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Background and Qualifications of Panel Members

Q. Would the members of the Management Audit panel please state your names and business addresses.

A. Stuart Nachmias, Gurudatta Nadkarni, Dennis Brady and Nicholas Colonna. Our business address is 4 Irving Place, New York, New York 10003.

Q. Please describe your current responsibilities.

A. (NACHMIAS) I am employed by Con Edison and currently hold the position of Vice President, Energy Policy and Regulatory Affairs. I have been Con Edison’s project manager for the Management Audit of the Company conducted by the Liberty Consulting Group (“Liberty”), a process which began in early 2008.

(NADKARNI) I am employed by Con Edison and currently hold the position of Vice President, Strategic Planning. I am responsible for the Company’s long-range planning process and most recently the Integrated Long Range Plan, which was completed in April 2012.

(BRADY) I am employed by Con Edison and currently hold the position of Section Manager, Bronx and Westchester Work and Resource Management. I worked full-time on the management audit both during the audit,
facilitating the necessary interviews and data responses, and after the audit was completed as a manager facilitating the implementation of the audit recommendations. I worked full time on the management audit from March 2008 through the Company’s October 2011 Audit Implementation Plan Annual Report and Update, and remain engaged in audit implementation as needed.

(COLONNA) I am employed by Con Edison and currently hold the position of Director, Cost Management. I have been involved in the management audit since it began, and have worked specifically on developing the enhanced role of cost manager. In this role, I have formalized the cost management program and communicated the Company’s cost management philosophy throughout the organization using various venues. I have worked with organizations to implement cost management metrics to improve performance and productivity and to further promote this message through the Cost Management Sustainability team. As part of enhanced cost management, project management principles are also being integrated into the day-to-day management of projects and programs.
Q. Please explain your educational background, work experience, and current general responsibilities.

A. (NACHMIAS) I graduated from the State University of New York at Binghamton with a Bachelor of Arts degree in Economics and Psychology and earned a Master of Business Administration degree with a concentration in Finance from Baruch College. I also earned an Advanced Certificate in Energy Management from the New York Institute of Technology, and completed a Power Technologies Inc. ("PTI") Distribution Engineering program. I have primarily worked for Con Edison since 1988. I began in the Company’s management intern program, and worked in capital budgeting, customer sales and revenue forecasting and corporate planning. I worked to develop the state’s plan for deregulation, including establishing the New York ISO. I also worked at Con Edison Solutions from 1997 to 2000, initially in the wholesale power group and later as marketing manager for large business customers. After leaving the Company from 2000-2001, I rejoined Con Edison in the Energy Markets Policy Group, focused on competitive wholesale electric and gas markets. I have held positions of increasing responsibility in
this area, as well as a one year job rotation in customer operations where I worked to address customer complaints to the Public Service Commission and to executives. As Vice President of Energy Policy and Regulatory Affairs, I am responsible for development of energy policy and the management of state and federal regulatory matters.

(NADKARNI) I graduated from Vassar College with a Bachelor of Arts degree. I earned a Master of Science degree in Physics and a Master of Science degree in Math & Computer Science from Carnegie Mellon University. I also earned a Master of Business Administration degree in Finance and Marketing from the University of Chicago and a Ph.D. in Physics from Carnegie Mellon University. I joined Con Edison as Vice President, Strategic Planning in 2008. Before joining Con Edison, I held a number of positions in corporate strategy and development including Managing Director of growth at Duke Energy and a management consultant at McKinsey & Company. I was also a Senior Research Scientist at International Paper. As Vice President of Strategic Planning, I am responsible for long-range planning, strategic initiatives, and
mergers and acquisitions.

(BRADY) I graduated from the University at Buffalo, The State University of New York, with a Bachelor of Science degree in Mechanical Engineering and a Bachelor of Arts degree in Economics, and earned a Master of Business Administration degree with a specialization in Entrepreneurial Management from Pace University. I have earned Project Management Professional ("PMP") certification from the Project Management Institute, and completed a Power Technologies Inc. ("PTI") Distribution Engineering program. I have worked for Con Edison since 2002. I began in the Company’s management intern program, and have worked as an Operating Supervisor in Electric Operations, a Senior Analyst dedicated to budgeting, analyzing, and forecasting Operations & Maintenance expenses (O&M) for the Company’s Manhattan Electric Operations, and am now a Section Manager in the Company’s newly formed Work and Resource Management group. I was dedicated full-time to the Company’s Management Audit and implementation of its recommendations from its initiation in March 2008 through the Company’s October 2011 Audit
Implementation Plan Annual Report and Update, and remain engaged in the audit implementation as needed.

I was a lead member of the team assembled to draft the Electric Long Range Plan, and served in a project management role for the cost management implementation team. In my current role as Section Manager of Work and Resource Management, I am responsible for tracking, forecasting, planning, scheduling, and managing planned construction work and maintenance work for Electric Operations in the Bronx and Westchester.

(COLONNA) I earned a bachelor's degree in mathematics, as well as a master's degree in management from Polytechnic Institute of New York. I have held various positions during my 37 years with the Company including: Department Manager of Planning and Analysis; Systems Manager of Information Resources; Senior Planning Analyst in Corporate Accounting; and Financial Manager of Staten Island Electric Operations. My current role is Director for Cost Management, responsible for coordinating the development and oversight of the capital, operations and maintenance (“O&M”) and human resources programs.
Q. Have you previously submitted testimony on behalf of the Company before this Commission?

A. (NACHMIAS) Yes. I testified in Cases 08-E-0539, 09-S-0794 and 09-G-0795.

(NADKARNI) No.

(BRADY) No.

(COLONNA) Yes. I testified in Case 08-E-0539.

Purpose and Overview of Testimony

Q. What is the purpose of your testimony?

A. We will discuss Con Edison’s overall compliance with the Commission’s directions and recommendations relating to the management audit of the Company completed in 2009. We will describe our progress in implementing the management audit’s recommendations.

Q. Did the management audit and the Company’s response to it result in benefits to customers?

A. Yes. The management audit and Con Edison’s implementation of the recommendations contained in the management audit are helping the Company to achieve its overall vision as a premier provider of energy services to our customers. As a result of Con Edison’s response to the management audit findings,
the Company is strengthening and enhancing its culture including a cost conscious mindset, and is taking actions in the near term that are closely linked to long term goals that provide benefits to our customers. Con Edison is focusing on the overall bill impact of its actions that support our customers’ need for safe and reliable service.

Management Audit History

Q. What is the history of the Con Edison management audit.

A. The process of performing the management audit of Con Edison began on February 13, 2008, when Department of Public Service staff issued a request for proposal from consultants to perform the audit. On March 5, 2008, Con Edison designated Luther Tai, Senior Vice President of Shared Services, as the senior officer responsible for coordination of the Company’s participation in the management audit, and designated Stuart Nachmias as the project manager responsible for the day-to-day activities, which included establishing a team to facilitate implementation. Dennis Brady was one of the team members chosen for this project. On May 21, 2008, the Public Service Commission selected
The Liberty Consulting Group to perform the audit.
From the beginning, Con Edison was committed to using the management audit as a tool to further improve its business and gain value for customers. After conducting more than 300 interviews with Con Edison and reviewing the Company’s response to more than 1,000 data requests, Liberty submitted its report titled “Final Report – Management Audit of Consolidated Edison Company of New York, Inc.” (“Final Report”) to the PSC on August 7, 2009. On August 21, 2009, the PSC ordered Con Edison to file a plan to address the findings and implement the recommendations contained in the management audit. On October 5, 2009, Con Edison submitted its plan, titled the “Audit Implementation Plan.” Beginning February 5, 2010, Con Edison has filed an update with the PSC every four months to communicate the Company’s progress in implementing the audit recommendations. The Company also filed comprehensive annual reports on its implementation on October 5, 2010, October 5, 2011, and October 5, 2012. In addition, the Company has met regularly with DPS Staff to provide information on the management audit recommendation implementation status,
and met with stakeholders in December 2010 and
December 2011 in public forums to review and discuss
its implementation efforts, including integration into
the Company’s processes and culture, improvements to
the Company’s efficiency and operations, and benefits
to customers.

Q. Do you have an exhibit that contains the Company’s
most recent annual report on efforts to implement
audit recommendations?
A. Yes. Exhibit ___ (MAP-1), which was prepared under
our supervision and/or direction, contains the
Company’s October 5, 2012 annual implementation
report.

MARK FOR IDENTIFICATION AS EXHIBIT ___ (MAP-1)

Management Audit Scope

Q. What areas of the Company’s operations and business
were the subject of the management audit.
A. The scope of the audit was established by the PSC when
it issued the request for proposals (“RFP”). The
audit examined the Company’s management process,
particularly its planning and implementation of its
capital and O&M programs for its electric, gas and
steam services, operations efficiency, and
performance. The audit focused on a series of eight elements or functions that are the major components of what the RFP described as “the construction program feedback loop.” The eight scope elements are 1) corporate mission, objectives, goals and planning; 2) long-term load forecasting; 3) supply procurement; 4) long-term system planning; 5) capital and O&M budgeting; 6) program and project planning and management; 7) work force management; 8) performance and results measurement. The audit examined these eight elements in relation to the following 15 major corporate processes: corporate planning, oversight, compensation, performance measures, load forecasting, electric system planning, gas system planning, steam system planning, budgeting, work management, cost management, electric project management, gas project management, steam project management, electric supply, and gas supply.

Q. Please describe the Company’s approach to its participation in the audit process.

A. The Company committed a full-time team to facilitate the audit process and to be timely and responsive to the auditor’s enquiries. The audit process was
cooperative, with issues being discussed as the independent consultant, Liberty, together with staff developed the recommendations. This process resulted in thorough discussions and a common understanding of issues, and allowed the Company to proactively begin changes that it recognized had value, even before the specific recommendations were made. The audit process was consistent with the Company’s objective of seeking continuous improvement in its business processes. Such improvements enable the Company to operate more effectively and efficiently and to continue to provide its customers with safe and reliable service.

**Audit Findings**

Q. Please describe the findings in the audit.

A. The audit contained 119 conclusions resulting in 92 recommendations. The conclusions and recommendations in the Management Audit final report (the “Report”), which are discussed in detail throughout the Report, are summarized on pages A-1 through A-18 of the Report. The recommendations are in the areas of Corporate Planning, Board Oversight, Load Forecasting, System Planning, Budgeting, Work Management, Cost Management, Project Management, Supply Procurement,
Incentive Compensation and Performance Measures.

Liberty used a pyramid to present the issues identified in the Report (Report, page I-7, figure I-3). At the top of the pyramid are culture, regulatory, environmental and financial barriers that Liberty identified as “effectively defin[ing] CECONY’s way of managing its business and its ability to deal with the challenges it faces ... [and] limit[ing] its ability to meet its mission.” (Report, p. I-7) While the barriers are partly of Con Edison’s own making, partly created by others, and partly natural to the Company’s operating environment, Liberty said that the benefits from implementing the report’s 92 recommendations would be “unduly limited and temporary unless the barriers are cleared.” Liberty went on to say that the barriers may threaten the Company’s sustainability and its ability to manage its business effectively. (Report, p. I-8) The middle of the pyramid presents four “high impact” management issues and associated recommendations affecting the construction and infrastructure management programs: electric long range plan, board and executive leadership, rate and financial strategy, and cost
management. At the base of the pyramid are process and strategy activities that are more typical of management audits. These activities include planning, budgeting, reporting and oversight, and commodity supply.

**Structure to Address the Audit Report’s Findings**

Q. How did Con Edison structure itself to address the findings in the Audit Report effectively?

A. In view of the significance of the audit findings for the Company’s overall strategic vision and its operations, Con Edison’s Board of Trustees and senior management have been taking a leadership role in overseeing the implementation effort. Con Edison established a senior-executive led structure to evaluate and address each of the barriers and the 92 recommendations.

Q. How has the Con Edison Board of Trustees been engaged in the Company’s response to the management audit and the implementation of the management audit recommendations?

A. The Board of Trustees has taken an active oversight role in response to the Management Audit. The Board and its committees have reviewed the substance of the
Audit Report’s findings and have discussed management’s responses to the Audit’s recommendations. The Board has discussed key implementation matters and the status of the implementation of responses to the Audit. In June 2009, Con Edison’s Board discussed the Company’s response to the Management Audit, and during that Board meeting, senior officers reviewed and discussed the draft Audit Report with the Board. In July 2009, Liberty met with the Board to discuss its findings, audit recommendations, and the barriers. Through September 2012, the Board has discussed audit recommendations at 15 Board meetings and 22 Committee meetings.

Q. How was senior Company leadership involved in addressing the management audit and implementing the recommendation findings?

A. Con Edison’s Corporate Leadership Team (“CLT”), comprised of the Company’s senior executives, has been engaged in ongoing support of recommendation implementation. The CLT continues to champion the imperative for change, facilitate long range planning, integrate the work of the various implementation teams, set standards for deliverables, and establish
success metrics. The overall executive oversight of the Audit recommendation implementation was assigned to two senior officers, Luther Tai, the Senior Vice President of Enterprise Shared Services and JoAnn Ryan, the Senior Vice President of Business Shared Services, who have overseen and coordinated execution of implementation activities under the Company’s audit implementation plan. These activities address the barriers, recommendations, planning process, operating efficiency as well as outreach and communication.

Q. How did the Company structure itself to respond to each of the Audit Report’s 92 recommendations?

A. The Audit Report’s recommendations were grouped and each group was assigned to one of 12 teams comprised of subject matter experts. Each team is sponsored by one or more senior executives charged with oversight of the team’s implementation of recommendations. The executive sponsors provide senior-level oversight and integration for all the issues being addressed, and provide updates to and request feedback from the Board and the CLT.

**Addressing the Barriers**

Q. How did the Company address the four barriers
identified by Liberty?

A. As noted above, the Audit Report introduced four “barriers” as root causes of the issues underlying its recommendations and as challenges to the long term sustainability and success of Con Edison in “fulfill[ing] its mission effectively, efficiently, and in accord with public requirements and expectations.” (Report, p. I-8) Liberty defined these barriers as cultural, regulatory, environmental, and financial, and recommended that Con Edison work with the PSC and Staff to jointly mitigate these barriers. Liberty specifically did not include recommendations related to eliminating these barriers, and suggested that they could be addressed only through buy-in from all parties and a jointly managed and directed action plan. Con Edison responded by working collaboratively with the PSC and its Staff to address each of the barriers.

Q. How has the Company addressed the barriers?

A. The Company, taking the lead, established a team to address all four barriers. Staff responded with a comparable team and met with the Company’s team several times to understand the Company’s efforts.
Staff ultimately concluded that the Company’s efforts to address the barriers appear to be working successfully. The Company continues to focus on managing its cultural transformation, which will be described more fully below. The Company also took the lead and continues to address the environmental and financial barriers, and also continues to work with Staff and other parties, as appropriate, to address the regulatory barrier.

Q. What were Con Edison’s actions to address the cultural barrier?

A. The CLT took on the cultural transformation issues, led by our CEO and senior executives. The Company has been assisted by a nationally known culture expert. Our cultural transformation journey began with identifying the current culture, defining the desired culture, identifying obstacles and determining actions. The Company conducted a self-assessment using the Audit Report findings, employee surveys, customer surveys, and outside culture change expertise. The feedback from these sources were used to identify those aspects of our culture that were positive and should be continued, and also those
aspects that we need to improve upon. In the latter category, we identified three initial cultural imperatives. The three cultural imperatives are: enhance customer and other external relationships; engender openness, fairness, and trust; and reinforce cost management consciousness. These three areas of focus serve as the starting point for our culture change. Our cultural transformation strategy is leader-driven and remains focused on these three imperatives. We recognize that our cultural transformation is an evolutionary, rather than revolutionary change, and we expect to continue along our path toward change for as long as a decade before realizing the full benefit of our efforts. We recognize that cultural transformation calls for a long-term commitment, and we will remain diligent for its duration.

Q. What are some specific examples of changes related to enhancing customer and other relationships?

A. In our relationships with our customers and stakeholders, we are reaching out to share our long range vision and plans, and to improve our external relations. We’re reaching out to customers and other
stakeholders to discuss the impacts of our plans, including discussions of key changes from current practice, our vision for the future, and the impact on our customers’ bills. Our approach includes communicating the Company’s overall direction and the opportunities and challenges we face.

Q. What has Con Edison done to improve openness, fairness and trust?

A. We are asking our employees to embrace our cultural imperatives and transition, and we are asking them to adapt to evolving work practices. To that end, The Way We Work Steering Committee promotes continuous and consistent messaging that incorporates the three cultural imperatives into The Way We Work principles to support the integration of the new values into daily organization life. We are taking steps to improve openness and trust in our employees’ experience at work each day and to provide more frequent and effective communication. We are being open and honest with our employees about the need for change. We have explained that our business landscape is changing, and that “business as usual” is not a sustainable business model for the future. This
change in Con Edison’s business acumen and practices
requires each employee to adapt continuously and calls
upon the Company to improve its internal support
structure for its employees.
Q. What has the Company done to instill a cost management
consciousness into its employees?
A. Con Edison is seeking to have its employees apply a
questioning attitude to costs - treating every
potential expenditure as if it were their own funds
being spent. We seek to be vigilant about questioning
the business costs we incur as part of regular
activities and as part of our day-to-day operations,
and are seeking to reduce as many of these costs as we
can without diminishing or compromising the quality of
service we provide.
Q. How has Con Edison incorporated cost consciousness
into the management structure of the Company?
A. Con Edison has transformed the Cost Management
function, through the Director of Cost Management, who
is responsible for oversight of all facets of cost
management. As part of its function, the Cost
Management organization champions the priority for
cost management, serves the cost management needs at
all levels of management, supports the continued and consistent development of cost professionals, and supports the Company’s overall efforts to achieve greater excellence in cost management. Cost management focuses on prospective analysis over and above simple cost reporting responsibility. A matrix relationship with line organizations is maintained so that Cost Management is directly involved with these organizations. This realignment gives a clear and direct role to the Director of Cost Management in managing costs and establishes heightened accountability. In addition, in 2012 Con Edison established the position of Vice President of Business Finance. This role will further promote cost management and a cost consciousness mindset in our corporate culture by consolidating our financial planning, budgeting, and forecasting functions under one organization. This consolidation will create a greater alignment in the Company’s short and long range plans, promote best practices in cost management and improve financial performance. This centralization of the Cost Management organization and establishment of the officer-level business financing
position promotes the continued high priority of cost management and consistency of communication across all organizations, greater integration of input from all areas of the Company, and responsiveness to the needs from all business units and levels of management. Two ongoing efforts that are important to highlight are our efforts to consolidate our financial and supply applications, which we have internally branded “Project One”, and our implementation of a new work management system to support our Electric Operations.

Q. What are the goals of the first ongoing effort, Project One, and how will it contribute to cost consciousness within the Company?

A. Project One is a new integrated finance and supply chain system for CECONY and its affiliate, Orange & Rockland Utilities (O&R). Project One was fully deployed in July 2012. The new system replaces 61 existing software systems that together represented about 15% of the Company’s application software. The implementation of Project One will allow us to promote cost management excellence through an enhanced planning and budgeting process. The improved business information and analytical capabilities of Project One
provide more timely access to information for better cost control and decision making, reduce administrative risks, enable employees to have consistent, efficient, and standardized business processes, and add transparency to project spending. In addition to improving finance and supply chain processes in the Company, Project One also facilitates change in Con Edison’s culture. Project One offers one integrated systems solution and will facilitate enhanced cost management practices. The new system will enable Con Edison to perform business cost analysis, budgeting and forecasting more effectively, efficiently, and productively. Better analytics and reporting will enable the Company to more effectively assess the health of its infrastructure and capital equipment to support better long range planning.

Q. What are the goals for the second ongoing effort, the work management system, and how will it address cost management?

A. The Audit Report recommended that Con Edison “implement a work management system in Electric Operations,” a project the Company had been planning before the management audit was published. As a
result, a new work management system ("WMS") is being implemented within our Electric Operations organization. WMS will enable a new process for work prioritization, distribution, execution, and reporting. Additional information on the WMS is provided in the testimony of the Electric Infrastructure and Operations Panel. The WMS for Electric Operations will result in increased productivity and cost savings. The implementation process includes organization-wide initiatives to conduct these new processes effectively. In addition to the technical aspects, this effort also calls for large-scale changes to roles, responsibilities, and process flows. For example, the role of certain Company employees will change. Electric Operations had “Planners” who previously were subject matter experts in their respective departments; however, with implementation of the WMS, the role of these Planners needs to be centralized and standardized within a separate organization. Thus, Regional Engineering departments have been centralized under one organization structure allowing for more standardized practices.
Q. Please describe the financial barrier identified in the Audit Report and the actions Con Edison has taken to address the financial barrier.

A. The Audit Report stated that the financial barrier raises the concern of future sustainability due to an inability to align infrastructure investment, customer rates, and return on investment, which the Report described as “critical parameters [that] cannot be out of balance for an extended period if a utility is to fulfill its mission effectively, efficiently, and in accord with public requirements and expectations.”

Report, p. I-8. The Audit Report stated that Con Edison’s lack of a long-term electric plan or vision is a cause of the financial barrier, because such a plan is necessary for articulating a credible construction program. The Audit Report cites absence of a long range plan as a contributor to the regulatory barrier in that the absence of a plan leads to a lack of credibility and trust by the regulator.

Report, p. II-6. The Audit Report recommended that the Company “develop a comprehensive vision and 20-year master plan for the electric system” in order “to gain and retain public and regulator confidence that
it is providing an adequate level of service and protecting public health and safety at the lowest necessary cost.” Report p. II-5. The Company has taken a number of actions to address the financial barrier, including establishing teams to address: development of a long range planning process; enhancing cost management, improving work management capabilities; and extending asset optimization and prioritization. Each team is led by an executive and sponsored by senior executives. Long range planning, cost management, work management, and asset optimization and prioritization are discussed later in this testimony.

Q. What action did the Company take in response to the Audit Report suggestion that the Company should seek to provide greater rate certainty to consumers while allowing Company managers to focus on the achievement of pre-determined goals?

A. The Company believes multi-year rate settlements are important to providing greater rate certainty. In 2010, the Company, together with regulators and interested parties, was able to reach multi-year settlements for its electric, gas and steam
Q. What actions has the Company taken to implement the Audit Report’s finding relating to the lack of a long-term electric plan?

A. The Company’s ongoing actions are best understood by starting with the history of the planning process, and compare it to the way it is being performed now. Historically, the Company had 10-year system plans for the electric system. These plans consisted of distinct plans for the distribution and transmission systems. In the process of preparing its response to the Audit, the Company recognized the need to better coordinate different elements of its electric system plans, as well as improve and standardize planning across organizations in order to develop a comprehensive long range plan. Accordingly, the Company developed an Electric System Long Range Plan (“ELRP”) in 2009, and published the plan in 2010. The 2010 ELRP was updated in 2011 as part of our integrated planning effort (the “2011 ELRP Update”). As a result of the management audit, the Company has made several changes to its planning process:

1. Increased the planning horizon for long range
1 plans from ten to twenty years.
2 2. Established a common vision, common priorities
3 and guidelines (where practicable), consistent with
4 the rules and standards that govern our operations.
5 3. Established consistent beliefs and views of
6 industry dynamics and demand forecasts that affect all
7 three of our commodities.
8 4. Shared best practices through a standard planning
9 approach across all services.
10 5. Focused on incorporating lower-cost customer
11 solutions that shape and shift our customer demand
12 wherever possible.
13 6. Launched efforts to foster a culture that
14 provides our customers with a quality experience and
15 engenders their trust, while continuing to deliver the
16 world-class reliable energy service they have come to
17 expect.
18 7. We have focused our three businesses on high-
19 priority strategic initiatives:
20   a. Our Electric business is focused on reducing
21 the capital intensity of electricity delivery
22 b. Our Gas business is focused on capturing
23 value-creating growth from oil-to-gas conversions
c. Our Steam business is focused on maintaining the value of the steam system for our customers. In addition to continuing the reliability and safety of our systems, all our services seek to mitigate total customer bill increases. The Company considers planning an ongoing process. By their very nature, plans will change and evolve over time as the industry and market circumstances (e.g., the economy, demographics, customer preferences, technology) change. The Company uses the long range planning process to identify and respond to those questions that will have the biggest impact on its customers over the long-term. Based on recent events, we will undertake an in-depth examination of some system risks that may have increased, for example, in relation to extreme weather events, such as the recent Superstorm Sandy, and cybersecurity. The findings of such an examination will ultimately be reflected in updates to the Company’s long range plans for all three commodities, and may impact specific criteria we are focusing on in those plans, such as the capital intensity required to serve our customers.

Q. Please provide an overview of the Electric System Long
A. The ELRP provides a roadmap for our electric system for the next twenty years. It articulates a strategy for achieving the Con Edison Electric System mission to **deliver the benefits of safe and reliable electric service to customers in an innovative, cost effective and environmentally responsible way.**

The ELRP articulates the strategy to deliver on the mission through the following initiatives:

- Take a proactive and integrated approach to managing demand, supply, and environmental impact;
- Tailor system design to improve asset utilization and reduce major risk;
- Increase monitoring and control to better manage and maintain assets;
- Enhance our customer experience by making it easier to do business with us through community outreach, use of technology and expansion of options;
- Improve our processes, technology and skills to support this evolution.

It also includes details on the short term investments.
needed to execute on our long range plan. The plan describes our expectations for future customer needs over the planning horizon, the processes by which we identify and manage the risks we and our customers face, and various initiatives to lower the intensity of our capital investment. It is a comprehensive plan to integrate our electric transmission and distribution system infrastructure plans with non-infrastructure related elements of our business, such as demand side solutions and customer-sited supply resources. The plan reflects a holistic and quantitative approach to investment optimization that considers the impact of investments on the performance, cost, and risk profile of the electric system. Throughout the development of the ELRP, we measured our performance by showing the expected benefits of our projects over the long-term, managed our costs to mitigate overall customer bill impacts, and sought to maintain electric system reliability while reducing the risk of a prolonged network shutdown or public safety issues. The plan guides us toward a sustainable energy future for our customers, with safe and reliable energy. Building that future
will require that we evaluate the role of new technologies in modernizing the electric grid. The plan considers ongoing improved asset management for existing infrastructure and a tailored approach to design that includes investment choices and innovative technologies. It also details initiatives that challenge and change key aspects of our current design criteria, moving us from a prescriptive and deterministic engineering design basis to one that is probabilistic. This new approach uses advanced analytical methods to achieve high levels of reliability and risk reduction for lower capital investment. All this effort is undertaken to seek “best fit” solutions for customers’ energy needs. To evaluate the impact of specific programs and initiatives over long timeframes, we created a customer bill impact model as an adjunct to the ELRP. This model uses the ELRP’s 20-year planning horizon, measures the expected benefits of potential projects and programs on the basis of cost. To develop the ELRP’s forecasts for electricity demand and a supply outlook, we assumed certain potential environmental and regulatory requirements, economic trends, and
included possible technological advances to develop a forecast for potential customer demand. In the 2010 plan and in the 2011 update, we used the demand forecast to develop the infrastructure projects and programs in the plan. We identified key signposts that we will monitor and use to modify our plan as changes occur in technology, regulation, and the economy. The ELRP is intended to be a living document, with assumptions that will be updated in future versions. The ELRP establishes a phased implementation plan that will put the Company on track to meet the challenges we foresee today and position it to address new challenges as they emerge. In the next twenty years, our plan calls for nearly $26 billion in capital investments (in equivalent 2011 dollars) in our electric delivery system in order to be able to continue to meet the energy demands of our customers in a safe and reliable manner. We have been successful in keeping the real price of electricity flat, on par with general inflation in the economy over the past 20 years. At the level of expenditure in our current plan customer bills would rise slightly above long term projections of inflation. In sum, the
ELRP addresses the importance of mitigating cost increases to our customers, and provides a framework for the Company to strive to keep costs down through continued cost management, efficiencies and innovations. It provides for the Company to pursue regulatory and tax reforms as well.

Q. Was a long range plan developed for the gas business?
A. Yes. While the management audit did not require development of a Gas Long Range Plan ("GLRP"), some of the gas planning recommendations contained in the management audit led Con Edison to conclude that development a comprehensive GLRP would be worthwhile.

Q. Please describe Con Edison’s Gas Long Range Plan ("GLRP").
A. Con Edison’s mission for its gas system is to deliver gas to our customers safely and reliably, to demonstrate respect for the environment, and to create a culture that encourages safety and develops our employees. This mission entails building and maintaining the gas infrastructure necessary for the transmission and distribution of gas, and providing meter reading, billing and other services to our customers. The GLRP’s strategy to meet our mission
focuses on improving cost-effectiveness while meeting safety and reliability objectives. Con Edison plans to minimize rate increases for our customers by efficiently managing our assets and investments and by pursuing cost-effective growth.

Q. Please provide an overview of the GLRP.

A. The GLRP provides a roadmap for our gas system for the next twenty years. It articulates a strategy for achieving the long-term objectives for the Gas System that are:

- Meet our customers’ expectations for safe and reliable gas service;
- Manage cost to keep rates affordable;
- Pursue incremental growth opportunities that are economically beneficial to our gas customers;
- Provide competitively-priced gas supply to our city-gates from diversified sources;
- Be stewards of investors’ economic interests through responsible financial management;
- Provide a safe and professionally satisfying environment for our workforce; and
• Support the environmental and economic development policy goals and betterment of New York and the communities we serve.

New pipeline and environmental regulations, coupled with favorable natural gas prices forecasted for the next 20 years will increase peak hour demand system wide and require significant investment in capital infrastructure. The plan identifies the need to invest $7.2 billion in equivalent 2011 dollars, equating to an average of $358 million a year, including investments to support gas customer demand growth.

A portion of our forecasted growth in gas demand is the result of New York City regulations that phase out the use of heavy fuel oils for building heating. While these regulations still allow for the use of #2 fuel oil, a number of #2 fuel oil users have also converted to natural gas. A customer’s decision is important to Con Edison as it impacts our infrastructure planning and capital requirements. Because an increasing number of oil users are converting to natural gas, we are faced with the challenge of meeting natural gas demand and the
resulting gas infrastructure needs that such demand requires. We also need adequate supply and pipeline capacity to reliably operate our natural gas system. Furthermore, we face the logistical challenges that come with managing a significant number of natural gas service requests and effectively coordinating the work. We must complete the work in a way that minimizes disruptions to the community, is cost effective, and does not place inappropriate burdens on existing customers. To meet these challenges, we have growth strategies and marketing campaigns to improve the efficiency with which we bring customers on to the system. In addition, we support projects, such as the Spectra pipeline, that provide access to new sources of low cost natural gas supply and bring needed diversity of deliveries to New York City in furtherance of our reliability objectives. To reduce our own project costs and avoid street disruption, we plan to coordinate and integrate our street work with concurrent Con Edison electric or steam work or City projects. Furthermore, we have created a new department dedicated to natural gas conversion activities.
We will continue to seek opportunities to reduce our customers’ gas energy costs. Our projections of customer bill impacts indicate a lower rate of increase than our recent historical trajectory. The lower trend will be accomplished by better project designs, more efficient management of assets, increased system usage, lower gas commodity costs and leveraging of technology. We will continue our efforts to achieve additional regulatory reforms with emphasis on lowering the tax component of customer bills. We will continue to address safety, system integrity, service reliability, regulatory requirements and cost impact to maintain the critical gas infrastructure that supports the economic viability and security of New York City and Westchester County.

We understand that natural gas is a vital component of an energy efficient “green” future. As such, we will use technology and the resources of our stakeholders to meet the goals of customers, the gas system, the environment and the economy. It is in these ways that we expect to successfully carry out our objectives and implement our gas long range plan.
Q. Was a long range plan developed for the steam business?

A. Yes. The Management Audit suggested that the Company develop a steam master plan, which would build on some previously developed steam plans and cost studies. The Steam Long Range Plan provides a roadmap for steam supply and distribution for the next two decades. The Company’s objective for its steam system is:

A long-term viable steam system that continues to deliver safe, reliable, efficient, competitively priced, and clean energy to customers while providing a fair return to shareholders.

Based on this vision the long term strategic objectives for the steam system are to:

- Have reasonable cost allocations and competitive rate structures to retain customers and promote growth that is beneficial to the existing customer base and the business;

- Manage supply capacity to better align it with the customer demand and in the longer term potentially increase the level of cogeneration capacity from Company or customer sources to replace existing supply as it requires
replacement;

- Increase system load factor; and,

- Increase customer awareness that the Con Edison steam system is fully recognized by the United States Green Building Council for its environmental value. Through modifications made to the Leadership in Energy and Environmental Design (“LEED”) certification criteria, district heating systems can help customers increase their individual ratings.

For the 2011 Steam Long Range Plan, estimated 20-year operating expense savings are approximately $1.8 billion. They include:

- O&M savings due to the shutdown of the Hudson Avenue boilers and management of Ravenswood A-House.

- Fuel savings resulting from:

  - Hudson Avenue boiler retirement;
  - Revised steam production plant operating criteria;
  - Minimum oil burn settlement at FERC; and
  - Gas additions at the 59th Street and 74th Street generating stations. (The fuel...
savings from oil to gas conversion will change with evolving oil and gas prices)

Please refer to the Steam Infrastructure and Operations Panel testimony for additional details on near term savings.

**Long-Range Planning**

Q. Did the Company build on or improve the three long range plans developed in 2010?

A. Yes. In our 2010 plans, we identified several opportunities for reducing expected increases in our delivery costs. In our current plan, the Integrated Long Range Plan ("ILRP"), we build on those opportunities by implementing a new planning approach that captures cross-commodity opportunities for the purpose of minimizing the investments we need to make over the next 20 years. However, one single plan will not apply to all three commodities we deliver. Even under our integrated approach, the significant differences among our three commodities require three different rate structures and three different capital plans for the following reasons:

- First, the physics of transporting electricity,
gas and steam require different physical systems
to transport each commodity. These different
systems have different requirements for
maintenance, expansion and operation.

- Second, the three systems have overlapping, yet
distinct geographic footprints.

- Third, our customers’ end use for each of the
three commodities is different, and customers’
need for integrated solutions varies according to
factors such as their energy usage and their
willingness to operate complex infrastructure on
their premises.

- Finally, local, state and federal laws and
regulations, such as fire department codes, city
building codes, and state environmental and
utility regulations, also affect how much
integration is possible.

Q. What are the goals of the ILRP?
A. Our 2011 planning effort focused on four key goals:
mitigating customer bill impacts, improving customer
service, maintaining reliability and safety, and
meeting environmental goals (i.e., Con Edison, NYS,
and NYC environmental goals).
Q. How does the ILRP envision Con Edison will reduce customers’ delivery costs?

A. Helping our customers reduce their energy usage is the first step in helping our customers’ control their delivery costs over the next 20 years. During the 2010 planning effort (the ELRP, GLRP and SLRP), we made significant progress towards reducing increases to customers’ delivery costs through energy efficiency and demand response solutions. In the 2011 integrated planning effort, we built on existing initiatives and also took a deeper look at opportunities to implement cross-commodity solutions to shape and shift demand. By pursuing these opportunities, we expect to reduce the need for large infrastructure investments, which should result in lower energy bills for our customers. Understanding our customers and the way they use energy is critical to this effort. By gaining insight into the areas of overlap in how our customers use each of the three commodities we deliver, we are able to identify and benefit from cost-effective solutions that draw from all three commodities. We are embracing these opportunities by facilitating a broader range of cross-commodity solutions, such as
combined-heat-and-power ("CHP") and steam air conditioning. These cost-effective solutions will reduce our electric system peak, and allow us to defer capital investments in our electric system. In addition to pursuing all practical opportunities for reducing electric demand, we aim to reduce delivery costs by using our existing assets more effectively. During the 2011 planning process, we extended many of the initiatives identified in the 2010 long-range plan. These efforts identified the lowest cost solution that is consistent with maintaining safe and reliable service. Where possible, we looked to use existing assets with spare capacity rather than make large infrastructure investments. One way we achieved this efficiency is through third-generation designs ("3G"), which allowed us to increase system capacity incrementally. 3G allows us to defer large capacity investments by utilizing spare capacity on our existing asset base to meet growing customer demand. For greater detail on 3G designs and other initiatives to help reduce capital intensity, please refer to the Electric Infrastructure and Operations Panel testimony.
Q. Do the cross-commodity solutions identified in the Integrated Long Range Plan yield customer benefits?

A. Yes. The integration identified in the 2011 integrated planning process consists of cross-commodity solutions which help defer large electric infrastructure investments or increase the effectiveness and utilization of investments we are making or have already made, both in the shorter-term and longer-term. For example, most of the cross-commodity opportunities identified to defer infrastructure investment, like CHP, are cost-effective in the five- to ten-year time horizon. On the other hand, our newly developed steam air conditioning retention program provides tangible customer benefits today by avoiding increases to electric peak demand thereby reducing future electric infrastructure investment while maintaining utilization of steam infrastructure in summer months.

Q. Did you communicate these plans to customers and stakeholders?

A. Yes. In addition to posting our long range plans on our internet site, Con Edison engaged in substantial public outreach with stakeholders including DPS Staff,
local governmental, business and community groups.

Q. What activities has the Company taken to address the environmental barrier?

A. The environmental barrier identified in the Audit Report arises from working in a high-demand environment of “public pressure, customer expectations, regulatory control, and media attention [that] influence day-to-day decisions and add a dimension that greatly complicates the management of the business.” Report, page II-5. Because the Company is always ‘under the magnifying glass’ regarding its operations, the Company is reaching out to customers directly and through the media to create awareness and understanding of its operations and to communicate its vision. We are firmly committed to providing timely and helpful information to our customers to keep them informed and manage expectations. It is important that we continue to communicate openly with our customers. We recognize that our operations need to be transparent and open especially in times of emergency. We are evaluating our processes and identifying shortfalls to improve how we interact with our customers, particularly when evaluating their
energy needs across commodities, and how we respond to those needs.

Q. What steps has the Company taken to address the regulatory barrier identified by Liberty?

A. Key to mitigating the Company’s regulatory barriers is open discussion between the Company and its regulators, and these discussions continue. Some of the Company’s cultural transformation efforts have focused on improving communications and openness and trust with our regulators. The Audit Report found that the Company’s prior inability to communicate a long range vision created a lack of credibility and trust with our regulators, and consequently fed a cycle of regulatory micromanagement and the Company’s tendency to “go along to get along.” Since the Audit Report was published, much progress has been made, including the re-establishment of multi-year rate plans and the Company’s publishing of long range plans for its gas, electric, and steam systems. Some regulatorily-mandated programs have been reconsidered and some long-standing reporting requirements were eliminated as a result of discussions between Company management and DPS Staff. Con Edison continues to
identify existing regulatory mandates that can and
should be modified or phased out to benefit customers
and the Company and addressed through appropriate
forums and processes. Meetings continue to be more
open, and both parties have been making greater
efforts to share information and improve
understandings. For example, Substation Planning,
System and Transmission Operations, Electric
Operations, and Cost Management meet quarterly with
Staff to review the status of each organization’s work
plan.

**Status of the 92 Recommendations**

Q. What is the current status of the Company’s efforts to
implement the Audit Report’s recommendations?

A. The Company has implemented 91 of the Audit Report’s
92 recommendations. Implementation of the remaining
recommendation, implementation of the WMS, is well
under way and on schedule to be completed in 2014.
The current status of recommendation implementation is
provided in the Company’s Audit Implementation Plan
Annual Report and Update, dated October 5, 2012 and
filed with the PSC.

**Cost, Benefit and Risk Analysis**
Q. How do the findings in the Management Audit impact the way Con Edison thinks about cost?

A. The Management Audit and its recommendations encouraged us to improve our approach to cost management. We continue to build upon that momentum and foster a cost conscious mindset in our corporate culture. As discussed above, we have included cost management as one of our three initial cultural imperatives. As we continue to enhance cost management and a cost conscious mindset within our corporate culture, we continue to ask whether work needs to be done, and if so, what is the most efficient and effective way of performing it.

Q. How did you identify audit implementation benefits?

A. We reviewed the costs and benefits for each of the Audit Report’s 92 recommendations and categorized implementation benefits into long range plan savings, annual savings, and qualitative benefits. Due to the varied scope of individual recommendations, we identified benefits according to several different categories: some as one-time savings, some as annual, and others over a defined timeline. Some benefits are manifested as direct savings, while others as cost
deferrals or avoidances.

Q. What are the cost savings and cost avoidances anticipated in the long range planning efforts associated with the electric business?

A. For the electric business we identified potential savings of $4.2 billion in the Integrated Long Range Plan. The majority of the savings come from increasing asset utilization, which has deferred or avoided several large capital investments. Improved asset-management practices, realized through enhanced monitoring and control, also allow us to defer additional capital investment. The total savings of $4.2 billion is partially offset by $1.8 billion of capital needed to meet additional demand, yielding approximately $2.4 billion in net additional savings for this year’s ILRP initiatives. In addition to these savings, we have also identified potential opportunities like demand response and distributed generation that are expected to reduce peak demand to further reduce infrastructure needs. We expect some of the long range plan initiatives to yield savings in the near term as well. We are improving our decision making with increased information in the near term.
through programs like our Primary Feeder Relief program. As we gain more information on the thermal characteristics of various electric components, we can improve the accuracy of our system models and make more efficient load relief investments. For greater detail on how these programs and initiatives are reflected in the rate case, please refer to the Electric Infrastructure and Operations Panel testimony.

Q. What is the cost impact of the long range planning efforts associated with the gas business?

A. For our gas business, our 20-year gas capital expenditure forecast has increased by approximately $600 million since the 2010 Plan. This increase is largely due to our recent expectation of additional oil conversions and public improvement investments. While our projected capital investment increased by approximately 10 percent, we expect oil conversions to contribute an incremental 20 percent to gas demand growth. Through our integrated long range planning efforts, we have identified an additional $50 million in potential savings over the 20-year horizon to help offset cost increases. New initiatives contributing
to the cost savings include smaller designs for regulators, use of competitive bid packages for main replacement work including the use of trenchless technology, and the potential reevaluation of some meter replacement mandates. For greater detail on gas programs and initiatives and how they are reflected in the rate case, please refer to the Gas Infrastructure and Operations Panel testimony.

Q. What is the cost impact of the long range planning efforts associated with the steam business?

A. Our updated Steam Long Range Plan includes potential operating expense savings of approximately $1.8 billion over the 20-year planning horizon. This includes an incremental savings of approximately $800 million to our 2010 plan. O&M savings are the result of the shutdown of the Hudson Avenue Boilers, management of the Ravenswood A-House and fuel savings from the Hudson Avenue boiler retirement, revised steam production plant operating criteria, the minimum oil burn settlement at the Federal Energy Regulatory Commission and natural gas addition projects at the 59th Street and 74th Street generating stations. For greater detail on steam programs and initiatives and
how they are reflected in the rate case, please refer to the Fuel Savings Panel testimony.

Q. What are some other significant sources of cost savings in the ILRP?

A. The Company has implemented asset optimization and is in the process of developing a work management system for Electric Operations. The impact of both these actions are reflected in the ILRP’s cost impacts. We have achieved cost avoidances of approximately $82 million in electric transmission and distribution capital spending through enhanced asset management strategies related to Audit asset optimization recommendations. Our asset optimization strategies target investment where it is needed most, and reduce or eliminate investments as they reach points of diminishing returns. Implementation of new modeling methodologies, communications technologies and data sources has increased our visibility into the real-time and expected status of our equipment, and we are using this improved analysis to target investment. These reduced funding levels are reflected in our current budgets and have been maintained in our forward-looking forecasts and budgets. Our long range
plans account for the benefits expected to accrue from the enhanced asset optimization strategies discussed above. The Company anticipates that the work management system will help us achieve a portion of the savings and cost avoidances described in the Electric Long Range Plan. Total annual savings of $45 million net of ongoing information technology maintenance expenses are projected to be realized upon full implementation in 2014. We have identified approximately $18-24 million in net savings in O&M expenses and $15 million in net capital expenditure savings in Rate Year 1. These reduced funding levels are reflected in our forward-looking forecasts and budgets.

Q. Are there other cost impacts resulting from the implementation of the management audit recommendations?

A. Yes, our implementation has created additional productivity and efficiency improvements to the benefit of our customers. Our planning and budgeting functions emphasize cost consciousness and cost management. Each organization must identify and quantify cost saving initiatives in their annual and
long term plans and reflect these cost savings in their budgets. The savings identified as part of the planning and budgeting process are then carried forward into the rate filing. For example, we expect to see annual O&M savings of up to $1.8 million from the implementation of Automated Meter Reading and Off-System billing in Customer Operations. Additionally, we have identified approximately another $11 million in annual savings and cost avoidances. These improvements have manifested themselves as savings and cost avoidances in the areas of improved project and program management, resource management and asset optimization. Regarding project management, the Company established a more formal approach to project and program management within Electric Operations, Substation Operations, Gas Operations and Steam Operations. Ongoing costs to maintain the project management structure across these organizations is approximately $3 million; projected savings are expected to total $13 million across these organizations, for an expected net annual savings of $10 million. These savings will be achieved through productivity improvements on capital project and
program expenditures. Actual savings going forward will depend on the number of projects and programs governed by this new approach. Regarding resource management, the Company has achieved additional savings of approximately $0.8 million annually through further improvements in resource planning, including: using Virtual Enterprise Modeling (“VEMO”) as a resource planning tool; increasing efficiency and productivity of in-house design personnel and reducing the outside services design budget; consolidating our tree trimming contractor management functions; merging its gas and electricity hedging groups in Energy Management. These reduced funding levels have been maintained in our current and forward looking budgets. Regarding asset optimization, in 2012, through our efforts to optimize our Company vehicle fleet, we identified over 180 vehicles that were either removed from service or redeployed in lieu of purchases. Reductions are expected to save almost $0.2 million per year in avoided maintenance costs. Actual savings going forward will depend on the number of vehicles identified each year as a candidate for removal or redeployment.
Q. Does every recommendation have cost savings associated with it?

A. No, but even if there are not quantifiable cost savings, there are qualitative benefits that result. For recommendations where we were not able to quantify the benefits, we sought to identify qualitative measures that would provide adequate benefits to justify the implementation action. For example, enhanced Board oversight, increased focus on risk mitigation, and improved employee and public safety. We have included cost management as one of our three cultural imperatives. To support this cultural change, the Company adopted a “holistic” approach to cost management. Implementation of this holistic approach is driven by several key recommendations from the management audit. Benefits continue to manifest themselves as part of everyday operations and cultural change efforts. The revised Board and committee calendar, the committee dashboards of key operating and performance metrics, and the Finance Committee and Board of Trustees review of large, high-priority capital projects will enhance the Board’s oversight of management’s infrastructure planning, cost
consciousness and performance management. With the implementation of Departmental Risk Profiles and new risk management system (“CURA”), there is better monitoring of risk mitigation activities for key corporate and departmental risks of the Company. While dollar savings cannot be quantified, the Company’s budget and planning processes are more closely aligned with risk assessments. Over time, classification of risks by mitigation status and continuous monitoring of Key Risk Indicators will improve strategic allocation of resources based on available risk information. For example, the 50-mile gas main replacement target could reduce steel leaks by one-half, and cast iron leaks by two-thirds, over 25 years. The primary benefit of main replacement is the reduction in the risk of serious incidents caused by leaks. Public and employee safety is paramount to the way we manage and operate our gas system.

**Conclusion**

Q. How would you summarize the impact of the Company’s response to the management audit.

A. Because of Con Edison’s actions in addressing the management audit, we are a more cost-conscious
company, with a more sustainable future and a renewed focus on the needs of our customers for safe, efficient and reliable service.

Q. Does this conclude your testimony?

A. Yes.