STATE OF NEW YORK
PUBLIC SERVICE COMMISSION

At a session of the Public Service Commission held in the City of Albany on December 16, 2009

COMMISSIONERS PRESENT:

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

CASE 08-E-0827 – Comprehensive Management Audit of Niagara Mohawk Power Corporation d/b/a National Grid's Electric Business.

ORDER DIRECTING THE SUBMISSION OF AN IMPLEMENTATION PLAN

(Issued and Effective December 18, 2009)

BY THE COMMISSION:

INTRODUCTION

On July 16, 2008, the Commission, pursuant to Section 66 (19) of the Public Service Law, authorized the issuance of a Request for Proposal (RFP) for an independent third-party consultant to conduct a comprehensive management and operations audit of the Niagara Mohawk Power Corporation d/b/a National Grid's (National Grid or the company) electric business, with a specific focus on its construction program planning processes and operational efficiency. On October 15, 2008, after reviewing various consultant proposals, the Commission approved the selection of NorthStar Consulting Group (NorthStar) to conduct the audit and directed National Grid to enter into a three-party contract with NorthStar and Staff. NorthStar has completed the audit and submitted its report titled "Comprehensive Management Audit of Niagara

Mohawk Power Corporation D/B/A National Grid Electric Business" (Final Report, dated December 3, 2009) to the Department of Public Service (Department).

While the audit was performed on the operations of Niagara Mohawk Power Corporation, much of this order refers to National Grid. Functions such as engineering, process management, and planning are not managed on a company or state-by-state basis, but from the centralized offices of National Grid USA, which is headquartered in Massachusetts. Additionally, in many instances National Grid does not distinguish Niagara Mohawk data within its line of business management reporting. However, when a budgeting or operating figure can be clearly articulated for Niagara Mohawk, that specific entity is referenced.

SCOPE OF THE AUDIT

The scope of the audit was established by the Commission and articulated in the RFP. With input from Department of Public Service Staff (Staff), NorthStar 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 the initial interviews were completed.

The Final Report addresses the eight scope elements identified in the RFP as:

1) Corporate Mission, Goals, Objectives, and Planning
2) Load Forecasting
3) Supply Procurement
4) System Planning
5) Capital and O&M Budgeting
6) Program and Project Planning and Management
7) Work Management
8) Performance and Results Management

AUDIT PROCESS

Following execution of the contract by the three parties, NorthStar began the audit, under the direction of Staff, with a series of orientation meetings hosted by National Grid starting on November 5, 2008. These meetings were designed to quickly orient NorthStar to National Grid's structure and organization. These meetings took place over three days, with the first day primarily devoted to high-level presentations by National Grid's senior officers.

Before and during the audit field work, NorthStar met with Staff to get input concerning any specific audit areas of concern. During the audit field work, NorthStar interviewed Company representatives and analyzed responses to its document requests. NorthStar issued over 450 document requests and conducted over 270 interviews of National Grid's personnel. Staff monitored the progress of the audit through attendance at audit interviews and weekly briefings with NorthStar.

NorthStar provided Staff with the Draft Audit Report on June 5, 2009. Some of the more significant audit findings deal with: 1) National Grid's corporate "Line of Business" structure that separates the responsibility for traditional state-by-state utility governance to one where areas such as gas, electric distribution, and electric transmission are organizationally separated until the executive level in Great Britain; 2) National Grid's inaccurate project cost estimating in both electric transmission and distribution (T&D) operations; and 3) National Grid's lack of preparation with regard to the expiration of its remaining key electric supply contracts at the end of 2011. Staff reviewed and commented on the draft report, and submitted a revised report to National Grid for a review of factual accuracy.

NorthStar completed the audit and submitted the Final Report to the Department on, August 13, 2009. Two additional issues arose after the original report was issued, so the Final Report was edited and reissued on December 3, 2009. The Final Report was made available on the Department's web site on December16, 2009. National Grid was given an opportunity to comment upon the factual accuracy of the

original Final Report and the additional issues. National Grid's comments are available on the Department's web site.

Perspective

National Grid is a large international utility and Niagara Mohawk's electric operations are only one part of its operations. National Grid did not actively manage Niagara Mohawk or its US operations until recently. NorthStar found that National Grid's complex management model, which includes corporate, country (US and UK), line of business (LOB), and operating company components, is a good model from a business perspective. However, since the structure causes the distribution and transmission operations in the US to report to two different LOBs, it does not facilitate the promotion and protection of Niagara Mohawk's ratepayers' interests. The LOBs are: Electric Transmission, Electric Distribution and Generation, Gas Transmission, and Finance and Shared Services. Transmission in the US reports through the Transmission LOB and ultimately reports to the Transmission Executive Director in the UK. National Grid has no generation or distribution in the UK, so this LOB reports to an Executive Director in the US, who has responsibility for the distribution and generation business in the United States. All LOBs receive shared services from the Finance and Shared Services LOB, in accordance with agreements between the entities.

A result of the "Line of Business" business model is that state or former service territory boundaries become immaterial for operational purposes. Decisions for the entire US operation are made in Waltham, Massachusetts, and there are no operating officers specifically designated for the Niagara Mohawk Power Corporation as we are historically used to seeing. The Niagara Mohawk Power Corporation Board of Directors is not a managing board in the traditional sense, as operating and budgetary decisions are made at the corporate level in the UK.

The regulatory climate and perspective in the United States is significantly different from that in which National Grid traditionally operates. Corporate and Board personnel in London do not yet have a full appreciation of the regulatory environment in the US. The consultant feels that it would be helpful to have someone with significant

US regulatory and utility knowledge on the UK Board. However, the only person with US regulatory experience recently retired from the Board, and the Consultant perceives this as a shortcoming.

During the audit, National Grid was undergoing significant changes to its organization and its management processes. The Final Report represents a snapshot of the Company's operating conditions at the time of the audit, and several fundamental changes have already been implemented in the corporate structure and operating processes that will affect the nature of the implementation process.

THE AUDIT FINDINGS AND RECOMMENDATIONS

NorthStar has identified a number of opportunities for improvement. The Final Report contains 179 findings resulting in 44 recommendations. Attachment A is a complete list of the 44 recommendations. The consultant identified several areas for specific emphasis, and worked with the Company in a collaborative effort to more fully explore improvement opportunities.

Collaborative Process / Recommendations

1. Opportunity No. 1 – Niagara Mohawk has yet to assess and plan adequately for its future (post 2011) role in meeting customers' long-term energy supply needs, nor has the Company integrated supply planning into its business planning process.
   - Current Status: Niagara Mohawk has made significant progress towards developing a comprehensive, long-term supply procurement policy and plan.

2. Opportunity No. 2 – While National Grid's US management has long recognized that inaccurate project cost estimating in both electric transmission and distribution operations is a problem, it has only recently begun addressing it.

- Current Status: National Grid plans to correct the deficiencies in estimating through organizational improvements and processes, and providing the Estimating Center of Excellence (ECoE) appropriate tools.

3. Opportunity No. 3 – Niagara Mohawk's electric T&D operations do not have an effective means to manage and control levels of service and costs for services provided by shared and other support services (e.g., information technology, legal and human resources) organizations.
   - Current Status: National Grid has almost completed implementation of Service Level Agreements (SLAs) for information systems and has commenced a program to develop SLAs for shared services functions.

4. Opportunity No. 4 – Niagara Mohawk does not have an effective means to determine the actual productivity of its in-house or contractor resources.
   - Current Status: National Grid has identified improvements required to manage its field forces more effectively and has made significant progress in implementing the improvements.

Summarized and organized by chapter, the Final Report sets forth the following findings and recommendations:

Corporate Mission, Objectives, Goals and Planning (Chapter III)

As mentioned previously, National Grid is overseen by a Board of Directors (BOD) operating on the United Kingdom model that is appropriately structured and effectively oversees the Company's operations. With the recent retirement of the former KeySpan CEO, National Grid's Board will not have an independent (non-executive) member who has an in-depth understanding of the United States (US) and

New York regulatory environments, or experience in operating an energy utility in the US.

The consultant reviewed the composition and activities of the Niagara Mohawk Power Corporation Board of Directors. The consultant concluded that the Niagara Mohawk Power Corporation Board of Directors performed very limited duties, including declaring dividends and appointing corporate officers. The Board also approves contracts and transactions that had been entered into at the National Grid PLC level. The consultant suggests that the makeup of the Niagara Mohawk Power Corporation Board of Directors be strengthened to raise the visibility of this New York State regulated entity.

Although National Grid's corporate business planning process is comprehensive and well aligned with the corporate vision, the focus on financial performance in the National Grid vision and objectives influences the business planning process, and potentially has an adverse effect on operational issues.

Performance and Results Measurement (Chapter IV)

National Grid's management performance and compensation programs are aligned with the corporate mission, objectives, and goals at all levels in the organization. While National Grid's key performance indicators are aligned with the business plan and are appropriate for monitoring general utility performance, the measurement systems have gaps in certain key performance areas.

Although National Grid is effective at cascading financial and operating metrics down through each LOB organization, it is less effective in cascading and integrating corporate strategies and objectives across the lines of business.

National Grid does not currently have a separate National Grid US or Niagara Mohawk Power Corporation performance management process. The only results measurement at the operating company level is required federal and state regulatory reporting. Most of National Grid's higher level improvement targets are based on improvements from prior years and eventual achievement of first quartile status and are not based on an integrated, comprehensive benchmarking program.

Load Forecasting (Chapter V)

While National Grid does not use current technology or methods to develop its load forecasts, the models used are adequate to forecast system coincident peak demand and system-wide sales of energy by customer class. National Grid's energy and peak demand forecasts were reasonably accurate in the past and comply with New York Independent System Operator requirements relative to peak load forecasting. National Grid does not have a region-specific forecasting process within the Niagara Mohawk upstate service territory, and the Company does not utilize estimated or projected effects from Energy Efficiency (EE) initiatives in its forecasts. In addition, current meter data collection activities at Niagara Mohawk are inadequate to support development of end-use modeling or efficient application of SMART GRID technology.

National Grid has not placed much emphasis on the load forecasting function until very recently; however the reorganization of the load forecasting function into the Energy Portfolio Management Department is a positive step and represents an increased focus on forecasting. Integration of the energy and demand forecasts with the business planning process can be improved particularly as it relates to EE and Distributed Generation programs, and to system and supply planning efforts.

Supply Procurement (Chapter VI)

Niagara Mohawk has operated under a ten-year Rate Settlement Agreement (RSA) since 2001 when it was acquired by National Grid. The Company's near-term supply procurement strategies, policies, processes and methods appropriately reflect the RSA, and the Company's power supply performance relative to Standard Rate Service and Market Rate Service customers is appropriate. Within the parameters of the RSA, National Grid oversees and controls the Niagara Mohawk power supply portfolio in an effective manner and the Company's financial and physical practices are effective for the current situation.

National Grid's recent decision to seek a two-year contract for 200 MW to replace the 560 MW Nine Mile Point 1 contract is consistent with the mass-market volumes, and percent of that volume, Niagara Mohawk is required to hedge.

National Grid does not have appropriate electric supply portfolio performance goals or metrics to guide its long-term performance. In addition, the Company is not prepared for the end of the RSA and the expiration of its remaining key supply contracts at the end of 2011. The Company's current supply procurement strategies, policies, processes, and methods are not likely to be adequate for the post-2011 era. National Grid's current risk management framework will not be adequate for procuring energy capacity and hedging instruments in future energy markets. NorthStar has made several recommendations to improve National Grid's supply procurement including the establishment of a comprehensive framework of performance metrics for supply procurement and risk management; the development of a long-term supply strategy and short term tactical supply procurement plan; and definition and restructuring of the risk management policies, procedures and functions.

System Planning (Chapter VII)

National Grid uses an "asset management approach" to reliability planning for both its transmission and distribution systems. While the US Transmission Asset Management groups have appropriate policies and procedures for the types of studies to be performed, the policies do not specify how the studies are to be assembled into a single system study. In addition, while National Grid has an appropriate organization to manage its transmission planning activities, the operation of that structure, coupled with its policies, does not facilitate the development of plans that address both long-term infrastructure replacements and system needs. National Grid does not have a formal process for considering advanced metering, Smart Grid, demand-response, and EE initiatives in its system planning processes, and the Company does not factor renewable generation in its planning process.

The Transmission Asset Management organization has yet to produce an integrated or master transmission plan. While National Grid has developed a number of regional (area/load center) transmission studies, it has prepared only one Niagara Mohawk system-wide study, and regional efforts are not integrated. Niagara Mohawk's transmission system planning is not sufficiently focused on providing benefits to its customers. Few capital projects are produced as a product of asset management strategies. In recent years, transmission projects often appeared condition-driven and reactionary rather than the product of a planning process.

The distribution network strategy organization and system planning process are adequate, and appropriate policies and procedures for conducting system studies are in place. However, National Grid's distribution asset management program lacks management structure and accountability for results. Niagara Mohawk has had a system reliability problem for many years. As demonstrated by the Company's inability to meet and sustain its annual System Average Interruption Frequency Index (SAIFI) targets for several years, the Company's approach to distribution reliability planning is appropriate, but its implementation is ineffective.

Program and Project Planning and Management (Chapter VIII)

National Grid's Project Management Playbook (PMP) provides a comprehensive and well-defined approach to program and project management. However, the Company has opportunities for improvement in the area of program and project planning. National Grid does not maintain comprehensive project management files as required by the PMP and accepted industry practice. In addition, project managers did not document their monitoring of overall project progress with the baseline schedule, or actively review cost versus progress and budget in the projects that NorthStar reviewed in detail. An analysis of 672 completed projects showed that cost

management and tolerance limits were frequently not adhered to and re-sanctioning[1] was not performed as required by the PMP.

National Grid has poor project management performance primarily due to inaccurate project cost estimates. National Grid's US management has long recognized that inaccurate project cost estimating in both electric transmission and distribution operations is a problem. A group is being formed in the US Transmission Group to address this failure, but it is too early to tell if this step will correct the issue.

Distribution Project Management and Transmission Project Management are responsible for assigning construction work and determining whether to use contractors or in-house labor. National Grid's planned use of a single engineering and construction contractor has some inherent challenges that need to be addressed.

Capital and Operating &Maintenance (O&M) Budgeting (Chapter IX)

National Grid's capital and O&M spending levels for its US Electric Operations in total are comparable to similar utilities in the US. The portion of National Grid's capital spending that is related to Niagara Mohawk has increased over recent years and is expected to continue to increase. While National Grid has an appropriate capital project prioritization process, the large number of mandated projects limits the number of asset condition and system reliability projects that can be performed within the current level of spending. The capital investment levels for Niagara Mohawk transmission and distribution represent a level of planned programs and projects that may be unrealistic. While the current level of Niagara Mohawk's capital expenditures is insufficient ($1.47 billion over 5 years per the Grid/ Niagara Mohawk Acquisition, as clarified in Attachment B), an appropriate level cannot presently be determined. The relationship between planned work and proposed expenditures in Niagara Mohawk's January 2009 filing to the PSC (2009 Transmission and Distribution Capital Investment Plan) is unclear. National Grid's capital and O&M management reporting is comprehensive and

[1] Re-sanctioning is the process for seeking approval for changes to a project's scope or budget.

provides senior management and the BOD with an appropriate level of financial information. However, capital project re-authorization and funding controls are not effective due to measured progress, earned value, inaccurate estimates, lack of work breakdown structure, and poor cost schedule reporting.

Work Management (Chapter X)

Niagara Mohawk does not have a work management system that effectively plans and manages field work on a day-to-day basis. The organization for managing Niagara Mohawk's field transmission and distribution work is appropriate. National Grid uses an appropriate process for deciding when to use contractors for distribution and transmission lines and substation work. Both transmission and distribution field workforces use automated tools for work scheduling, work management, and time reporting systems. Poor job estimating makes effective scheduling of field work difficult. Annual work plans are not delivered to the field forces in a timely manner. Niagara Mohawk still has in-house tree trimming crews even though they are less cost-effective than contractors as determined by the utilities industry. The magnitude of the Niagara Mohawk capital program going forward negates much of the normal in-house versus contractor decision-making normally required, since the in-house personnel will be fully engaged, and contractors will be necessary for the work that cannot be done in-house.

DISCUSSION

The primary goal of the audit was to identify opportunities to improve Niagara Mohawk's construction program planning processes and operational efficiency. 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 Niagara Mohawk to move to a more effective level of construction program planning and spending levels, consistent with its responsibility to provide safe, adequate and reliable service. As mentioned throughout this order, all operating processes for Niagara

Mohawk are actually performed by National Grid US on a centralized basis. Therefore, this order is directed to National Grid, but relates to the operations of the Niagara Mohawk Power Corp. in New York State.

We accept NorthStar's Final Report and direct National Grid to develop an implementation plan that carefully considers the Final Report's recommendations. We expect National Grid to make comprehensive changes that will improve its performance, and to demonstrate executive-level commitment to this process.

In the event that National Grid proposes (as part of or in connection with its Implementation Plan) alternatives to the Final Report's specific recommendations, the Company must provide appropriate justification. Any justification must demonstrate, as appropriate, how the alternative: 1) more effectively addresses the root causes of the relevant problems and findings; 2) produces a more favorable risk/cost/benefit result; 3) is more technically feasible; and 4) is more desirable, based on other compelling analyses. National Grid will advise Staff of any intentions to pursue alternatives solutions. Staff will discuss such alternatives with National Grid, and then it will advise us as to whether they are acceptable, or require further modifications.

Our decision to provide National Grid 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, "audit recommendations are best carried out in a spirit of cooperation among the company, the auditor, and staff..."[2] In the past, we recognized the need for flexibility in how the utility implemented the audit recommendation, and we wish to retain that capability. After receiving and reviewing management audit reports, we generally directed utilities to evaluate the recommendation, submit implementation plans, and work closely with Staff. Clearly, there was an understanding of the need for flexibility and cooperation among Staff and the utility.

[2] Cases 28053, 28054, 28055, and 27608, Opinion 82-16.

CONCLUSION

National Grid is directed to develop an Implementation Plan (Plan) and file that Plan with the Commission within 45 days. The Plan shall 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. National Grid should consult with Staff during the development of this Plan.

- As part of the Implementation Plan, National Grid 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 developed fully.

- To ensure the Implementation Plan is executed properly, National Grid will provide written updates on progress, at least every four months. Additional interim updates will be necessary if National Grid experiences schedule slippages or other significant deviations.

The Commission orders:

1. Niagara Mohawk Power Corporation d/b/a National Grid, shall file its Implementation Plan with the Commission within 45 days of the release of this Order.

2. The Secretary at her sole discretion may extend the deadlines set forth in this order.

3. This proceeding is continued.

By the Commission,

(SIGNED) JACLYN A. BRILLING
Secretary

Attachment A

Summary of Recommendations

1. Revise the corporate vision and objectives statements to more explicitly articulate the company's obligation to provide low cost, reliable and safe electric service to its customers. The revised statement should reflect the need to mitigate volatility and produce lower costs relative to some benchmark and could include a reflection of the total bill rather than the unit price. (Refers to Finding III-1)
2. Consolidate the management of US electric transmission and electric distribution into one LOB to provide greater visibility over NMPC electric transmission and distribution operations while maintaining NG's ability to achieve synergies and economies of scale. (Refers to Finding III-4).
3. Prepare a business plan document for NMPC electric operations that combines strategic and operating activities with capital and O&M budgets, and ensures that the resulting plan documents the scope of business planning for the benefit of NMPC electric ratepayers. (Refers to Finding III-14)
4. Integrate supply procurement and energy portfolio management into the business planning processes. (Refers to Finding III-17)
5. Specify how the company is going to monitor and measure the benefits to ratepayers arising from the investment in Smart Grid technology for the pilot projects. When applying for authorization for further Smart Grid technology, include a cost benefit analysis demonstrating how the results of the project will provide a net benefit to all ratepayers. (Refers to Finding III-20)
6. Recruit and appoint an independent member to NG's Board of Directors who is experienced in US utility operations and/or regulation. (Refers to Finding III-27)
7. Dissolve Niagara Mohawk Holdings, Inc. (Refers to Finding III-29)
8. Consolidate the two service companies as soon as possible as planned. (Refers to Finding III-30)
9. Replace the current membership of the NMPC BOD and the NG USA BOD with members who are representative of NG's senior US management of all of its LOBs operating in the US. (Refers to Findings III-31 and II-32)
10. Revise the performance management process for the US Country and NMPC operating company level to include KPIs currently missing. The performance management process should include KPIs for the:
    - Effect of company performance on ratepayers
    - Effectiveness of the Energy Portfolio Management Group in acquiring reliable, low cost supply or minimizing the volatility of electric prices
    - Development or implementation of comprehensive system plans
    - Effectiveness in estimating the cost of projects or performance in managing projects to completion
    - Effectiveness of centralization of US electric operations on ratepayers. (Refers to Findings IV-6 and IV-12).
11. Utilize benchmarking in setting performance targets and establishing NG's current position against the targets. (Refers to Finding IV-14).
12. Develop energy sales forecasts and peak demand forecasts that are specific to Upstate New York and the sub-areas within NMPC service territory. (Refers to Finding V-2)

13. Implement end-use data collection activities to support meaningful implementation of the SMART GRID program, enhance the development of Energy Efficiency (EE) programs and initiate efforts toward end-use modeling. (Refers to Findings V-5 and V- 6)
14. Coordinate load forecasting activities with the customer markets group to support development of EE and Distributed Generation programs and system/supply planning, and to incorporate the projected results of those programs into the load forecasting models and results. (Refers to Findings V-10 and V-11)
15. Establish a comprehensive framework of performance metrics for the supply procurement and risk management functions. The metrics should build on NG's corporate vision and goals and need to reflect the changing electric supply procurement market and NG's preferred strategy in that market. (Refers to Findings VI-7 and VI-14)
16. Continue activities to develop a long-term strategy and short-term tactical supply procurement plan as laid out in the Collaborative meetings and incorporate these plans into the corporate business plan. (Refers to Findings VI-10, VI-11, VI-13 and VI-14)
17. Define and restructure the risk management policies, procedures and functions to assure appropriate monitoring of risk factors as the transition and long-term supply procurement plans are implemented. The risk management tools should incorporate appropriate market monitoring to know when contingencies are needed. (Refers to Finding VI-12)
18. Develop an integrated NMPC Transmission and Distribution system-wide plan. (Refers to Findings VII -4,VII-8, VII-14, VII-15, VII-16, VII-17, VII_ 18, and VII-31)
19. Utilize annual operational reports such as the Transmission System Reliability Performance Report and the Distribution Reliability Report as inputs to asset health/strategy and subsequently recommended projects. Demonstrate how the annual integrated system plans directly address reliability issues raised in the two reports. Show progress against known system deficiencies such as "worst-performing circuits" and outage causal factors. Identify and relate capital programs and projects to specific reliability performance issues and measure their effect. (Refers to Findings VII -3, VII-4, VII-5, VII-25, and VII-26)
20. Evaluate the effectiveness of system plans each year to determine how well they are meeting system planning objectives such as reliability goals, and directing capital resources to specific issue areas and performance trends. (Refers to Findings VII-8,VII -11, VII-18, and VII-29)
21. Evaluate the causal factors and impact on capital budgets and system planning of projects "walked in" and "walked out" of the system plans. Identify why the projects walked in were not initially planned, what will be done in future planning cycles to remediate these issues and how projects displaced into future planning periods will be accommodated. (Refers to Findings VII -11 and VII-29)
22. Perform economic studies to identify more efficient system modifications that can reduce the costs of service and increase utilization of resources. (Refers to Findings VII -26 and VII-29)
23. Evaluate outages that were avoidable due to improved system planning (capital) and preventive maintenance (O&M) such as vegetation and failed equipment. Determine the budget necessary to provide the level of maintenance that would have prevented the outages and compare against the current maintenance budget. Analyze the costs associated with the outages with incremental increases in maintenance programs. (Refers to Findings VII -3, VII-4, VII-5 and VII-25)

24. Establish a traditional transmission utility system planning function that results in industry accepted planning products such as: system-wide studies not just area studies; five-year, ten-year, 15-year and 20-year system layouts; integrated ten to twenty year system plans; and timelines of system needs. (Refers to Findings VII-8, VII-11, VII-13, VII-24, and VII-26)
25. Evaluate the boundaries for continuity between the integrated transmission and the integrated distribution plans to assess whether the entire "wires" business is adequately planned. (Refers to Finding VII-8, VII-10, VII-13, and VII-25)
26. Adopt a results oriented approach to drive the development and implementation of asset management strategies by their relationship to equipment failure causal factors and system performance.
    - Prioritize asset management strategies by their relationship to outage causal factors and their ability to directly affect reliability performance measures.
    - Evaluate this stratification annually to maintain focus.
    - Differentiate long term asset strategies from those dealing with specific reliability problems and their incorporation into the annual system plans.
    - Evaluate the effectiveness of asset management strategies in terms of the number of capital projects and maintenance programs actually executed. (Refers to Findings VII-18 and VII-25)
27. Initiate or partner with NYISO on appropriate studies regarding the effect and needed response to increased application of Distributed Generation, Renewable Resources, SMART GRID and other trends in utility system operations. (Refers to Finding VII-19)
28. Ensure that projects are managed in accordance with PMP requirements, including: making Quality Assurance an integral part of the project management process for both in-house and regional delivery venture work forces:; having project managers actively monitor overall project progress against the baseline schedule and review cost versus progress and budget; adhering to policies and procedures regarding project cost control and re-sanctioning requirements; and maintaining comprehensive project management files; (Refers to Findings VIII-4, VIII-10, VIII-11, and VIII-19)
29. Implement a WBS to organize and manage projects. Use of a WBS should improve project cost and schedule management, monitoring, reporting and feedback. (Refers to Finding VIII-13)
30. Complete implementation of ECoE roles and responsibilities including establishing estimating tools, metrics and policies, creating estimating units and identifying and resolving areas of estimating deviations. (Refers to Findings VIII-16, VIII-18, and, and VIII-26)
31. Establish groups of professional estimators for US transmission and distribution that will develop estimates for planning, engineering and construction. Use these internal estimators to set and validate baseline estimates established for the RDV contractors. (Refers to Findings VIII-16, VIII-17, VIII-18, VIII-23 and VIII-26)

32. Have Internal Audit or an outside firm audit the RDV joint venture parent entities on a regular basis. (Refers to Finding VIII-23)
33. Ensure that all capital work orders are closed to plant in-service (FERC Account 101) within 90-days of equipment being energized. (Refers to Finding VIII-25)
34. Conduct formal reviews of a sample of projects monthly for overall project cost control. The review should include the project manager, system planner, construction supervisor, and

appropriate LOB management and include a review of estimates, cost tracking by work break down structure, progress versus cost, and forecast cost. (Refers to Finding IX-9)

35. Reconcile the differences between planned work identified in the Resource Allocation Committee (RAC) reports and expenditures proposed in the January 2009 Transmission and Distribution Capital Investment Plan. (Refers to Finding IX-10)
36. Revise capital investment levels for projects and programs planned as part of the NMPC Transmission and Distribution Capital Investment Plan filed in January 2009 and obtain the necessary commitment for the funds required by NMPC. (Refers to Finding IX-11)
37. Set specific target dates and complete the development and execution of Service Level Agreements between the US Transmission and ED&G LOBs and each of the organizational groups and departments that provide shared services to these LOBs as outlined by NG in the collaborative process. (Refers to Findings IX-13 and IX-15)
38. Amend the service contracts so as to refer to and incorporate the master SLAs and the functional SLAs thereby providing full disclosure about the service levels and costs as well as the types of services provided and the cost methodologies for services provided. (Refers to Finding IX-17)
39. Include applicable master and functional SLAs with the annual update of service contracts filed with the PSC. (Refers to Finding IX-17)
40. Complete implementation of improvements to the work management program for field forces as identified in the collaborative process. Improvements required include establishing an internal distribution construction workforce, completing the remaining three elements in the EDOT work management initiative, improving its work time standards, and tracking all 29 value metrics for measuring field force productivity. (Refers to Findings X-1, X-22, and X-24)
41. Deliver preliminary annual work plans, especially for mandatory projects, to the construction work forces 90 days prior to the start of the fiscal year so that materials can be ordered and staffing/resource schedules prepared in a timely manner. (Refers to Finding X-10)
42. Eliminate the remaining in house tree trimmer positions. (Refers to Finding X-11)
43. Separate the EDOT project into elements and evaluate them as individual projects in the business planning process, rather than treating them as an on-going mega project. At a minimum, integrate the current EDOT into the business planning and performance management process. (Refers to Finding X-18)
44. Review the practicality of the new storm response plans to ensure that NMPC ratepayers will be provided with timely and qualified services in the event of a storm emergency. (Refers to Finding X-23)

Glossary of Acronyms

AMIC	Asset Management Investment Committee
DCIG	Distribution Capital Investment Group
ECoE	Engineering Center of Excellence
ED&G	Electric Distribution and Geeration
EDOT	Electric Distribution Operations Transformation
EE	Energy Efficiency
FERC	Federal Energy Regulatory Commission
KPIs.	Key Performance Indicators
LOB	Line of Business
National Grid	National Grid
NMPC	Niagara Mohawk Power Corp.
NYISO	New York State Independent System Operators
O&M	Operations and Maintenance
OSHA	Occupational Safety and Health Administration
PMP	Project Management Playbook
RAC	Resource Allocation Committee (
RDV	Regional Delivery Venture
WBS	Work Breakdown Structure