

STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service
Commission held in the City of
Albany on January 16, 2008

COMMISSIONERS PRESENT:

Garry A. Brown, Chairman
Patricia L. Acampora
Maureen F. Harris
Robert E. Curry, Jr.
Cheryl A. Buley

Case 06-M-1078 - Proceeding on Motion of the Commission to Audit the Performance of
Consolidated Edison Company of New York, Inc. in Response to
Outage Emergencies.

ORDER DIRECTING THE SUBMISSION OF AN IMPLEMENTATION PLAN

(Issued and Effective January 17, 2008)

BY THE COMMISSION:

INTRODUCTION

By Orders dated September 8, 2006 and September 20, 2006, we instituted a proceeding to investigate Consolidated Edison Company of New York, Inc.'s (Con Edison) performance in response to electric outage emergencies and planning for restoration of service.¹ The call for an audit centered on our concern with Con Edison's planning and recovery efforts associated with several outages that occurred in 2006. We directed that an independent audit be performed pursuant to Section 66(19) of the Public Service Law. The Department of Public Service issued a Request for Proposals (RFP) on

¹ Case 06-M-1078, Con Edison Outage Emergency Response Audit, Order Instituting Proceeding and Directing Audit, and Confirming Order (issued September 8, 2006 and September 20, 2006, respectively).

October 18, 2006, and Department Staff evaluated proposals, interviewed consulting firms and made recommendations to the Commission. By Order dated January 17, 2007, the Commission approved the selection of Vantage Consulting, Inc. (Vantage) to perform an audit and directed Con Edison to enter into a three-party contract with Vantage and Staff.

BACKGROUND

Upon signing of the contract by the three parties, Vantage began the audit, under the direction of Staff, on February 6, 2007. Vantage issued numerous document requests, conducted 260 interviews, and performed various analyses. Vantage reviewed all previous outage-related and investigative reports prepared by Staff, Con Edison and other stakeholders, and Vantage met with a number of public officials to seek their input. Vantage performed the work in accordance with a Staff-approved work plan.

Vantage completed the audit and submitted its report titled “Final Report – Independent Audit of Consolidated Edison Company – Electric Emergency Outage Response Program – For the New York State Department of Public Service” (Audit Report or Report) to the Department on October 24, 2007. The Report was made available on the Department’s website on October 25, 2007.² A Notice of Proposed Rulemaking was published pursuant to the State Administrative Procedures Act (SAPA) on October 17, 2007. Comments were due and received by December 3, 2007.

We also issued a Notice to the parties on October 25, 2007 inviting comments on the Report. Comments from Con Edison, pursuant to the Notice were filed on November 6, 2007. Other interested parties filed comments by November 20, 2007 and reply comments from Con Edison and other parties were filed by December 3, 2007.³ Attachment A is a summary of all the parties’ comments. We have considered the parties’ comments and address a number of the comments in this Order. To the extent

² http://www.dps.state.ny.us/06M1078_audit.htm

³ Comments were received from Assemblyman Richard L. Brodsky, Western Queens Power for the People Campaign, the Attorney General, the City of New York, and Con Edison.

that we do not discuss all of the comments, such discussion is not necessary for us to reach our determination.

SCOPE OF THE AUDIT

The scope of the audit was established by the Commission and articulated in the RFP. Vantage prepared an initial work plan that incorporated those scope requirements in its proposal, and further refined the scope in a more detailed work plan that was prepared after a number of documents were reviewed and initial interviews were completed. The Audit Report addresses:

- Emergency Response, Policy and Organization - Strategy, Policy and Master Plan, Organizational Issues, and Response to Outside Studies
- Comprehensive Emergency Response Program - Analytical Assumptions and Planning Criteria, and Analysis and Program Improvement
- Emergency Response Performance - Emergency Response Preparation, Staffing, Load Reduction Programs, Restoration Performance, Effectiveness, Long Island City Network Outage, Preventive Maintenance Practices, Mutual Aid, Safety, and Facilities
- Communications - Customer Information and Call Center Operations, Media Relations, Public Officials, and Public Service Commission
- Reliability - Tree Trimming Practices and Performance, O&M and Capital Spending, Reliability Analysis, and Reliability Impacts on Management Compensation
- Best Practices - Emergency Preparedness and Storm Restoration Best Practices, and Best Practice Assessment, and Regulatory Oversight.

THE AUDIT FINDINGS AND RECOMMENDATIONS

Vantage has identified a number of opportunities for improvement. The Audit Report contains 159 findings and 62 recommendations. A number of the findings confirm that Con Edison is doing an adequate job or is performing at a level that Vantage considers to be a strength and, as such, no recommendations are offered for those findings. However, a number of the findings and recommendations address root-cause problems, while the rest of the recommendations address more specific issues.

Attachment B is a complete list of the 62 recommendations. Summarized and organized by chapter, the Report concludes:

Emergency Response, Policy and Organization (Chapter III)

The Audit Report's findings and recommendations that address the underlying or root causes of many of the problems experienced by Con Edison are discussed in this chapter. Here Vantage states that Con Edison did not fully understand the nature and magnitude of shortcomings in emergency planning and response during 2006. Vantage identifies this as a root cause for many issues and concludes it will continue as a barrier to effective resolution until recognized and effectively acted upon. Consequently, Vantage makes recommendations that outline a process to reevaluate, refocus, and redesign Con Edison strategies, tactics and fundamental policies to guide improvements in its reliability and emergency management programs. These recommendations are based on findings that Con Edison lacks a needed strategic framework that is crucial to analyzing and making internal decisions on the relative priority of emergency planning and preparedness. This central finding drives conclusions and recommendations on numerous related and germane issues.

Because the importance of emergency planning and preparedness at Con Edison is not sufficiently defined and articulated, Vantage also concludes that Con Edison's organization and support structure are not fully aligned with the magnitude of the challenge and do not encompass an internalization of the economic and human consequences of performance failures. The relative priority is not adequately defined, and that creates confusion both internally and with external stakeholders.

Vantage observes that since its experience in 2006, Con Edison seems to more fully recognize the importance of emergency planning and has proposed and implemented significant changes. Nevertheless, Vantage concludes that Con Edison still lacks a sufficiently coordinated strategy and Master Plan for reliability and emergency preparedness. A coordinated strategy acts as both a foundation and the glue for an effective program. It sets objectives and priorities, channels the resources and allows the organization to focus on a common set of objectives. A better coordinated strategy for

reliability and emergency planning and response is needed to ensure that Con Edison maintains its historic levels of reliability and has an effective and efficient emergency response program.

One of the most important recommendations made in the Audit Report is that Con Edison should prepare a multi-year Strategic Plan focusing on system reliability, emergency preparedness, and major outage prevention and event restoration. The Plan should reflect the holistic nature of maintaining a high level of reliability and a highly effective emergency response program.

In addition to this major recommendation, Vantage makes subordinate recommendations that encourage executive management to take a proactive role in setting the vision and priority for the Company's approach to reliability and emergency management, to define and communicate policies, and to coordinate and maintain appropriate policies, oversight, and controls.

Vantage reviewed the principal internal organizations responsible for emergency preparedness planning, as well as other support organizations that are involved in planning and response during events. Vantage recommends that the Company restructure the emergency organizational function in accordance with the proposed Strategic Plan using sound organizational design principles.

The Audit Report also states that the Corporate Emergency Management organization is not sufficiently sized or aligned with its mandated responsibilities suggesting that either a change in staffing or a change in responsibilities is in order. The Report also states that the Emergency Operations Emergency Management Group (currently located in the Bronx/Westchester region) has a number of organizational shortcomings. Vantage recommends the development of a strong central core group of emergency management professionals that have technical expertise in the field of emergency planning and management. This core group would also be responsible for providing technical direction and professional development of emergency management personnel in the operating regions. This matrix structure will achieve the technical

benefits of a centralized group, increased corporate oversight, and maintain emergency management skills in the operating regions.

Comprehensive Emergency Response Program (Chapter IV)

Con Edison's Comprehensive Emergency Response Program (CERP) collects in one place the policies, plans, procedures and supporting information related to emergency response issues. The degree of information, and more importantly the level of planning it signifies, is substantial. The CERP contains specific sections tailored to the needs of each region. Also included is a newly prepared Coastal Storm Plan which provides for planning and response to a Katrina-type event. The Audit Report makes several recommendations to improve the effectiveness of the CERP document during events.

The Report concludes that Con Edison has adopted and demonstrated a solid commitment to the Incident Command System (ICS) organizational structure for responding to emergencies. This approach to responding to emergencies puts the Company at the forefront of the industry and firmly in tune with other emergency response organizations. However, the Report also identified some opportunities for improvement in this area and recommendations are listed in Attachment B.

Emergency Response Performance (Chapter V)

Reduced staffing levels and the movement of supervisors and managers to new positions have created issues within the workforce that affect the Company's ability to respond to emergencies. The Audit Report includes a number of personnel-related improvements, including a review of the succession planning process for key field positions, and implementation of plans to increase the number of qualified employees in the Line Constructor and Underground Worker series. The Report also calls for an evaluation of the impact of high levels of overtime and callout response rates.

Many of the recommendations that came from other stakeholder studies, and which were independently confirmed by Vantage, indicate that there is a need to refine policies related to maintenance and repair of critical systems and to better develop procedures for making operational decisions during major outages. Included in these

recommendations is the need to ensure that all diagnostic and data retrieval systems are working up to design specifications.

The Audit Report highlighted opportunities for improving operational performance through the upgrade and further development of information monitoring and analysis systems currently being used. These include the network reliability predictor system, weather forecasting systems, proof testing of networks, and load flow systems.

The Report concluded that many of the systems that retrieve and analyze field information in order to help determine system status have not performed at an adequate level. Con Edison has made significant strides in response to previous recommendations to improve these systems and Vantage provides further recommendations to ensure that the best information is available for decision-makers.

Network size, complexity and procedures for shutdown during emergencies have come into question in a number of post-outage reports and need to be addressed to ensure that Con Edison can meet its established goals of reliability and operational performance. Studies commissioned by Con Edison suggest that smaller networks with shorter feeders and fewer connected loads may be inherently more stable. Vantage recommends that guidelines regarding network shutdown and the decision process be further analyzed, more defined and less subjective, and that future network configurations consider secondary feeds to high profile customers such as the Metropolitan Transportation Authority and the Long Island Rail Road.

This chapter of the Report also makes recommendations addressing technical improvements to emergency drills, training, load reduction, and other operational elements of emergency management and response.

Communication (Chapter VI)

Con Edison has enhanced the outage information available to its Customer Service Representatives so it can more accurately inform customers of the status of the outage and estimated time of restoration (ETR); however, the current estimates still appear to be conservative. Vantage recommends that Con Edison develop a methodology

based on previous outage experiences to provide customers with a global ETR on a timelier basis.

Con Edison should also continue to improve the quality of the information and communication provided through its web site, increase communication with customers stressing the need to report outages, and test the Call Center capability under major outage scenarios.

The Report notes that as a result of the events in 2006, Con Edison has implemented many policies and procedures to provide consistent and timely messages to the media during outages. It has also worked to establish effective communications with the numerous public entities that it deals with during outage events.

Reliability (Chapter VII)

The analysis of construction and O&M spending was limited to changes in spending related to reliability over the last five years. While spending did increase, beginning in 2004, it is not clear if it was directed primarily at new load requirements or reliability and safety. Further, Vantage's review of O&M and capital spending, although limited, does suggest that a more detailed analysis is required to determine if funding is being appropriately planned and focused. The Report recommends a comprehensive study on the adequacy of spending for capital and O&M by category to determine if Con Edison is providing adequate resources to support their infrastructure. Associated with this are the issues of staffing, rate structure, inflation, and overall corporate policy regarding system maintenance.

Reliability performance measures began to deteriorate in Con Edison's distribution system in recent years, and it is not clear if management was fully cognizant of these changes. Vantage found that internal reliability reporting has changed so that the 20-year analysis that would have clearly illustrated Con Edison's decline was no longer included in the annual internal reports to management. These tables of raw data would have permitted an engaged and knowledgeable observer to see overall trends and results. Further, the manner in which other reliability results were expressed to management minimized the appearance of the decline.

The Report recommends that Con Edison develop a broader and more comprehensive set of performance indicators that, when tracked, will permit Con Edison, DPS Staff, and other stakeholders to understand performance of all relevant activities associated with reliability, emergency response management, and customer satisfaction against both targets and overtime.

Tree trimming programs were also reviewed, and a recommendation was made that proposes a study using outside resources to determine the actual health status of the forest, and an evaluation of the effectiveness of current tree trimming and clearing program relative to other reliability measures.

Best Practices (Chapter VIII)

The Report concludes that Con Edison has failed to participate in several highly respected distribution system-related benchmarking programs whose goal is to identify best practices, including those within the areas of emergency planning and storm restoration. Because Con Edison views itself as a highly unique electric utility due to its extensive underground network system, it has created an artificial barrier by which Con Edison is missing opportunities for identifying and implementing best practices associated with emergency preparedness and restoration.

Con Edison funds an array of research and development programs which Vantage believes could define utility best practices in various areas. However, the adequacy of senior management's ongoing support, from both a financial and prioritization perspective, raises the question as to whether these R&D projects will ever reach commercial fruition in time to meet Con Edison's pressing needs.

VANTAGE'S RECOMMENDED IMPLEMENTATION STRATEGY

Vantage offers an implementation strategy predicated on five traditional management principles:

1. Meaningful and long-term sustained changes must arise from within the corporation, based on visible and continuous commitment from executive management who believe in and support the value of the changes.

2. Con Edison's employees must buy into changes and new priorities. This requires executive management to demonstrate its commitment through effective internal communications.
3. Con Edison and its stakeholders will need to reassess and better understand that an expectation of 100% reliability is neither attainable nor affordable. With that understanding, more rational measuring sticks and the enhanced motivation for achieving existing and new performance targets should be developed. Moreover, any notion within the corporation that, when it comes to outages, the Company and its employees "just cannot win" is a negative motivator.
4. Vantage's recommendation for a more comprehensive plan must be assimilated as an integral, ongoing part of Con Edison's operations, and not an appendage. It must be directly linked to corporate plans, performance measures and compensation systems, just as other critically important corporate activities.
5. Prescriptive recommendations from Vantage or any other entity will not yield optimum results. Con Edison needs to focus on root causes, concepts, themes, and take ownership and accountability for the change process and its ultimate performance.

Vantage recommends three steps in moving forward with the improvement and implementation process. Con Edison should: (1) begin an internal review and assessment of each of Vantage's recommendations, (2) prepare an implementation plan and review it with Department Staff, and then (3) submit the implementation plan, with timetables and a reporting schedule.

DISCUSSION

The primary goal of the audit was to identify opportunities to improve Con Edison's electric emergency outage response program. The approach of the audit was to examine existing functions, processes, systems, organizations, and staffing, as well as past performance, for the purpose of defining prospective changes that will improve future performance. This forward-looking approach was intended to evaluate root causes of problems and to point the way for Con Edison to move to a more effective level of emergency planning, preparedness and response, consistent with its responsibility to provide safe, adequate and reliable service. Vantage was not expected to assess Con

Edison's emergency outage response program in a retrospective manner for the purpose of assessing the prudence of past decisions.⁴

The Commission agrees with the implementation strategy recommended in the Audit Report. We understand that in doing so, we are directing Con Edison to make changes that will improve its performance, and to demonstrate to its customers, employees, the Commission, and other stakeholders that it is acting to achieve significant performance improvements. We also understand that Con Edison "recognizes the audit recommendations as an opportunity to enhance its overall emergency preparedness and response"⁵ and is adopting the implementation strategy and framework recommended in the Audit Report.

At the same time, we are also cognizant that successful and sustained changes will likely take months and perhaps a year or more to fully implement, and that Con Edison's implementation process will require some flexibility. This is especially true with regard to the recommendations for a fundamental strategic planning process and various organizational changes. The "holistic" or comprehensive planning approach (Master Plan) that the Audit Report recommends will require that all improvement opportunities and changes be integrated as part of this comprehensive planning approach. Accordingly, we recognize that, as Con Edison develops and implements its Master Plan, it could identify variations to the specific recommendations made in the Report and propose alternative solutions that adequately or perhaps better address the underlying root causes and findings.

In the event that Con Edison proposes (as part of or in connection with its Implementation Plan) alternative solutions to the specific recommendations contained in the Report, the Company must provide appropriate justification. This will include an

⁴ Department Staff and other parties are addressing issues of prudence in another proceeding: Case 06-E-0894 – Proceeding on Motion of the Commission to Investigate the Electric Power Outages in Consolidated Edison Company of New York, Inc.'s Long Island City Electric Network.

⁵ Con Edison's comments, November 6, 2007

explanation of how the alternative: (1) more effectively addresses the root causes of the relevant problems and findings identified in the Audit Report, (2) produces a more favorable risk/cost/benefit result, (3) is more technically feasible than the initial recommendation, and (4) is more desirable, based on other compelling analyses. Con Edison will advise Staff of any intentions to pursue alternative solutions. Staff will discuss such alternatives with Con Edison, and then advise the Commission whether they are acceptable, or require further modification.

Our decision to provide Con Edison added flexibility is guided by previous experience with the management audit program and by the dynamics of how organizations can achieve successful and sustainable changes that yield performance improvements. Specifically, we previously concluded that “audit recommendations are best carried out in a spirit of cooperation among the company, the auditor, and staff ...”⁶ In the past, the Commission recognized the need for flexibility in how the utility implemented the audit recommendations, and we wish to retain that capability. After receiving and reviewing management audit reports, we generally directed utilities to evaluate the recommendations, submit implementation plans, and work closely with staff. Clearly, there was an understanding of the need for flexibility and cooperation between Staff and the utility.

The forward-looking management audit process and its implementation strategy is intentionally and appropriately different than other regulatory tools. This is a tool that is well-suited for encouraging a utility to make the sort of changes recommended in the Audit Report, namely long-term, sustainable changes to planning processes, corporate culture and organizational design.

Within the constraints of the implementation phase described above, we agree with the comments made by Assemblyman Brodsky that the Implementation Plan and timetable should be “publicly available” and that penalties should flow to Con Edison should it fail to complete the Report’s recommendations in accordance with this Order. Through this Order and the implementation of the Audit Report, we believe that

⁶ Cases 28053, 28054, 28055 and 27608, Opinion 82-16.

Con Edison will be required, as the Attorney General recommends, “to take specific steps to implement the audit findings ...”

We agree with Assemblyman Brodsky’s request that the implementation process be “as transparent and accountable as possible.” We are mindful that the need for performance improvements requires that we establish an implementation monitoring process which assures this Commission and the parties that Con Edison has submitted an adequate implementation plan and that the plan has the appropriate tasks, timelines, analyses of risks, costs, and benefits, and assigned accountabilities. The importance of these changes and need for performance improvement also demand that Staff work closely with Con Edison from the beginning to monitor the progress and success of the implementation plan and to bring to our attention as necessary the need for us to take further actions.

The City of New York identifies several recommendations that “warrant further examination” or are “not a viable option.” Some of these recommendations may require further technical and engineering analyses by Con Edison. The City’s comments further support the possibility that some recommendations (as written) may not be appropriate in addressing the Audit Report’s findings and the underlying root causes, and that some flexibility is desirable. Con Edison should take the City’s comments into consideration when analyzing the recommendations and in developing its implementation plan, and Staff will monitor Con Edison to ensure that it gives adequate analysis and consideration to the City’s comments. The City also supports the Audit Report’s recommendation that Con Edison develop a better method of implementing parties’ recommendations, particularly with respect to “a bucketing system where recommendations of similar subjects would be accumulated together and that these groupings would be then analyzed together to determine if they have similar root causes.”

It is also important that an appropriate level of transparency exists so all parties are assured that progress is real. To that end, we require Con Edison to submit, as part of its Implementation Plan, a process by which it will periodically communicate progress with, and consider the views of, the interested parties. If Staff advises the

Commission that Con Edison is not adequately implementing the improvements, the Commission may take more specific actions.

PSL 66(19) mandates that Con Edison file testimony demonstrating compliance with this Order, in its subsequent rate proceeding. Con Edison will continue to report compliance as part of its direct testimony in subsequent rate cases until the implementation is deemed complete. Staff will (and the parties may) participate on the record as necessary.⁷

Con Edison's November 6, 2007 comments on the Audit Report are consistent with Vantage's implementation recommendations and conform to our approach for the implementation process. Con Edison states that it has grouped the 62 recommendations and assigned them to 14 teams for purposes of analyses and developing implementation plans. These 14 teams report to the Vice President of Corporate Emergency Management. The Vice President reports to a newly created Emergency Management Steering Committee comprising senior vice presidents and other officers. The responsibilities of the 14 teams appear to be consistent with the implementation approach recommended by Vantage. Con Edison says that it will work cooperatively with Department Staff as it continues to develop its plans and then begins to implement changes. Con Edison says it will file an interim progress report by January 15, 2008 and submit a copy of its implementation plan and master plan to Staff in March 2008.

In this Order, we will further highlight one Audit Report recommendation because of the significance we attach to it and because it bears on the types of periodic reports that Con Edison files with the Department. The Report recommends that Con Edison: "Develop a comprehensive set of performance indicators that, when tracked, will permit Con Edison, the DPS [Department of Public Service], and other stakeholders to understand performance of all relevant measures associated with reliability, emergency response management and customer satisfaction, against both targets and over time."

⁷ The timing of Con Edison's current rate case precludes any significantly reportable implementation progress. Accordingly, this statutory requirement should be implemented, beginning with the first rate case filed after the date of this Order.

Because we view this as a high priority, Con Edison should immediately begin its process for identifying and implementing additional and enhanced performance measures that will help improve outage prevention and response performance. The development of such measures may be useful and used in future proceedings.

CONCLUSIONS

Con Edison shall develop an Implementation Plan, and begin to execute that Plan as soon as possible, to fully address the findings and recommendations of the Audit Report. The Implementation Plan will include: an overall characterization of the relative priorities for each of the recommendations, implementation action steps, schedules with specific interim milestones, risk/cost/benefit analyses, and the designation of executive officer accountability. Further, Con Edison should identify the implementation status of any recommendations that have been, or will be, implemented, that are necessary to have in place prior to the start of the Summer 2008 Capability Period. Con Edison should consult with Staff during development of this Plan and is required to submit the Plan to the Commission by March 3, 2008.

- As part of the Implementation Plan, Con Edison will meet with Staff shortly after the issuance of this Order to begin discussions about the development of the Implementation Plan. Periodic meetings with Staff will continue until the Plan is fully implemented.
- As part of the Implementation Plan, Con Edison will develop and implement a plan for communicating with the major stakeholders (customers, elected officials, municipal offices of emergency management, the media, etc.). The purpose of this element of the Implementation Plan is to demonstrate to the stakeholders that Con Edison is making necessary changes to its corporate priorities, planning processes, infrastructure investment, and organizational effectiveness.
- As part of the Implementation Plan, Con Edison will provide written updates on progress, at least every three months. Additional interim updates will be necessary if Con Edison experiences schedule slippages or other significant deviations.

In addition, Con Edison will immediately begin to analyze and plan for the implementation of enhanced and new emergency management performance measures. These measures need to be integrated and coordinated with Con Edison's existing and

modified planning processes, as described in the Audit Report and as will be included in the Implementation Plan, described above. These performance measures should be designed to serve a number of interrelated purposes, including, but not limited to:

- Creating emergency planning and outage response performance operating data. For example, actual restoration times compared to the estimated time to restore (ETR), which will be used by Con Edison during each outage event to assess the effectiveness of the ETR process.
- Tracking outage management performance, and other regional and centralized corporate goals that reflect aggregated performance over time and a goal-setting process that is integrated with corporate planning, to achieve improved performance.
- Establishing manager and officer performance goals, and incentives as part of the management compensation programs.
- Reporting emergency response performance data to the Commission, on a periodic basis. This data should be the result of a roll-up or aggregation of the data used by Con Edison for its internal purposes, as described above.

The Commission orders:

1. Con Edison shall file its Audit Report Implementation Plan with the Commission and will execute such Plan in compliance with the requirements described in the body of this Order.
2. Con Edison shall file testimony and related documents to create a complete record to demonstrate the nature and extent of its achievement of the goals and objectives in its Implementation Plan in any rate proceedings filed on or after the date of this Order until the Plan is fully executed.
3. This proceeding is continued.

By the Commission,

(SIGNED)

JACLYN A. BRILLING
Secretary

Summary of All Parties' Comments

Con Edison's Comments

Overall, Con Edison stated that it continually seeks to improve all aspects of emergency management, and that it recognizes the audit recommendations as an opportunity to enhance its overall emergency preparedness and response. The Company states that it will work cooperatively with the Department of Public Service in this process. Con Edison agree that developing a comprehensive master plan offers an opportunity to bring more cohesion to its existing emergency management efforts, and to strengthen its ability to anticipate, mitigate, and respond to emergencies. Con Edison states that many of the recommendations will also help to drive future service improvements.

Con Edison states that, upon the report's publication, the company established an Emergency Management Steering Committee led by senior executives. This Committee will oversee the review, and as appropriate, the implementation of the report's recommendations. Con Edison has established 14 teams that report to the Vice President of Emergency Planning and Security who will, in turn, coordinate team efforts with the Steering Committee. Each team is assigned specific recommendations.

The teams will review the recommendations and associated findings to determine how they fit into the master plan and will develop an implementation plan where appropriate. Con Edison stated that it will submit a copy of the updated emergency management master plan by March 2008. An interim progress report detailing the status of the team progress will be submitted by January 15, 2008.

Con Edison summarizes its efforts to (1) minimize the number and size of outages, (2) minimize the duration of outages when they occur, and (3) communicate accurate and timely information to customers and all stakeholders. It cites a number of findings with which it concurs, and states that it concurs with the report's recommendation for a comprehensive urban forest health study.

Parties' Initial Comments

Assemblyman Richard L. Brodsky, Chair, NYS Assembly Standing Committee on Corporations, Authorities and Commissions

Assemblyman Brodsky, the Chair of the NYS Assembly Standing Committee on Corporations, Authorities and Commissions (The Committee), had several comments on the management audit process. The Committee states that interested parties should have been able to comment on the draft audit report in addition to the final report. Also, the Committee comments that input from the parties prior to the final report might have addressed the disjuncture between the findings and recommendations in the body of the report and the analyses of the four major outages in Appendix 4. The Committee would have liked to have seen analyses of the outages at each stage of the event, the interplay between the shortcomings identified in the audit, and Con Edison's actions during the outage emergencies and restoration process. Also, the Committee states that it is only late in the Audit Report that the auditor alludes to Con Edison's previous experience with compliance with recommendations for change.

The Committee takes exception to the placement of the discussion of recommendations from prior outage reports (DPS Staff, Attorney General and other parties) in the closing paragraphs of a 200 page report. The Committee states that there needs to be a transparent and accountable process by which recommendations are made to Con Edison and by which the DPS and public can determine whether Con Edison has made the mandated changes to its network(s), operations, and corporate operation. The Committee would also like to see a publicly available timetable for implementation and penalties for Con Edison's failure to complete the recommendations. The Committee requests that the Commission order corrective actions by Con Edison that implement the prescriptive recommendations of the Audit Report.

Western Queens Power for the People Campaign

The Western Queens Power for the People Campaign (PFP) comments that the Vantage audit validates the communities' experience of the 2006 Long Island City

(LIC) outage and listed three specific findings in this regard. PFP also identifies eight other findings that they are concerned and alarmed by.

PFP also states that it is frustrated to see a section of the report listing all post-event studies and reports reviewed in the audit that does not include a comprehensive study of the economics and public health toll of the outages of 2006 on the community. PFP comments that it has been calling for such a study and no public agency has yet to call for such an investigation.

PFP also notes that the Audit is in no way binding and encourages the PSC to incorporate the findings into appropriate orders to mandate actions by Con Edison. Finally, PFP hopes that the audit findings will be vigorously communicated to various stakeholders including NYC agencies, elected officials, and the media; and that the findings will be used to inform other proceedings currently underway at the PSC involving Con Edison.

The Attorney General of the State of New York

In its comments, the Attorney General of the State of New York (AG) summarizes some salient audit conclusions under the headings of Continuing Management Deficiencies, Workforce Concerns, and Reliability. The AG also comments that some of the auditor's key conclusions confirm the findings of DPS Staff in their report on the LIC network outages of 2006 as well as the comments and recommendations of the AG and other interested parties in Commission filings.

The AG points out in its comments that the Report is highly critical of Con Edison's response to the 2006 Queens outages and its observations lend support to the current prudence review. The AG also highlights the conclusion in the Audit Report that Con Edison has not satisfactorily handled the numerous recommendations made in response to the 2006 outages. The AG goes on to state that this concern is troubling given the time, energy, and resources which have been brought to bear by all parties to provide analyses and recommendations that seek to hold Con Edison to substantial improvement in its emergency preparedness and response. The AG says that this

suggests that the Commission and Staff have not been able to exercise sufficient regulatory muscle to get Con Edison to respond effectively.

The AG also comments that the Audit Report raises concerns that even its own recommendations will be unheeded by Con Edison. The AG finds it troubling that Con Edison's November 6, 2007 comments on the Report are not more replete. The AG feels that Con Edison's commitment to implement the recommendations, as stated in its November 6th comments, is not very detailed and does not convey that Con Edison sufficiently grasps the depth and seriousness of the auditor's numerous concerns. The AG would like the Commission to order Con Edison to take specific steps to implement the audit findings, with deadlines to accomplish each item, and to provide regular reports documenting the implementation process to Staff and interested parties.

The AG points out that the Commission's recent order requiring the Company to provide \$18 million in ratepayer credits for its failure to meet reliability standards of 2006 is an inadequate gesture. The AG remarks that Con Edison must face monetary sanctions for future failures to perform reliably that are sufficient to compel the level of performance necessary and expected in the 21st Century.

Finally, the AG suggests that the Commission commence a rulemaking proceeding to strengthen the existing electric service reliability rules and to enhance its ability to impose monetary consequences significant enough to deter deficient performance.

City of New York

The City of New York ("City") commends the Commission for having an independent audit performed. The City is in substantial agreement with the resulting Audit Report's recommendations; however, it noted that when it compared its Report titled *Investigation by the City of New York into the Northwest Queens July 2006 Power Outages* with the Vantage report recommendations, that it isolated several recommendations it believes warrant further examination.

In its comments, the City indicated that the Vantage report makes numerous findings and recommendations that support the City's Report and its recommendations.

These findings and recommendations relate to voltage reduction, monitoring of the secondary network, transformers out of service, proof testing of network feeders, preventive maintenance, and communications. In addition, the City supports the Vantage recommendation that Con Edison develop a better method of implementing parties' recommendations.

The Audit Report recommends that the Company do a better job of grouping recommendations so that priorities can be established and "root causes" identified and addressed. The City observed that the Audit Report proposes a bucketing system where recommendations of similar subjects would be accumulated together and that these groupings would be then analyzed together to determine if they have a similar root cause. In addition to addressing root causes of similar recommendations, rather than individual recommendations, this methodology, according to the City, has the further advantage of grouping corrective actions that may provide the potential for more efficient, collective solutions. While the City supports this "grouping" methodology, it indicated that it is imperative that the Company develop one classification system that meets its needs.

The City noted that several recommendations in the Vantage Report warrant further examination. These recommendations pertain to recommendation V-R17 (Consider secondary feeds to high profile customers such as the MTA and Long Island Rail Road when reconfiguring or modifying future networks), finding V-F53 (The size of the LIC and other networks may be too large and inflexible to meet the established goals of reliability. Smaller networks with shorter feeders and fewer connected loads are inherently more stable), and the recommendation that network feeders should have peak loads that are less than 70% of normal ratings.

Vantage's finding V-F52 points out that the Company's hesitancy to shut down the LIC network appears to be related to the resulting impact upon public transportation systems, e.g., the MTA and the Long Island Railroad (LIRR). The City indicated that the Vantage recommendation V-R17 incorrectly identifies the means to alleviate the impact of a power outage on the public transportation systems. This

recommendation states that Con Edison should consider secondary feeders to high profile customers such as the MTA and LIRR when reconfiguring or modifying future networks. However, the City indicated that providing secondary feeders will not alleviate the problems associated with de-energizing a network because secondary feeders are responsible for powering the lighting and signal systems while the primary distribution system is responsible for powering the high tension services required for rail movement on the mass transit system. Thus, the City believes that recommendation V-R17 is not a viable option.

Vantage recommendation V-F53 states that the size of the LIC network and other networks may be too large and inflexible to meet the established goals of reliability. While the City supports the conclusion that smaller networks are more reliable, it indicated that size alone should not be used to determine whether networks should be split because there are more reliable tools for determining whether networks should be reinforce, or split, than the size or “connected load” of a network. For example, the City points out that Con Edison’s Jeopardy model creates a ranking of the Company’s 57 networks based upon a probabilistic estimate of their relative probability of failure. While the City supports the splitting of large networks when this course of action is supported by an appropriate set of facts and engineering analyses, it indicated that it does not automatically follow that all large networks would benefit from splitting. The final decision, the City indicated, must include a number of factual and technical considerations where the size is an important consideration, but not the only factor considered.

Lastly, the Vantage Report recommends that network feeders be designed so that “peak loads are less than 70% of normal ratings for avoidance of higher failure rates during first and second contingencies.” The City states that there is no support for changing the design of the loading of primary feeders so that they are less than 70% of normal ratings; and that network feeders predominantly fail because of environmental conditions, physical damage and failures in appurtenant equipment. In addition, the City states, cable ratings are normally determined by the thermal limits of the emergency

loadings. “The higher the normal loading (i.e., base thermal condition of the cable), the lower the emergency load limit will result (shorter thermal loading distance to the thermal limit of the cable). The result of lowering the normal loading would be to provide additional capability in the network feeders under contingency conditions. Accordingly, lowering the normal ratings of feeders will not decrease their failure rates during first and second contingencies.”

Con Edison Reply Comments

Con Edison states that its reply comments provide an update of the implementation work plan that was described in its initial comments. Con Edison acknowledges the initial comments filed by the other three parties and says that its initial comments addressed the substantive issues raised by those parties and says that it will not address them again in its reply comments. Con Edison has established 14 teams that are each responsible for assessment of the recommended changes and for implementation of the Vantage recommendations and other improvement opportunities. The teams report to the Vice President of Emergency Planning and Security. This Vice President reports to the Emergency Management Steering Committee of senior staff executives who are overseeing the entire process.

Con Edison reiterates that it will submit a copy of the updated emergency management master plan by March 2008. An interim progress report will be submitted by January 15, 2008. Con Edison concludes its reply comments, saying that it remains committed to continuing to improve its operations and provide customers with the highest level of emergency preparedness, response and service.

LIST OF REPORT RECOMMENDATIONS

III. EMERGENCY RESPONSE, POLICY AND ORGANIZATION

III-R1 Highlight the role of senior management in communicating and implementing vision and priority for the Company's approach to reliability and emergency management. (Refer to Finding III-F1 & F2.)

III-R2 Define and communicate policies regarding the importance of emergency management that are proportionate to the unique circumstances surrounding Con Edison's service territory and the sea change in expectations that has transpired in recent years. (Refer to Finding III-F4.)

III-R3 Develop and implement a coordinated strategy and Master Plan for reliability and outage management. (Refer to Finding III-F3 & 4.)

III-R4 Emphasize the holistic nature of reliability and outage management and communicate that notion to employees as part of the Integrated Plan. (Refer to Finding III-F6.)

III-R5 Include specific measures for maintaining preparedness and the priority of emergency management including appropriate policies, oversight and controls in the revised Plan. (Refer to Finding III-F8.)

III-R6 Integrate the implementation of recommendations through the new coordinated strategy. (Refer to Finding II-F3, 4 & 5.)

III-R7 Restructure the key organizational functions in support of the Plan and in accordance with sound design principles. (Refer to Finding III-F8.)

III-R8 Consider the creation of a central, core group of emergency management professionals with the management of that group responsible for technical excellence in the field of emergency planning and management as well as technical direction and professional development of the EM personnel. (Refer to Finding III-F16.)

III-R9 Consider, in designing a new organizational structure, a hybrid approach that assigns EM professionals to operating organizations on a matrixed basis as a means to achieve the technical benefits of a centralized group while maintaining Con Edison's culture of accountability to the operating organizations. (Refer to Finding III-F16 & F17.)

III-R10 Consider, locating the EO EM group, or its successor, to the group reporting to an organization that spans all of EO, such as the VP-Engineering and Planning. (Refer to Finding III-F9.)

III-R11 Responsibility for management of Con Edison's overall emergency programs should be clearly assigned, and the responsible entity should be charged with the various program management functions now contained in CI 260-4. (Refer to Finding III-F9.)

III-R12 A corporate oversight function for emergency management should be added that is charged with ensuring that all organizations are aligned with corporate priorities and principles. (Refer to Finding III-F9.)

III-R13 Ensure that the recommended organizations restructuring acts firms up roles and relationships, minimizes gray areas, and resolve procedural inconsistencies. (Refer to Finding III-F13 and F15.)

III-R14 Ensure assignment of all elements of the Master Plan and the allocation of corresponding resources to those elements in order to prevent inappropriate domination by local preferences, "program of the month," or other transient priorities. (Refer to Finding III-F8 and F13.)

III-R15 Redefine the role of Distribution Engineering in emergency preparedness and response to make it consistent with ICS principles and Con Edisons current and future needs. (Refer to Finding III-F14.)

III-R16 Add resources to the Corporate EM group, or its successor in any new structure, so that the resources align with its substantial and broad responsibilities. (Refer to Finding III-F11.)

III-R17 Defer the pending expansion of the EO EM group until a new organizational structure is defined and staffing for EO EM, or its successor, is evaluated within the context of that new structure and the new Master Plan. (Refer to Finding III-F12.)

III-R18 Develop a sound staffing plan and supporting commitment, as part of the new recommended strategy development, to ensure staffing is adequate and justified and that management commitments do not ebb and flow as they have in the past. (Refer to Finding III-F10 and F11.)

III-R19 Revisit the question of resource typing after the issuance of new FEMA software. (Refer to Finding III-F20.)

III-R20 The refinement of ICS accountabilities should be a subject of continuous improvement with particular focus on those positions for which descriptions are complex and for different positions that contain similar concepts or overworked phrases (such as 'information,' 'communication,' 'prioritization of work,' etc.). (Refer to Finding III-F26.)

III-R21 Redefine the purpose and expectations for IAPs for the benefit of emergency managers, and Incident Management Assistance Teams (IMATs) should assist in ensuring a reasonably consistent application. (Refer to Finding III-F26.)

III-R22 The IMATs should assume a full role in drills to act as an in-process helper to the IC and other managers and should also take an aggressive facilitation role (consistent with IC needs and expectations) in emergencies. (Refer to Finding III-F28.)

IV. COMPREHENSIVE EMERGENCY RESPONSE PLAN (CERP)

IV-R1 Clarify the role and purpose of the CERP, for internal management purposes, with the objective of replacing or repairing the document where it does not effectively serve the needs of the organization. (Refer to Finding IV-F3.)

IV-R2 Standardize distribution of the CERP and provide a clear explanation for any changes that take place. Further, where changes are significant, employees should receive a briefing to ensure full awareness. Also, at the time of distribution, managers should be reminded of their responsibilities concerning the use of the document. (Refer to Finding IV-F4 & F5.)

IV-R3 Assist Con Edison managers and improve their effectiveness under emergency conditions by creating a more useable structure for important documents and providing managers with easy-to-use guides for accessing those documents. (Refer to Finding IV-F6.)

IV-R4 Improve the presentation of the CERP material so that it can be easier to read and thus of greater use to managers. (Refer to Finding IV-F7.)

IV-R5 Redefine which managers should have responsibility for approving emergency planning documents and then hold them responsible for meeting that commitment. (Refer to Finding IV-F8.)

IV-R6 Define expectations for the use of checklists and implement improvements where the quality of the checklists limits their use. (Refer to Finding IV-F9.)

IV-R7 Establish a clearly defined and structured set of criteria and assumptions that establish the bases for the Plan, define the environment in which the Plan must operate, and set a foundation and framework around which to build the Plan.

(Refer to Finding IV-F20.)

IV-R8 Construct an improved framework and process for the development, documentation, and management of planning thresholds that: includes a matrix, for the benefit of managers and emergency planners; that summarizes all of Con Edison's emergency classifications as well as the actions they trigger; provides for a possible simplification recognizing that ease of use will lessen confusion and improve uniform application; and requires analysis and testing of planning thresholds periodically. (Refer to Finding IV-F22.).

IV-R9 Elevate the priority of resource planning within the emergency planning framework. (Refer to Finding IV-24, 25 & 26).

V. EMERGENCY RESPONSE PERFORMANCE

V-R1 Document the lessons learned process (after action reviews) from drills to achieve the payback from drills that should be realized. (Refer to Finding V-F4.)

V-R2 Revamp the drill program in line with the proposed new strategy and organization. (Refer to Finding V-F5 & F6.)

V-R3 Prepare and communicate an integrated annual drill schedule and plan including information on each planned drill, before the start of the year. (Refer to Finding V-F7.)

V-R4 Include external parties (municipals, customers, press, elected officials) in major drills. To the extent direct participation might be unwieldy or ineffective, simulated participation might be appropriate. (Refer to Finding V-F8.)

V-R5 Research the cause of incomplete job packages and trouble assessments originating in the Engineering and Planning Area which are then forwarded to the Operations Section for assignment. (Refer to Finding V-F12.)

V-R6 Develop ECS/STAR training modules for ICS designees and those in supporting roles. (Refer to Finding V-F16.)

V-R7 Review succession planning process for key field positions and implement plans to increase the number of qualified employees in the Line Constructor and Underground Worker series. (Refer to Finding V-F27.)

V-R8 Evaluate the impact of high levels of overtime on the workforce as it relates to callout response rates. (Refer to Finding V-F28.)

V-R9 Consider negotiating a new clause in future Labor Agreements that establishes a minimum callout response rate for certain job classifications. (Refer to Finding V-F29.)

V-R10 Review the succession planning process for Engineering Designers and Technicians and implement plans to increase the number of qualified employees. (Refer to Finding V-F30.)

V-R11 Review the current voltage reduction program of load reduction to ensure its effectiveness when applied for an extended period. They should also ensure that the level of voltage reduction will not result in damage to customer's motors and other voltage sensitive loads. (Refer to Finding V-F35, 36 & 37.)

V-R12 Develop and implement changes to PVL and WOLF that lead to improved results and greater confidence. (Refer to Finding V-40, 41, 42 & 43.)

V-R13 Improve the primary sensors, transmitters and signal transfer technologies to increase the integrity of the RMS data. (Refer to Finding V-F44.)

V-R14 Complete the assessment of the Deep Thunder micro-weather modeling system and integrate it with either the STAR system or another emergency response program. (Refer to Finding V-F46.)

V-R15 Reconsider the guidelines regarding network shutdown in EO-4095, and make

the decision process more defined and less subjective. (Refer to Finding V-F48-53.)

V-R16 Place a higher priority on replacement of failed or nonfunctioning network systems components including transformers, network protectors, and RMS transmitters immediately prior to and during the summer months. (Refer to Finding V-F52.)

V-R17 Consider secondary feeds to high profile customers such as the MTA and Long Island Rail Road when reconfiguring or modifying future networks. (Refer to Finding V-F52.)

V-R18 Continue development of G3 research on future networks and integrate with long-term Strategic Plan as identified in Recommendation II-R3. (Refer to Finding V-F53.)

V-R19 Continue feeder testing with Hi Pot methods as currently practiced until such time as Con Edison completes its evaluation and refinement of the program for VLF testing and determines whether/how to implement same. Continuation of exploration of other non-destructive technologies suitable for the network environment should continue. (Refer to Finding V-F56.)

V-R20 Enhance the program for maintenance scheduling prior to and during the summer peak periods to ensure that all possible work is completed during any scheduled feeder shutdown. (Refer to Finding V-F57-58.)

VI. COMMUNICATION

VI-R1 Increase emphasis on the need for customers to report outages to Con Edison. (Refer to Finding VI-F4.)

VI-R2 Con Edison should test the new capabilities of the Call Centers under a major outage scenario. (Refer to Finding VI-F3.)

VI-R3 Develop a methodology based on previous outage experiences to provide customers a global ETR on a more timely basis than the current commitment. (Refer to Finding VI-F6.)

VI-R4 Determine if the commitment in the CERP to generate a global ETR in 12 hours is reasonable for all events and if not revise the plan accordingly. (Refer to Finding VI-F6.)

VI-R5 Continue to expand the information and communication provided through the Con Edison web site. (Refer to Finding VI-F8.)

VII. RELIABILITY

VII-R1 Undertake a study using outside resources to determine the actual health status of the forest in Con Edison's service territory. (Refer to Finding VII-F7.)

VII-R2 Evaluate the effectiveness of the current tree trimming and clearing program relative to other reliability measures associated with vegetation management. (Refer to Finding VII-F5, F46, & F6.)

VII-R3 Evaluate long-term commitment by Con Edison to both Capital and O&M expenditures by category as part of the ongoing rate case and other investigations. (Refer to Finding VII-F13-17.)

VII-R4 Develop a comprehensive set of performance indicators that, when tracked, will permit Con Edison, DPS and other stakeholders to understand performance of all relevant measures associated with reliability, emergency response management and customer satisfaction against both targets and over time. (Refer to Finding VII-F18 & 19.)

VIII. BEST PRACTICES

VIII-R1 Expand participation by Con Edison in utility sponsored, industry-wide emergency preparedness and major outage event benchmarking programs.

(Refer to Finding VIII-F2)

VIII-R2 Consider, through the DPS Staff, implementation of a collaborative program including all of the electric, gas and telecommunications utilities within its jurisdiction to develop best practice emergency preparedness and major outage restoration programs. (Refer to Finding VIII-F6)