1120 Paseo de Peralta
Santa Fe, NM 87504
(505)-872-6940

Summary: Liberty is finalizing an audit for the New Mexico Public Regulation Commission of Southwestern Public Service Company (SPS) that included a management review of the prudence of SPS' transactions under the Renewable Energy Credit tracker as conditionally approved by the Commission and a financial review of both revenues and expenses in order to provide an analysis of any under-recovery or over-recovery. Similarly, Liberty performed an evaluation of SPS' fuel clause process and regulations and a financial audit of fuel clause computation. In addition reviews of purchases of coal, natural gas, oil, and purchased power, power plant operations, line losses, and cost allocation and assignment were also performed.

Client: Public Utilities Commission of Ohio (*auditing Duke Energy Ohio*)
Client Contact: Ms. Tamara Turkenton, Accounting and Electricity Division, Utilities Department
Public Utilities Commission of Ohio
180 East Broad Street

Columbus, Ohio 43215-3793
(614) 466-1825

Summary: Liberty completed a two-phased management/performance audit and financial audit of coal procurement, management and environmental compliance of Duke Energy Ohio for the Public Utilities Commission of Ohio (PUCO). The overall purpose of each of these audits was to identify and evaluate the Company's policies, procedures and performance for fuel procurement, fuel utilization, purchased power, and capacity purchases, environmental compliance, as well as the accounting treatment of all related costs.

Client: Public Utilities Commission of Ohio (*auditing Vectren Energy Delivery of Ohio, Inc.*)
Client Contact: Thomas C. Pearce II, Natural Gas Specialist
Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43215-3793
(614) 466-1846

Summary: Liberty conducted the 2002 Gas Cost Recovery management/performance audit of Vectren Energy Delivery of Ohio, Inc. The focus areas included supply planning; organization, staffing and control; gas acquisition; transportation; balancing; regulatory management; response to changes in regulation (primarily new Customer Choice programs in Ohio); follow-up to issues raised in the last audit; and several company-specific issues that were important to the PUCO.

Client: Public Utilities Commission of Ohio (*auditing Cincinnati Gas and Electric Company*)
Client Contact: Thomas C. Pearce II, Natural Gas Specialist
Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43215-3793
(614) 466-1846

Summary: Liberty conducted the 2003 Gas Cost Recovery management/performance audit of Cincinnati Gas and Electric Company. The focus areas included supply planning; organization, staffing and control; gas acquisition; transportation; balancing; regulatory management; response to changes in regulation (primarily new Customer Choice programs in Ohio); follow-up to issues raised in the last audit; and several company-specific issues that were important to the PUCO.

Client: Public Utilities Commission of Ohio (*auditing Dominion East Ohio Gas*)
Client Contact: Thomas C. Pearce II, Natural Gas Specialist
Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43215-3793
(614) 466-1846

Summary: Liberty performed the 2005 Gas Cost Recovery management/performance audit of Dominion East Ohio Gas Company for the Public Utilities Commission of Ohio. The areas of focus of the audit included supply planning; organization, staffing and controls; management of gas transportation assets; commodity procurement, pricing and price risk management; and operational issues. The overall mission of the audit was to assess the Company's effectiveness in natural gas procurement and determine if the Company was able to achieve an adequate and reliable supply of gas at minimum prices, while at the same time minimizing transition costs associated with the Choice Program. The audit also addressed revenues generated from non-traditional capacity and commodity arrangements. Liberty did find that internal controls were weak, and that steps should be taken to improve documentation associated with the utility's gas buying strategies. Liberty's report to the Commission also documented those areas where management and operations were working effectively and efficiently.

Client: Public Utilities Commission of Ohio (*auditing Eastern Natural Gas Company and Pike Natural Gas Company*)
Client Contact: Adam Pyles
Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43266-0573

(614) 466-8203

Summary: Liberty conducted the 1993 Gas Cost Recovery management/performance audits of Eastern Natural Gas and Pike Natural Gas, which are local distribution operating units of Clearfield Ohio Holdings, Inc. The focus areas included: supply planning, organization, staffing and control, gas acquisition, transportation, unaccounted-for gas, regulatory management, response to changes in regulation (primarily FERC Order 636), follow-up to issues raised in the last audit, and several company-specific issues that were important to the PUCO.

Client: Public Utilities Commission of Ohio (*auditing The East Ohio Gas Company*)
Client Contact: Roger Sarver, GCR Supervisor
Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43215-3793
(614) 466-7647

Summary: Liberty conducted the 1999 Gas Cost Recovery management/performance audit of The East Ohio Gas Company, which is one of four local-distribution operating units of Consolidated Natural Gas Company. The focus areas included supply planning; organization, staffing and control; gas acquisition; transportation; balancing; regulatory management; response to changes in regulation (primarily new Customer Choice programs in Ohio); follow-up to issues raised in the last audit; and several company-specific issues that were important to the PUCO.

Client: Public Utilities Commission of Ohio (*auditing Columbus Southern Power Company and Ohio Power Company - both subsidiaries of AEP*)
Client Contact: Raymond Strom, EFC Supervisor
Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43215-3793
(614) 466-7707

Summary: Liberty performed the 1999 management and performance audit of fuel-related policies and practices of Columbus Southern Power Company and Ohio Power Company, both subsidiaries of American Electric Power Company, Inc. This audit sought to determine whether fuel-management practices and policies were reasonably designed to assure availability of sufficient fuel supplies of adequate quality to permit efficient operation of electric-generating stations at the least cost. Important to the audit were the coal related transactions with affiliated coal mining operations. The audit also sought to determine whether bulk-power system dispatch, economy sales, and emergency and reliability transfers were conducted to promote least-cost operation, and whether plans and activities for compliance with the Clean Air Act Amendments were reasonably designed and cost-effective. The audit resulted in a report used in the Public Utilities Commission of Ohio's EFC hearing.

Client: Public Utilities Commission of Ohio (*auditing Cincinnati Gas & Electric Company*)
Client Contact: Raymond Strom, EFC Supervisor
Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43266-0573
(614) 466-7707

Summary: Liberty performed the 1999 management and performance audit of fuel-related policies and practices of Cincinnati Gas & Electric Company. This audit sought to determine whether fuel-management practices and policies were reasonably designed to assure availability of sufficient fuel supplies of adequate quality to permit efficient operation of electric-generating stations at the least cost. The audit also sought to determine whether bulk-power system dispatch, economy sales, and emergency and reliability transfers were conducted to promote least-cost operation, and whether plans and activities for compliance with the Clean Air Act Amendments were reasonably designed and cost-effective. The audit resulted in a report used in the Public Utilities Commission of Ohio's EFC hearing.

Client: Public Utilities Commission of Ohio (*auditing Monongahela Power Company*)
Client Contact: Raymond Strom, EFC Supervisor
Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43266-0573

(614) 466-7534

Summary: Liberty performed the 1997 and 1998 management and performance audits of fuel-related policies and practices of Monongahela Power Company. These audits seek to determine whether fuel-management practices and policies are reasonably designed to assure availability of sufficient fuel supplies of adequate quality to permit efficient operation of electric-generating stations at the least cost. The audits also seek to determine whether bulk-power system dispatch, economy sales, and emergency and reliability transfers are conducted to promote least-cost operation, and whether plans and activities for compliance with the Clean Air Act Amendments are reasonably designed and cost effective. The audits resulted in reports used in the Public Utilities Commission of Ohio's EFC hearings.

Client: Public Utilities Commission of Ohio (*auditing Ohio Edison Company*)
Client Contact: Raymond Strom, EFC Supervisor
Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43266-0573
(614) 466-7534

Summary: Liberty performed the 1995 management and performance audit of fuel-related policies and practices of Ohio Edison Company. This audit sought to determine whether fuel management practices and policies were reasonably designed to assure availability of sufficient fuel supplies of adequate quality to permit efficient operation of electric generating stations at the least cost. The audit sought to determine whether bulk power system dispatch, economy sales, and emergency and reliability transfers were conducted to promote least-cost operation and to determine whether plans and activities for Clean Air Act Amendments compliance were reasonably designed and cost effective. This audit resulted in a report used in the Public Utilities Commission of Ohio's EFC hearings.

Client: Public Utilities Commission of Ohio (*auditing Cleveland Electric Illuminating Company and Toledo Edison Company*)
Client Contact: Raymond Strom, EFC Supervisor
Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43266-0573
(614) 466-7534

Summary: Liberty performed the 1993 and 1994 fall series management and performance audits of fuel related policies and practices of Cleveland Electric Illuminating and Toledo Edison. These audits seek to determine whether fuel management practices and policies are reasonably designed to assure the availability of sufficient fuel stocks of adequate quality efficiently and at least cost, and whether bulk power system dispatch, economy of sales and emergency and reliability transfers are conducted to promote least cost operation and to determine whether plans for Clean Air Act Amendments compliance are designed to capture the most reasonable and cost effective manner. These audits resulted in reports used in the Public Utilities Commission of Ohio's EFC hearings.

Client: New Hampshire Public Utilities Commission (*auditing Public Service New Hampshire*)
Client Contact: Thomas B. Getz, Chairman
New Hampshire Public Utilities Commission
21 South Fruit Street
Concord, NH 03301-2429
Concord, New Hampshire 03301-7319
(603) 271-2431

Summary: Liberty performed a management and financial audit of Public Service Company of New Hampshire (PSNH) for the Commission. This audit was conducted during the course of the Commission's review of a rate filing by the company. A significant component of this investigation was an examination of the fuel management practices and procedures of the utility that burned a mix of coal, fuel oil and natural gas. The examination of such costs was of material assistance to the Commission in examining the projected profitability of the various business segments under a range of assumptions about the future regulatory and market environments in which those segments would operate.

Client: Long Island Power Authority
Client Contact: Lynda Nicolino, General Counsel
Long Island Power Authority 21 South Fruit Street
333 Earle Ovington Boulevard, Suite 403
Uniondale, NY 11553
(516) 719-9847

Summary: Liberty performed a management and financial audit of Public Service Company of New Hampshire (PSNH) for the Commission. This audit was conducted during the course of the Commission's review of a rate filing by the company. A significant component of this investigation was an examination of the fuel management practices and procedures of the utility that burned a mix of coal, fuel oil and natural gas. The examination of such costs was of material assistance to the Commission in examining the projected profitability of the various business segments under a range of assumptions about the future regulatory and market environments in which those segments would operate.

Client: Nova Scotia Utility and Review Board (*auditing Nova Scotia Power*)
Client Contact: Mr. Steve Pronko
Nova Scotia Utility and Review Board
3rd Floor, 1601 Lower Water Street
P.O. Box 1692, Unit "M"
Halifax, Nova Scotia B3J 3S3
(902) 424-4448

Summary: Liberty has performed three separate, annual reviews, evaluations, and ratemaking adjustments of Nova Scotia Power's fuel and energy costs based on an examination of fuel and energy procurement and management, and a review of the reasonableness of major fuel procurement transactions.

Client: Nova Scotia Utility and Review Board (*auditing Nova Scotia Power*)
Client Contact: Mr. Steve Pronko
Nova Scotia Utility and Review Board
3rd Floor, 1601 Lower Water Street
P.O. Box 1692, Unit "M"
Halifax, Nova Scotia B3J 3S3
(902) 424-4448

Summary: Liberty performed a review of affiliate relationships of Nova Scotia Power for the Nova Scotia Utility and Review Board. This review included examinations of procurement activities (both power and natural gas), and affiliate transactions, including those with a wholesale marketing affiliate.

Client: Pennsylvania Public Utility Commission (*auditing West Penn Power Company*)
Client Contact: Glenn Bartron, Bureau of Audits
Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, Pennsylvania 17120
(717) 783-5000

Summary: Liberty performed a broadly-based management and operations audit of all areas of the company, including activities of the Allegheny Power System of which West Penn Power Company is a part. Additionally, special focus areas included affiliate costs, staffing and compensation, management information services, bulk power transactions, engineering and construction, transmission and distribution, Clean Air Act Amendment planning, and power interruptions.

Client: Kentucky Public Service Commission (*auditing Louisville Gas and Electric Co. and Kentucky Utilities*)
Client Contact: John Rogness, Manager – Management Audit Branch
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40601
(502) 564-3940

Summary: Liberty reviewed the LG&E/KU analyses of the need for three separate 345 kV and 138 kV transmission lines in Kentucky, and the ability of these proposed lines to reliably serve existing and expected load in Kentucky. Included in the work was Liberty's analysis of the LG&E/KU power flow analyses and long range plans. Also included in Liberty's assessment of the need for the facilities was an evaluation of alternative solutions, including upgrading existing facilities, wheeling through neighboring systems, as well as the use of generation, in terms of long-range system development.

Client: New York Public Service Commission (*auditing New York State Electric & Gas Corp.*)
Client Contact: Ron Pelinski, Management Audit Section
New York Public Service Commission
State of New York
Three Empire Plaza
Albany, New York 12223
(518) 486-2480

Summary: Liberty performed a comprehensive management and operations audit of all areas of the company affected by a major corporate reorganization. Additional, special focus areas included business unit restructuring, change management, performance planning and measurement, human resources, construction program planning, affiliate transactions, and central services for multiple utility and non-utility units.

Client: The New York Public Service Commission (*auditing Central Hudson Gas & Electric*)
Client Contact: James Lyons, Management Audit Section
New York Public Service Commission
Three Empire Plaza
Albany, New York 12223
(518) 486-2480

Summary: Liberty performed a management and operations study of Central Hudson Gas & Electric, focusing on the designated areas of human resources, construction program planning, corporate budgeting, consumer services, computerized information systems, and economic development.

Client: Kentucky Public Service Commission (*auditing Kentucky Utilities Company & Louisville Gas & Electric Company*)
Client Contact: John Rogness, Manager – Management Audit Branch
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40601
(502) 564-3940

Summary: Liberty completed a focused management audit that examined all operational and managerial aspects of the fuel procurement functions of KU and LG&E. The audit included an examination of the organizational structure and the operational interrelationship of fuel procurement management among LG&E Energy, KU and LG&E. Although the greatest effort of the audit was a focus on coal procurement, the procurement of natural gas and fuel oil was included as well.

6. Supply Planning and Energy Procurement – Natural Gas Companies

Client: Illinois Commerce Commission (*auditing Peoples Gas and North Shore Gas*)
Client Contact: Bill Voss
527 East Capitol Avenue
Springfield, IL 62701
(217) 782-2061

Summary: Liberty performed for the Illinois Commerce Commission a major focused audit of natural gas forecasting, portfolio design and implementation, gas purchase and sale transactions, controls, organization and staffing, asset management, off-system sales, storage optimization, and all other issues related to gas supply over a period of eight years.

Client: New Jersey Board of Public Utilities (*Focused and Management Audit of NJR and its Affiliates*)
Client Contact: Walter Syzmanski, Division of Audits
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102
(973) 648-4437

Summary: Liberty conducted a focused and general management audit of NJR, New Jersey Natural Gas and affiliates for the New Jersey Board of Public Utilities. This project includes detailed examinations of affiliate relationships, governance, financing and utility ring-fencing, compliance with New Jersey EDECA requirements for affiliate separation, protection of confidential information, non-discrimination against third-party competitors with utility affiliates, and other *code-of-conduct* issues.

Client: New Jersey Board of Public Utilities (*Focused Audit of NUI Corp. and its Affiliates*)
Client Contact: Walter Szymanski, Director, Division of Audits
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102
(973) 648-2162

Summary: Liberty performed a focused audit of NUI Corp. and its affiliates, which included operating gas LDCs in three states, an energy trading and brokering affiliate, a competitive retail energy supplier, an energy services company, a telecommunications equipment company, a local/long-distance/wireless telecommunications service provider, and environmental remediation subsidiary, and international ventures company, a utility billing and customer information system subsidiary, and a utility engineering services company. The board commissioned the audit after a series of credit downgrades, in the wake of poor non-utility financial performance which caused the utility subsidiary to experience downgrades to below investment-grade. Liberty conducted detailed reviews of the planning for, investments in, performance of, and sources and uses of funds involving all of the subsidiaries. Liberty also examined in detail financial and accounting systems and controls, affiliate transaction cost assignment and allocation, energy commodity trading transactions, corporate governance, executive compensation, and all other matters with the potential for affecting utility cost and service reliability and cross-subsidization of affiliates.

Client: New Jersey Board of Public Utilities (*Focused and Management Audit of SJI and its Affiliates*)
Client Contact: Arthur Gallin, Division of Audits
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102
(973) 648-4437

Summary: Liberty conducted a focused and general management audit of SJI, South Jersey Gas, and affiliates for the New Jersey Board of Public Utilities. This project included detailed examinations of affiliate relationships, governance, financing and utility ring-fencing, compliance with New Jersey EDECA requirements for affiliate separation, protection of confidential information, non-discrimination against third-party competitors with utility affiliates, and other *code-of-conduct* issues.

Client: State Corporation Commission Commonwealth of Virginia (*Evaluation of Virginia Natural Gas' Asset Management Agreement*)
Client Contact: Lawrence Oliver, Assistant Director, Division of Economics & Finance
State Corporation Commission Commonwealth of Virginia
P.O. Box 1197
Richmond, VA 23218
(804) 371-9358

Summary: Liberty worked with staff of the Virginia State Corporation Commission to evaluate the services of an affiliate providing gas portfolio management services under an asset management agreement with Virginia Natural Gas, an operating utility subsidiary of Atlanta-based AGLR.

Client: New Hampshire Public Utilities Commission (*Focused Audit of EnergyNorth Natural Gas, Inc.*)
Client Contact: Stephen Frink, Assistant Director, Gas & Water Division
New Hampshire Public Utilities Commission
21 South Fruit Street
Concord, NH 03301-2429
(603) 271-7965

Summary: Liberty assisted the Commission's Staff in evaluating the demand forecasting and gas-supply planning of EnergyNorth Natural Gas Company, Inc. (ENGI), the New Hampshire subsidiary of KeySpan Energy Delivery New England. As part of that review, Liberty evaluated ENGI's use of a Gas Resource Portfolio Management and Gas Purchase Agreement between ENGI and Entergy-Koch Trading, an asset manager. The review was conducted as part of a formal investigation of these issues conducted by the New Hampshire PUC. The Liberty team filed a report and presented testimony in the investigation proceeding, and in related purchased-gas-cost recovery proceedings. The issues in the associated proceedings were settled between the Staff and the Company, to the satisfaction of the Commission.

Client: Tennessee Public Service Commission (*auditing United Cities Gas Company*)
Client Contact: William H. Novak, Utility Rate Division Manager
Tennessee Public Service Commission
460 James Robertson Parkway
Nashville, Tennessee 37243-0505
(615) 741-2792

Summary: This comprehensive management audit covered the traditional functional areas of executive management and corporate planning, financial systems, system operations, customer services, human resources, and support functions, as well as specific issues, including: main extension policies; vehicle management; affiliate interests and leases; advertising, sales, and promotion expenses; continuing property records; procurement and vendor relations; comparative rates; and comparative salaries and wages. Liberty's review of financial systems included requirements planning, accounting, budget management and control, rates, internal auditing, cash management, taxes, forecasting, compensation and benefits, and construction management. United Cities Gas Company accepted most of Liberty's 70 recommendations for improvements. The Tennessee Public Service Commission asked Liberty's consultants to testify on a few areas of disagreement as expert witnesses in a rate case.

Client: Connecticut Department of Public Utility Control (*auditing Southern Connecticut Natural Gas Company*)
Client Contact: David Shapiro
Connecticut Department of Public Utility Control
Utilities Operations and Management Analysis Unit
10 Franklin Square
New Britain, Connecticut 06051
(860) 827-2687

Summary: Liberty conducted a comprehensive diagnostic management audit of Southern Connecticut Natural Gas Company (SCG). The scope of the study also included the following special issues: policies and procedures in the area of credit and collections and the collection of uncollectibles; expenditures for coal-tar remediation; the internal-audit function; purchasing and contracting; SCG's new service center in Orange; SCG's customer-service center in Bridgeport, with particular attention on how complaints, terminations, inquiries, and billing disputes are handled; how SCG is preparing to unbundle its services; and gas-procurement operations, in light of increasing competition and FERC orders, including FERC Order 636.

Client: The Kentucky Public Service Commission (*auditing 5 major Kentucky LDCs*)
Client Contact: John A. Rogness III, Manager, Management Audit Branch
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40601
(502) 564-3940

Summary: Liberty conducted a focused management and process audit of the gas supply and procurement functions of Kentucky's five major gas local distribution companies (collectively referred to as "LDCs") conducted for the

Kentucky Public Service Commission (*Commission*). The LDCs include Columbia Gas of Kentucky, Inc. (*Columbia*), Delta Natural Gas Company, Inc. (*Delta*), Louisville Gas and Electric Company (*LG&E*), The Union Light, Heat, and Power Company (*ULH&P*), and Western Kentucky Gas Company (*Western*).

There were two equally important primary objectives in this audit. The first primary objective was to examine and evaluate each of the major Kentucky LDCs' gas planning, procurement, and supply management processes and strategies, and make recommendations on a going forward basis. The Commission was especially concerned about the increased volatility being experienced in wholesale gas markets and how that has been translated to retail markets. The focus of the audit was therefore on determining whether the LDCs' planning, procurement, and supply management organizations were designed to produce a gas supply portfolio which adequately addressed the issues of minimizing cost to retail customers, reasonably mitigating price volatility, and maintaining a reasonable level of reliability.

The second equally important objective was to provide training to select Commission Staff during the course of the audit in order to help Staff understand, review and evaluate LDC gas procurement, gas portfolio management, and gas supply management related issues in the future. This training included both "classroom" training, and also more hands-on type instruction.

Client: Wyoming Public Service Commission (*auditing K N Energy*)
Client Contact: Dave Mosier
Wyoming Public Service Commission
700 West 21st Street
Cheyenne, Wyoming 82002
(307) 777-5709

Summary: Liberty performed an evaluation of gas supply operations at K N Energy, which prior to FERC Order 636 had served as an integrated supply system stretching from Wyoming and Colorado to Kansas. K N Energy had supplied the full range of vertically integrated gas supply functions, including production, gathering, transmission, marketing, sales, and service. The breadth of its operations required it to deal with virtually every facet of operations affected by Order 636. Liberty assisted the Wyoming Commission in examining the implications of the company's post-Order 636 restructuring for the state's gas customers.

7. Holding Company/Utility Governance, and Financial Insulation

Client: Arizona Corporation Commission (*auditing UniSource*)
Client Contact: Chris Kempley, General Counsel
Arizona Corporation Commission
Utilities Division
1200 West Washington
Phoenix, AZ 85007-2996
(602) 542-4251

Summary: Liberty performed an evaluation of the proposed acquisition of UniSource (including Tucson Electric) by private investment firms, and prepared testimony commenting upon the merits of the merger, and recommending conditions necessary and appropriate to insulate utility finances, assure continued service quality and reliability, provide for appropriate utility governance, address access to affiliate information, control affiliate transactions, provide for a proper code of conduct, and assure continued community presence and support.

Client: Connecticut Department of Public Utility Control (*auditing Southern Connecticut Natural Gas Company*)
Client Contact: David Shapiro
Connecticut Department of Public Utility Control
Utilities Operations and Management Analysis Unit
10 Franklin Square
New Britain, Connecticut 06051
(860) 827-2687

Summary: Liberty conducted a comprehensive diagnostic management audit of Southern Connecticut Natural Gas Company (SCG). The scope of the study also included the following special issues: policies and procedures in the area of credit and collections and the collection of uncollectibles; expenditures for coal-tar remediation; the internal-audit function; purchasing and contracting; SCG's new service center in Orange; SCG's customer-service center in Bridgeport, with particular attention on how complaints, terminations, inquiries, and billing disputes are handled; how SCG is preparing to unbundle its services; and gas-procurement operations, in light of increasing competition and FERC orders, including FERC Order 636.

Client: Kentucky Public Service Commission (*auditing GTE South*)
Client Contact: Aaron Greenwell, Manager - Management Audit Branch
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602
(502) 564-3940

Summary: Liberty conducted a management audit of GTE South of Kentucky on behalf of the Kentucky Public Service Commission. The audit is focused primarily on evaluating the Kentucky operations of this national telecommunications company, with particular emphasis on the quality of service provided to Kentucky customers, alternative-regulatory methods, and the company's readiness for competition. The audit also included other traditional focus areas, such as strategic planning, organization, affiliate relationships, finance, marketing, and human resources.

Client: New Hampshire Public Utilities Commission (*auditing PSNH*)
Client Contact: Thomas B. Getz, Chairman
New Hampshire Public Utilities Commission
8 Old Suncook Road
Building No. 1
Concord, New Hampshire 03301-7319
(603) 271-2431

Summary: Liberty performed a management and financial audit of Public Service Company of New Hampshire (PSNH) for the Commission. This audit was conducted during the course of the Commission's review of a rate filing by the company. A significant component of this investigation was an examination of the fuel management practices and procedures of the utility that burned a mix of coal, fuel oil and natural gas. The examination of such costs was of material assistance to the Commission in examining the projected profitability of the various business segments under a range of assumptions about the future regulatory and market environments in which those segments would operate. Liberty assumed a principal role in negotiating outstanding restructuring issues and litigation between the NHPUC and PSNH, and is supporting the settlement in testimony before the Commission and the New Hampshire legislature. Liberty also provided on-going oversight of PSNH's preparations to sell its fossil-fueled and hydroelectric power plants through an auction, on behalf of the NHPUC. Monitoring activities included: meeting with PSNH and its investment banker and counsel to check on preparation progress, reviewing draft descriptive memoranda, providing comments to PSNH about terms and conditions of the proposed divestiture, and reporting on progress and issues to the NHPUC's senior Staff.

Client: New Hampshire Public Utilities Commission
Client Contact: ChristiAne G. Mason
New Hampshire Public Utilities Commission
8 Old Suncook Road
Concord, New Hampshire 03301-7319
(603) 271-2431

Summary: Liberty conducted a financial audit of the operations of Verizon New Hampshire. The audit included any services provided by affiliates, the allocation of costs between regulated and non-regulated activities, all other expense areas, assets, and revenues. This audit was conducted in the context of the company and Commission considering a change from traditional ratemaking.

Client: New Jersey Board of Regulatory Commissioners (*auditing Public Service Electric & Gas Company*)

Client Contact: Thomas Langbein, Division of Audits
New Jersey Board of Regulatory Commissioners
Two Gateway Center
Newark, New Jersey 07102
(973) 648-4437

Summary: Liberty performed a focused evaluation of The Public Service Enterprise Group (*PSEG*) and its subsidiaries, which include, among others, Public Service Electric & Gas Company, one of the largest combination electricity and natural-gas utilities in the United States. The scope included a review of the management of resources, cash, and property of each company and their impacts on short- and long-term performance. The focus areas included documentation of the scope, nature, and controls on cost-allocation methods; prices of goods and services; and the financial, economic, and operating impacts of the holding-company structure and affiliates on utility rates and service. The financial performance and business plans of the company's unregulated subsidiaries were evaluated. Liberty also reviewed the appropriateness of executive compensation packages. Liberty conducted this audit in accordance with the U.S. General Accounting Office's audit standards. Liberty completed this assignment in only a few months, and within budget, despite the size and complexity of PSEG's operations and number of subsidiary companies. Liberty's client, the New Jersey Board of Regulatory Commissioners, accepted our recommendations.

Client: New Jersey Board of Public Utilities (*audits of the competitive-service offerings of New Jersey's four electric-distribution companies*)

Client Contact: Pasquale Salvemini
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102
(973) 648-2162

Summary: Liberty performed audits of the competitive-service offerings of New Jersey's four electric-distribution companies to assure that the utilities were complying with the Board's Affiliate Relations, Fair Competition and Accounting Standards and Related Reporting Requirements, which implement New Jersey statutes that regulate utility-affiliate transactions and establish standards of conduct in providing competitive services to end users in New Jersey. The objectives of these audits are to assure that neither the utilities nor their related competitive business segments enjoy an unfair competitive advantage over their competitors, and that there is no form of cross-subsidization of competitive services by utility operations or affiliates with which they are associated.

Client: New Jersey Board of Public Utilities (*Focused Audit of NUI Corp. and its Affiliates*)

Client Contact: Walter Szymanski, Director, Division of Audits
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102
(973) 648-2162

Summary: Liberty performed a focused audit of NUI Corp. and its affiliates, which included operating gas LDCs in three states, an energy trading and brokering affiliate, a competitive retail energy supplier, an energy services company, a telecommunications equipment company, a local/long-distance/wireless telecommunications service provider, and environmental remediation subsidiary, and international ventures company, a utility billing and customer information system subsidiary, and a utility engineering services company. The board commissioned the audit after a series of credit downgrades, in the wake of poor non-utility financial performance caused the utility subsidiary to experience downgrades to below investment-grade. Liberty conducted detailed reviews of the planning for, investments in, performance of, and sources and uses of funds involving all of the subsidiaries. Liberty also examined in detail financial and accounting systems and controls, affiliate transaction cost assignment and allocation, energy commodity trading transactions, corporate governance, executive compensation, and all other matters with the potential for affecting utility cost and service reliability and cross-subsidization of affiliates.

Client: New Jersey Board of Public Utilities (*Focused and Management Audit of SJI and its Affiliates*)
Client Contact: Arthur Gallin, Division of Audits
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102
(973) 648-4437

Summary: Liberty conducted a focused and general management audit of SJI, South Jersey Gas, and affiliates for the New Jersey Board of Public Utilities. This project included detailed examinations of affiliate relationships, governance, financing and utility ring-fencing, compliance with New Jersey EDECA requirements for affiliate separation, protection of confidential information, non-discrimination against third-party competitors with utility affiliates, and other *code-of-conduct* issues.

Client: Nova Scotia Utility and Review Board (*auditing Nova Scotia Power*)
Client Contact: Mr. George Smith
Nova Scotia Utility and Review Board
3rd Floor, 1601 Lower Water Street
P.O. Box 1692, Unit "M"
Halifax, Nova Scotia B3J 3S3
(902) 424-4448

Summary: Liberty conducted a review and analysis of the utility's affiliate transactions report to the board. The work included filing and reviewing the responses to supplemental information requests, a meeting with the company to discuss the operations of one of its major non-utility subsidiaries, an examination of allocations, and detailed questions about certain test transactions. Liberty filed with the board a report of its findings and recommendations for further inquiries.

Client: Pennsylvania Public Utility Commission (*auditing West Penn Power Company*)
Client Contact: Glenn Bartron, Bureau of Audits
Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, Pennsylvania 17120
(717) 783-5000

Summary: Liberty performed a broadly-based management and operations audit of all areas of the company, including activities of the Allegheny Power System of which West Penn Power Company is a part. Additionally, special focus areas included affiliate costs, staffing and compensation, management information services, bulk power transactions, engineering and construction, transmission and distribution, Clean Air Act Amendment planning, and power interruptions.

Clients: Pennsylvania Public Utility Commission (*auditing Bell Atlantic - Pennsylvania*) and District of Columbia Public Service Commission (*auditing Bell Atlantic - District of Columbia*)
Client Contacts: Kathy Swords, Bureau of Audits (PA) and Dwayne Boyd, Chief Auditor (D.C.)
Pennsylvania Public Utility Commission
901 N. Seventh Street - Rear
Harrisburg, Pennsylvania 17105-3265
(717) 772-0315

Public Service Commission of the District of Columbia
450 5th Street, N.W.
Washington, D.C. 20001
(202) 626-5100

Summary: Liberty performed a comprehensive management audit of the functional operations of Bell Atlantic - Pennsylvania and Bell Atlantic - District of Columbia, operating companies of Bell Atlantic, one of the largest telecommunications organizations in the world. The audit included in-depth reviews of accounting functions and finance, including cost accounting, managerial accounting, budgeting and control, internal auditing, rates, cash management, financial-requirements planning, financing methods, and asset transfers. Liberty's review of compensation and benefits was performed because the area was identified as a special area warranting focused

review. The review also included an in-depth analysis of the relationships and transactions of Bell Atlantic - Pennsylvania and Bell Atlantic - District of Columbia and their Bell Atlantic affiliates.

Client: Tennessee Public Service Commission (*auditing United Cities Gas Company*)
Client Contact: William H. Novak, Utility Rate Division Manager
Tennessee Public Service Commission
460 James Robertson Parkway
Nashville, Tennessee 37243-0505
(615) 741-2792

Summary: This comprehensive management audit covered the traditional functional areas of executive management and corporate planning, financial systems, system operations, customer services, human resources, and support functions, as well as specific issues, including: main extension policies; vehicle management; affiliate interests and leases; advertising, sales, and promotion expenses; continuing property records; procurement and vendor relations; comparative rates; and comparative salaries and wages. Liberty's review of financial systems included requirements planning, accounting, budget management and control, rates, internal auditing, cash management, taxes, forecasting, compensation and benefits, and construction management. United Cities Gas Company accepted most of Liberty's 70 recommendations for improvements. The Tennessee Public Service Commission asked Liberty's consultants to testify on a few areas of disagreement as expert witnesses in a rate case.

Client: Virginia State Corporation Commission (*examining relationships between Virginia Power Company and its parent company, Dominion Resources, Inc.*)
Client Contact: James Douglas
Virginia State Corporation Commission
Box 1197
Richmond, Virginia 23209
(804) 371-9422

Summary: Liberty examined corporate and financial relationships between Dominion Resources, Inc. (DRI) and its wholly-owned and largest subsidiary, Virginia Power Company, in the wake of an unprecedented public dispute between the two about control over public utility operations. This unique study, which Liberty performed for the State Corporation Commission, addressed all significant facets of the corporate governance, operating relationships, and affiliate-arrangement interrelationships between the two. Liberty specifically examined whether organization, staffing, planning, and authority for conducting activities gave Virginia Power adequate authority and capability to move forward in a changing electric utility environment. Among the authorities Liberty examined were the arrangements governing the operations of the Treasury and Cash Management departments. Liberty performed its study at the same time that Virginia Power was undergoing a major strategic planning effort specifically designed to assist it in preparing to meet the challenges of a more competitive marketplace. This was another study that Liberty had to complete in only a few months because of the tremendous notoriety that the issues had attracted in the news media and state legislature.

8. Affiliates Audits

Client: North Carolina Utilities Commission (*auditing Duke Energy Carolinas*)
Client Contacts: Gisele Rankin or Elise Cox
North Carolina Utilities Commission
4326 Mail Service Center
Raleigh, NC 27699-4326
(919) 733-097 or (919) 733-0921

Summary: Liberty completed an audit of Duke Energy Carolinas (DEC) for the North Carolina Utilities Commission that addressed: affiliate relationships and agreements, methods for determining fully embedded costs for Service Company, utility, and affiliate services, Service Company cost allocation and assignment methods, potential for cross-subsidization, financial separation, income tax issues, and use of customer information.

Client: Indiana Utility Regulatory Commission (*auditing Duke Energy Indiana*)
Client Contact: Robert Mork, Deputy Consumer Counselor for Federal Affairs Office of Utility Consumer Counselor (OUCC)
National City Center
115 W. Washington Street
Suite 1500 South
Indianapolis, IN 46204
(317) 232-2494

Summary: Liberty performed a comprehensive examination of cost allocation and assignment systems, methods, procedures, calculations, organizations, and results, as well as a similar review of the multiple agreements governing services among affiliates and the Indiana and Kentucky utility operations that came to Duke Energy as part of the Cinergy acquisition.

Client: Arkansas Public Service Commission (APSC), Arkansas Western Gas Company (AWG), and the Office of the Attorney General (AG) of the State of Arkansas. (*auditing AWG*)
Client Contacts: Donna Gray, Ricky Gunter, and Shawn McMurray

Ms. Donna Gray, Director Arkansas Public Service Commission 1000 Center Street Little Rock, AR 72201 (501) 682-5720	Mr. Ricky Gunter Arkansas Western Gas Company 1083 Sain Street P.O. Box 1408 Fayetteville, AR 72702-1408 (501) 582-8482
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Mr. Shawn McMurray
Senior Assistant Attorney General
200 Tower Building
323 Center Street
Little Rock, AR 72201
(501) 682-1053

Summary: Liberty conducted an independent audit of AWG for the APSC, AWG, and the AG. The areas of inquiry were cost allocation, executive compensation, and the company's staffing and allocation of labor costs to and from affiliated companies.

Client: Connecticut Department of Public Utility Control (*auditing Southern Connecticut Natural Gas Company*)
Client Contact: David Shapiro
Connecticut Department of Public Utility Control
Utilities Operations and Management Analysis Unit
10 Franklin Square
New Britain, Connecticut 06051
(860) 827-2687

Summary: Liberty conducted a comprehensive diagnostic management audit of Southern Connecticut Natural Gas Company (SCG). The scope of the study also included the following special issues: policies and procedures in the area of credit and collections and the collection of uncollectibles; expenditures for coal-tar remediation; the internal-audit function; purchasing and contracting; SCG's new service center in Orange; SCG's customer-service center in Bridgeport, with particular attention on how complaints, terminations, inquiries, and billing disputes are handled; how SCG is preparing to unbundle its services; and gas-procurement operations, in light of increasing competition and FERC orders, including FERC Order 636.

Client: Delmarva Power & Light Company
Client Contact: James Lavin, Controller
Delmarva Power & Light Company
800 King Street
Wilmington, Delaware 19899

(302) 429-3359

Summary: Liberty assisted Delmarva Power & Light Company in developing and implementing self-assessment and continuous-improvement processes in the following areas: affiliate transactions, strategic planning, management organization, customer service, conservation, regulatory affairs, gas procurement for electric generation, and compensation. Liberty also provided specialized training and consulting with respect to stakeholder management and external reviews.

Client: Division of Consumer Advocacy, Department of Commerce and Consumer Affairs, State of Hawaii
Client Contact: Charles W. Totto, Executive Director
Division of Consumer Advocacy
Department of Commerce and Consumer Affairs
State of Hawaii
250 South King Street
Honolulu, Hawaii 96813
(808) 586-2770

Summary: Liberty evaluated a report prepared by a consultant to the Hawaii Public Utilities Commission on the relationship between Hawaiian Electric Industries (*HEI*), a diversified utility-holding company, and Hawaiian Electric Company (*HECO*), its principal subsidiary and operating electric utility. The impetus for the original study was public concern about the bankruptcy of an insurance subsidiary, the size of HEI's investment in non-utility investments, and the relatively high frequency of HECO's outages. The issues included in Liberty's assessment included corporate governance; affiliate transactions and cost allocations; credit support; and service reliability.

Client: Kentucky Public Service Commission
Client Contact: Aaron Greenwell, Manager - Management Audit Branch
Kentucky Public Service Commission
211 Sower Boulevard
Frankfort, Kentucky 40602
(502) 564-3940

Summary: Liberty conducted a management audit of GTE South of Kentucky on behalf of the Kentucky Public Service Commission. The audit is focused primarily on evaluating the Kentucky operations of this national telecommunications company, with particular emphasis on the quality of service provided to Kentucky customers, alternative-regulatory methods, and the company's readiness for competition. The audit also included other traditional focus areas, such as strategic planning, organization, affiliate relationships, finance, marketing, and human resources.

Client: New Hampshire Public Utilities Commission (NHPUC)
Client Contact: Thomas B. Getz, Chairman
New Hampshire Public Utilities Commission
8 Old Suncook Road
Building No. 1
Concord, New Hampshire 03301-7319
(603) 271-2431

Summary: Liberty performed a management and financial audit of Public Service Company of New Hampshire (*PSNH*) for the Commission. This audit was conducted during the course of the Commission's review of a rate filing by the company. A significant component of this investigation was an examination of the fuel management practices and procedures of the utility that burned a mix of coal, fuel oil and natural gas. The examination of such costs was of material assistance to the Commission in examining the projected profitability of the various business segments under a range of assumptions about the future regulatory and market environments in which those segments would operate. Liberty assumed a principal role in negotiating outstanding restructuring issues and litigation between the NHPUC and PSNH, and is supporting the settlement in testimony before the Commission and the New Hampshire legislature. Liberty also provided on-going oversight of PSNH's preparations to sell its fossil-fueled and hydroelectric power plants through an auction, on behalf of the NHPUC. Monitoring activities included: meeting with PSNH and its investment banker and counsel to check on preparation progress, reviewing draft descriptive

memoranda, providing comments to PSNH about terms and conditions of the proposed divestiture, and reporting on progress and issues to the NHPUC's senior Staff.

Client: New Hampshire Public Utilities Commission
Client Contact: ChristiAne G. Mason
New Hampshire Public Utilities Commission
8 Old Suncook Road
Concord, New Hampshire 03301-7319
(603)271-2431

Summary: Liberty conducted a financial audit of the operations of Verizon New Hampshire. The audit included any services provided by affiliates, the allocation of costs between regulated and non-regulated activities, all other expense areas, assets, and revenues. This audit was conducted in the context of the company and Commission considering a change from traditional ratemaking.

Client: New Jersey Board of Public Utilities (*audits of the competitive-service offerings of New Jersey's four electric-distribution companies*)
Client Contact: Pasquale Salvemini
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102
(973) 648-2162

Summary: Liberty performed audits of the competitive-service offerings of New Jersey's four electric-distribution companies to assure that the utilities were complying with the Board's Affiliate Relations, Fair Competition and Accounting Standards and Related Reporting Requirements, which implement New Jersey statutes that regulate utility-affiliate transactions and establish standards of conduct in providing competitive services to end users in New Jersey. The objectives of these audits are to assure that neither the utilities nor their related competitive business segments enjoy an unfair competitive advantage over their competitors, and that there is no form of cross-subsidization of competitive services by utility operations or affiliates with which they are associated.

Client: New Jersey Board of Regulatory Commissioners (*auditing Public Service Electric & Gas Company*)
Client Contact: Walter P. Szymanski, Director, Division of Audits
New Jersey Board of Regulatory Commissioners
Two Gateway Center
Newark, New Jersey 07102
(201) 648-2026

Summary: Liberty performed a focused evaluation of The Public Service Enterprise Group (PSEG) and its subsidiaries, which include, among others, Public Service Electric & Gas Company, one of the largest combination electricity and natural-gas utilities in the United States. The scope included a review of the management of resources, cash, and property of each company and their impacts on short- and long-term performance. The focus areas included documentation of the scope, nature, and controls on cost-allocation methods; prices of goods and services; and the financial, economic, and operating impacts of the holding-company structure and affiliates on utility rates and service. The financial performance and business plans of the company's unregulated subsidiaries were evaluated. Liberty also reviewed the appropriateness of executive compensation packages. Liberty conducted this audit in accordance with the U.S. General Accounting Office's audit standards. Liberty completed this assignment in only a few months, and within budget, despite the size and complexity of PSEG's operations and number of subsidiary companies. Liberty's client, the New Jersey Board of Regulatory Commissioners, accepted our recommendations.

Client: Illinois Commerce Commission (*auditing Illinois Bell Telephone Company*)
Client Contact: Sam McClerren
Illinois Commerce Commission
527 East Capitol Avenue
Springfield, Illinois 62794-9280
(217) 782-0597

Summary: Liberty consultants served as technical advisors in the areas of affiliate interests, marketing, and operations planning to the Staff of the Illinois Commerce Commission in its conduct of a reconnaissance audit of the Illinois Bell Telephone Company.

Client: New York Public Service Commission (*auditing New York Telephone Company*)
Client Contact: Cheryl Callahan, Assistant Counsel
New York Public Service Commission
Three Empire State Plaza
Albany, New York 12223
(518) 474-7072

Summary: Liberty performed an analysis of the propriety and reasonableness of transactions between New York Telephone and its affiliates. This review involved the development of a comprehensive collection of factual information, determining the reasonableness of affiliate transactions and the management processes and performance associated with them, and quantifying the financial impact of transactions and performance on ratepayers.

Client: Public Utilities Commission of Ohio (*auditing Vectren Energy Delivery of Ohio, Inc.*)
Client Contact: Thomas C. Pearce II, Natural Gas Specialist
Public Utilities Commission of Ohio
180 East Broad Street
Columbus, Ohio 43215-3793
(614) 466-1846

Summary: Liberty conducted the 2002 Gas Cost Recovery management/performance audit of Vectren Energy Delivery of Ohio, Inc. The focus areas included supply planning; organization, staffing and control; gas acquisition; transportation; balancing; regulatory management; response to changes in regulation (primarily new Customer Choice programs in Ohio); follow-up to issues raised in the last audit; and several company-specific issues that were important to the PUCO.

Clients: Pennsylvania Public Utility Commission (*auditing Bell Atlantic - Pennsylvania*) and District of Columbia Public Service Commission (*auditing Bell Atlantic - District of Columbia*)
Client Contacts: Kathy Swords, Bureau of Audits (PA) and Dwayne Boyd, Chief Auditor (D.C.)
Pennsylvania Public Utility Commission
901 N. Seventh Street - Rear
Harrisburg, Pennsylvania 17105-3265
(717) 772-0315

Public Service Commission of the District of Columbia
450 5th Street, N.W.
Washington, D.C. 20001
(202) 626-5100

Summary: Liberty performed a comprehensive management audit of the functional operations of Bell Atlantic - Pennsylvania and Bell Atlantic - District of Columbia, operating companies of Bell Atlantic, one of the largest telecommunications organizations in the world. The audit included in-depth reviews of accounting functions and finance, including cost accounting, managerial accounting, budgeting and control, internal auditing, rates, cash management, financial-requirements planning, financing methods, and asset transfers. Liberty's review of compensation and benefits was performed because the area was identified as a special area warranting focused review. The review also included an in-depth analysis of the relationships and transactions of Bell Atlantic - Pennsylvania and Bell Atlantic - District of Columbia and their Bell Atlantic affiliates.

Client: Tennessee Public Service Commission (*auditing United Cities Gas Company*)
Client Contact: William H. Novak, Utility Rate Division Manager
Tennessee Public Service Commission
460 James Robertson Parkway
Nashville, Tennessee 37243-0505
(615) 741-2792

Summary: This comprehensive management audit covered the traditional functional areas of executive management and corporate planning, financial systems, system operations, customer services, human resources, and support functions, as well as specific issues, including: main extension policies; vehicle management; affiliate interests and leases; advertising, sales, and promotion expenses; continuing property records; procurement and vendor relations; comparative rates; and comparative salaries and wages. Liberty's review of financial systems included requirements planning, accounting, budget management and control, rates, internal auditing, cash management, taxes, forecasting, compensation and benefits, and construction management. United Cities Gas Company accepted most of Liberty's 70 recommendations for improvements. The Tennessee Public Service Commission asked Liberty's consultants to testify on a few areas of disagreement as expert witnesses in a rate case.

Client: State Corporation Commission Commonwealth of Virginia (*evaluation of Virginia Natural Gas' Asset Management Agreement*)

Client Contact: Lawrence Oliver, Assistant Director, Division of Economics & Finance
State Corporation Commission Commonwealth of Virginia
P.O. Box 1197
Richmond, VA 23218
(804) 371-9358

Summary: Liberty worked with staff of the Virginia State Corporation Commission to evaluate the services of an affiliate providing gas portfolio management services under an asset management agreement with Virginia Natural Gas, an operating utility subsidiary of Atlanta-based AGLR.

Client: Virginia State Corporation Commission (*examining relationships between Virginia Power Company and its parent company, Dominion Resources, Inc.*)

Client Contact: James Douglas
Virginia State Corporation Commission
Box 1197
Richmond, Virginia 23209
(804) 371-9422

Summary: Liberty examined corporate and financial relationships between Dominion Resources, Inc. (*DRI*) and its wholly-owned and largest subsidiary, Virginia Power Company, in the wake of an unprecedented public dispute between the two about control over public utility operations. This unique study, which Liberty performed for the State Corporation Commission, addressed all significant facets of the corporate governance, operating relationships, and affiliate-arrangement interrelationships between the two. Liberty specifically examined whether organization, staffing, planning, and authority for conducting activities gave Virginia Power adequate authority and capability to move forward in a changing electric utility environment. Among the authorities Liberty examined were the arrangements governing the operations of the Treasury and Cash Management departments. Liberty performed its study at the same time that Virginia Power was undergoing a major strategic planning effort specifically designed to assist it in preparing to meet the challenges of a more competitive marketplace. This was another study that Liberty had to complete in only a few months because of the tremendous notoriety that the issues had attracted in the news media and state legislature.

B. Other Electric Utility Projects

Client: BEC Energy
Client Contacts: Neven Rabadjija, Associate General Counsel
BEC Energy
800 Boylston Street
Boston, Massachusetts 02199
(617) 424-2461

Roscoe Trimmier, Jr., Esq.
Ropes and Gray
One International Place
Boston, Massachusetts 02110

(617) 951-7000

Summary: Liberty supported BEC Energy, an electric utility whose participation in a new non-regulated venture became subject to regulatory scrutiny. This support included efforts in the regulatory proceeding initiated by an information-services competitor and the structuring of the newly-formed holding company.

Client: Belize Electricity Limited
Client Contact: Lynn R. Young, CEO
Belize Electricity Limited
115 Barrack Road
P. O. Box 327
Belize City, Belize, C. A.
(501) 2-33357

Summary: Liberty undertook a re-engineering and organization study for Belize Electricity Limited, the electric utility that serves the country of Belize. Liberty designed a new organization structure for the company. Major areas of emphasis in the re-engineering include customer service (eliminating business offices, reducing theft of service, and improving installations of new services), distribution operations (work management), materials management (forecasting material needs,) economic dispatch and system control, and human-resources management (streamlining and automating transactions).

Client: Pennsylvania Public Utility Commission under subcontract to Deloitte & Touche (*auditing Metropolitan Edison Company and Pennsylvania Electric Company*)
Client Contacts: Glenn Bartron, Director, Bureau of Audits
Pennsylvania Public Utility Commission
P.O. Box 3265
Harrisburg, Pennsylvania 17120
(717) 783-5000
Ken Hagstrom, Partner Deloitte & Touche
Deloitte & Touche
1700 Market Street, 24th floor
Philadelphia, Pennsylvania
(215) 246-2351

Summary: Liberty performed the review of nuclear-fuel procurement and management, and played a key role in the review of planning, forecasting, and demand management, both of which involved service company or multiple-operating-company coordination in a multi-state holding-company structure.

Client: Illinois Commerce Commission (*auditing Illinois Power Company*)
Client Contact: Michael Adams, Manager, Management Studies Division
Illinois Commerce Commission
527 East Capital Avenue
Springfield, Illinois 62794-9280
(217) 782-0595

Summary: Liberty conducted an independent review of Illinois Power Company's plans to comply with the Clean Air Act Amendments of 1990 by installing pollution control devices at the Baldwin Station. The investigation assessed the reasonableness of IPC's selected technology, plans and estimates to ensure that IPC provides reliable, efficient, utility service at the least-cost to customers. Liberty's work contributed to the utility's decision to alter its plans and change to a more cost effective approach.

Client: Maryland Public Service Commission (*auditing Baltimore Gas & Electric Company*)
Client Contacts: Allen Freifeld and Ronald Alper
Maryland Public Service Commission
6 St. Paul Center
Baltimore, Maryland 21202
(410) 767-8000

Summary: Liberty performed for the Maryland Public Service Commission an extensive review of management and the productive capacity of Baltimore Gas & Electric Company's (BG&E) Calvert Cliffs Nuclear Power Plant. The focus of the study concerns issues and events pertinent to extended outages at both units of Calvert Cliffs. Testimony has been filed in a BG&E fuel rate adjustment proceeding.

C. Other Natural Gas Distribution Company Projects

Client: Connecticut Department of Public Utility Control (auditing Yankee Gas Services Company)
Client Contact: David G. Shapiro
Connecticut Department of Public Utility Control
Utilities Operations and Management Analysis Unit
10 Franklin Square
New Britain, Connecticut 06051
(860) 827-2687

Summary: Liberty served as an extension of the Department's staff in a rate case for Yankee Gas Services Company. Liberty evaluated certain aspects of the company's proposals, through review of filed materials; preparation of interrogatories; conducting cross-examination of company and other witnesses; advising commissioners regarding the appropriate disposition of each aspect; and drafting parts of the Department's final order.

Client: Philadelphia Gas Commission
Client Contact: G. Christian Kimmerle, Executive Director
Philadelphia Gas Commission
1600 Arch Street, 2nd Floor
Philadelphia, PA 19103-2028
(215) 686-0909

Summary: Liberty made a presentation at a retreat the Commission sponsored. Participants included Commissioners, Staff, the executive management of the Philadelphia Gas Works, members of the City Council, and consumer advocates. The topic of the presentation was who will pay for social programs as the provision of utility services becomes competitive.

D. Projects for Private-Sector Clients

Client: Swidler & Berlin for South Carolina Public Service Authority/Santee Cooper
Client Contact: Andrew Weisman
Swidler & Berlin
3000 K Street, NW, Suite 300
Washington, DC 20013
(202) 944-4300

Summary: Liberty provided consulting services to attorneys representing non-operating owners of a nuclear-power plant. The subject matter was monitoring by a non-operating owner of plant operations.

Client: Vinson & Elkins L.L.P.
Client Contact: William H. Church, Jr., Esq.
Vinson & Elkins L.L.P.
3700 Trammell Crow Center and 2001 Ross Avenue
Dallas, Texas 75201-2975
(214) 220-7700

Summary: Liberty provided expert testimony in an arbitration involving claims made by a non-operating owner of a nuclear-power plant against an insurance provider.

Client: DuPont and Westinghouse
Client Contact: Mike Kidd, Director of Special Projects
Savannah River Laboratory
Aiken, SC 29808
(803) 725-5281

Summary: Liberty assisted with the design and implementation of self-assessment programs. The objective was to transfer effective methods used in the commercial-nuclear-power industry to the weapons plant.

Client: Westinghouse Electric Corporation
Client Contact: Mindy Spector, Esq.

Weil, Gotshal & Manges
767 Fifth Ave
New York, N.Y. 10153
(212) 310-8000

Summary: Liberty provided expert assistance in connection with a dispute between Furnas (of Brazil) and Westinghouse Electric Corporation over problems at the Angra nuclear plant.

Client: Colorado Independent Energy Association
Client Contact: Nicholas G. Muller
475 17th Street, Suite 950
Denver, Colorado 80202
(303) 297-1970

Summary: Liberty assessed the effects of electric-industry restructuring on all of the members of the Colorado Independent Energy Association (CIEA). CIEA represents about 20 owners of small power-generation projects (qualifying facilities -QF- as defined under PURPA) that sell power to the local electric utility. The project involved detailed assessment of the current regional market for electric-power sales, evaluation of existing power-sales agreements, and analysis of the operations and economics of the QF facilities. The project included a review of national electric-industry initiatives and programs, and a formal presentation of findings and strategies to CIEA's members.

Client: Powder River Energy Corporation
Client Contact: Ron Harper (Ron Harper is now CEO at Basin Electric, @ 1-800-242-2372).
Powder River Energy Corporation
221 Main Street
P.O. Box 930
Sundance, Wyoming 82729
(307) 283-3531

Summary: For this mid-sized Wyoming distribution coop, Liberty first acted as facilitator of a strategic planning process that included the coop's board and senior staff. Subsequently, Liberty assessed the utility's readiness for competition, and developed the coop's first ever strategic business plan for provision of new offerings of service to its members.

Client: Confidential
Client Contact: Confidential

Summary: Liberty assisted a major southern public-power entity to examine several of its core business practices and processes with the objective of identifying methods for enhancing their competitiveness in a more-open electricity marketplace. This project involved structural, staffing, and methods issues that affect the client's competitiveness.

Client: Major Electric Cooperative
Contact: Confidential

Summary: Liberty facilitated the development of a strategic plan for the client. Liberty performed a review of the operations of the member companies and the generating and transmission company to determine: missions, functions, environmental factors and other strategy drivers, strengths and weaknesses, opportunities and threats, and roles and responsibilities. Liberty then led a group of about 50 managers, directors, and other executives in writing the basic elements of the strategic plan.

Client: Potomac Electric Power Company
Client Contacts: Thomas E. Graves, Manager, Fuels Procurement
Susann D. Felton, Vice President - Materials
Potomac Electric Power Company
1900 Pennsylvania Avenue, N.W.
Washington, D.C. 20068-0001
(202) 872-3415

Summary: Liberty prepared a comprehensive set of fuel-management policies, practices, and procedures for the Fuel Department of Potomac Electric Power Company (PEPCO). This project was highly interactive with PEPCO

personnel from all departments involved in the fuel management process. The project included identification of all significant fuel management processes and the subsequent development of policies, practices, and procedures to cover these processes. Major processes included requirements planning, procurement, transportation, utilization, contract administration and inventory management of coal, oil, and natural gas used as fuels for electric power generation.

Client: East Kentucky Power Cooperative, Inc.
Client Contact: Randy Dials, Vice President, Power Production
East Kentucky Power Cooperative, Inc.
P. O. Box 707
Winchester, Kentucky 40392-0707
(606) 744-4812

Summary: Liberty assisted the Fuels staff of this generation and transmission electric power cooperative with the development of a supply strategy for its first-ever gas-fired generating capacity. Gas requirements were estimated through generation simulations, a solicitation for supply offers was conducted, and responses to the solicitation were evaluated.

Client: Atmos Energy Corporation
Client Contact: Mark G. Thessin
United Cities Gas Company
810 Crescent Center Drive
Suite 600
Franklin, Tennessee 37067
(615) 771-8300

Summary: For this multi-state gas distributor, Liberty worked with the company to develop a strategy for unbundling its gas-supply services. The strategy was developed at the parent-company level, with a working group composed of representatives of each of Atmos's five operating divisions. The strategy was implemented through unbundling plans filed in each state where the company operates, accompanied by internal plans focused on developing the capabilities necessary to meet the commitments undertaken as part of each plan filed in the states. The project was being directed internally by an officer of one of the operating divisions (United Cities Gas Company).

Client: Alabama Electric Cooperative, Inc.
Client Contact: Gary L. Smith, Vice President, Legal & Corporate Affairs
Alabama Electric Cooperative, Inc.
P.O. Box 550
Andalusia, Alabama 36420
(334) 427-3214

Summary: Liberty assisted this generation-and-transmission cooperative on a project to improve processes, reduce costs, and improve operational efficiency, in anticipation of competitive changes in the electric-power industry. This project included analysis of operations and development of recommendations for improvement of policies, practices, processes and procedures in the areas of fuel management for electric generating stations, and operations and maintenance of these electricity-generating stations. An important component of the project included assessment and recommendations for improvement on the interplay between coal and natural gas, and the market for electric power.

Client: Major Electric Cooperative
Contact: Confidential

Summary: Liberty facilitated the development of a strategic plan. Liberty performed a review of the operations of the member cooperatives and the generating and transmission unit to determine missions, functions, environmental factors and other strategy drivers; strengths and weaknesses; opportunities and threats; and roles and responsibilities. Liberty then led a group of about 50 managers, directors, and other executives in writing the basic elements of the strategic plan.

Client: (Confidential)
Client Contact: (Confidential)

Summary: Liberty assisted an electric utility in exploring diversification into related businesses. Options considered included distribution of other fuels, including natural gas, propane and heating oil, and ventures in telecommunications. Liberty activities included industry analysis, leading to identification of target business segments, and development of entry strategies for selected segments. Pilot ventures are planned.

Client: Confidential
Client Contact: Confidential

Summary: Liberty assisted a major western public-power entity in evaluating the marketability and the value of major electricity-generating stations because of expected changes in a power-sales agreement. The evaluation examined the baseline value of the units, *i.e.*, what their worth would be assuming no changes in use, the costs to operate them, and the methods for assigning support costs to their operations. The evaluation also assessed how the plants' value can be enhanced by changes to the operational or other factors that affect them.

Client: Confidential
Client Contact: Confidential

Summary: Liberty provided consulting assistance related to the marketing of power from a western water and power cooperative. This project included development of options for sale of electric power from the facility, training in the operation of local and regional electric-power markets, and assistance with the evaluation and selection of the most attractive market for this electricity.

Client: Confidential
Client Contact: Confidential

Summary: For an investment banking group, Liberty identified themes for enhancing the value of gas-distribution and transmission/storage business segments through acquisitions, and used those themes to develop criteria for acquisitions.

Client: The Dayton Power and Light Company
Client Contact: Judy W. Lansaw, Group Vice President
The Dayton Power and Light Company
P. O. Box 8825
Dayton, Ohio 45401
(513) 259-7201

Summary: Liberty assisted this combination gas- and electric-utility company with a review of its strategy for its gas business. The focus of this review was preparing for competition. Principal areas of concern were gas-main extension policy, gas rates and service offerings, financial performance of the gas business, the company's approach to gas marketing, and the potential for competitors to affect the company's electric business.

Client: The Dayton Power and Light Company
Client Contact: Maria Werling
The Dayton Power and Light Company
P. O. Box 8825
Dayton, Ohio 45401
(513) 259-7233

Summary: Liberty assisted this combination electric- and gas-utility company with a review of its peak-load forecasting method for gas. Included in the review were alternative formulations of equations for projecting peak-day sendout to firm customers, and expected levels of weather parameters for use in setting design-day conditions.

Client: The Dayton Power and Light Company
Client Contact: Thomas D. Tatham, Manager, Information Resources
The Dayton Power and Light Company
3931 South Dixie Drive
Dayton, Ohio 45439

Summary: Liberty was engaged to develop a new gas-main-extension policy. The policies of the surrounding gas utilities were compared to DP&L's prior policy, and then benchmarked against the policies of four companies of comparable size who were aggressively expanding their businesses. Criteria for a new policy were developed, and

the performance of old and proposed new policies was examined for sample projects. Liberty's recommendations were adopted.

Client: (Confidential)
Client Contact: (Confidential)

Summary: Provided consulting services to an Independent Power Producer to determine the feasibility of Cogeneration at a New York marine terminal.

Client: Ahlstrom Development Corporation)
Client Contact: Neil Cody
(703-631-6075)

Summary: Liberty completed a 2½-year assignment to revitalize a steam-heating company in Scranton, PA. The client for the project was a Finnish developer of cogeneration projects who wanted to develop a cogeneration project that would burn waste-coal deposits using circulating fluidized-bed technology. Liberty's contribution to this effort included development and implementation of a strategic business plan; implementation of an early-retirement offer; resizing the distribution plant; changing production from old, high-sulfur (#5) oil boilers to new gas #2 oil boilers; and development and introduction of work-planning and production modeling.

Client: NOVA Corporation of Alberta
Client Contact: C. Kent Jespersion, Senior Vice President, Corporate Development
NOVA Corporation of Alberta
P. O. Box 2535
Postal Station M
Calgary, Alberta T2P 2N6
CANADA

Summary: For this Canadian gas-pipeline and petrochemicals concern, Liberty performed an analysis of strategic factors in U. S. natural-gas-pipeline mergers. The financial context for the activity in the early 1980s was analyzed, then strategic *drivers* were developed for a series of transactions identified by the client as being of interest. Liberty's analysis was presented at an off-site meeting of the company's Corporate Strategy and Policy Committee.

Client: North Mississippi Gas Storage Company, LLC
Client Contact: D. Keith Miller
North Mississippi Gas Storage Company, LLC
c/o Ames Financial, Inc.
416 Travis Street, Suite 1106
Shreveport, Louisiana 71101
(318) 227-8944

Summary: Liberty assisted the owners of this proposed natural gas storage complex, to be located near Aberdeen, Mississippi, with finding partners to participate in the project. Liberty's role was to identify prospective users of the project's facilities, and then to approach them regarding their possible participation.

Client: Public Service Company of Colorado
Client Contact: Bruce L. Shults, Manager - Support Services Division
Public Service Company of Colorado
1225 17th Street, Suite 1200
Denver, Colorado 80202-5533
(303) 294-2375

Summary: Liberty performed an assessment of the manpower planning and workforce-management activities of the Gas & Electric Distribution unit. The focus of the work was on tracking and timekeeping as they related to workforce-management processes. This project included interviews with selected managers, and concluded with a workshop involving these same individuals to identify opportunities for process improvement and develop specific near-term action plans in work management.

Client: Colorado Springs Utilities
Client Contact: Bruce J. Swain, Customer Services Director
Colorado Springs Utilities
111 South Cascade Avenue, Suite 208
Colorado Springs, Colorado 80947-1026
(719) 448-8205

Summary: Liberty performed a study to assist this utility in addressing the organizational impacts associated with a transition to automated meter reading (AMR). Transitions to AMR mean organizational change and consideration of the issues of human-resource management in conjunction with technical changes were a large part of this work. This study also addressed the technical compatibility between meters and the three different metered-utility services (electric, gas, and water), and how these technical issues will influence operational techniques, management philosophy, and organizational interfaces. Liberty's work included a survey of the experiences and lessons learned by about 25 utilities who have already adopted AMR.

Client: National Fuel Gas Distribution Corporation
Contact: Ronald J. Tanski, VP & General Counsel
National Fuel Gas Supply Corporation
10 Lafayette Square
Buffalo, NY 14203
(716) 857-6891

Summary: Liberty prepared National Fuel's local gas-distribution company for comprehensive management audits by the New York and Pennsylvania public-utility commissions. Liberty performed focused reviews of gas-supply management and legal services, to identify strengths and vulnerabilities and, where applicable, recommend corrective actions. A significant part of this project included preparation of detailed procedures for improved operation of the legal department. In addition to these and other focused reviews, Liberty prepared organizations and individuals for interviews.

Client: National Fuel Gas Supply Corporation
Contact: Dale Rowekamp
National Fuel Gas Supply Corporation
10 Lafayette Square
Buffalo, NY 14203
(716) 857-6890

Summary: For this gas pipeline and storage company, Liberty performed a preliminary analysis of markets for gas in the electricity-generation sector in Pennsylvania. Electric-utility companies' plans for new generating capacity were examined, along with the influence of the Clean Air Act Amendments of 1990.

Client: Florida Power Corporation
Client Contact: Bruce Hickle
Florida Power Corporation
3201 34th Street South
St. Petersburg, Florida 33733
(352) 563-4591

Summary: Liberty developed a revised set of performance indicators for the nuclear plant that could be directly related to annual business goals.

Client: Big Rivers Electric Corporation
Client Contact: John West, Vice General Manager of Finance
Big Rivers Electric Corporation
201 Third Street
Henderson, Kentucky 42420
(502) 827-2561

Summary: Liberty designed and facilitated a self-assessment process for Big Rivers' review of its plan for compliance with the Clean Air Act Amendments of 1990. Under Kentucky statute, costs of compliance with new federal, state, and local environmental regulations are recoverable through a unique environmental surcharge.

Liberty assisted Big Rivers in the definition of applicable expenses and surcharge mechanics. Liberty also assisted Big Rivers with the preparation of documentation to support an application for surcharge implementation.

Client: Kentucky Utilities Company
Client Contact: Ron Willhite, Director of Rates and Rate Research
Kentucky Utilities Company
One Quality Street
Lexington, Kentucky 40507
(606) 288-1136

Summary: Liberty assisted Kentucky Utilities in preparing an application for, and implementation of, an environmental surcharge allowable by Kentucky law. This unique surcharge provides for current recovery of the cost of compliance with federal, state, and local environmental regulations, including the Clean Air Act Amendments and coal-combustion wastes and by-products. Liberty's work, which involved all aspects of the application, surcharge implementation, and formal proceedings, was the first application under the implementing legislation, with an emphasis on the analysis of financial effects and investment alternatives.

Client: Delmarva Power & Light Company
Client Contact: Ralph Klesius, Vice President of Engineering and Operations
Delmarva Power & Light Company
800 King Street
Wilmington, Delaware 19899
(302) 429-3625

Summary: Liberty provided advice regarding selection of planning, scheduling, and monitoring software systems. Made recommendations for work-process improvements and established an enhanced quality-assurance organization.

Client: Central Illinois Public Service Company
Client Contacts: Clifford Greenwalt, CEO, CIPS and Boyd Springer, Esq.
Central Illinois Public Service Company
607 East Adams Street
Springfield, Illinois 62739
(217) 523-3600

Boyd Springer, Esq.
Jones, Day, Reavis & Pogue
77 West Wacker Street
Chicago, Illinois 60601-1692
(312) 269-4151

Summary: Liberty President John Antonuk testified to the results of a procurement-performance review of fuel management, and identified steps to improve utility efficiency and accountability for coal procurement and management. He also conducted a retrospective evaluation of major coal-contracting processes and decisions. The retrospective study formed part of expert testimony before the Illinois Commerce Commission, which largely accepted the findings and conclusions of the retrospective study.

Client: Commonwealth Electric Company
Client Contact: Andrew Weisman, of Counsel
Swidler & Berlin
3000 K Street, N.W.
Washington, D.C. 20007-3841
(202) 944-4351

Summary: As part of proceedings before the FERC, Liberty performed an extensive investigation and evaluation of utility-management performance in connection with a nuclear plant that suffered performance decline, was placed on the NRC's Watch List, and experienced an extended outage. Liberty coordinated the activities of several consulting firms involved in the investigation. Liberty's experts quantified damages resulting from unreasonable performance of the managing owner in operation of a nuclear-power plant. Liberty also analyzed the need for, and

management of, major capital and maintenance projects. Liberty's analyses were instrumental in settlement of the proceedings before FERC.

Client: Public Service Company of Colorado
Client Contact: Larry Brey, Manager of Licensing
Public Service Company of Colorado
2420 West 26th Street, Suite 100-D
Denver, CO 80211
(303) 480-6900

Summary: Liberty provided consulting assistance regarding the compliance of the fitness-for-duty program at Fort St. Vrain with the requirements of the Nuclear Regulatory Commission.

Client: Rochester Gas & Electric Company
Client Contact: Paul Wilkins, Department Manager for Nuclear Engineering Services
Rochester Gas & Electric Company
89 East Avenue
Rochester, New York 14649
(716) 546-2700

Summary: Liberty evaluated all elements of the design-modification process for RG&E's Nuclear Engineering Services department, and formulated a set of wide-ranging recommendations to re-engineer and improve work processes. Recommendations were implemented through procedure changes that streamlined the approval process, eliminated unnecessary steps, ensured compliance with regulatory requirements, improved plant interfaces, and reduced the time and cost of plant modifications.

Client: Florida Power Corporation
Client Contact: Paul McKee, Plant Manager
Florida Power Corporation
3201 34th Street South
St. Petersburg, Florida 33733
(352) 866-5257

Summary: Liberty conducted a series of prudence inquiries related to several forced outages at the Crystal River 3 nuclear-power plant. Liberty assisted Florida Power with the development of testimony in preparation for hearings before the Florida Public Service Commission. Separately, Liberty also provided prudence-awareness and document-preparation training for senior managers responsible for nuclear-plant management.

Client: Florida Power Corporation
Client Contact: Paul McKee, Plant Manager
Florida Power Corporation
3201 34th Street South
St. Petersburg, Florida 33733
(352) 866-5257

Summary: Liberty conducted a seminar that dealt with the issues, documentation requirements, and criteria for judging the prudence of the operation of a nuclear-power plant.

Client: Pennsylvania Power & Light Company
Client Contact: Terence Bannon
Pennsylvania Power & Light Company
Two North Ninth Street
Allentown, Pennsylvania 18101
(610) 774-7911

Summary: Liberty performed several nuclear-plant and management-performance assessments of Pennsylvania Power & Light's Susquehanna Steam Electric Station using NRC SALP-based standards. Liberty also provided consultation supporting efforts to optimize communications programs with the NRC, and to identify performance indicators that merited management attention. This assignment was carried out as part of the client's efforts to continue to be recognized as a leader in its nuclear operations.

Client: Philadelphia Thermal Electric Company
Client Contact: Joseph Martino
Philadelphia Thermal Electric Company
2600 Christian Street
Philadelphia, Pennsylvania 19146
(215) 875-6900

Summary: Liberty provided regulatory-accounting, fuel-clause-adjustment, and rate consulting.

Client: Louisiana Power & Light Company
Client Contacts: Jerold Dewease, former Senior Vice President, Nuclear and Fred Drummond, former Director of Nuclear Excellence
Louisiana Power & Light Company
317 Baronne Street
New Orleans, LA 70160
(504) 595-3100

Summary: Liberty helped to develop a program to establish and maintain excellence in operations at the Waterford 3 nuclear-power plant. The assistance included extensive review of management and operations at the site and in-home office-support functions, addressing all functions of the nuclear organization. It also included assistance in developing goals and objectives, and instituting a communications program to assure that they were understood and accepted. The assignment also included measurement of performance results against regulatory and industry standards, and providing recommendations and implementation plans for improving performance. Following Liberty's work, the Institute of Nuclear Power Operations gave the plant the highest rank attainable.

Client: Louisiana Power & Light Company
Client Contacts: Jerold Dewease, former Senior Vice President, Nuclear and Fred Drummond, former Director of Nuclear Excellence
Louisiana Power & Light Company
317 Baronne Street
New Orleans, LA 70160
(504) 595-3100

Summary: Liberty performed an assessment of the systems, procedures, and organization associated with the cost monitoring and control of outages. Liberty compared the outage cost-control approach and practices with the range of industry practices. Liberty provided specific recommendations for achieving improvements in the outage cost-control effectiveness. Liberty also developed guidelines for the development of a post-outage critique document.

Client: Soyland Power Cooperative
Client Contacts: Peter Herzog
Bryan, Cave, McPheeters & McRoberts
500 North Broadway
St. Louis, Missouri 63102
(314) 231-8600

Jeffrey S. Wolff
Fulbright & Jaworski
1301 McKinney
Houston, Texas 77010
(713) 651-5151

Summary: Liberty helped the client to assess liability for, and the extent of damages from, imprudent management performance found by the Illinois Commerce Commission in proceedings concerning Illinois Power Company's management of the Clinton Nuclear Project.

Client: Houston Lighting & Power Company
Client Contacts: Scott Rozzell and Finis Cowan of Baker & Botts
Jack Greenwade, Hugh Rice Kelly, and Steve Letbetter, of Houston Lighting & Power Company
Houston Lighting & Power Company
611 Walker Street
Houston, TX 77002
(713) 207-3700

Baker & Botts
One Shell Plaza
Houston, Texas 77002
(713) 229-1502

Summary: Liberty provided extensive consulting assistance related to a regulatory review of the management and costs of a nuclear-construction project. The client needed to respond to an extensive and intensive review of management and costs, and prepare for formal proceedings before the Texas PUC. Liberty's assistance in responding to the audit sponsored by the Commission resulted in that report being stricken from the record. Liberty's advice on substantive matters was important guidance to company management and its counsel in decisions throughout the process. Liberty also provided ongoing support and assistance to implement the response strategy and meet the needs of the administrative proceedings. Liberty implemented, for the team (in-house and outside legal resources, including numerous expert witnesses) a project-control and work-management system to efficiently manage the various legal proceedings, including a multi-disciplinary litigation, rate-case, and prudence docket. In addition, Robert Stright, a Liberty Principal, provided expert testimony on the quantification of alleged imprudence on the part of the managing owner.

Client: Houston Lighting & Power Company
Client Contacts: C. Janie Mitcham (Houston Lighting & Power Company) and Scott Rozzell (Baker & Botts)
Houston Lighting & Power Company
611 Walker Street
Houston, TX 77002
(713) 207-3700

Baker & Botts
One Shell Plaza
Houston, Texas 77002
(713) 229-1502

Summary: Liberty assisted Houston Lighting & Power by independently assessing the reasonableness of management actions at its two nuclear units at the South Texas Project (STP). STP had been under close NRC scrutiny because of perceived weaknesses in several plant programs that affected safety, and had experienced an extended two-unit outage in 1992-1994 to make equipment upgrades and program improvements. Liberty reviewed the reasonableness of HL&P's management of the plant from a viewpoint that considered all factors involved in decision making, and helped HL&P fairly portray its performance in regulatory proceedings affecting rates. Liberty's role included the evaluation of management effectiveness in the planning and budgeting processes, in plant operations, engineering support, maintenance, training, material control, and several other areas.

Client: Cleveland Electric Illuminating Company
Client Contact: Mike Lyster, former Vice President of Nuclear Operations
Cleveland Electric Illuminating Company
10 Center Road
Perry, OH 44081
(216) 259-3737

Summary: Liberty performed an independent review of CEI's operating-experience program at the Perry nuclear plant. Liberty reviewed operating-experience documentation to identify performance areas that indicated possible opportunities for improvement based on evaluation standards applicable to reviews by industry and regulatory agencies. The client used Liberty's study result to focus management attention on priority-improvement areas.

Client: Cleveland Electric Illuminating Company
Client Contact: Mike Lyster, former Vice President of Nuclear Operations
Cleveland Electric Illuminating Company
10 Center Road
Perry, OH 44081
(216) 259-3737

Summary: Liberty provided assistance to improve outage management at the Perry nuclear plant. Liberty performed a consulting engagement designed to help improve and implement planning and control systems used to plan and schedule plant outages, estimate costs, and track cost and schedule performance. The assistance included development and implementation of training programs to address general and plant-specific elements of outage planning and management.

Client: Georgia Power Company
Client Contact: Arthur Domby, of Counsel
Troutman, Sanders, Lockerman and Ashmore
1400 Candler Building
Atlanta, Georgia 30043
(404) 658-8000

Summary: Liberty performed an independent evaluation of the replacement of recirculating-water pipe at the Plant Hatch nuclear station. The evaluation addressed the propriety of the planning, decision making, and management of an extended outage. Testimony was submitted before the Georgia Public Service Commission in the regulatory review of management and the schedule and costs of this major project.

Client: Gulf States Utilities
Client Contact: James Booker, former Vice President of Nuclear Operations
Gulf States Utilities
P.O. Box 220
St. Francisville, LA 70775
(504) 635-6094

Summary: Liberty performed a review of the effectiveness of the operating-experience program for the River Bend Station. The review addressed a broad spectrum of activities, including plant- operating experience at River Bend and other nuclear-power plants. Station events were reviewed to determine the adequacy of root-cause determinations, and corrective actions in response to INPO findings were also assessed.

Client: Georgia Power Company
Client Contacts: Douglas Miller, Mark VanderBroek, and Kevin Green
Troutman, Sanders, Lockerman and Ashmore
1400 Candler Building
Atlanta, Georgia 30043
(404) 658-8000

Summary: Liberty consultants testified before the Georgia Public Service Commission in a regulatory review of the management and costs of a major construction project. The testimony was based on an assessment of the sources of delay in design, construction, and start-up, including the development of an as-built critical-path schedule.

Client: El Paso Electric Company
Client Contact: Davis Wiggs, President
El Paso Electric Company
303 North Oregon Street
El Paso, Texas 79960
(915) 543-5711

Summary: Liberty evaluated and provided expert testimony concerning the reasonableness and prudence of efforts by a non-managing owner to provide monitoring and oversight to protect its interests as a minority owner of a major generating facility during design and construction.

Client: Duquesne Light Company
Client Contact: Steve Lacey, General Manager
Duquesne Light Company
P.O. Box 4
Shippingport, PA 15077
(412) 393-7622

Summary: Liberty performed an independent assessment of the effectiveness of performance-improvement initiatives and programs at the Beaver Valley nuclear-power plant. Liberty's assistance was part of a concerted management effort to achieve overall performance enhancements, and to promote and achieve excellence in nuclear-plant operations. Liberty provided specific recommendations and implementation plans for achieving improvements in performance.

Client: Enbridge Midcoast Energy, Inc.
Client Contact: Chris Kaitson, General Counsel
Enbridge Midcoast Energy, Inc.
1100 Louisiana Street, Suite 2900
Houston, Texas 77002-5217
(713) 821-2028

Summary: Liberty provided an expert witness to this mid-continent pipeline system in an investigation by the Missouri Public Service Commission of the gas-purchasing practices of Midcoast's customer, Missouri Gas Energy (MGE). MGE was operating under an Experimental Gas Cost Incentive Mechanism (EGCIM) during the periods in question. Both the structure of the EGCIM and MGE's operations under it have been at issue in the proceedings.

Client: Colorado Springs Utilities
Client Contact: Bruce J. Swain, Customer Services Director
Colorado Springs Utilities
111 South Cascade Avenue, Suite 208
Colorado Springs, Colorado 80947-1026
(719) 448-8205

Summary: Liberty performed a study to assist this utility in addressing the organizational impacts associated with a transition to automated meter reading (AMR). Transitions to AMR mean organizational change and consideration of the issues of human-resource management in conjunction with technical changes were a large part of this work. This study also addressed the technical compatibility between meters and the three different metered-utility services (electric, gas, and water), and how these technical issues will influence operational techniques, management philosophy, and organizational interfaces. Liberty's work included a survey of the experiences and lessons learned by about 25 utilities who have already adopted AMR.

Client: Electric Power Research Institute
Client Contact: Dr. Veronica Rabl
Electric Power Research Institute
3412 Hillview Avenue
P.O. Box 10412
Palo Alto, California 94303
(415) 855-2000

Summary: Liberty conducted an assessment of the issues and forces that were likely to affect demand-side management activities in the industry. This strategic-planning study was performed to assist EPRI in devising its demand-management direction and programs.

Client: Kentucky Utilities Company
Client Contact: Ron Willhite, Director of Rates and Rate Research
Kentucky Utilities Company
One Quality Street
Lexington, Kentucky 40507
(606) 288-1136

Summary: Liberty assisted Kentucky Utilities in preparing an application for, and implementation of, an environmental surcharge allowable by Kentucky law. This unique surcharge provides for current recovery of the cost of compliance with federal, state, and local environmental regulations, including the Clean Air Act Amendments and coal-combustion wastes and by-products. Liberty's work, which involved all aspects of the application, surcharge implementation, and formal proceedings, was the first application under the implementing legislation, with an emphasis on the analysis of financial effects and investment alternatives.

Client: District of Columbia Public Schools
Client Contact: William H. McAfee III, Director
District of Columbia Public Schools
Office of Admin. Services
Division of Facilities Management
1709 3rd Street, N.E.
Washington, D.C. 20002
(202) 576-6612

Summary: Liberty provided a two-day seminar to senior-level managers in the District of Columbia public-schools system, introducing them to the role of reliability-centered maintenance in an effective facilities-management program. Liberty then performed a work-control process assessment to identify areas needing improvement. The assessment included interviews with principals, regional service-center managers, and staff involved in work planning and scheduling. A new system for initiating work requests was developed, as well as a new system for estimating backlog and work schedules.

Client: Central Illinois Public Service Company
Client Contacts: Clifford Greenwalt, CEO, CIPS and Boyd Springer, Esq.
Central Illinois Public Service Company
607 East Adams Street
Springfield, Illinois 62739
(217) 523-3600

Boyd Springer, Esq.
Jones, Day, Reavis & Pogue
77 West Wacker Street
Chicago, Illinois 60601-1692
(312) 269-4151

Summary: Liberty Principal John Antonuk testified to the results of a procurement-performance review of fuel management, and identified steps to improve utility efficiency and accountability for coal procurement and management. He also conducted a retrospective evaluation of major coal-contracting processes and decisions. The retrospective study formed part of expert testimony before the Illinois Commerce Commission, which largely accepted the findings and conclusions of the retrospective study.

Client: Commonwealth Electric Company
Client Contact: Andrew Weisman, of Counsel
Swidler & Berlin
3000 K Street, N.W.
Washington, D.C. 20007-3841
(202) 944-4351

Summary: As part of proceedings before the FERC, Liberty performed an extensive investigation and evaluation of utility-management performance in connection with a nuclear plant that suffered performance decline, was placed on the NRC's Watch List, and experienced an extended outage. Liberty coordinated the activities of several consulting firms involved in the investigation. Liberty's experts quantified damages resulting from unreasonable performance of the managing owner in operation of a nuclear-power plant. Liberty also analyzed the need for, and management of, major capital and maintenance projects. Liberty's analyses were instrumental in settlement of the proceedings before FERC.

Client: Non-managing owners of the Seabrook nuclear-power plant
Client Contact: Michael Ward, Esq.

Swidler & Berlin
3000 K St., NW, Suite 300
Washington, DC 210013
(202) 944-4300

Summary: Liberty performed various reviews and analyses for the attorneys representing non-managing owners of the Seabrook nuclear-power project. The subject was the prudence of the construction of the plant.

Client: Washington Public Power Supply System
Client Contact: Dr. G.D. Bouchey, former Director of Licensing and Assurance
Washington Public Power Supply System
P.O. Box 968
Richland, WA 99352
(509) 372-5344

Summary: Liberty performed an effectiveness review of the overall quality program at the WPPSS 2 nuclear plant. Liberty evaluated the degree to which client programs supported self-improvement efforts and provided detailed recommendations to help to achieve the desired level of performance.

Client: U.S. Attorney's Office (in the state of Alaska)
Client Contact: Neil Evans, Assistant U.S. Attorney

Summary: Liberty was engaged to provide expert analysis (in the context of criminal-fraud proceedings) concerning a public-works program of more than \$1 billion involving many different individual projects. The projects included public housing, school facilities, municipal-services buildings, domestic-utility systems, and airport facilities. Liberty Principal John Antonuk had previously overseen an extensive review of the: organization; management; vendor and contractor selection; contract administration; and contractor performance on the projects.

Client: Arizona Public Service Company
Client Contact: Jack Bailey, former Vice President
Arizona Public Service Company
411 North Central Avenue
Phoenix, Arizona 85004
(602) 393-7622

Summary: Liberty performed an independent assessment of the effectiveness, progress, and status of operations-performance improvements at the three-unit Palo Verde nuclear-power station. The objective was to establish and maintain excellence in nuclear-power-plant operations at a plant that experienced significant performance problems. Liberty's work included an extensive review of the client's efforts to monitor management and operations improvements at the site and home-office-support functions. The assignment also included measurement of performance results against industry standards. Liberty provided recommendations and detailed implementation plans for improving performance. Subsequent improvement in the client's operations was demonstrated by improved evaluation results from the Institute of Nuclear Power Operations.

Client: Nebraska Public Power District
Client Contact: Guy Horn, Division Manager
Nebraska Public Power District
P.O. Box 98
Brownville, NE 68321

Summary: Liberty provided management-consulting assistance to the client in responding to an INPO evaluation of the Cooper Nuclear Station.

Client: Omaha Public Power District
Client Contacts: Jim Chase and Merl Core
Omaha Public Power District
1623 Harney Street
Omaha, NE 68102
(402) 536-4000

Summary: Liberty performed an assessment of power-plant maintenance and support activities at the Fort Calhoun nuclear-power plant. Liberty developed a comprehensive action plan to improve planning, scheduling, monitoring, and other support of maintenance activities.

Liberty also performed a more broadly-based review of plant management, identifying corrective actions to improve plant management and performance, assessing the effectiveness of corrective actions and the status of their implementation, and then provided recommendations to accomplish client goals in an effective manner. The recommendations were integrated into client plans for subsequent improvement activities. The improvements were recognized and documented in subsequent industry evaluations.

E. Telecommunications Projects

Client: Maryland Public Service Commission (*auditing C&P Telephone of Maryland*)

Client Contact: Gregory V. Carmean, Executive Director
Maryland Public Service Commission
6 St. Paul Center
Baltimore, Maryland 21202
(410) 767-8000

Summary: Liberty performed an audit of the affiliate transactions of the Chesapeake & Potomac Telephone Company of Maryland (*C&P, now Bell Atlantic - Maryland*). The study encompassed a detailed review of C&P's relationships with Bell Atlantic Corporation and other Bell Atlantic subsidiaries and affiliates. Liberty team members presented testimony in rate-case proceedings with regard to Liberty's findings.

Client: DC Public Service Commission

Client Contact: Ken Hughes, Office of the General Counsel, DC Public Service Commission
District of Columbia Public Service Commission
1333 H St NW Suite 200, West Tower
Washington, DC 20005
(202) 626-5157

Summary: Liberty's president served as arbitrator for by the District of Columbia Public Service Commission to address industry-wide need for amendments to interconnection agreements as a result of the FCC's Triennial Review Order.

Client: New Jersey Board of Public Utilities (*auditing Verizon New Jersey*)

Client Contact: James Corcoran, Staff, Board of Public Utilities
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102
(973) 648-4197

Summary: Liberty conducted a comprehensive review of Verizon-New Jersey's wholesale performance measures and incentive plan. The review involved interaction with CLEC customers of Verizon, evaluation of change management policies and practices, detailed analyses of algorithms and code used to produce performance measures, and recalculation of performance measure results.

Client: Public Utilities Commission of Ohio (*auditing Ameritech- Ohio*)

Client Contact: Jason Well, Staff
Public Utilities Commission of Ohio
180 East Broad Street, 7th Floor
Columbus, OH 43215-3793
(614) 995-5707

Summary: Liberty performed a comprehensive investigation of Ameritech-Ohio's service delivery quality. This engagement included an assessment of Ameritech-Ohio's installation and repair operations and processes, and an in-depth review of performance measures and service quality benchmarks.

Client: Regional Oversight Committee
Client Contact: Bob Rowe, Commissioner
Montana Public Service Commission
701 Prospect Avenue
P.O. Box 202601
Helena, Montana 59620-2601
(406) 444-6167

Summary: Liberty performed a comprehensive audit of Qwest's performance measures for 13 state commissions in Qwest's service territory.

Client: Pennsylvania Public Utility Commission
Client Contact: Nora Mead Brownell, Commissioner
Pennsylvania Public Utility Commission
P.O. Box 3265
North Office Building, Room 107
Harrisburg, PA 17105
(717) 772-0692

Summary: Liberty provided advice to the commission about many issues associated with local competition in the Pennsylvania global-telecommunications-settlement proceeding.

Client: Delaware Public Service Commission
Client Contact: G. Arthur Padmore, Administrative Law Judge
Delaware PSC
861 Silver Lake Blvd.
Cannon Building, Suite 100
Dover, DE 19904
(302) 739-3232

Summary: Liberty assisted an ALJ in the examination and resolution of seven different disputes regarding a wide range of service and interconnection issues between the incumbent and various types of carriers, including paging and wireless.

Client: Virginia State Corporation Commission (*Bell Atlantic - Virginia arbitration hearings with competing local-exchange carriers*)
Client Contact: William Irby
Virginia State Corporation Commission
P.O. Box 1197
Richmond, Virginia 23218
(804) 371-9967

Summary: Liberty served as a technical advisor to Staff in its support of arbitrators in various BA-VA arbitrations with competing local-exchange carriers, such as AT&T, MCI, TCG, Cox, and MFS related to the Telecommunications Act of 1996 and the FCC Interconnection Order. Liberty provided technical assistance in reviewing each party's positions on wholesale pricing, unbundled-element pricing, TELRIC models, branding issues, and a variety of operational issues subject to arbitration. Liberty also assessed the issues raised in each petition and has designed a database that was used to help categorize, compare, manage, and report on the issues. Liberty identified, requested, and reviewed additional information needed from the petitioners, and also conducted informal interviews of them. Liberty aided in identifying opportunities to consolidate issues among petitioners. Liberty determined whether the responses to petitions and information requests showed differences in understanding of the issues or positions between petitioners and respondents. Liberty consultants John Antonuk, Robert Stright, and Paul Hlavac, all served as witnesses in hearings on the terms and conditions of interconnection.

Client: Virginia State Corporation Commission (*Bell Atlantic - Virginia permanent pricing for unbundled network elements and assessment of non-price interconnection issues with competing local-exchange carriers*)
Client Contact: James Douglas
Virginia State Corporation Commission
Tyler Building

P.O. Box 1197
Richmond, Virginia 23218
(804) 371-9422

Summary: Liberty served as the Staff in this important proceeding that determined the permanent prices for Bell Atlantic-VA's unbundled network elements and to evaluate non-price terms and conditions offered by Bell Atlantic-VA in connection with its application for providing inter-LATA service. Other participants in the proceeding included AT&T, MCI, TCG, MFS, and VCTA. Liberty prepared and filed reports in the case, and consultants Robert Stright and Paul Hlavac testified before the Commissioners.

Client: New Jersey Board of Public Utilities (*Bell Atlantic - New Jersey arbitration hearings with competing local-exchange carriers*)

Client Contact: James Murphy
New Jersey Board of Public Utilities
Two Gateway Center
Newark, NJ 07102
(201) 648-4626

Summary: Liberty served as a technical advisor to Staff in its support of several judges who acted as arbitrators in various BA-NJ arbitrations with competing local-exchange carriers, such as AT&T, MCI, TCG, and MFS related to the Telecommunications Act of 1996 and the FCC's Interconnection Order. Liberty provided technical assistance in reviewing each party's' positions on wholesale pricing, unbundled-element pricing, TELRIC models, branding issues, and a variety of operational issues subject to arbitration.

Client: Nebraska Public Service Commission
Client Contacts: Mary Tribby, AT&T, and James Stroo, GTE
AT&T Law Department
1875 Lawrence Street, Room 1575
Denver, Colorado 80202
(303) 298-6508

GTE Telephone Operations
1000 GTE Drive
Wentzville, Missouri 63385
(314) 332-7663

Summary: Liberty served as the arbitrator for AT&T and GTE in a case involving implementation of the Telecommunications Act of 1996.

Client: Oklahoma Corporation Commission
Client Contact: Denise Bodie, Commissioner
Oklahoma Corporation Commission
Jim Thorpe Office Building
Oklahoma City, OK 73105
(405) 521-2518

Summary: Liberty served as the Staff in this important proceeding that determined the permanent prices for Southwestern Bell's unbundled-network elements. Other participants in the proceeding included AT&T, Brooks Fiber, and Cox. Liberty's consultants Robert Stright and Paul Hlavac prepared and filed testimony in the case.

Client: Mississippi Public Service Commission
Client Contacts: Mary Tribby, AT&T, and John McCullough, General Counsel - Mississippi BellSouth
AT&T Law Department
1875 Lawrence Street, Room 1575
Denver, Colorado 80202
(303) 298-6508

BellSouth Telecommunications, Inc.
P.O. Box 811
Jackson, Mississippi 39205

(601) 961-1700

Summary: Liberty served as the co-arbitrator for AT&T and Bell South in a case involving implementation of the Telecommunications Act of 1996.

Client: Idaho Public Utilities Commission
Client Contacts: Michelle Singer, AT&T, and Doug Owens, US West
AT&T Law Department
1875 Lawrence Street, Room 1575
Denver, Colorado 80202
(303) 298-6508

US West
1801 California Street, Room 5100
Denver, Colorado 80202
(303) 672-2810

Summary: Liberty served as the arbitrator for AT&T and US West in a case involving implementation of the Telecommunications Act of 1996.

Client: North Dakota Public Service Commission
Client Contacts: Mary Tribby, AT&T, and William P. Heaston, US West
AT&T Law Department
1875 Lawrence Street, Room 1575
Denver, Colorado 80202
303-298-6508

US West
1801 California Street, Room 5100
Denver, Colorado 80202
(303) 672-2810

Summary: Liberty served as the arbitrator for AT&T and US West in a case involving implementation of the Telecommunications Act of 1996.

Client: Idaho Public Utilities Commission
Client Contact: Weldon B. Stutzman, Deputy Attorney General, Idaho Public Utilities Commission
Idaho Public Utilities Commission
P.O. Box 83702
472 West Washington Street
Boise, ID 83702
(208) 334-0318

Summary: A Liberty-supplied professional served as the arbitrator for AT&T and US West in a case involving implementation of the Telecommunications Act of 1996.

Client: Idaho Public Utilities Commission
Client Contact: Weldon B. Stutzman, Deputy Attorney General, Idaho Public Utilities Commission
Idaho Public Utilities Commission
P.O. Box 83702
472 West Washington Street
Boise, ID 83702
(208) 334-0318

Summary: A Liberty-supplied professional served as the arbitrator for AT&T and GTE in a case involving implementation of the Telecommunications Act of 1996.

Clients: District of Columbia Public Service Commission (*auditing Bell Atlantic - District of Columbia*) and Pennsylvania Public Utility Commission (*auditing Bell Atlantic - Pennsylvania*)

Client Contacts: Dwayne Boyd, Deputy Chief Auditor (D.C.) and Thomas Sheets, Bureau of Audits (PA)
Public Service Commission of the District of Columbia
717 14th Street, N.W.
Washington, D.C. 20005
(202) 626-5139

Pennsylvania Public Utility Commission
901 N. Seventh Street - Rear
Harrisburg, Pennsylvania 17105-3265
(717) 772-0315

Summary: Liberty performed a comprehensive management audit of the functional operations of Bell Atlantic - Pennsylvania and Bell Atlantic - District of Columbia, operating companies of Bell Atlantic, one of the largest telecommunications organizations in the world. This review also included an in-depth analysis of the relationships and transactions of Bell Atlantic - Pennsylvania and Bell Atlantic - District of Columbia and their Bell Atlantic affiliates.

Client: Public Service Commission of the District of Columbia (*auditing Bell Atlantic - District of Columbia*)

Client Contact: Dwayne Boyd, Deputy Chief Auditor
Public Service Commission of the District of Columbia
717 14th Street, N.W.
Washington, D.C. 20005
(202) 626-5139

Summary: Liberty examined the accounting for, and allocation of, lobbying costs of Bell Atlantic - District of Columbia between 1988 and 1995. This engagement also included an examination of the propriety of current policies and procedures governing the assignment and allocation of lobbying costs.

Client: Public Service Commission of the District of Columbia (*auditing Bell Atlantic - District of Columbia*)

Client Contact: Daryl Avery, General Counsel
Public Service Commission of the District of Columbia
717 14th Street, N.W.
Washington, D.C. 20005
(202) 626-5100

Summary: Liberty assisted the Commission in its review of the recommendations presented in a report by the Quality of Service Working Group, which is made up of individuals from Bell Atlantic, The Office of People's Counsel, Commission Staff, and other interested parties. Liberty also assisted the Commission in a review of Bell Atlantic - District of Columbia's construction-program planning.

Client: Prosecutorial Unit, Connecticut Department of Public Utility Control (*Docket investigating alternative regulation for Southern New England Telephone Company*)

Client Contact: Cindy Jacobs, Attorney
Connecticut Department of Public Utility Control
Prosecutorial Unit
10 Franklin Square
New Britain, CT 06051
(860) 827-2853

Summary: Liberty assisted in reviewing total-service long-run incremental-cost models filed in this docket by Southern New England Telephone. Prepared an alternative rate design based on incremental-cost data. Assisted the Prosecutorial Unit in addressing related issues in briefs.