



New York State Electric & Gas Corporation

Rochester Gas and Electric Corporation

Implementation Plans for New York Operations Audit of  
Staffing Levels and the Use of Contractors for Selected Core Utility  
Functions



Updated - April 16, 2018

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## Executive Summary

In accordance with the New York Public Service Commission (PSC) December 15, 2017 Order (Order) in Case 13-M-0449, New York State Electric & Gas Corporation and Rochester Gas and Electric Corporation (collectively the "Company") submit this updated Implementation Plan describing the Company's initiatives to date on 17 audit company recommendations and one state-wide recommendation made in the Final Audit Report.

The bulk of this document consists of updated individual project plans developed by the Company to implement the audit recommendations and approved by the PSC in the Order. Included in these plans are the names of the responsible executives and project managers, project scopes, priorities, costs, savings, benefits, risks, and schedule of milestones, as well as the current status of each project and progress achieved to date.

The Company started most of these projects prior to completion of this Implementation Plan. The Company either anticipated the audit findings based on discussions with the auditors during interviews or decided to proceed based on information in the Draft Audit Report. Current status for each project is available in Appendix A. This update includes revised start and completion dates, with the majority of the projects expected to be completed by the end of 2019.

## Implementation Plans

### Review Distribution Engineering Staffing Levels

#### Recommendation

<b>Project Title</b>	Review Distribution Engineering Staffing Levels
<b>Recommendation Number</b>	NR.01
<b>Recommendation Statement</b>	Avangrid [Networks] should (a) review comparative distribution engineering staffing at NYSEG and RG&E and determine the optimum level at each company, (b) assure adequate cost allocations between the companies, and (c) justify forecasts for lower electric O&M resources at RG&E
<b>Adopted, Modified, or Rejected</b>	Adopted
<b>Priority (H,M,L)</b>	H

#### Implementation Team Leadership

<b>Role</b>	<b>Name</b>	<b>Title</b>
<b>Executive Sponsor</b>	D. Herling	President & CEO - Central Maine Power
<b>Project Manager</b>	P. Kelly	Director Performance and Budgets

#### Project Scope and Implementation Plan

Review staffing levels within NYSEG/RGE Distribution Engineering cited in the Final Audit report and determine the optimum level at each Company.

A review of accounting assignments for Distribution Engineering charges will be conducted to validate that appropriate charges are being applied to NYSEG and RGE (2016 data).

RGE Distribution engineering staffing levels and future forecasts will be re-examined and explained.

### Schedule

Major Activities/ Milestones	Estimated Start Date (mm/dd/yy)	Estimated Completion Date (mm/dd/yy)	Actual Completion Date (mm/dd/yy)	Status
Review current ratios of distribution engineers to production workers at NYSEG and RGE, based on 2016 data.	2/20/17	4/20/17	10/01/17	Completed
Distribution Engineering Accounting Reviews	2/20/17	4/20/17	10/01/17	Completed
Conduct RGE O+M forecast review	3/20/17	4/30/17	10/01/17	Completed
Evaluate RGE Distribution Engineering staffing in future forecasts. Justify or revise future forecasts.	4/30/17	7/15/17	11/28/17	Completed
Verify Project Completion	9/01/17	6/30/18		Awaiting Start

### Cost/Benefit Summary

<b>Estimated Incremental Cost (\$000)</b>	0
<b>Benefits</b>	Ensure accuracy and reasonableness of data used to establish Distribution Engineering levels.
<b>Risks</b>	N/A

### Status Updates

Review of ratios of distribution engineers were evaluated and the following conclusion is stated. Further details are summarized in attachment NR01.

Avangrid internal employee ratios of Distribution Production (Construction) FTE's /Distribution Engineering FTE's in 2017 are close to the reference utility ratio presented in the Staffing Audit model for both NYSEG and RGE. The values are modestly below the reference utility values at both NYSEG and RGE. Therefore, Avangrid does not believe it is necessary to examine Distribution Engineering resource allocations in greater detail beyond the steps already taken to align this function with customer needs.

See Appendix C Review Distribution Engineering Staffing Levels.

## Determine Optimal Level of Contracting

### Recommendation

<b>Project Title</b>	Determine Optimal Level of Contracting
<b>Recommendation Number</b>	NR.02
<b>Recommendation Statement</b>	Avangrid [Networks] should: (a) determine the optimum level of contracting at each company, (b) replace the 30 percent target as appropriate, and (c) adopt measures to manage to the new level.
<b>Adopted, Modified, or Rejected</b>	Adopted
<b>Priority (H,M,L)</b>	M

### Implementation Team Leadership

<b>Role</b>	<b>Name</b>	<b>Title</b>
<b>Executive Sponsor</b>	E. Miller	VP Engineering Services
<b>Project Manager</b>	S. Bensley	Manager, Project Management Office

### Project Scope and Implementation Plan

The scope of work and implementation plan includes:

- Analysis of current and historic contracting levels in each business area and service.
- Evaluate strategies and criteria for optimum levels of contracting.
- Document and explain why differences exist and replace optimum levels as appropriate.
- Adopt measures to manage new levels.
- All analyses, evaluation, documentation, etc., will be done by the specific business area(s) noted in the recommendation.

### Schedule

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Phase I – Projects business area				
Analysis of current internal and contracting levels	5/01/17	7/01/17		Complete
Development and approval of Engineering Resource Plan (ERP) including Project 45	7/01/17	8/01/17		Complete
Implementation of Project 45	8/03/17	5/30/18		In-Progress
Refresh of ERP for 2018	2/16/18	5/30/18		In-Progress
Final report of optimum levels, differences, plan	6/01/18	7/31/18		Awaiting Start
Phase II – Other business areas				
Analysis of current and historic contracting levels; identification of team	1/15/18	6/30/18		In-Progress

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Contracting strategies and levels	7/01/18	8/30/18		Awaiting Start
Final report of optimum levels, differences and plan	9/30/18	11/30/18		Awaiting Start

### **Cost/Benefit Summary**

<b>Estimated Incremental Cost (\$000)</b>	0
<b>Benefits</b>	Identification of optimum levels of electric contractor resources.
<b>Risks</b>	N/A

### **Status Updates**

Due to the potential impact on the business and to avoid reworking, full analysis and implementation began after approval of the implementation plans by the NY PSC in December, 2017.



## Evaluate Level of Contracting at RG&E

### Recommendation

<b>Project Title</b>	Evaluate Level of Contracting at RG&E
<b>Recommendation Number</b>	NR.03
<b>Recommendation Statement</b>	Avangrid [Networks] should evaluate the relatively high levels of contracting in RGE electric and, if such levels are deemed appropriate, explain why RG&E's circumstances differ to this degree from the other state companies.
<b>Adopted, Modified, or Rejected</b>	Adopted
<b>Priority (H,M,L)</b>	L

### Implementation Team Leadership

<b>Role</b>	<b>Name</b>	<b>Title</b>
<b>Executive Sponsor</b>	E. Miller	VP Engineering Services
<b>Project Manager</b>	S. Bensley	Manager, Project Management Office

### Project Scope and Implementation Plan

NR.03 recommendation has a dependency on NR.02.  
All analyses will be based on input from the specific business areas noted in the recommendation.

### Schedule

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Phase I – Projects business area				
NR.02 analysis of current and historic contracting levels	5/01/17	5/31/18		In-Progress
NR.02 Contracting strategies and levels	5/01/17	5/31/18		In-Progress
RGE Electric Gap Analysis	6/01/18	9/30/18		Awaiting Start
Final RG&E Electric Report	10/01/18	12/31/18		Awaiting Start
Phase II – Other business areas				
Analysis of current and historic contracting levels; identification of team	4/01/18	6/30/18		In-Progress
Contracting strategies and levels	7/01/18	8/30/18		Awaiting Start
RGE Electric Gas Analysis	9/30/18	11/30/18		Awaiting Start
Final RG&E Electric Report	12/01/18	1/30/19		Awaiting Start
Verify Project Completion*	2/01/19	3/15/19		Awaiting Start

**Cost/Benefit Summary**

<b>Estimated Incremental Cost (\$000)</b>	0
<b>Benefits</b>	Identification of optimum levels of electric contracting resources.
<b>Risks</b>	NA

**Status Updates**

Due to the potential impact on the business and to avoid reworking, full analysis and implementation began after approval of the implementation plans by the NY PSC in December, 2017.

## Enhance Resource Planning Process

### Recommendation

<b>Project Title</b>	Enhance Resource Planning Process
<b>Recommendation Number</b>	NR.04
<b>Recommendation Statement</b>	Avangrid [Networks] should enhance its resource planning process to include a more complete understanding of total workload, including expanding measures of contractor work load to include FTE- or person-hour based values.
<b>Adopted, Modified, or Rejected</b>	Adopted
<b>Priority (H,M,L)</b>	H

### Implementation Team Leadership

<b>Role</b>	<b>Name</b>	<b>Title</b>
<b>Executive Sponsor</b>	E. Miller	VP Engineering Services
<b>Project Manager</b>	S. Bensley	Manager, Project Management Office

### Project Scope and Implementation Plan

<p>The scope of work includes:</p> <ul style="list-style-type: none"> <li>- Evaluate budget process to review incorporation of labor analysis.</li> <li>- Identify existing sources of labor data for the targeted business areas.</li> <li>- Develop methodology to produce labor estimation for incorporation into budget process.</li> <li>- Review process to determine whether there are any gaps.</li> <li>- Enhance resource planning process with input from specific business areas noted in recommendation.</li> <li>- Address any gaps that were identified and implement final protocol.</li> </ul>
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### Schedule

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Evaluate budget process to review incorporation of labor analysis.	1/01/18	6/30/18		In-Progress
Identify existing sources of labor data.	7/01/18	8/31/18		Awaiting Start
Develop methodology to produce labor estimation for incorporation into budget process.	9/01/18	12/31/18		Awaiting Start
Review process to determine whether there are any gaps.	1/01/19	4/30/19		Awaiting Start
Enhance resource planning process with input from specific business areas noted in	5/01/19	8/30/19		Awaiting Start

Major Activities/ Milestones	Estimated Start Date (mm/dd/yy)	Estimated Completion Date (mm/dd/yy)	Actual Completion Date (mm/dd/yy)	Status
recommendation.				
Address any gaps that were identified and implement protocol.	9/01/19	12/31/19		Awaiting Start
Verify Project Completion*	1/01/20	6/30/20		Awaiting Start

### Cost/Benefit Summary

<b>Estimated Incremental Cost (\$000)</b>	0
<b>Benefits</b>	Mechanism in place to forecast workload Better understanding of total workload Improved forecasted workload
<b>Risks</b>	N/A

### Status Updates

Due to the potential impact on the business and to avoid reworking, full analysis and implementation began after approval of the implementation plans by the NY PSC in December, 2017.

## Develop Total Workload Forecasts

### Recommendation

<b>Project Title</b>	Develop Total Workload Forecasts
<b>Recommendation Number</b>	NR.05
<b>Recommendation Statement</b>	Avangrid [Networks] resource plans should include the capability to conduct data driven analyses that help management evaluate the trade-offs for overtime, contractors, and internal staff at the functional and work group levels.
<b>Adopted, Modified, or Rejected</b>	Adopted
<b>Priority (H,M,L)</b>	M

### Implementation Team Leadership

<b>Role</b>	<b>Name</b>	<b>Title</b>
<b>Executive Sponsor</b>	E. Miller	VP Engineering Services
<b>Project Manager</b>	S. Bensley	Manager, Project Management Office

### Project Scope and Implementation Plan

The scope of work and implementation plan includes:

NR.05 recommendation has a dependency on NR.04 which includes:

1. Evaluate budget process to review incorporation of labor analysis.
2. Identify existing sources of labor data for the targeted business areas.
3. Develop methodology to incorporate into budget process.
4. Review process to identify any gaps, enhance resource planning process with input from specific business areas and implement final protocol.
  - Evaluate information obtained in NR.04 to identify trade-offs for overtime, internal staff and external costs.
  - Develop process for organizational units to incorporate “total workload” bottom-up workload forecasts into annual budgeting process.
  - Analyze costs vs. workload productivity to identify optimum level of overtime, internal staff and external costs. Input from specified business areas noted in recommendation will be critical.
  - Final report of optimum levels.
  -

### Schedule

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Evaluation of process, identification of data sources, development of methodology, draft, test and implementation of protocol obtained from NR 04	4/15/18	1/30/19		Awaiting Start

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Evaluate OT, internal and external costs	2/01/19	4/30/19		Awaiting Start
Develop plan and process for incorporating into budget process	5/01/19	6/30/19		Awaiting Start
Analyze costs vs. productivity to identify optimum level of resources.	7/01/19	9/30/19		Awaiting Start
Final report of optimum levels	10/01/19	12/31/19		Awaiting Start
Verify Project Completion	1/01/20	2/28/20		Awaiting Start

### **Cost/Benefit Summary**

<b>Estimated Incremental Cost (\$000)</b>	0
<b>Benefits</b>	Increased awareness of labor costs to projects to allow for optimization of labor forces. More accurate forecasting of resources.
<b>Risks</b>	N/A

### **Status Updates**

Due to the potential impact on the business and to avoid reworking, full analysis and implementation began after approval of the implementation plans by the NY PSC in December, 2017.

## Resource Planning for Pipe Replacement Program

### Recommendation

<b>Project Title</b>	Resource Planning for Pipe Replacement Program
<b>Recommendation Number</b>	NR.06
<b>Recommendation Statement</b>	As a first priority, NYSEG and RG&E should develop and employ comprehensive performance measures for replacement and installation of pipe and use the information they provide to plan for the levels and balance of resources required to complete replacement timely and efficiently.
<b>Adopted, Modified, or Rejected</b>	Adopted
<b>Priority (H,M,L)</b>	H

### Implementation Team Leadership

<b>Role</b>	<b>Name</b>	<b>Title</b>
<b>Executive Sponsor</b>	E. Miller	VP – Engineering Services
<b>Project Manager</b>	G. George	Director – Gas Engineering

### Project Scope and Implementation Plan

NYSEG and RG&E will review current performance measures for leak prone main replacement (LPM) projects to identify changes that should be made. The companies will use these measurements to improve its ability to forecast, plan and balance resource requirements in order to meet company (PSC-mandated) targets more efficiently.

### Schedule

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Hold kick-off meeting with System Planning, Technical Services, Design & Delivery and the Project Management Office to review scope	12/01/16	3/01/17	2/15/17	Completed
Review current LPM workflow process and monthly actual replacements vs. forecasted replacements for 2015 and 2016	1/02/17	3/01/17	2/15/17	Completed
Update metrics based on process review	2/01/17	3/01/17	2/15/17	Completed
Develop a forecast for LPM projects considering resource estimates and availability based	1/01/17	3/01/17	2/15/17	Completed

Major Activities/ Milestones	Estimated Start Date (mm/dd/yy)	Estimated Completion Date (mm/dd/yy)	Actual Completion Date (mm/dd/yy)	Status
on historical trends. Compare the actual results to the forecast estimates on an ongoing basis.				
Verify Project Completion	10/01/17	12/15/17	11/30/17	Completed

### Cost/Benefit Summary

<b>Estimated Incremental Cost (\$000)</b>	0
<b>Benefits</b>	Improved workflow process allows design to be completed in the previous year to extend the construction season. Contractors are required to provide schedules for each project. Performance is measured by planned work versus actual work completed against the schedule. This will improve the process to forecast project resources such as engineering, program management and labor that will be required to complete an increasing level of main replacement projects where resources are in competition with other regional utilities.
<b>Risks</b>	Low

### Status Updates

A kick-off meeting (MERCs Meeting) was completed on various dates in January 2017 in each operating Division. This meeting included communication of the planned assignment of LPM replacement projects to construction contractors working within the Divisions and based on work allocations in their master service agreements (MSAs).

The documented LPM workflow process has been reviewed by the Gas Design and Delivery, Gas System Planning and Gas Technical Services Managers and the Project Management Office in 2015, 2016 and 2017. The review provided all process stakeholders an opportunity to provide feedback on potential process improvements to increase efficiencies. Minor revisions were made to enhance efficiencies and the flow of work between all groups affecting the LMP replacement program.

Gas Design and Delivery, Gas System Planning and Gas Technical Services Managers and the Project Management Office based 2017 monthly project projections and estimates on the 2015 and 2016 monthly actuals vs. forecasted mileages. The monthly projections are utilized to measure contractor performance, adherence to project schedules and compliance with regulatory performance measures.

The LPM replacement program mileage increases from 26 miles in 2016 to 28 miles in 2017 and then 30 miles in 2018 and beyond. The existing metric is still relevant because the annual increase in mileage is minimal (less than 10%).

The resource availability was reviewed and determined to be sufficient. However, the Company



continues to investigate opportunities to add more operator qualified contractors. In 2016, the Company qualified and used two additional construction contractors to supplement those utilized in 2015. The Company continues to utilize these additional contractors to support 2017 projects.

Performance and resource requirements will be tracked throughout the year.

The 2017 LPM replacement goal of 28 miles at NYSEG and RG&E was achieved by 11/30/17. Throughout the year, progress was monitored and reported on a monthly basis. These reports are available if requested.

## Improve Performance Measurements

### Recommendation

<b>Project Title</b>	Improve Performance Measurements
<b>Recommendation Number</b>	NR.07
<b>Recommendation Statement</b>	NYSEG and RG&E should improve performance measurement across the electric and gas functions
<b>Adopted, Modified, or Rejected</b>	Adopted
<b>Priority (H,M,L)</b>	M

### Implementation Team Leadership

<b>Role</b>	<b>Name</b>	<b>Title</b>
<b>Executive Sponsor</b>	M. Eastman	Vice President – Gas Operations
<b>Project Manager</b>	K. Wachter	Manager – Regional Operations

### Project Scope and Implementation Plan

Assess the existing processes, tools and information currently in place or otherwise available for capturing information to support improved performance measurements. Compare the results of the assessment to the schedule of any planned process or systematic improvements (e.g., SAP enhancements, Field Workforce Mobility, etc.) that might support improved performance measurements. Develop a plan for identifying, prioritizing and planning future enhancements and reporting capabilities based on business need, value and alignment with business area or corporate strategies.

This recommendation is dependent on NR.05.

### Schedule

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Evaluate current internal practices	6/30/17	10/31/17	10/31/17	Completed
Identify and analyze gaps	10/31/17	1/31/18	1/31/18	Completed
Develop schedule and implementation plan based on business need/priority and SAP development schedule	12/31/17	6/30/18		In-Progress
Monitor, measure results and adjust as necessary	7/31/18	12/31/18		Awaiting Start
Verify Project Completion	12/31/18	12/31/18		Awaiting Start

**Cost/Benefit Summary**

<b>Estimated Incremental Cost (\$000)</b>	0
<b>Benefits</b>	More detailed process and improved information availability for evaluating and optimizing performance and productivity.
<b>Risks</b>	N/A

**Status Updates**

Current internal processes were inventoried, catalogued and evaluated.

Comparison was made between current processes/practices and the elements identified in the recommendation to identify potential gaps.

Analysis was performed comparing gaps to planned process and/or system improvements and enhancements.

## Ensure Sufficient Gas Salaried Staffing

### Recommendation

<b>Project Title</b>	Ensure Sufficient Gas Salaried Staffing
<b>Recommendation Number</b>	NR.08
<b>Recommendation Statement</b>	Particularly for NYSEG, management needs to address the availability of sufficient numbers of seasoned gas salaried employees to serve in mentoring and similar roles for an internal staffing complement forecasted to expand greatly
<b>Adopted, Modified, or Rejected</b>	Adopted
<b>Priority (H,M,L)</b>	M

### Implementation Team Leadership

<b>Role</b>	<b>Name</b>	<b>Title</b>
<b>Executive Sponsor</b>	M. Eastman	Vice President – Gas Operations
<b>Project Manager</b>	K. Wachter	Manager – Regional Operations

### Project Scope and Implementation Plan

The Company will perform an analysis to identify if, and to what extent there may be risk with the loss of long-tenured gas salaried staff.

If risks are identified, the results of the analysis will be used to develop processes and programs to mitigate the risk.

### Schedule

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Perform analysis	8/31/17	10/31/17	1/13/18	Completed
Identify and prioritize desired actions	10/31/17	12/31/17	12/31/17	Completed
Develop plan(s) to address the identified actions	12/31/17	3/31/18	3/31/18	Completed
Implement identified actions	3/31/18	6/30/18	3/31/18	Completed
Measure effectiveness	6/30/18	8/31/18	3/31/18	Completed
Verify Project Completion	10/31/18	12/31/18		Awaiting Start

### Cost/Benefit Summary

<b>Estimated Incremental Cost (\$000)</b>	0
<b>Benefits</b>	Ability to have knowledgeable and experienced resources to mentor new employees with the goal of accelerating the learning curve of those newer employees

Risks	N/A
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### Status Updates

Analysis was performed with no significant business risks identified.

Current resource plan, including replacement methodology and staffing levels are sufficient to allow appropriate mix of seasoned and new employees to facilitate mentoring and knowledge transfer.

Salaried positions being vacated through attrition are being filled by seasoned union employees or professional employees with knowledge of the gas distribution system and regulatory requirements thereby minimizing the need for mentoring and knowledge transfer.

The perceived need for an expanded internal staffing compliment appears to be related to the projected increase in capital investment. The NYSEG/RGE gas business model reflects a focus on core business activities with internal resources and any increase in capital will be addressed through a re-allocation or re-direction of internal resources to oversee and manage an increase in contractor workforce to meet business needs.

## Develop Staffing Effectiveness Key Performance Indicators

### Recommendation

<b>Project Title</b>	Develop Staffing Effectiveness Key Performance Indicators
<b>Recommendation Number</b>	NR.09
<b>Recommendation Statement</b>	Management should develop key performance indicators that measure the effectiveness of its efforts to achieve NYSEG and RG&E staffing targets and accountability should be assigned to the appropriate individual(s)
<b>Adopted, Modified, or Rejected</b>	Adopted
<b>Priority (H,M,L)</b>	M

### Implementation Team Leadership

<b>Role</b>	<b>Name</b>	<b>Title</b>
<b>Executive Sponsor</b>	K. Patterson	VP Networks Human Resources
<b>Project Manager</b>	N. Pinto	HR Recruitment, Employee Engagement & Internal Communications

### Project Scope and Implementation Plan

Management will review current key performance indicators for their effectiveness in measuring the success of our efforts to achieve staffing targets in resource recruitment, acquisition, development, and training. Where gaps are found current KPI's will be adjusted as needed or new KPI's will be created to better capture our staffing target goals. Management will ensure accountability for these KPI's will be assigned to the appropriate individual(s).

### Schedule

<b>Major Activities/ Milestones</b> (at least 1 milestone every 3 months, high level only, focus on deliverables/results)	<b>Estimated Start Date</b> (mm/dd/yy)	<b>Estimated Completion Date</b> (mm/dd/yy)	<b>Actual Completion Date</b> (mm/dd/yy)	<b>Status</b>
Review of current KPI's and accountability	4/01/17	5/31/17	5/31/17	Completed
Gap analysis of KPI review	6/01/17	7/14/ 17	7/10/17	Completed
Develop new KPI's as needed	7/15/17	8/31/17	7/10/17	Completed/NA
Implement changes as needed	9/01/17	9/30/17	7/10/17	Completed
Verify Project Completion	10/01/17	12/15/17	12/13/17	Completed

### Cost/Benefit Summary

<b>Estimated Incremental Cost (\$000)</b>	0
<b>Benefits</b>	Improved Tracking of KPI's in meeting resource recruitment, acquisition, development, and training targets

Risks	N/A
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**Status Updates**

Headcount Reports and Open Requisition Reports are run on a regular basis to monitor staffing levels and effectiveness of our staffing plan.

## Enhance Analytical Methods to Optimize Overtime Levels

### Recommendation

<b>Project Title</b>	Enhance Analytical Methods to Optimize Overtime Levels
<b>Recommendation Number</b>	NR.10
<b>Recommendation Statement</b>	Management should seek more analytically supported methods for determining optimum overtime levels.
<b>Adopted, Modified, or Rejected</b>	Adopted
<b>Priority (H,M,L)</b>	L

### Implementation Team Leadership

<b>Role</b>	<b>Name</b>	<b>Title</b>
<b>Executive Sponsor</b>	D. Herling	President & CEO - Central Maine Power
<b>Project Manager</b>	P. Kelly	Director Performance and Budgets

### Project Scope and Implementation Plan

This plan will document the existing policies impacting the management of OT levels within the Electric and Gas organizations, including Operations and Engineering functions. Alternative approaches to OT management discussed in the Staffing Final Report will be evaluated. If evaluations determine potential advantages from changes in OT management policies, these will be defined, necessary tools developed, and implemented.

### Schedule

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Document current OT management policies and tools used in Electric and Gas businesses, for both operations and engineering functions that have been effective in controlling OT levels.	1/01/17	04/31/17	10/01/17	Completed
Analyze alternative OT Management processes as presented in Staffing Final report.	2/01/17	5/30/17	10/01/17	Completed
Examine potential for policy changes and OT management tools justified in the previous Milestone	6/01/17	9/01/17	10/01/17	Completed
Develop any new tools identified in previous milestone and implement changes in OT policy	9/01/17	6/30/18	11/20/17	Completed



Major Activities/ Milestones	Estimated Start Date (mm/dd/yy)	Estimated Completion Date (mm/dd/yy)	Actual Completion Date (mm/dd/yy)	Status
in Electric and Gas businesses.				
Verify Project Completion	6/01/18	9/15/18		Awaiting Start

### Cost/Benefit Summary

<b>Estimated Incremental Cost (\$000)</b>	0
<b>Benefits</b>	Development of a more complete understanding of overtime practices at NYSEG and RGE and formal definition of optimal measurement tools.
<b>Risks</b>	N/A

### Status Updates

OT measurement tools have been reviewed and our findings show optimum overtime levels have been established, and follow up actions have been undertaken to correct trends when this has been needed.

Please see Appendix D Review Document Analytical Methods to Optimize OT Levels.

## Provide Quantitative Overtime Monitor Tools

### Recommendation

<b>Project Title</b>	Provide Quantitative Overtime Monitor Tools
<b>Recommendation Number</b>	NR.11
<b>Recommendation Statement</b>	Management should adopt an approach ensuring that it includes all relevant factors in its decision-making vis-à-vis overtime.
<b>Adopted, Modified, or Rejected</b>	Adopted
<b>Priority (H,M,L)</b>	L

### Implementation Team Leadership

<b>Role</b>	<b>Name</b>	<b>Title</b>
<b>Executive Sponsor</b>	D. Herling	President & CEO - Central Maine Power
<b>Project Manager</b>	P. Kelly	Director Performance and Budgets

### Project Scope and Implementation Plan

Provide Quantitative Monitoring Tools for evaluating overtime.

This recommendation will define tools that will be used to monitor and report on OT levels within the electric and gas businesses at NYSEG and RGE. NR.10 response plan defines steps to be taken to document and review current OT management policies and tools, and to consider changes or improvements to them. New OT policies and proposed new tools should be selected by 09/01/2017 in the implementation plan for NR.10. The plan for NR.11 will begin at this time.

New OT monitoring tools to be considered are described in the Staffing Final Report. Development of new tools selected for NYSEG and RGE, will commence around 09/01/2017 and should be completed by 10/15/2017. The new tools will be tested; feedback received, and are planned to be fully implemented by the end of 2017.

The complete implementation of revised OT policy may encompass more than the development of new OT monitoring tools. This is covered in the NR.10 implementation plan. Establishment of new OT monitoring policy is expected to be completed 06/30/2018.

### Schedule

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Development of any new OT monitoring tools justified by evaluation performed in NR.10 response Plan.	9/01/17	10/15/17	11/20/17	Completed
Implementations of new OT	10/15/17	12/30/17	11/20/17	Completed

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
monitoring tools, receive feedback, and establish final implementation practice.				
Verify Project Completion	12/31/17	09/15/18		Awaiting Start

### **Cost/Benefit Summary**

<b>Estimated Incremental Cost (\$000)</b>	0
<b>Benefits</b>	Development of a more complete understanding of overtime practices at NYSEG and RGE and formal definition of optimal measurement tools
<b>Risks</b>	N/A

### **Status Updates**

Please refer to NR.10
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## Establish Contractor/Internal Split Goals at a Functional Level

### Recommendation

<b>Project Title</b>	Establish Contractor/Internal Split Goals at a Functional Level
<b>Recommendation Number</b>	NR.12
<b>Recommendation Statement</b>	Management should disaggregate the combined NYSEG/RG&E contractor/internal mix goal for electric work
<b>Adopted, Modified, or Rejected</b>	Adopted
<b>Priority (H,M,L)</b>	L

### Implementation Team Leadership

<b>Role</b>	<b>Name</b>	<b>Title</b>
<b>Executive Sponsor</b>	D. Herling	President & CEO - Central Maine Power
<b>Project Manager</b>	P. Kelly	Director Performance and Budgets

### Project Scope and Implementation Plan

Response Plan NR.02 addresses the concept of % goals for contracting at NYSEG and RGE, in Electric. The responses for this recommendation will define the contractor percentage goals for different functions. The intended meaning of 30% Contractor/70% internal goals, described in Audit interviews are also described.

The Company agrees that % contractor utilization goals for different functions within electric operations are appropriate, and where they don't currently exist, should be defined. Formal methods for measuring, monitoring and evaluating these goals will have to be developed.

Methods for analyzing % utilization of contractor vs. internal resources by functional work groups will be established. This will be undertaken after definition of % contractor utilization goals for all functional areas and other relevant criteria are established in response plan for NR.02.

Develop progress reporting tools for % contractor utilization. Develop tools, obtain feedback, and finalize reporting process.

### Schedule

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Develop analysis techniques for measuring % contractor utilization by work function and other relevant criteria, suitable to track % contractor goals. (% goals to	8/30/17	12/30/17	3/01/18	Completed

Major Activities/ Milestones	Estimated Start Date (mm/dd/yy)	Estimated Completion Date (mm/dd/yy)	Actual Completion Date (mm/dd/yy)	Status
be established in NR02 to be completed 08/30/2017)				
Develop reporting tools for % Contractor utilization.	12/30/17	2/28/18	3/01/18	Completed
Initiate trial reporting, obtain feedback, and finalize % contractor utilization reporting process	3/01/18	6/30/18		Awaiting Start
Verify Project Completion	4/30/18	8/15/18		Awaiting Start

### Cost/Benefit Summary

<b>Estimated Incremental Cost (\$000)</b>	0
<b>Benefits</b>	Improved understanding of goals within functional work groupings (and other possible criteria) of the appropriate balance of Contractor/Internal resource mix
<b>Risks</b>	N/A

### Status Updates

Analysis and reporting tool has been established to measure level of contractor/internal use for minor construction and maintenance work.

Review and feedback of goal and levels being completed with management.

## Solicit Unit Pricing for Distribution Line Contracts

### Recommendation

<b>Project Title</b>	Solicit Unit Pricing for Distribution Line Contracts
<b>Recommendation Number</b>	NR.13
<b>Recommendation Statement</b>	Management should solicit unit pricing for distribution line contracts
<b>Adopted, Modified, or Rejected</b>	Adopted
<b>Priority (H,M,L)</b>	H

### Implementation Team Leadership

<b>Role</b>	<b>Name</b>	<b>Title</b>
<b>Executive Sponsor</b>	D. Herling	President & CEO - Central Maine Power
<b>Project Manager</b>	P. Kelly	Director Performance and Budgets

### Project Scope and Implementation Plan

PayID unit pricing for Distribution line work at Avangrid [Networks] was implemented in 2016. The details of the implementation of the unit rate program and a description of the discontinuation of “time and equipment” bids for Distribution Line work will be prepared.

### Schedule

<b>Major Activities/ Milestones</b> (at least 1 milestone every 3 months, high level only, focus on deliverables/results)	<b>Estimated Start Date</b> (mm/dd/yy)	<b>Estimated Completion Date</b> (mm/dd/yy)	<b>Actual Completion Date</b> (mm/dd/yy)	<b>Status</b>
Documentation of Unit Pricing Implementation and “Time and equipment” discontinuation, at Avangrid [Networks] Companies	2/28/17	6/30/18		In-Progress
Verify Project Completion	7/01/18	10/31/18		Awaiting Start

### Cost/Benefit Summary

<b>Estimated Incremental Cost (\$000)</b>	0
<b>Benefits</b>	Clarification and documentation of the Companies’ use of unit pricing for distribution line contracts
<b>Risks</b>	None

## Status Updates

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## Analyze Expanding In-House Core Distribution Engineering Expertise

### Recommendation

<b>Project Title</b>	Analyze Expanding In-House Core Distribution Engineering Expertise
<b>Recommendation Number</b>	NR.14
<b>Recommendation Statement</b>	Management should comprehensively and formally analyze the costs and benefits of expanded in-house, core distribution engineering expertise
<b>Adopted, Modified, or Rejected</b>	Adopted
<b>Priority (H,M,L)</b>	L

### Implementation Team Leadership

<b>Role</b>	<b>Name</b>	<b>Title</b>
<b>Executive Sponsor</b>	D. Herling	President & CEO - Central Maine Power
<b>Project Manager</b>	P. Kelly	Director Performance and Budgets

### Project Scope and Implementation Plan

The response plan for NR.01 describes responses relating to reviewing Distribution Engineering internal staffing levels at NYSEG and RGE. This investigation will demonstrate that the ratios of Distribution Engineers to Distribution Production workers are not dramatically different than those reported in the Audit Final Report for the Reference Utility (median of reporting utilities).

The milestone activities in the NR.01 plan also provide responses relevant to the recommendation in NR.14. The milestones relevant to this action plan are repeated in the Schedule that follows.

Investigate the true ratios of Distribution Engineers to Distribution Production workers in the NYSEG and RGE Electric business. Use current internal headcount for distribution engineering and contractor utilization information for distribution engineering contractors to review auditors' statements that NYSEG/RGE is contracting this function at too high a level.

Conduct Distribution Engineering Accounting Reviews.

Evaluate current Distribution Staffing Levels in relation to needs. Analyze distribution staffing levels to evaluate the cost, need and benefit of Distribution Engineering staffing.

### Schedule

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Review Current ratios of distribution engineers to production workers at NYSEG and RGE, based on 2016 data.	2/20/17	4/20/17	10/01/17	Completed



<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Review Distribution Engineering contractor % in relation to 2016 internal distribution engineering headcounts.	2/20/17	4/20/17	10/01/17	Completed
Distribution Engineering Accounting Reviews	2/20/17	4/20/17	10/01/17	Completed
Complete analysis of costs, need and benefits of Distribution Engineering staff.	9/01/17	10/15/17	10/01/17	Completed
Verify Project Completion	10/15/17	6/01/18		Awaiting Start

### **Cost/Benefit Summary**

<b>Estimated Incremental Cost (\$000)</b>	0
<b>Benefits</b>	Ensure accuracy and reasonableness of data used to establish Distribution Engineering levels and ensure data used is comparable to other utilities involved in the audit.
<b>Risks</b>	N/A

### **Status Updates**

Please see NR01 and Appendix C Review Distribution Engineering Staffing Levels.

## Develop Plans that Support Pipe Replacement Resource Needs

### Recommendation

<b>Project Title</b>	Develop Plans that Support Pipe Replacement Resource Needs
<b>Recommendation Number</b>	NR.15
<b>Recommendation Statement</b>	Develop and implement plans that fully support pipe replacement resource needs
<b>Adopted, Modified, or Rejected</b>	Adopted
<b>Priority (H,M,L)</b>	H

### Implementation Team Leadership

<b>Role</b>	<b>Name</b>	<b>Title</b>
<b>Executive Sponsor</b>	E. Miller	VP – Engineering Services
<b>Project Manager</b>	G. George	Director – Gas Design & Delivery

### Project Scope and Implementation Plan

Review and revise the current process, as necessary, to recognize and utilize the most efficient use of construction contractors, company crews and the appropriate use of overtime in order to meet the accelerated leak prone main replacement program. This includes a continual search for additional operator qualified construction contractor companies that can perform this work.

### Schedule

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Meet with Laborers' International Union of North America (LIUNA) to discuss forecasted gas construction over the next five years.	8/28/2015	8/28/2015	8/28/2015	Completed
Develop and send out an RFP to solicit additional union and non-union construction contractors to perform leak prone replacement projects	11/01/2014	10/01/2015	10/01/2015	Completed
Complete the master service agreements (MSAs) for gas construction	10/01/2015	3/01/2016	7/20/2016	Completed
Review and revise the current workflow process, as necessary, to enhance the process	10/31/2016	11/20/2016	2/15/17	Completed

Meet with Gas Operations to review upcoming year's replacement projects to offer work prior to assignment to construction contractors	1/08/17	3/01/17	2/28/17	Completed
Meet with construction contractors to assign work for the upcoming year's work based on allocation percentages in the master service agreement	1/02/17	3/01/17	2/28/17	Completed
Utilizing the PMO, monitor actual work completed vs forecasted work completed throughout the year including the proper balance between contractor crews, company crews and OT	1/02/17	12/31/17	11/30/17	Completed
Perform assessment on performance and lessons learned	1/02/18	2/01/18	1/30/18	Completed
Verify Project Completion	2/01/18	5/01/18		In-Progress

### Cost/Benefit Summary

<b>Estimated Incremental Cost (\$000)</b>	0
<b>Benefits</b>	Improved accuracy in scheduling, cash flows, resource-balancing and ability to meet monthly performance measures utilizing Earned Value Management. This allows the Company to identify and mitigate risks in order to stay on target.
<b>Risks</b>	N/A

### Status Updates

9/28/2016:

As a result of the meeting with Laborers' International Union of North America (LIUNA) and the RFP for gas construction contractors, the company was able to enter into a master service agreement with two new contractors.

11/30/17

The LPM replacement program goal of 28 miles at RG&E and NYSEG was completed. Construction work was completed by contractor crews. Construction inspections were completed by Company crews. Tie-ins to energize the new mains were completed by company crews with assistance from contractor crews. Minimal overtime was utilized for contractor crews and Company tie-in crews (energize new gas mains) to address adverse weather conditions.

1/30/18

RG&E replaced 28.5 miles of leak prone main with a cost performance index of 1.12 and a schedule performance index of 1.00 in 2017.  
NYSEG replaced 30.3 miles of leak prone main with a cost performance index of 1.01 and a

schedule performance index of 1.00 in 2017.

RG&E and NYSEG have added Babcock Utilities, EE Root, and Ledge Creek to the gas construction bid list and continue to look for additional contractors.

## Implement a Centralized Contractor Oversight Organization

### Recommendation

<b>Project Title</b>	Implement a Centralized Contractor Oversight Organization
<b>Recommendation Number</b>	NR.16
<b>Recommendation Statement</b>	Management should implement a centralized contractor oversight organization
<b>Adopted, Modified, or Rejected</b>	Adopted
<b>Priority (H,M,L)</b>	M

### Implementation Team Leadership

<b>Role</b>	<b>Name</b>	<b>Title</b>
<b>Executive Sponsor</b>	E. Miller	VP Engineering Services
<b>Project Manager</b>	S. Bensley	Manager, Project Management Office

### Project Scope and Implementation Plan

Analysis of current contractor oversight responsibilities to determine oversight capabilities in the future.

Centralized Contractor Oversight Organization (CCOO) proposal will include at a minimum contractor review and evaluation. Input from specific business areas noted in the recommendation will be critical.

### Schedule

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Phase I – Projects business area				
Analysis of current contractor oversight responsibilities	5/01/17	7/01/17	6/30/17	Completed
Development and approval of Engineering Resource Plan (ERP) including Project 45 and Quality Dept.	7/01/17	8/01/17	8/01/17	Completed
Implementation of Project 45	8/03/17	5/30/18		In-Progress
Phase II – Projects and other business areas				
Development and roll-out of Governance Board across several business areas	8/01/17	12/31/17	11/15/17	Completed
Initiation of Governance Board	1/01/18	1/30/18	1/12/18	Completed
Review and Investigation of	2/01/18	6/30/18		Awaiting Start

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Contractor Oversight Responsibilities within Other Business Areas				
Determination of Plan for Contractor Oversight Responsibilities within Other Business Areas	7/01/18	8/30/18		Awaiting Start
Implementation of Plan if Different than Current Plan in Other Business Areas	9/01/18	10/31/18		Awaiting Start
Verify Project Completion*	11/01/18	12/31/18		Awaiting Start

#### **Cost/Benefit Summary**

<b>Estimated Incremental Cost (\$000)</b>	0
<b>Benefits</b>	Singular entity for contractor oversight responsibility.
<b>Risks</b>	N/A

#### **Status Updates**

Due to the potential impact on the business and to avoid reworking, full analysis and implementation began after approval of the implementation plans by the NY PSC in December, 2017.

## Pursue Incentive/Disincentive System for Gas Contractor Compensation

### Recommendation

<b>Project Title</b>	Pursue Incentive/Disincentive System for Gas Contractor Compensation
<b>Recommendation Number</b>	NR.17
<b>Recommendation Statement</b>	Management should pursue an incentive/disincentive system linking gas contractor compensation to performance.
<b>Adopted, Modified, or Rejected</b>	Adopted
<b>Priority (H,M,L)</b>	L

### Implementation Team Leadership

<b>Role</b>	<b>Name</b>	<b>Title</b>
<b>Executive Sponsor</b>	E. Miller	VP – Engineering Services
<b>Project Manager</b>	G. George	Director – Gas Design & Delivery

### Project Scope and Implementation Plan

RG&E and NYSEG will meet with Procurement to discuss the benefits and risks of incentive-based contracts for gas projects and determine whether implementation is beneficial to RG&E, NYSEG and the construction contractors.

Note: Gas Construction Master Service Agreements (MSAs) were recently exercised and extend through 2019. This includes work that falls under the \$250,000 cap for MSAs.

### Schedule

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Meet with Procurement to discuss an incentive-based for gas construction	9/29/16	9/29/16	9/29/16	Completed
Work with Procurement to develop the criteria for an incentive-based contract. Assess the benefits and risks involved and review prior experience with such contracts at AVANGRID or ISA	1/08/17	3/31/17	3/01/17	Completed
Review any previous evaluations of incentive/disincentive-based contracts for gas construction	3/01/17	3/31/17	3/01/17	Completed

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Work with Procurement to investigate and determine the best opportunities to use as a pilot	4/01/17	5/19/17	4/25/17	Completed
Select a pilot project with deliverables and metrics based on recommendation from procurement	5/01/17	6/23/17	9/18/17	Completed
Measure value received from incentive-based contracts during pilot	11/01/18	12/31/18		Awaiting Start
Review data, report findings from pilot and determine whether to continue pilot, modify the pilot to other areas or to discontinue the pilot	1/02/19	1/30/19		Awaiting Start
Verify Project Completion	3/01/19	5/01/19		Awaiting Start

### **Cost/Benefit Summary**

<b>Estimated Incremental Cost (\$000)</b>	0
<b>Benefits</b>	Greater predictability for project completion
<b>Risks</b>	Inadvertent disincentives or undesirable consequences of incentives

### **Status Updates**

Met with Procurement on 9/29/2016 to discuss risks and benefits of utilizing incentive-based contracts. Procurement and Gas Engineering agreed that it will be better to use a project instead of a program for the pilot.

Began discussion on criteria for an incentive-based contract.

3/1/17:

Reviewed previous contracts for gas construction and only liquidated damages are included.

3/1/17:

After meeting with Procurement, it was determined to select a project that has a tight schedule as the best option for an incentive/disincentive clause. Criteria will be defined once the appropriate project is selected because it will have to be project-specific.

5/19/17:

Gas Engineering selected the Bradley Farms Gate Station for a pilot project. This station must be in service prior to the end of this year.

9/18/17

Due to unforeseen changes to Bradley Farms Gate Station, it was decided to use the Vienna Rd-Macedon Feeder Main Replacement project for this recommendation. The construction start date is tentatively 6/2018 with a completion date of 11/2018.



## REV Scenario Studies

### Recommendation

<b>Project Title</b>	REV Scenario Studies
<b>Recommendation Number</b>	SW.01
<b>Recommendation Statement</b>	All of the operations we studied (save NFG) should undertake scenario studies of the impact of REV and other similar type changes, to better prepare for multiple possible eventualities.
<b>Adopted, Modified, or Rejected</b>	Adopted
<b>Priority (H,M,L)</b>	M

### Implementation Team Leadership

<b>Role</b>	<b>Name</b>	<b>Title</b>
<b>Executive Sponsor</b>	F. Reynolds	VP, Asset Management & Planning
<b>Project Manager</b>	D. Conroy	Director, Electric System Planning

### Project Scope and Implementation Plan

NYSEG and RG&E will undertake scenario studies of the impact on staffing needs of REV and related activities for Avangrid Networks specific to NYSEG and RG&E, and will coordinate the results of the studies with the 2018 update of its Distributed System Implementation Plan.

### Schedule

<b>Major Activities/ Milestones</b>	<b>Estimated Start Date (mm/dd/yy)</b>	<b>Estimated Completion Date (mm/dd/yy)</b>	<b>Actual Completion Date (mm/dd/yy)</b>	<b>Status</b>
Determine baseline DSP staffing needs as part of our 2018 DSIP preparations	2/01/18	5/31/18		In-Progress
Determine various scenarios to be considered, considering all up to date REV-related orders and guidance received	3/01/18	6/30/18		In-Progress
Review and prioritize scenarios applicable to AVANGRID	7/01/18	10/31/18		Awaiting Start
Develop approach to undertaking scenario studies, including determination of consultant support	7/01/18	8/30/18		Awaiting Start
Conduct scenario studies	8/01/18	9/30/18		Awaiting Start
File with NYPSC		10/31/18		Awaiting Start
Verify Project Completion		11/15/18		Awaiting Start

**Cost/Benefit Summary**

<b>Estimated Incremental Cost (\$000)</b>	0
<b>Benefits</b>	Using the REV scenario studies we look to improve our preparedness for a range of potentially very different futures.
<b>Risks</b>	N/A

**Status Updates**

Timeline developed to coincide with DER database, ESC development, DSIP implementation, and regulatory process. Timeline modified to build upon the baseline identified in the DSIP, then building additional REV implementation scenario(s). The scenarios will also account for AMI and Automation timelines.

Note that some incremental REV staffing has already taken place – our Non-Wires Alternative (NWA) group was established and added additional staff in the last few years. Interconnection Group has also added staff/resources.

## Appendix A

### Project Plan Status

Internal Project Number	Project Title	Executive Sponsor	Recommendation Statement	Status
NR.01	Review Distribution Engineering Staffing Levels	D. Herling, President & CEO - Central Maine Power	Avangrid [Networks] should (a) review comparative distribution engineering staffing at NYSEG and RG&E and determine the optimum level at each company, (b) assure adequate cost allocations between the companies, and (c) justify forecasts for lower electric O&M resources at RG&E.	In-Progress and On Time
NR.02	Determine Optimal Level of Contracting	Ellen Miller, Engineering and Delivery	Avangrid [Networks] should: (a) determine the optimum level of contracting at each company, (b) replace the 30 percent target as appropriate, and (c) adopt measures to manage to the new level.	In-Progress and On Time
NR.03	Evaluate Level of Contracting at RG&E	Ellen Miller, Engineering and Delivery	Avangrid [Networks] should evaluate the relatively high levels of contracting in RGE electric and, if such levels are deemed appropriate, explain why RG&E's circumstances differ to this degree from the other state companies.	In-Progress and On Time
NR.04	Enhance Resource Planning Process	Ellen Miller, Engineering and Delivery	Avangrid [Networks] should enhance its resource planning process to include a more complete understanding of total workload, including expanding measures of contractor work load to include FTE- or person-hour based values.	In-Progress and On Time
NR.05	Develop Total Workload Forecasts	Ellen Miller, Engineering and Delivery	Avangrid [Networks] resource plans should include the capability to conduct data driven analyses that help management evaluate the trade-offs for overtime, contractors, and internal staff at the functional and work group levels.	Awaiting 4/15 Start
NR.06	Resource Planning for Pipe Replacement Program	Ellen Miller, Engineering and Delivery	As a first priority, NYSEG and RG&E should develop and employ comprehensive performance measures for replacement and installation of pipe and use the information they provide to plan for the levels and balance of resources required to complete replacement timely and efficiently.	Complete
NR.07	Improve Performance Measurements	M. Eastman, Gas Operations	NYSEG and RG&E should improve performance measurement across the electric and gas functions.	In-Progress and On Time
NR.08	Ensure Sufficient Gas Salaried Staffing	M. Eastman, Gas Operations	Particularly for NYSEG, management needs to address the availability of sufficient numbers of seasoned gas salaried employees to serve in mentoring and similar roles for an internal staffing complement forecasted to expand greatly.	In-Progress and On Time
NR.09	Develop Staffing Effectiveness Key Performance Indicators	S. Lamoureux, Human Resources	Management should develop key performance indicators that measure the effectiveness of its efforts to achieve NYSEG and RG&E staffing targets and accountability should be assigned to the appropriate individual(s).	Complete

NR.10	Enhance Analytical Methods to Optimize Overtime Levels	D. Herling, President & CEO - Central Maine Power	Management should seek more analytically supported methods for determining optimum overtime levels.	In-Progress and On Time
NR.11	Provide Quantitative Overtime Monitor Tools	D. Herling, President & CEO - Central Maine Power	Management should adopt an approach ensuring that it includes all relevant factors in its decision-making vis-à-vis overtime.	In-Progress and On Time
NR.12	Establish Contractor / Internal Split Goals at a Functional Level	D. Herling, President & CEO - Central Maine Power	Management should disaggregate the combined NYSEG/RG&E contractor/internal mix goal for electric work.	In-Progress and On Time
NR.13	Solicit Unit Pricing for Distribution Line Contracts	D. Herling, President & CEO - Central Maine Power	Management should solicit unit pricing for distribution line contracts.	In-Progress and On Time
NR.14	Analyze Expanding In-House Core Distribution Engineering Expertise	D. Herling, President & CEO - Central Maine Power	Management should comprehensively and formally analyze the costs and benefits of expanded in-house, core distribution engineering expertise.	In-Progress and On Time
NR.15	Develop Plans that Support Pipe Replacement Resource Needs	Ellen Miller, Engineering and Delivery	Develop and implement plans that fully support pipe replacement resource needs.	In-Progress and On Time
NR.16	Implement a Centralized Contractor Oversight Organization	Ellen Miller, Engineering and Delivery	Management should implement a centralized contractor oversight organization.	In-Progress and On Time
NR.17	Pursue Incentive/Disincentive System for Gas Contractor Compensation	Ellen Miller, Engineering and Delivery	Management should pursue an incentive/disincentive system linking gas contractor compensation to performance.	In-Progress and On Time
SW.01	REV Scenario Studies	F. Reynolds, Asset Management and Planning	All of the operations we studied (save NFG) should undertake scenario studies of the impact of REV and other similar type changes, to better prepare for multiple possible eventualities.	In-Progress and On Time

## Appendix B

### Formal Comments

#### Summary

New York State Electric & Gas Corporation (NYSEG) and Rochester Gas and Electric Corporation (RG&E), (collectively, the “Company”) appreciate the opportunity to comment on Liberty Consulting Group’s Final Audit Report (“Report”) in Case 13-M-0449 (the “Audit”). The Company agrees with the majority of the Report and is encouraged by Liberty’s recognition of the Company’s achievements and performance results. The Report found, among many positive conclusions, that:

##### Reliability and Safety

- The Company consistently met or beat all reliability and safety targets for both gas and electric in all years included in the Audit.

##### Labor Costs and Productivity

- NYSEG and RG&E met electric reliability targets while maintaining lower labor costs and higher productivity than the Reference Utility used by Liberty in their analyses. In fact, NYSEG ranked the best in both categories of all the utilities audited.
- For Gas, NYSEG and RG&E compared favorably with the other gas companies, with NYSEG and RG&E having lower unit rates than all but one other utility, also comparing favorably in terms of productivity.
- Measures of workforce efficiency suggest that both NYSEG and RG&E are efficient in comparison to their peers in the Audit.

##### Overall Staffing Levels (Internal straight time, overtime and contractors)

- Staffing at NYSEG and RG&E, in both electric and gas is reasonable and adequate.

##### Overtime Management

- NYSEG and RG&E planned and managed overtime effectively on an absolute basis, in comparison to their peers, and versus internal targets.
- NYSEG and RG&E have been effective in establishing reasonable targets for overtime and managing to those relatively low targets. Processes relating to overtime are good and there is little room for significant improvement.
- The examination of NYSEG and RG&E overtime processes did not reveal any areas that represent significant weaknesses, either on an absolute basis or relative to the other state utilities.

##### Work Force Management and Performance Management

- Liberty found work management processes and support tools particularly strong.
- Liberty found no material opportunities for improvement in work management as it related to identifying, planning, and optimizing staffing numbers and balance.
- NYSEG and RG&E electric and gas operations have appropriately located and addressed roles of quality assurance and control.
- NYSEG and RG&E performance measurements are strong in overall comparison with the operations that were studied.

##### Resource Planning

- The Company had comprehensive and sufficiently detailed forecasts of medium- and long-term capital and O&M work requirements.
- NYSEG and RG&E had capital and O&M work forecasts that had adequate factual and analytical foundation to support staffing projections.
- The Company had a source of complete and accurate staffing information by region and by function.
- Forecasts existed of likely losses through attrition and retirement of internal resources by function, region, and work type.
- Attrition and retirement forecasts are consistent and management has a grasp on likely skills and experience gaps.
- Training and development programs were sufficiently robust to provide adequate support for long term staff requirements.



The above findings by Liberty are referenced more specifically later in these comments.

The Report ultimately identified 17 Company-specific recommendations plus 1 statewide recommendation. The Company agrees with most of the Report's recommendations and is in the process of developing plans to address each recommendation. Some of the recommendations appear to be targeted at areas where the Report identifies the Company's current performance as the best or near the best of all Utilities included in the Audit.

The Company will review the Audit recommendations closely and will develop plans for them while ensuring that the Company's efforts to implement them are measured against the potential value to be gained. Where the Company's performance is already excellent, the Company will evaluate the Report's recommendations with that in mind, balancing the time, effort and potential costs to implement against possible benefits that could be realized over and above current performance.

## NYSEG / RG&E Report

### *Chapter II: Data and Analysis*

#### **A. Resource Planning/Total Staff Assessment**

The Company has reviewed the audit findings regarding resource planning and overall staffing assessment and found the data comparing the Company to the other participating New York utilities and to Liberty's reference model utility very informative. We are pleased that the Audit Report recognizes the Company's consistent achievement of reliability targets during all years covered in the Audit, while effectively managing resource levels and costs for customers.

As the Report indicates, NYSEG and RG&E have met CAIDI reliability targets every year from 2009 thru 2014.<sup>1</sup> (The companies also met all SAIFI targets over the same time period). Similarly, NYSEG and RG&E's gas emergency response time percentages for response within 30 minutes, 45 minutes and within 60 minutes were met every year during that same 5-year period.

Specifically, Liberty compared electric distribution costs to other participating utilities and Liberty's reference model utility by using a unit of measure called an EPU (equivalent production unit). Liberty's analysis of the comparative labor costs and hours per EPU showed that NYSEG and RG&E are "at or below the Reference Utility level, measured either by dollars or hours" and that "NYSEG showed the best rates in each category."<sup>2</sup> The labor rates used by Liberty were a composite including internal straight time, overtime and estimated contractor hourly rates.

Liberty performed a similar productivity analysis for gas. The gas results showed that "physical and cost productivity for NYSEG and RG&E compare favorably with the other gas companies" and that "NYSEG and RG&E have lower unit rates than all but one other utility." "Their comparably strong physical productivity extends to cost (\$ per EPU) as well. RG&E had a low composite hourly rate. NYSEG was only slightly higher."<sup>3</sup>

The Audit results validate the Companies' resource planning, decision-making, and the effective balance between internal employee's straight time, overtime, and external contractor resources. Liberty's comparative modeling and this Audit have shown that the Company is highly productive, manages costs well, and meets reliability goals.

<sup>1</sup> Case 13-M-0449, Operations Audit of the Internal Staffing Levels and the Use of Contractors for Selected Core Utility Functions at Major New York Energy Utilities: NYSEG and RG&E Staffing Study Final Report, (issued November 1, 2016) ("NYSEG and RG&E Final Audit Report") at page 18

<sup>2</sup> NYSEG and RG&E Final Audit Report at page 27

<sup>3</sup> NYSEG and RG&E Final Audit Report at page 35

### *F. Conclusions*

"Liberty's analysis of staffing on balance suggests that staffing at NYSEG and RG&E, in both electric and gas, was reasonable and adequate."<sup>4</sup> The Company concurs.

Overall, Liberty concluded that "[m]easures of workforce efficiency suggest that both NYSEG and RG&E are efficient in comparison to their peers."<sup>5</sup> The Company is pleased that the audit results recognize the Company's workforce efficiency in comparison to its peers while achieving reliability targets.

Liberty further concluded that "NYSEG and RG&E planned and managed overtime effectively on (a) an absolute basis, (b) in comparison to their peers, and (c) versus internal targets: NYSEG overtime levels have been especially well contained."<sup>6</sup> The Company appreciates the Audit's recognition of the Company's efforts to effectively manage overtime costs while meeting reliability targets.

### *G. Recommendations*

Liberty listed three recommendations in this section of the Report.

First, Liberty raised questions regarding the forecasts for required RG&E electric O&M resources and the significantly different ratios between distribution engineers and field positions between NYSEG and RG&E. Liberty recommends that the Company review both of these areas. The Company agrees with this recommendation and will develop a plan to review these items during the implementation phase. In fact, the Company has already begun its preliminary review and has determined that these issues are not related to any cost allocation irregularities between NYSEG and RG&E.

Second, during Liberty's interviews with Company personnel, Liberty became aware of a 30% target for electric contracting but their review of the actual data showed considerable variation in contractor percentages in different electric business areas and between NYSEG and RG&E.

Liberty recommends that the Company review the 30% contractor rate target and determine an optimum level of contracting for each company. The Company suspects that the 30% overtime target referenced by Liberty may have been stated as a general overall percentage and was not intended to be taken as a specific target for each individual business area. The Company recognizes that different business areas have different requirements and resource needs which can result in different contractor percentages. While Liberty asks the Company to determine an optimum level of contracting, they also recognize the appropriateness of having different contractor percentages in different areas of the business: "A 30/70 contractor/internal split makes sense at the distribution functional level. It would not be sound at the transmission/substation functional level."<sup>7</sup> The Company will address this recommendation in its Implementation Plan.

Finally, Liberty's review showed that the percentage of electric contractors in use is considerably higher at RG&E than at NYSEG and they recommended that the Company evaluate this to determine if it is appropriate and, if so, provide an explanation. The Company will incorporate this evaluation into its Implementation Plan.

<sup>4</sup> NYSEG and RG&E Final Audit Report at page 57

<sup>5</sup> NYSEG and RG&E Final Audit Report at page 58

<sup>6</sup> NYSEG and RG&E Final Audit Report at page 58

<sup>7</sup> NYSEG and RG&E Final Audit Report at page 90



### **Chapter III: Process Analysis**

#### **A. Resource Planning**

Liberty's analysis concluded that "[t]he Avangrid state utilities' sophisticated approach to resource planning and its processes for such planning are appropriate."<sup>8</sup> At the same time, Liberty concluded that existing resource processes do not optimize the process of balancing resources [internal vs. contractor]. Liberty recommends that "Avangrid resource planning processes should include a more complete understanding of the total workload, including expanding measures of contractor workload to include FTE- or person-hour based values."<sup>9</sup> Further, Liberty recommends that "Avangrid resource plans should include data driven analyses that help management evaluate the trade-offs for overtime, contractors, and internal staff at the functional and work group levels."<sup>10</sup>

NYSEG and RG&E will incorporate appropriate project(s) in its Implementation Plan to address Liberty's recommendations for process improvements in this area. However, the Audit results speak for themselves and the Company cautions against attempting to improve processes by introducing new, complex and time consuming analyses in an area where the Company is already achieving excellent results. As referenced above and on prior pages, Liberty recognizes the Company's labor costs and productivity as among the best in New York State. Liberty also recognizes that the Company has a highly efficient workforce in comparison to peers, manages overtime effectively, and already has a sophisticated approach to resource planning.

#### **B. Work Force Management and Performance Management**

"Liberty found the companies' work management processes and support tools particularly strong. They meet all of the criteria by which we evaluated them. In one particular respect, training and documentation, they reflect best practice. Liberty found no material opportunities for improvement in work management as it related to identifying planning, and optimizing staffing numbers and balance."<sup>11</sup>

Liberty concluded that NYSEG and RG&E electric and gas operations employ an effective approach, structure, and resources for project management. Further, Liberty stated in their analysis that: "NYSEG and RG&E electric and gas operations have appropriately located and addressed roles of quality assurance and control."<sup>12</sup>

Liberty found that "NYSEG and RG&E performance measurement were strong in overall comparison with the operations that we studied, but do not fully support staff optimization."<sup>13</sup> To address this, Liberty included two recommendations - one targeting the need to develop and employ more comprehensive performance measures for the replacement and installation of pipe and a second recommendation to improve performance measurements across electric and gas functions.

The Company will incorporate actions to address these recommendations in its Implementation Plan.

<sup>8</sup> NYSEG and RG&E Final Audit Report at page 63

<sup>9</sup> NYSEG and RG&E Final Audit Report at page 64

<sup>10</sup> NYSEG and RG&E Final Audit Report at page 65

<sup>11</sup> NYSEG and RG&E Final Audit Report at page 65

<sup>12</sup> NYSEG and RG&E Final Audit Report at page 70

<sup>13</sup> NYSEG and RG&E Final Audit Report at page 70

### C. Internal Staffing

The Company is encouraged by Liberty's recognition that the Company has the following:<sup>14</sup>

- comprehensive and sufficiently detailed forecast of medium- and long-term capital and O&M work requirements;
- capital and O&M work forecasts that had adequate factual and analytical foundation to support staffing projections;
- a source of complete and accurate staffing information by region and by function;
- forecasts existed of likely losses through attrition and retirement of internal resources by function, region, and work type;
- consistent attrition and retirement forecasts and management has a grasp on likely skills and experience gaps; and
- training and development programs that are sufficiently robust to provide adequate support for long term staff requirements.

The Company recognizes the need for continued vigilance in this area and concurs the Company needs to ensure the availability of sufficient "seasoned" staffing to serve as mentors going forward. Specifically, the Company will review and ensure the availability of seasoned gas salaried employees as recommended by Liberty.

The Company, as recommended by Liberty, will also review existing performance indicators that measure effectiveness of the Company's efforts to achieve NYSEG and RG&E staffing targets.

### D. Overtime

Liberty acknowledged that: "NYSEG and RG&E have been effective in establishing reasonable targets for overtime and managing to those relatively low targets. Processes relating to overtime are good and we see little room for significant improvements."<sup>15</sup> Liberty further observed that: "[t]he processes lack the structure, formality, and analytical support we favor, but they appear to have worked effectively."<sup>16</sup>

Liberty concluded, "our examination of NYSEG and RG&E overtime processes did not reveal any areas that represent significant weaknesses, either on an absolute basis or relative to the other state utilities."<sup>17</sup> Liberty's review of overtime data showed that all actual overtime for the past five years came in below established budgeted levels.

14 NYSEG and RG&E Final Audit Report at pages 81-82

15 NYSEG and RG&E Final Audit Report at page 82

16 NYSEG and RG&E Final Audit Report at page 82

17 NYSEG and RG&E Final Audit Report at page 83

Liberty's overall conclusions regarding overtime included the following:<sup>18</sup>

- NYSEG and RG&E performed a significant level of planning, monitoring, and oversight in the management of overtime and demonstrated good analytical capabilities;
- NYSEG and RG&E made overtime use a formal part of the process of identifying required resources;
- NYSEG and RG&E overtime use conformed to assumptions used for determining resource requirements;
- NYSEG and RG&E appropriately considered overtime as an element of the resource stack and appropriately planned its use on an integrated basis with the other resource elements; and
- NYSEG and RG&E overall management of overtime was sound, producing performance better than aggressive targets, and results among the lowest in New York.



The Company appreciates Liberty's recognition of the Company's efforts and results in managing overtime costs and acknowledgement that the Company management of overtime is amongst the best in New York.

As such, the two recommendations regarding Company management of overtime and actual results seem at odds with Liberty's factual analysis of the Company's management of overtime and actual results.

Liberty's first recommendation is that the Company seek more analytically supported methods for determining optimum overtime levels. Liberty, in describing this recommendation, states: "Liberty suggests that the Company consider alternative schemes and, if appropriate, modify its approach, but we cannot recommend any significant initiatives."<sup>19</sup>

Liberty also recommends that management adopt an approach ensuring that it includes all relevant factors in its decision-making vis-a-vis overtime. They explain that: "Liberty is not recommending that the Company tackle expensive analytical exercises that may offer no real return. Management should assure that it has a strong understanding of the negative impacts of overtime and considers those impacts as practical in its decision-making process."<sup>20</sup> The Company already has a strong understanding of the negative impacts of overtime and considers those impacts in its decision-making process, as evidenced by the Company's performance over the past five years and the Audit's findings.

The Companies' overtime performance is outstanding and Liberty did not identify any areas that represent significant weaknesses. The fact that the processes used by the Company do not reflect a specific approach favored by Liberty should not require the Company to expend significant time and resources toward potentially non-value-added efforts to enhance processes or analyses where substantive benefits or savings are unlikely. These recommendations appear to be more about form than substance as they apply to NYSEG and RG&E.

While it will look at these areas during the preparation of its Implementation Plan, the Company cautions that any potential process improvements identified may not add sufficient value to offset the time, resources and/or costs to implement, given the Company's excellent current performance as acknowledged by Liberty.

18 NYSEG and RG&E Final Audit Report at pages 84-86

19 NYSEG and RG&E Final Audit Report at page 86

20 NYSEG and RG&E Final Audit Report at page 86

### *Contractor Use*

Liberty includes six different recommendations in this area. The Company has reviewed each recommendation and will address them in the Company's Implementation Plan. Clarifying comments are included herein on two of Liberty's recommendations.

Liberty recommends that management disaggregate the combined NYSEG/RG&E contractor/internal mix goal for electric work and, as referenced earlier, Liberty commented regarding the inappropriateness of combining distribution and transmission/substations into a single goal for contractor use between them. The Companies believe that the recommendations are already in place at NYSEG and RG&E, and that Liberty's findings in this area may be outdated or incorrect.

Liberty also recommended that the Company solicit unit pricing for distribution line contracts. The Company believes that this is now in place at NYSEG and RG&E.

The Company will incorporate projects to review and verify the above. Plans for the other contractor-related recommendations will also be developed and included in the Company's Implementation Plan.

### *Statewide Report*

The Company found the information contained in the Statewide Report and the Executive Summary Report interesting and a valuable source of comparative information about the major energy utilities in New York.

Between these statewide reports and the comparative analyses documented in the Company-specific report, the Company was able to see how NYSEG and RG&E are performing in a number of staffing related areas both individually and in comparison to the other utilities in the Audit. These comparisons provided valuable benchmarking and modeling comparisons not previously available.

The Company did not attempt to review or validate the information that was included in these statewide reports, in part because of the enormity of the effort to do so, and the fact that the Company does not have access to all of the detailed data provided by the other utilities.

Only one recommendation was included in the Statewide Report, and that recommendation related to the pending Reforming the Energy Vision (REV) proceeding. The Company's comments on that recommendation follow.

### *Chapter XI: Reforming the Energy Vision*

The sole statewide recommendation for all utilities in the Audit (save NFG) is for all utilities to undertake scenario studies of the impact of REV and other similar changes, to better prepare for multiple possible eventualities.

The Company concurs with this recommendation; however, this effort should be integrated with the other REV initiatives, schedules and deliverables and should not be a standalone effort in response to this Audit recommendation. The Company will document the actions to be taken to address this recommendation in its Implementation Plan and will incorporate and manage the actual scenario studies into the overall REV schedules and deliverables.

### *Conclusion*

The Company has made a substantial commitment of time and effort to this Audit. The Report recognizes the many excellent processes the Company has established, including recognizing three areas that Liberty considered best practices - tied with one other utility for the most best practices identified among all of the utilities in this Audit.

Liberty also recognized and documented the excellent results that the Company has achieved and the Company's ability to efficiently and productively manage labor costs with a balance of internal and contractor labor resources while continuing to meet reliability and safety targets. The Company recognizes that there are areas for improvement and looks forward to working with Staff and the Commission to address the recommendations contained in this Report in a way that can add value for customers.

## Appendix C

### Review Distribution Engineering Staffing Levels

#### Executive Summary

An analysis of internal staffing ratios between the Distribution Production (Construction) function and Distribution Engineering function was undertaken to determine actual values at NYSEG and RGE. This investigation found that FTE projections based on headcount reports (and actual positions) for June 2017 produced ratio measurements below those found in the final Operations Audit of Staffing Levels at New York State Energy Utilities. This suggests that Distribution Staffing levels at RGE are similar to other NY State Utilities. The results found in the Staffing audit report may have been caused by assumptions that had to be made to provide the required entries for data template submission for this study. This information was used for statistical analysis of NYSEG and RGE. This may have resulted in invalid ratio projections in the statistical model used in the final report.

Our results suggest that relative to the number of Distribution Construction employees, NYSEG and RGE both have ratios to Distribution Engineering employees that are quite similar to that of the other NY State Electric utilities. Reorganization in the Distribution Engineering organization at Avangrid since historical reporting period from 2009-2013 has been completed, so it may be that this ratio has changed significantly since 2013. Avangrid position is that there is no evidence that there are inadequate Distribution Engineering Staffing levels at NYSEG or RGE.

#### Introduction

The final Operations Audit of Staffing Levels at New York State Energy Utilities raised questions about the adequacy of Distribution Engineering staffing levels at NYSEG and RGE. Questions regarding NYSEG and RGE staffing levels were based on the ratio of Distribution Production (Construction) workers to Distribution Engineering workers during a historical data reporting period (2009-2013) based on Liberty Consulting translation of reported work hour into FTE measurements. The final report expresses concern that the ratio of Distribution Production workers (over 5 historical years) to Distribution Engineering workers at NYSEG was estimated at 5.35. This same ratio at RGE was estimated to be 13.44. The ratio for all NY state electric utilities combined was estimated to be 6.6. The high ratio at RGE was presented as an area of concern. The consultant noted that combined ratios of NYSEG and RGE workers produced a ratio of 6.56 almost identical to the statewide average. It was therefore suggested that there may be a problem with proper reporting of time devoted to NYSEG and RGE in the Distribution Engineering function.

Liberty Consulting used cost data submitted for NYSEG and RGE in staffing audit data templates for various work functions, based on estimates of total work hours based on estimated average hourly costs for contractor and internal manpower, to produce FTE approximations of the manpower devoted to Distribution Production and Distribution Engineering functions during the historical reporting period. Per hour cost data for contractor construction labor and contractor engineering labor is not measured at Avangrid and had to be estimated and projected with assumed inflation rates for each of the years in the historical data period. The accuracy of the work hours submitted in the data template is unknown.

To evaluate this question about the ratios of Distribution Production workers to Distribution Engineering workers, the approach taken was to go to June 2017 employee listings, identify the groups involved in the Distribution Production function and the Distribution Engineering function, and calculate total internal FTEs supporting each function. Distribution Production/Distribution Engineering ratio was calculated for NYSEG and for RGE with actual FTEs for internal employees. The results of this analysis are compared with the reported statewide average in the Staffing Audit Final Report for all NY State electric energy companies, combined.

## **FTE Analysis Distribution Production and Distribution Engineering**

Analyses were conducted for this study to examine the internal FTEs at Avangrid who perform functions for NYSEG and RGE for the Distribution Production function (Construction), and Distribution Engineering function. Employees counted in comparisons support these functions at NYSEG and/or RGE, even though they may be listed as employees of Avangrid Service Company, Central Maine Power, or NYSEG or RGE. FTE tallies were based on headcount reports generated monthly by the Human Resources organization for Avangrid. June 2017 reports were used.

In our study, workers supporting a function are segregated into one of four employee groupings as is the practice in Avangrid manpower planning: 1. Production Workers (front line workers), 2. Support Workers (schedulers, clerical support, planners, equipment operators, mappers, etc.), 3. Supervisors, and 4. Managers. FTE values for all four employee groupings are combined to yield an FTE total for the work function.

In this study, all internal employees at Avangrid who support the Distribution Production (Construction) function or the Distribution Engineering function are enumerated. Employees have cross company responsibilities at Avangrid. Where employees support multiple operating companies, each workers time was allocated to each company and work function as a fraction of their total work time. As a result, FTE calculations were tallied as fractional manpower equivalents in developing the totals for NYSEG and RGE.

Where employees in an organizational unit perform a function to support multiple companies, the proportion of their time devoted to each of the Avangrid Operating companies was determined, for different work functions. Each headcount within the organizational unit had fractional FTE equivalent calculated for NYSEG, RGE or CMP for Distribution Production and Distribution Engineering. Totals are presented for each Avangrid Operating Company, and for all of Avangrid for each of these work functions.

### **Electric T&D employees**

Distribution Function Production (construction) workers are all employees of NYSEG or RGE and perform their work for their respective Operating company. Some Support workers, some Supervisors, and some Managers for the Distribution Production function support one of these companies (for a portion of their time) although they are counted as an employee of another Avangrid Company.

Distribution Engineering Production employees (engineers and field planners) are all employees of NYSEG or RGE. Some Distribution Engineering Support workers, some Supervisors, and some Managers are employees of another Avangrid Company, and support both NYSEG and RGE with a portion of their time.

### **Employees outside Electric T&D**

All organizational units with employees supporting Distribution Production (Construction) or Distribution Engineering within the Avangrid organization were identified. This included employees of Avangrid Service Company, NYSEG, RGE, and CMP in different Business Units. Organizational units in Customer Service, AMP engineering, and Process and Technology Business Units (outside Electric TD) were included.

The Avangrid organizational units that include workers devoted to the Distribution Construction and Distribution Engineering function are listed in the attached spreadsheet, DISTR PROD to DISTR ENGR internal ratios 101017. Listings are provided for the organizational units in Electric T+D business area, and for groups outside this business area.

Representative examples of the allocation of time for internal headcounts to various companies, work functions, and employee grouping are presented in the attached spreadsheet, DISTR PROD to DISTR ENGR internal ratios



101017. Examples for calculating internal FTEs are provided. Summary tables list FTE totals for different business units , for each of the work function categories, and for CMP, NYSEG and RGE

The Avangrid organizational units that include workers devoted to the Distribution Construction and Distribution Engineering function are listed in the attached spreadsheet, DISTR PROD to DISTR ENGR internal ratios 101017. Listings are provided for the organizational units in Electric T+D business area, and for groups outside this business area.



Total FTEs supporting these functions at Avangrid Operating Companies are:

### Avangrid Employees Supporting Distribution Construction and Distribution Engineering in June 2017

Supporting	Function	Production Workers	Support Workers	Supervisors	Managers	Total FTE for function
CMP	Distribution Construction Functions	209.4	36.1	27.8	6.7	279.9
CMP	Distribution Engineering Functions	51.4	0.6	2.7	1.3	55.9
NYSEG	Distribution Construction Functions	308.2	42.4	30.5	10.0	391.1
NYSEG	Distribution Engineering Functions	61.6	0.7	5.1	2.8	70.2
RGE	Distribution Construction Functions	88.9	4.8	9.4	2.1	105.2
RGE	Distribution Engineering Functions	17.0	1.5	2.3	1.7	22.5
		736.6	86.0	77.8	24.5	924.9



## Ratio of Internal Distribution Construction to Distribution Engineering Employees for NYSEG and RGE

The ratio of Distribution Construction to Distribution Engineering employees at Avangrid are:

### Ratios Distribution Construction to Distribution Engineering Internal Employees Avangrid Companies

Supporting	Ratio of internal employees compared	Ratio value	employee groupings included
CMP	Distribution Construction Production FTEs to Distribution Engineering Production FTEs	4.07	front line workers only
NYSEG	Distribution Construction Production FTEs to Distribution Engineering Production FTEs	5.00	front line workers only
RGE	Distribution Construction Production FTEs to Distribution Engineering Production FTEs	5.22	front line workers only
All Avangrid	Distribution Construction Production FTEs to Distribution Engineering Production FTEs	4.66	front line workers only
CMP	All FTEs supporting Distribution Construction to All FTEs supporting Distribution Engineering	5.01	front line, support, supervisors, mgrs
NYSEG	All FTEs supporting Distribution Construction to All FTEs supporting Distribution Engineering	5.57	front line, support, supervisors, mgrs
RGE	All FTEs supporting Distribution Construction to All FTEs supporting Distribution Engineering	4.68	front line, support, supervisors, mgrs
All Avangrid	All FTEs supporting Distribution Construction to All FTEs supporting Distribution Engineering	5.22	front line, support, supervisors, mgrs

## Discussion

Measurement of contractor hours deployed in Distribution Construction and Distribution Engineering work functions are not the practice at Avangrid. It is therefore impossible to calculate Contractor FTEs deployed by work function. For internal workers the headcount numbers are known, so calculation of meaningful FTE ratios is possible.

The final Operations Audit of Staffing Levels at New York State Energy Utilities draws conclusions about the adequacy of Distribution Engineering staffing levels derived from a statistical model that has been developed with combined utility data to represent the “typical” NY State Electric Company, or reference utility. The ratio of statistical model projections of FTE’s devoted to Distribution Production (Construction) and to Distribution Engineering was the measurement chosen to evaluate the Distribution Engineering Staffing levels. The reference utility ratio considered “typical” was 6.6. Higher ratios are considered a sign of insufficient Distribution Engineering staffing levels.

The statistical model for NYSEG produced a ratio of 5.35. RGE data produced a ratio of 13.44. Combined NYSEG and RGE data produced a ratio of 6.56. RGE data was well above the reference utility model data and resulted in questioning the adequacy of RGE Distribution Engineering Staffing levels.

The investigation based on known internal headcounts in June 2017 for each function at Avangrid produced ratios of 5.0 for NYSEG and 5.22 for RGE when the numbers of front line construction workers to front line engineers/field planners were used. When all employees directly supporting the functions were used, including support workers, supervisors and managers, the ratios were 5.57 for NYSEG, and 4.68 for RGE. All these ratios are below the target ratio value for the reference utility. Where known numbers of employees were used to build this ratio, NYSEG and RGE have ratios which indicate adequate levels of Distribution Engineering staff.

The organization for Distribution Engineering at Avangrid has been undergoing reorganization since the historical period that forms the basis for the Staffing Audit data template submission. Therefore, staffing levels have been adjusted since this time. There have been significant departures and retirements in the Distribution Engineering function up to 2017. Resources have been realigned to meet local operating area needs. Task sharing between local (regional) office locations have been increased.

The Staffing Audit modeling used estimated Contractor work hours and actual internal employee work hour measurements in ratio development. Separate ratios for Contractor vs internal resources were not presented. With no measurement of work hours by Contractors being used at Avangrid, it is impossible to develop current ratios for Contractor Distribution Construction FTE /Contractor Distribution Engineering FTE for comparison with the model results. During the historical period on which the Staffing Audit modeling is based, use of Contractors in RGE territory, for both Construction and Engineering, was more widespread than at NYSEG. It may be that Contractor cost/hr assumptions used to estimate contractor work hours for both the Distribution Construction and Distribution Engineering functions were flawed in the data presented in the data templates. This may have caused the very high ratio value projected for RGE in Final Report results.

Avangrid has devoted considerable energy to reorganizing Distribution Engineering functions in the last 3 years to ensure an adequately staffed and efficient work force to meet Distribution Construction functions. While the mechanisms do not exist to directly measure Contractor man hours deployed for Distribution Construction and Distribution Engineering the company believes it has managed the Contractor function adequately to ensure adequate resource availability. Avangrid practice is to manage these resource needs on the basis of cost which is considered to be superior to achieve efficient operation of the Distribution system.



## **Conclusion**

Avangrid internal employee ratios of Distribution Production (Construction) FTE's /Distribution Engineering FTE's in 2017 are close to the reference utility ratio presented in the Staffing Audit model for both NYSEG and RGE. The values are modestly below the reference utility values at both NYSEG and RGE. Therefore, Avangrid does not believe it is necessary to examine Distribution Engineering resource allocations in greater detail beyond the steps already taken to align this function with customer needs.

## Appendix D

### Review Document Analytical Methods to Optimize OT Levels

#### Executive Summary

Overtime monitoring and corrective actions for the NYSEG and RGE Electric Businesses were reviewed and documented as recommended in the Staffing Audit Final Report. OT measurement tools and follow up review processes in place during the study period for the Staffing Audit (2009-2013) have been maintained through 2017. The tools and review processes have proven effective in maintaining overtime levels in line with optimum targets.

Avangrid evaluation of the effectiveness of OT monitoring in meeting goals finds that the current tools and processes are effective in allowing the organization to control overtime effectively. The changes to work management and time reporting systems required to allow Avangrid to directly measure overtime vs. regular time productivity were evaluated. The costs for developing these capabilities were judged to be unjustified, given the success at NYSEG and RGE in controlling overtime charging using the existing tools. In agreement with statements made in the Staffing Audit Final Report, Avangrid has decided to rely on existing tools for overtime control.

#### Introduction

The final Operations Audit of Staffing Levels at New York State Energy Utilities recognized that NYSEG and RGE have controlled OT worked by production employees at levels lower than the 20% median levels for the NY utilities that were studied. The Final Report Data and Analysis Section notes NYSEG and RGE had achieved OT levels between 10-15% through the Study Period from 2009 -2013 which was described as “in line with what we had found to be typical utility levels”. Tables in the report portray historical and forecast overtime levels for NYSEG and RGE, which are described “The tables show well-contained overtime levels in the NYSEG and RG&E resource mixes”. The report describes target maximum 20% OT rates for Electric, and 10% for gas. The report states “We ultimately did not see, in the area of electric overtime, much room for improvement, given comparatively low rates, success in achieving targets, continuation of comparatively low targets into the future, and comparatively moderate year-to-year fluctuations.” Similar comments apply to Gas.

The process analysis section of the report states, “NYSEG and RG&E have been effective in establishing reasonable targets for overtime and managing to those relatively low targets. Processes relating to overtime are good and we see little room for significant improvements. The processes lack the structure, formality, and analytical support we favor, but they appear to have worked effectively”. The Conclusions section states that “Management does not have an analytically supportable process to determine optimum overtime level, but does have a method to establish the 20 percent target for electrical work and 10 percent for gas work. A number of managers are confident that the 20 percent target they established should be considered the optimum level. One should be skeptical of this since the companies regularly plan for and achieve far lower levels.” This section further states “To ensure future success in overtime and resource management, we believe management should document its current overtime determination process and perhaps employ a more structured approach. We acknowledge, however, that the results being achieved might argue to leave well enough alone.”

The process analysis section of the final report in the conclusions section states in regard to NYSEG and RGE overtime management “Overall management of overtime is sound, featuring good performance versus aggressive targets and consistent results that are among the best in New York.”

The process analysis section also contains a recommendations section in which it is stated “The Company should document the existing process, and perhaps enhance it with the necessary quantitative tools to fine tune the process.” Also stated was “We have stressed that each utility’s circumstances will dictate the level of effort appropriate for managing various elements of its work. Liberty is not recommending that the Company tackle expensive analytical exercises that may offer no real return.”

Finally, the process analysis sections Conclusions stated: “Management should assure that it has a strong understanding of the negative impacts of overtime and considers those impacts as practical in its decision-making processes. The two most relevant factors that need to be considered are how extensive overtime is impacting productivity and costs.”

## **Overtime Review Procedures at NYSEG and RG&E**

This section details authorization, analysis, reporting and review procedures for overtime in Electric for NYSEG and RGE.

### **Authorization and Monthly Review of Overtime Levels for NYSEG and RGE**

Overtime work hours are entered in SAP time sheets on a daily basis for NYSEG and RGE production workers. For capital construction work and OM construction work, authorization for crews to work overtime is done on a case by case basis by Supervision taking into consideration customer specific needs and status of work efforts. Supervisors give consideration to maximize construction cost efficiency and reducing impact on customers when making these decisions. Time sheet policy is to include a description of the work effort completed while on overtime. Trouble response overtime is authorized through the use of a callout software system, ARCOS.

Authorization of time sheet overtime for payroll is done on a weekly basis by Supervision.

Monthly review of overtime is conducted using overtime reports. The attached spreadsheet, “Overtime review monthly report examples NYSEG RGE 2017” provides extracts to illustrate the data analyzed and summarized for the NYSEG and RGE organizations for electric. Summary data for two months in 2017 are presented.

Monthly extracts of SAP hours data are captured and categorized according to employee, regular time/overtime hours, Regional and functional organization group, Supervisor, Manager, and cost elements charged. Major storm response is excluded from monthly reporting. Summaries are provided by Company, Operating Region, and Electric operations or System Operations (substation). Total regular time hours charged, and total overtime hours for the month are provided. Overtime hours % for the month are calculated. There are a total of 33 regional operating units for Electric Operations and System Operations at NYSEG and RGE. The regional operating units with the highest % of overtime for the month are required to provide an explanation for upper management to ensure that overtime hours are reasonable and justified. A meeting by the operating unit manager with the supervisors in the group to review and assess the use of overtime is required. Possible strategies to reduce use of overtime are discussed and local initiatives to control overtime are established, if warranted. A review of actions with the Director responsible for the organization is also completed.

The report also provides detail of regular and OT hours for production workers by organization for review by Managers and Supervisors. Hours are categorized by nature of the work (Capital, Expense) and type of work (Capital, Trouble, other OM). Descriptions recorded in time sheets to explain the cause for OT are provided, and may be used to gauge compliance with OT recording rules. Organizational reporting structure for each worker is defined.

**Sample Monthly Overtime Review Report NYSEG and RG&E**
**October 2017 Overtime Hours**
**NY Service Areas**
**33**

Highest % to explain/justify:

20%

**7**

**\* Go to next tab and filter on your "Service Area" to determine and explain why your OT is high as a % of Total Productive time less Storm**

9301=NYSEG


9302=RG&amp;E

RT or OT

CCtr Desc	OpCo	Serv Area	Reg Time	Overtime	Grand Total	OT %
Electric Operations	9301	Auburn	1,859	548	2,407	22.8%
		Binghamton	5,490	893	6,383	14.0%
		Brewster	4,564	1,444	6,007	24.0%
		Elmira	4,574	921	5,495	16.8%
		Geneva	3,690	774	4,464	17.3%
		Hornell	1,796	399	2,195	18.2%
		Ithaca	2,477	697	3,174	22.0%
		Lancaster	5,781	2,161	7,942	27.2%
		Liberty	2,822	587	3,409	17.2%
		Lockport	371	87	458	18.9%
		Mechanicville	3,187	974	4,161	23.4%
		Oneonta	5,191	825	6,016	13.7%
		Plattsburgh	3,866	902	4,768	18.9%
		MWF	2,302	316	2,618	12.1%
	9302	Canandaigua	1,820	758	2,578	<b>29.4%</b>
		Fillmore	1,905	1,012	2,917	<b>34.7%</b>
		Sodus	1,338	599	1,937	<b>30.9%</b>
		TMR	3,416	1,440	4,856	<b>29.6%</b>
		Roch UG	1,622	388	2,010	19.3%
		Roch OH	2,582	822	3,404	24.1%
Electric Operations	Total		60,651	16,547	77,198	<b>21.4%</b>


CCtr Desc	OpCo	Serv Area	Reg Time	Overtime	Grand Total	OT %
System Operations	9301	Auburn	792	234	1,026	22.8%
		Binghamton	1,840	259	2,099	12.3%
		Brewster	1,249	234	1,483	15.8%
		Elmira	1,632	475	2,106	22.5%
		Geneva	1,595	988	2,583	38.3%
		Hornell	1,294	344	1,638	21.0%
		Ithaca	832	402	1,234	32.6%
		Lancaster	1,890	535	2,425	22.1%
		Liberty	1,356	520	1,876	27.7%
		Lockport	625	148	773	19.2%
		Mechanicville	668	60	728	8.2%
		Oneonta	1,704	229	1,933	11.8%
		Plattsburgh	1,503	254	1,757	14.5%
	9302	Rochester	3,379	392	3,771	10.4%
		Mush Blvd	2,027	160	2,186	7.3%
System Operations Total			22,383	5,233	27,616	18.9%
Grand Total			83,034	21,779	104,814	20.8%

**Review Document Monthly Overtime Report Management and Supervision**

		<b>T&amp;D Group Overtime Explanation Form</b>			
		_____, 2017			
		(Month)			
<b>*Please fill out the following data for the month listed above</b>					
<b>1. Trouble / Unplanned</b>		(Top 4)	<b>Number of Hours</b>		
Hours by Date:		Notes:			
<b>2. Capital</b>		(Top 4)	<b>Number of Hours</b>		
Hours by Job WO#		Notes:			
<b>3. Other</b>		(Top 4)	<b>Number of Hours</b>		
Billable					
Shift Coverage					
Outside T&D Group					
der/Contractor Watch					
Other					
Division Manager		Date manager reviewed data with supervisors			
Director		Date director reviewed data with manager			
Acceptable Responses?		Y	N		
Action Items:					



**Example Completed Review Document Monthly Overtime Report Management and Supervision**

<b>EXAMPLE ONLY:</b>					
		<b>T&amp;D Group Overtime Explanation Form</b>			
		<b>Feb</b>		<b>2013</b>	
		(Month)			
<b>*Please fill out the following data for the month listed above</b>					
<b>1. Trouble</b>	<b>(XXXXXX010)</b>	<b>(Top 4)</b>		<b>Number of Hours</b>	<b>639</b>
Hours by Date:	Date:	Notes:			
424		See 26105 for various dates - avg 20 - 30hours/day for 20 days			
96	1/1/2013	Standby for New Years Day			
119	1/16/2013	Minor storm - snow			
<b>2. Capital</b>	<b>(1000 &amp; 8000 Series)</b>	<b>(Top 4)</b>		<b>Number of Hours</b>	<b>244</b>
Hours by Job:	Job WO#	Notes:			
45	1000457840	L810 (-1-1-D) 46KV SINGLE POLE REPLACEME Transmission pole			
293	Various MVA Broken Poles (Hours include 193 Capital hours and 100 OM hours)				
<b>3. Other</b>	<b>(IO's &amp; 7000 Series)</b>	<b>(Top 4)</b>		<b>Number of Hours</b>	<b>234</b>
	Billable				
	Shift Coverage				
	Work Order Needed	58			
	Work Outside T&D Group	30 Work for Metering group			
	Clearance Holder/Contractor Watch				
	Other	100 Portion of Capital job settles to OM other			
Raquel Mercado		2/12/2013			
Division Manager		Date manager reviewed data with supervisors			
Walt Matyjas		2/12/2013			
Director		Date director reviewed data with manager			
Acceptable Responses? <u>Y</u> N					
Action Items:					

## Detail in Monthly report Overtime

Sample Data illustrating data provided to supervision monthly OT reporting.

Personnel Number	Name of Employee or Applicant	Date	Approval date	Approved by	Number (unit)	Int. meas. unit	Att./Absence type	Short Text
322525	BRETT WINTER	10/1/2017	10/9/2017	U425918	8.000	H	1010	Regular Non Exempt
322824	WADE HUEBNER	10/1/2017	10/4/2017	U435569	3.000	H	1100	OT @ 2
324509	ROBERT MCDONOUGH	10/1/2017	10/12/2017	U438402	3.000	H	1060	OT @ 1.0
325020	BARRY BARKLEY	10/1/2017	10/13/2017	U425388	10.000	H	1070	OT @ 1.5
325020	BARRY BARKLEY	10/1/2017	10/13/2017	U425388	2.000	H	1070	OT @ 1.5
325021	ANDREW MCKEE	10/1/2017	10/3/2017	U436392	4.500	H	1010	Regular Non Exempt
325021	ANDREW MCKEE	10/1/2017	10/3/2017	U436392	7.500	H	1010	Regular Non Exempt
322525	BRETT WINTER	10/2/2017	10/9/2017	U425918	8.000	H	1010	Regular Non Exempt
322824	WADE HUEBNER	10/2/2017	10/9/2017	U435569	1.000	H	1010	Regular Non Exempt

Records above, additional data fields (1)

Notes	Receiver Order	KOK5 assgn text	Activity Type	Object Class	Order Category	RT or OT	Org. unit
TUB CHANGE	6200000403	Unplanned Corrective Maint OH D/L	IBY000	Expense	Trouble	Reg Time	61004226
CAR HIT POLE AMENIA	801000161202	FCT SEF L3214 P9 WHITING WAY CONKLIN	IBX012	Investment	Capital	Overtime	80000335
O.T.	6200000531	Unplanned Corrective Maint OH D/L	IBM010	Expense	Trouble	Overtime	61019526
	9400010120	Disp EL-D Clerical/Misc Exp RGE	IBE011	Expense	Other O&M	Overtime	80000024
	9500031423	RGE OH General Construction RC2J000034	IBE011	Expense	Capital	Overtime	80000024
	6200000078	Unplanned Corrective Maint OH D/L	IBW000	Expense	Trouble	Reg Time	80000178
	6200000073	Cover Service/Float Meter D/L	IBW000	Expense	Other O&M	Reg Time	80000178
	6200000403	Unplanned Corrective Maint OH D/L	IBY000	Expense	Trouble	Reg Time	61004226
SAFETY	9500031404	NYSEG OH General Construction RC2J000034	IBX000	Expense	Capital	Reg Time	80000335

Records above, additional data fields (2)

Organizational Unit	Month	Head Director	Director	Manager	Supervisor	OpCo	OpCo Desc
Const. & Maint. Elec Rochester I	10	Tom DePeter	Walter Matyas	Larry Hossenlopp	KEVIN WILSON	9302	ROCHESTER GAS & ELEC CORP
Const. & Maint. Elec. Central E	10	Tom DePeter	Bev Allen	George Potter	MICHAEL KNEWASSER	9301	NY STATE ELECTRIC & GAS C
Integrated Field Construction Design	10	Tom DePeter	Ed Rohr	Josh Shail	DENNIS KUHN	9301	NY STATE ELECTRIC & GAS C
Dispatch & ECC C	10	Mike Craven	Mike Craven	Matt Sadler	DAN WEST	9302	ROCHESTER GAS & ELEC CORP
Dispatch & ECC C	10	Mike Craven	Mike Craven	Matt Sadler	DAN WEST	9302	ROCHESTER GAS & ELEC CORP
Const. & Maint. Elec. ME C	10	Tom DePeter	Kevin Elwell	Dennis Lajoie	ANTON MATOIN	9310	CENTRAL MAINE POWER CO
Const. & Maint. Elec. ME C	10	Tom DePeter	Kevin Elwell	Dennis Lajoie	ANTON MATOIN	9310	CENTRAL MAINE POWER CO
Const. & Maint. Elec Rochester I	10	Tom DePeter	Walter Matyas	Larry Hossenlopp	KEVIN WILSON	9302	ROCHESTER GAS & ELEC CORP

Records above, additional data fields (3)

Cost Ctr	Ctr Desc	Serv Area	Position
RC2J000034	Electric Operations	TMR	Trouble Mechanic
RC2J000034	Electric Operations	Binghamton	Line Mechanic 1/C
RC2J000034	Electric Operations	Int Design	Supervisor - Integrated Field Design
RC2J000041	Energy Control Center	Disp ECC	Distribution Operator
RC2J000041	Energy Control Center	Disp ECC	Distribution Operator
RC2J000034	Electric Operations	Alfred	Line Trouble Shooter 1/C T&D
RC2J000034	Electric Operations	Alfred	Line Trouble Shooter 1/C T&D
RC2J000034	Electric Operations	TMR	Trouble Mechanic
RC2J000034	Electric Operations	Binghamton	Line Mechanic 1/C

## 2017 OT summary, NYSEG and RGE

Summaries of 2017 OT for NYSEG, RGE, and NYSEG RGE combined for 2017:

### Electric (Line) and System (Subs) Operations % OT NYSEG and RGE for 2017

Electric Operations Total OT NYSEG and RGE 2017			System Operations Total OT NYSEG and RGE 2017		
Month	Year	% OT by Month	Month	Year	% OT by Month
Oct	2017	21.4%	Oct	2017	18.9%
Sep	2017	20.0%	Sep	2017	15.6%
Aug	2017	20.8%	Aug	2017	14.4%
Jul	2017	25.3%	Jul	2017	24.5%
Jun	2017	21.9%	Jun	2017	15.0%
May	2017	21.3%	May	2017	15.2%
Apr	2017	20.8%	Apr	2017	20.5%
Mar	2017	19.2%	Mar	2017	17.5%
Feb	2017	14.2%	Feb	2017	13.8%
Jan	2017	14.7%	Jan	2017	11.3%
<b>Total</b>	<b>2017</b>	<b>19.9%</b>	<b>Total</b>	<b>2017</b>	<b>18.2%</b>

### Electric (Line) and System (Subs) Operations % OT NYSEG for 2017

Electric Operations Total OT NYSEG			System Operations Total OT NYSEG		
Month	Year	% OT by Month	Month	Year	% OT by Month
Oct	2017	19.4%	Oct	2017	21.6%
Sep	2017	18.5%	Sep	2017	16.5%
Aug	2017	18.9%	Aug	2017	27.0%
Jul	2017	25.0%	Jul	2017	25.2%
Jun	2017	20.6%	Jun	2017	16.3%
May	2017	19.9%	May	2017	15.9%
Apr	2017	18.6%	Apr	2017	21.4%
Mar	2017	16.9%	Mar	2017	17.2%
Feb	2017	11.8%	Feb	2017	14.9%
Jan	2017	13.1%	Jan	2017	11.9%
<b>Total</b>	<b>2017</b>	<b>18.3%</b>	<b>Total</b>	<b>2017</b>	<b>19.6%</b>

### Electric (Line) and System (Subs) Operations % OT RGE for 2017

Electric Operations Total OT RGE			System Operations Total OT RGE		
Month	Year	% OT by Month	Month	Year	% OT by Month
Oct	2017	28.4%	Oct	2017	9.3%
Sep	2017	25.2%	Sep	2017	13.0%
Aug	2017	15.8%	Aug	2017	9.9%
Jul	2017	27.4%	Jul	2017	11.6%
Jun	2017	26.0%	Jun	2017	11.1%
May	2017	25.1%	May	2017	13.7%
Apr	2017	27.6%	Apr	2017	18.0%
Mar	2017	28.6%	Mar	2017	18.5%
Feb	2017	21.6%	Feb	2017	10.5%
Jan	2017	19.3%	Jan	2017	9.8%
<b>Total</b>	<b>2017</b>	<b>25.4%</b>	<b>Total</b>	<b>2017</b>	<b>12.5%</b>

## Discussion

Avangrid monthly review of overtime data has continued throughout the time period from the study period for the Staffing Audit, through 2017. Overtime has been monitored effectively through monthly management review of time charges. In 2017 combined overtime charging is close to optimum target levels of 20% for NYSEG and RGE, combined.

Fluctuations in overtime use occur for different operational groups from month to month throughout each year depending on the initiatives being undertaken in the time period, and the occurrence of weather caused outage impacts. Avangrid Electric Operations has found that continual monitoring and reporting, in the manner described, has made it possible to control overtime at levels that do not negatively impact productivity, and result in cost – effective operation of the Distribution, Transmission, and Substation systems at NYSEG and RGE.

Use of the reporting and review processes for OT has proven adequate to maintain control of OT a levels close to internally developed targets. Adjustments to staffing levels have taken OT levels into consideration when making staffing decisions for NYSEG and RGE electric production workers. While average OT levels have increased above the levels experienced during the study period of the Staffing Audit this has been effectively monitored and controlled using the tools developed for this purpose.

Avangrid does not have tools within its work management system that will allow measurement of work task productivity on a job-by-job basis. It is therefore not currently possible to measure overtime productivity on a detailed, by work task, basis (for comparison with regular time productivity). Development of this capability is considered to be a high cost undertaking requiring extensive changes within the time reporting and work management systems, and the development of extensive analytical tools. It is not clear what benefits would be realized from development of this capability (over the current OT monitoring process). Avangrid Management believes it continues to effectively control overtime using the currently applied tools and processes.

## Conclusion

Avangrid has continued to apply Overtime Monitoring tools and review processes in the electric business which have allowed NYSEG and RGE to achieve overtime levels close to targets. Management considers the existing tools to be effective in maintaining awareness of the levels of overtime being used at each of the operating companies and in all work function organizations. The review process has been applied to take actions to adjust overtime use when this is needed. Optimum overtime levels have been established, and follow up actions have been undertaken to correct trends when this has been needed.

Avangrid agrees with the statements made in the Staffing Audit Final Report which suggest that NYSEG and RGE have exhibited relatively low levels of OT use, and effective control of this measure. In keeping with other comments made in the Final Report, Avangrid contends that extensive changes to work management and time reporting systems necessary to measure overtime vs. regular time productivity are not justified for NYSEG and RGE.