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Vice President - Controller and Treasurer

February 28, 2014

VIA Electronic Service

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Honorable Kathleen H. Burgess
Secretary
New York State Public Service Commission
Three Empire State Plaza, 19th Floor
Albany, NY 12223-1350

Re: Cases 09-E-0715, 09-G-0716, 09-E-0717 and 09-G-0718 – Proceeding on Motion of the Commission as to the Rates, Charges, Rules and Regulations of New York State Electric & Gas Corporation and Rochester Gas & Electric Corporation for Electric and Gas Service.

Dear Secretary Burgess:

Pursuant to Section X.B of the Joint Proposal approved by the New York State Public Service Commission's Order Establishing Rate Plan issued and effective September 21, 2010, in the above-referenced proceeding, New York State Electric & Gas Corporation and Rochester Gas & Electric Corporation respectfully submit the attached Annual Capital Expenditures Report.

If you have any questions, please contact me at 585.724.8003.

Respectfully submitted,

A handwritten signature in blue ink that reads "Joseph J. Syta".

Joseph J. Syta

Attachment



New York State Electric & Gas Corporation

Rochester Gas and Electric Corporation

2013

Annual Capital Expenditures Report

**Cases 09-E-0715, 09-G-0716,
09-E-0717, and 09-G-0718**

March 1, 2014

This report is in response to the requirements set forth in Section X, Paragraph B of the Joint Proposal (“JP”) in Cases 09-E-0715, 09-G-0716, 09-E-0717, and 09-G-0718. The requirement stated in the JP is as follows:

“The Companies will provide to Staff and interested parties, on an annual basis, a report on total electric, gas and common expenditures, a detailed status report for each electric capital project over \$1 million and each gas capital project over \$500,000, and for each such project that experiences a plus or minus 10% cost variation an explanation of the variation. The report will include an explanation for removing or adding capital projects from or to those listed in Appendix L. This report shall include the status of the Auburn 345kV Source project.”

Attached are the following schedules that include the required information for calendar year 2013:

- Schedule A lists all Electric projects at each company that meet the stated \$1 million threshold and all Gas projects at each company that meet the stated \$500,000 threshold. It also includes projects which experienced a plus or minus 10% cost variance for 2013 as listed in Appendix L
- Schedule B provides a detailed status report for each Electric and Gas project listed in Schedule A;
- Schedule C is the December 2013 Variance Report with capital expenditures during 2013 and showing Electric project variances as well as listing Electric projects that were added to or removed from those listed in Appendix L.
- Schedule D is in a similar format to Schedule C and provides the variance explanations for Gas projects that meet the requested criteria.
- Schedule E provides a status for the Auburn Transmission Project (Auburn 345kV Source project in Appendix L).

**New York State Electric & Gas Corporation
Rochester Gas and Electric Corporation
Annual Capital Investment Report
Schedule A**

NYSEG & RG&E Annual Capital Expenditure Report List of Projects Meeting Threshold

Electric projects with actual investment greater than \$1M or plus or minus 10% cost variance for 2013 as listed in Appendix L

RG&E:

- 1 - CableCure Program
- 2 - East Ridge Road - Electric Facilities Relocation
- 3 - Jefferson Avenue - Relocate Electric Facilities
- 4 - Lake Avenue - Relocate Electric Facilities
- 5 - Midtown Tower - Relocate Electric Facilities
- 6 - Recloser/Substation and other Automation Initiatives
- 7 - Electric System Security
- 8 - RTU Program
- 9 - Sectionalize and Reconductor 115kV Circuit 917
- 10 - Rochester Area Reliability Project
- 11 - Station 2, Unit 1 11kV Breaker and Switchgear
- 12 - Station 5 Tunnel - New Lining
- 13 - Station 5 - Substation Modernization
- 14 - Station 5 Units 1, 2, 3 Upgrades
- 15 - Station 23 - New Downtown 115kV Substation
- 16 - Station 23 - Transformer & 11kV Switchgear
- 17 - Station 33 - Replace Transformer 2T
- 18 - Station 38 - Substation Modernization
- 19 - Station 40 - Circuit 550 Cable Replacement
- 20 - Station 42 - Add (4) 20MVAR Cap Banks
- 21 - Station 49 - Replace 34.5-11.5kV Transformer
- 22 - Station 26 Unit 1 Major Overhaul
- 23 - Station 56 - Additional 12kV Source
- 24 - Station 67 to 418 New 115kV Transmission Line
- 25 - Station 69 - New 115kV Capacitor (formerly Station 71)
- 26 - Station 80 - Replace 1T and 3T Transformers
- 27 - Station 120 - New 34.5kV Capacitors
- 28 - Stations 121 & 168 Capacitor Banks
- 29 - Station 124 - New Phase Shifter Transformer
- 30 - Station 124 - Static VAR Compensator
- 31 - Station 125 - New 34.5kV Capacitor Bank
- 32 - Station 127 - New 34.5kV Capacitor Bank
- 33 - Station 136 - Add 2nd Transformer
- 34 - Station 173 - 34.5kV Switched Capacitor Bank Addition
- 35 - Station 178 - 34.5kV Capacitor Bank
- 36 - Station 180 - 34.5kV Capacitor Bank
- 37 - Stations 128 & 180 - Add 115kV Capacitors
- 38 - Station 181 - 34.5kV Capacitor Bank
- 39 - Station 194 - 34.5kV Capacitor Bank

- 40 - Station 198 - 34.5kV Capacitor Bank
- 41 - Station 218 - 34.5kV Capacitor Bank
- 42 - Station 218 to Clyde New 34.5kV Transmission Line
- 43 - Station 251 - University of Rochester - New 115-34.5kV Substation
- 44 - Station 262 - New 115/34.5 kV Substation
- 45 - Webster East New 12 kV Source

NYSEG

- 46 - Agro-Farma, 46kV Trans Line & Sub
- 47 - Biogas 34.5kV Collection System
- 48 - Brewster RTU Substation Automation
- 49 - Brewster T&D Hardening Project
- 50 - Columbia County Transmission Project, New 115kV Transmission Line (Klinekill)
- 51 - Coddington LTC Capacity 115-34.5kV Transformer
- 52 - Corning Valley Upgrade
- 53 - DOE Stimulus Program-Capacitor Banks
- 54 - Eelpot New Transformer
- 55 - Flat Street Substation New Transformer
- 56 - Harris Lake - Diesel Generator Upgrade
- 57 - Ithaca Reinforcement Project
- 58 - Liberty T&D Hardening Project
- 59 - Line #807 115kV Conversion
- 60 - Meyer - Add 115kV Capacitor Bank
- 61 - Meyer Substation New Transformer
- 62 - Mobile Radio Project
- 63 - NERC Alert Program
- 64 - New Bulk Spare Power Transformer - 2012
- 65 - NYSEG Communications for Automation Initiatives
- 66 - NYSEG Electric System Security Projects
- 67 - Perry Center Area Install New 34.5kV Substation
- 68 - Replace Failed Bank #1 at Watercure Rd Sub
- 69 - Transmission Pole Replacement Program
- 70 - Richfield Springs Substation New Transformer
- 71 - Robinson Road 230kV Transformer Replacement
- 72 - South Perry New 230kV Transformer
- 73 - South Perry New 115kV Transformer
- 74 - Silver Creek Substation New Transformer
- 75 - South Park Sub - Bank Installation
- 76 - South Perry - Replace 115/34.5 kV Transformer
- 77 - Stephentown Substation New Transformer
- 78 - Stolle - Dysinger
- 79 - Substation Automation (RTU Program)
- 80 - The Mechanicville Reinforcement Project
- 81 - Tom Miller Rd New Substation
- 82 - Transit St Sub - Relocate 12kV Circuits MGP
- 83 - Walden 69kV Transmission Line Upgrade
- 84 - Wehrle Dr, Replace Cable, Terminations & Switch Gear
- 85 - Westover Substation New 115kV Transformer & Binghamton Division Capacitors
- 86 - Willet Substation New Transformer

RG&E / NYSEG

- 87 - Energy Control Center
- 88 - OMS/GIS
- 89 - IUSA SAP Project

Gas projects and programs with actual investment greater than \$500,000

RG&E / NYSEG

- 90 - Gas Regulator Modernization & Automation Program
- 91 - Leak Prone Main Replacement Program
- 92 - Leak Prone Services Renewals
- 93 - Distribution Mains, New Business
- 94 - New Gas Services
- 95 - Gas Meters
- 96 - Distribution Main, Replacements
- 97 – Gas Government Jobs
- 98 - SmarTRAC Replacement

RG&E

- 99 - New Empire West Gate Station
- 100 - Northeast 60 - Penfield
- 101 - Ridge Rd East, Replace Gas Mains
- 102 - West Henrietta @ Canal, I-390 Highway Improvement Phase

NYSEG

- 103 - Cargill Salt Gas Main Upgrade Watkins Glen
- 104 - Horseheads Gas Service Replacements
- 105 - Robinson Road Gate Station Rebuild
- 106 - Seneca West Pipeline Interconnect to Elmira
- 107 - Binghamton Gas SCADA System Migration

**New York State Electric & Gas Corporation
Rochester Gas and Electric Corporation
Annual Capital Investment Report
Schedule B**

1 - CableCure Program

As of December 31, 2013

Project Overview

This work involves injecting an insulating fluid into the stranding of aged XLP URD primary distribution cables that permeates into the insulation. These cables were installed between 1970 and 1985 and have since experienced a high frequency of premature insulation failures. All cables identified for treatment reside within the RG&E Central District (predominately in the Monroe County NY area).

The objective of this project is to extend the useful life of the XLP cables at least 20 years. The most tangible benefit derived from this program is the 20 year life extension. An added benefit contained within the time extension is it allows for the planning of a systematic XLP cable replacement program and spreading the related cable replacement costs over time. A further benefit is to reduce the frequency of cable faults in the treated cable, thereby improving reliability.

Project Activities / Key Accomplishments in 2013

- From January 1, 2013 thru December 31, 2013, more than 189k ft. of XLP URD cable was examined with 132k ft. being successfully treated.
- Capital investment was \$1.14 million.

Project Activities Planned for 2014

- No activities planned for 2014

2 - East Ridge Road - Electric Facilities Relocation

As of December 31, 2013

Project Overview

The Monroe county and the Town of Irondequoit are improving East Ridge Road between Culver Road and East City Line (Seneca Road) by full reconstruction of the highway and intersections.

RG&E's underground and overhead electric facilities are in conflict with the improvements. RG&E must relocate approximately 30 poles affecting six 4kV circuits with equipment, transfer and install new overhead primary and secondary conductors, transfer duct system with cables to new poles. Install new duct, rebuild six manholes, handholes, install a 12 way, nine way and six way 5" duct systems, remove abandoned duct, replace head end cables while installing 40,000 feet of distribution and 11,000 feet of transmission cables with equipment. Relocate and remove street lighting facilities.

Project Activities / Key Accomplishments in 2013

- Completed subway work including removals
- All underground circuits installed and all removals from 3 stations completed.
- Seven cable poles transferred
- Capital investment was \$3.3M during the year

Project Activities Planned for 2014

- Complete switching on 3 remaining circuits

3 - Jefferson Avenue - Relocate Electric Facilities

As of December 31, 2013

Project Overview

The City of Rochester is improving Jefferson Ave and RG&E must relocate electric facilities to accommodate and resolve conflicts with these planned improvements. The facilities that are required to be removed include: 44 hand holes, 24 manholes, 6,500 feet of conduit, 3,500 feet of cable, 8 rear lot feeds, and 70 poles with 6500 feet of wire to transfer or replace.

Project Activities / Key Accomplishments in 2013

- All pole removals and shutdowns were completed in 2013.
- Capital investment was \$62,500

Project Activities Planned for 2014

- No activities planned in 2014.

4 - Lake Avenue - Relocate Electric Facilities

As of December 31, 2013

Project Overview

The City of Rochester is planning on improving Lake Ave. between Burley Rd. and Merrill St. This 1.2 mile project is fully reconstructing the highway and intersections. RG&E will be installing a new duct system, rebuilding seven manholes and five hand holes, installing six and two way 5" duct systems, remove abandoned encased duct system and remove and replace existing city drop inlets to remove abandoned duct system in conflict with the improvements. The City of Rochester construction will begin in March of 2014 and is scheduled to be completed by the fall of 2014. RG&E's work must start 2013 and will be completed by spring of 2014.

Project Activities / Key Accomplishments in 2013

- 2/3 of subway work completed
- Test pits and testing of duct systems for asbestos completed
- Overhead pole work completed
- Leaking transformers replaced
- Completed reroute of 4kV circuit
- Capital investment of \$1.6M during the year

Project Activities Planned for 2014

- Complete remaining subway work
- 3 circuit poles to be built and transferred
- One remaining pilot wire to be installed

5 - Midtown Tower - Relocate Electric Facilities

As of December 31, 2013

Project Overview

This project includes the relocation of RG&E electric cable and subway facilities in conflict with a City of Rochester highway project to install new roads, rebuild and resurface existing roads, install new curbing and repair and upgrade sanitary, water and storm systems. Existing subway facilities that are relocated will be abandoned in place. The project also covers the removal of underground cable and oil switches from the former Midtown Plaza complex to allow for building demolition and prepare the site for future development.

Project Activities / Key Accomplishments in 2013

- Completed approximately 2/3 of required removals and relocations for highway reconfiguration
- Capital investment was \$920,000

Project Activities Planned for 2014

- Completion of the remaining removal of underground system and relocation of underground facilities for new highway reconfiguration.
- Complete site preparation for development.

6 - Recloser/Substation and other Automation Initiatives

As of December 31, 2013

Project Overview

Many of RG&E's reclosers are manually operated. This causes delays in power restoration and lengthens the time it takes to clear circuits and restore power. Providing an automated method of operating a recloser can reduce the time restore power by a minimum of 45 minutes. It will also speed up storm restoration by saving a line crew from having to drive back to the recloser after clearing the circuit as now the Energy Control Center can operate the recloser for them. The benefits of automating recloser control are:

Reduced time to restore power
Improved system reliability

Project Activities / Key Accomplishments in 2013

- Deployed head end environment to communicate with reclosers
- Deployed backup head end environment to communicate with reclosers
- Deployed monitoring system for recloser communications
- Automated 85 Reclosers
- Capital investment of \$1.1M during the year

Project Activities Planned for 2014

- Expand head end environments to support additional reclosers
- Automate 50 reclosers

7 - Electric System Security

As of December 31, 2013

Project Overview

This project has multiple facets covering numerous aspects of security. Included are substation perimeter protection and fencing upgrades.

Project Activities / Key Accomplishments in 2013

- Install perimeter protection, fencing, video and other security measures at various locations.
- 2013 Capital investment \$1.6 million.

Project Activities Planned for 2014

- Replacement of access control security systems providing standardization between NYSEG and RG&E.
- Upgrade video alarming equipment.
- Upgraded cameras to include thermal capability at bulk power substations and other critical infrastructure locations.
- Security system installation at hydrogenerating facilities.
- Continued upgrades and replacement of physical barriers and fencing at critical facilities.

8 - RTU Program

As of December 31, 2013

Project Overview

The RG&E RTU Upgrade Program project is a Remote Terminal Units (RTU) replacement for 12 substations. The installation of twelve new RTUs will reduce maintenance costs as well as the requirements to have spare parts for the obsolete units. The additional SCADA points will help identify the cause of outages and reduce restoration time. Phase one of the program began in 2010 with the purchase and installation of twelve remote terminal units. Phase Two includes engineering and design review of existing substation facilities and application of modernization/automation standards; update substations to the new IUSA TM 3.51.01 Technical Manual in order to meet the requirements for the new ECC.

Project Activities / Key Accomplishments in 2013

- Completed detailed design engineering.
- Purchased remaining material for all but 6 Substations.
- 2013 capital investment was \$2.7M

Project Activities Planned for 2014

- Complete material purchases for remaining six substations.
- Commission and place the remaining six stations in service: Stations 142, 428, 106, 111, 118, 125.

9 - Sectionalize and Reconductor 115kV Circuit 917 (Station 7 - Station 418)

As of December 31, 2013

Project Overview

The RG&E owned 115kV circuit number 917 includes six tapped substations and over 30,000 customers. The existing 917 line protection is provided by primary and secondary step distance electromechanical relays located at Station 418 and microprocessor based relays at Station 7

The purpose of this project is to minimize the impacts of faults on this line by breaking up the line at various locations using breakers and motor-operated switching sectionalizing schemes depending on conditions at various substations. The solution required to sectionalize the line is to install circuit breakers and switches in each of the 115kV buses at Station 69 and 70 and install GIS-type compact switching devices for Station 71. It is also necessary to equip the existing 115kV disconnect switches at Stations 69, 70, and 113 with motor operating mechanisms as well as supervisory elements for remote control. Protection and controls necessary to isolate each section of the line in the minimum time will also be provided as well as fiber optic communication.

Project Activities / Key Accomplishments in 2013

- Started detailed engineering for Station 70, 71, and 113
- Completed in ground engineering for Station 69
- Started in ground construction for Station 69
- Capital investment was \$1.6M during the year.

Project Activities Planned for 2014

- Complete detail engineering for all stations
- Complete above ground construction of Station 69 and 70
- Station 69 and 70 put in service
- Purchase RTUs, steel structures and protection and control cabinets

10 - Rochester Area Reliability Project (New Bulk Power Station)

As of December 31, 2013

Project Overview

Add new 345kV breaker and a half substation with two 400MVA 345/115kV transformers with LTC, one 115kV 300/350MVA line from new station to Station 418, and one 115kV 300/350MVA line to Station 3 115kV.

During a long term outage of the Ginna Nuclear Station at a load level of 1843MW, subsequent loss of the 345/115kV 462 MW transformer #5 at Station 80 will cause the Station 80 345/115kV transformers #1 and #34, and all the three Station 122 345/115kV transformers to be at their full capacity. Thus at peak load levels forecasted for 2014, the system will be at its full capacity under single contingency condition.

Project Activities / Key Accomplishments in 2013

- Develop detail engineering for substations
- Develop detail engineering for transmission lines
- Support efforts to allow for PSC Approval of the Article VII
- Awarded Article VII Certificate
- File EM&CP I
- Approval EM&CP I (except Station 255)
- Prepare EM&CP II
- Study alternate locations for Station 255
- Prepare procurement documentation for construction contracts
- Apply for property rights and permits
- Capital Investment of \$17 M during the year
- Purchase of main equipment
- Developed a Facilities Study for NYPA and start developing Interconnection Agreement with NYPA
- Negotiate agreements with Buckeye, Empire, R&S Rail Road and National Grid

Project Activities Planned for 2014

- Finalize detail engineering for substations and transmission lines
- Finalize and award all construction contractors
- Obtain all the property rights and permits
- Complete procurement activity
- Prepare EM&CP III
- Start construction of substations 80 and 418
- Start construction of transmission lines (UG 940 and UG 941)
- Finalize Interconnection Agreement with NYPA
- Finalize agreements with Buckeye, Empire, R&S Rail Road and National Grid
- Define final location of Station 255
- File EM&CP II and III

11 - Station 2, Unit 1 11kV Breaker and Switchgear

As of December 31, 2013

Program Overview

The Station 2, Unit 1, 11kV generator breaker and network disconnecting apparatus are located at Distribution Substation No. 6, ~ 1.5 miles from the T/G unit. This configuration, with its excessively long 11kV and pilot wire cable lengths, requires certain protective relays to be located at Station 6. This protection scheme is not adequate to detect low level line faults (generator or distribution circuits) in the common manholes/duct banks between the two stations. The arrangement does not meet current industry / I-U standards.

The 2011 Facilities Study, required by NYISO Interconnection Agreement process, determined that the upgrade of the Unit 1 T/G from 6.5 to 8.5 MW could lead to cable overloading (during certain conditions such as high system/unit load periods or distribution circuit outages) of the existing generator and/or 11 kV distribution circuits located in the common manholes and duct banks between Station 2 and Station 6. The existing generator cables are near the end-of life (K&N configuration), and are not adequately sized for the recently upgraded generator for year round operation without load curtailment. In the event of a cable fault/failure (a number of which have occurred the past 10+ years), there is a high risk of adverse affects on unit/network reliability and personnel/public safety. The generating station's 125 VDC source is also located at Station 6 (via subway/manhole and cable system).

This betterment project is being implemented to connect Station No. 2 generator to Distribution Substation 137 (commissioned December 2011) by constructing a new 11kV substation and house service adjacent to the Station 2 powerhouse, and ultimately improve the reliability and safe operation of Station 2, as well as the distribution network, by eliminating an obsolete system that is at end of life. The new substation and interconnection to Station 137 will ensure reliable, efficient electricity transfer from Station 2 to the grid for many years. This reliable connection is needed to maximize the benefits of the recent investments at Station 2 to increase the capacity of that station.

Project Activities / Key Accomplishments in 2013

1. Installation of the new GIS switchgear with DC power supply (Sta 9029)
2. Installation of the new metering cabinet (S9028)
3. Installation of a new underground duct bank from S2 to S9029 to S9028 to S137
4. Installation of new 11kv circuit for the generator output
5. Installation of new communication cabling
6. Installation of new protective relays and associated equipment
7. Installation of new 4kv house service for with Automatic Transfer Switch
8. Sitework and regrading
9. Commissioning, testing, and training
10. Station start-up and as-built documentation
11. Capital investment of \$1.7M during the year

Project Activities Planned for 2014

1. Final grading and lawn restoration
2. Installation of corporate network at Sta 2
3. Installation of corporate security enhancements
4. Removal of abandoned equipment and wiring at S6

12 - Station 5 Tunnel - New Lining

As of December 31, 2013

Program Overview

The program was initiated in 2007 and placed into service in December 2012. Site restoration, contractor demobilization along with project closeout and punch list activities was completed in the 2nd quarter of 2013.

The project's general scope involves the construction of a new steel reinforced concrete lining system inside the existing system to replace an end-of-life tunnel/water conveyance system (originally constructed in 1917), including relining the entire system along with numerous structural reinforcements to assure the long term integrity of the tunnel. The project is necessary to return the station to safe and reliable service and for providing an estimated 219,000 MWhrs per year of renewable energy for the direct benefit of RG&E customers.

Background: This project was originally planned to be completed in three phases beginning in 2007. During the initial tunnel entry in August 2007, a 125 ft long partial liner collapse was found in a section of the tunnel. As a result, the entire underground water conveyance system was inspected and made secure for safe entry and construction. The partial liner collapse area was then stabilized and prepared for tunnel relining. In addition, a series of 16 engineer/safety inspections of the tunnel system were performed which identified additional deteriorated spots in the existing liner.

Due to the construction being performed in a confined space approximately 130 feet below grade, as well as the existing contamination impacts that have been in the rock strata since the early 1900s, and entering the tunnel through cracks in the existing liner, this project requires special construction techniques and detailed safety procedures, innovative processes and extensive personal protective equipment (PPE)

Project Activities / Key Accomplishments in 2013

- Maintained site safety and security through demobilization;
- Demobilized all project work sites;
- Restored site to a pre-construction condition;
- Completed punch list and project closeout items;
- Completed project documentation and close-out project;
- Review and negotiate deliverables / final payment with Construction contractor – on-going;
- Capital investment was \$166,420 during the year.

Project Activities Planned for 2014

- Review and negotiate deliverables / final payment with Construction contractor

13 - Station 5 - Substation Modernization

As of December 31, 2013

Program Overview

Step-up substation from 11.5kV to 34.5kV; 3 generators injection to single split bus and one feeder for Fossil & Hydro house services from the same 11.5 kV Bus; 50 MVA Transformer 11.5/34.5kV; evacuating step up generation through midpoint tap of line 713 in 34.5 kV

Project Activities / Key Accomplishments in 2013

- Power Transformer 11.5 / 34.5 kV progress payment
- Progressed conceptual engineering
- Purchased relays
- Capital investment was \$1.4 million

Project Activities Planned for 2013

- Complete conceptual engineering
- Start and complete detail engineering
- Final payment and delivery of power transformer 11.5 / 34.5 kV
- Remove and dispose of 4kV switchgear

14 - Station 5 Units 1, 2, 3 Upgrades

As of December 31, 2013

Program Overview

The project was initiated in 2007 and unit commissioning began in December 2012. Final commissioning and turnover to Operations and closeout / punch list activities was completed in 4Q2013.

Background: Unit 1 and Unit 2 turbine generators at Station 5 were installed circa 1917 and Unit 3 was installed circa 1927. Except for the turbine runners that were replaced in the 1980's, the units are original plant equipment and need to be completely rebuilt to maintain expected efficiency, reliability and availability.

This project completely rebuilds the turbine-generating units. Each unit will be completely disassembled, all end-of-life components will be replaced with newly designed components and equipment such as wicket gates, greaseless stem bushings, turbine guide/shaft bearings, crown and curb seal rings and upper generator guide bearing that are designed, manufactured and installed according to specifications. When the Station returns to service, the completely rebuilt turbine generator assemblies will be tested and performance verified.

Project Activities / Key Accomplishments in 2013

- Unit 1 Turbine-Generator-Completed final reassembly of miscellaneous auxiliary components – mechanical and electrical components/systems;
- Unit 1 Turbine-Generator-Completed commissioning and testing of turbine-generator systems. Unit returned to commercial operation in December 2012 with turnover to Operations in 1Q2013.
- Unit 2 Turbine-Generator-Completed assessment of turbine-generator components;
- Unit 2 Turbine-Generator-Completed design, manufacture and machining of new components (bearings, bushings, wicket gates, stay vanes, embeds, components, etc) and overhauled generator field and stator windings and exciter;
- Unit 2 Turbine-Generator-Completed final reassembly and alignment of turbine-generator – mechanical and electric components/systems;
- Unit 2 Turbine-Generator-Completed commissioning and testing of unit. Unit returned to commercial operation and turnover to Operations in 1Q2013.
- Unit 3 Turbine-Generator-Completed assessment of turbine-generator components;
- Unit 3 Turbine-Generator-Completed design, manufacture and machining of new components (bearings, bushings, wicket gates, stay vanes, embeds, components, sole plates, etc) and overhauled exciter and stator windings;
- Unit 3 Turbine-Generator-Completed final reassembly and alignment of turbine-generator – mechanical and electric components/systems;
- Unit 3 Turbine-Generator-Completed commissioning and testing of unit. Unit returned to commercial operation and turnover to Operations in 4Q2013.
- Unit 3 Turbine-Generator-Contractor demobilization.
- Completed project documentation, as-built drawings, punch list items and project close-out.
- Capital investment was \$0.7 million.

Project Activities Planned for 2014

- No activities planned – project complete.

15 - Station 23 - New Downtown 115kV Substation

As of December 31, 2013

Project Overview

This project consist of building a new 115kV gas insulated switchgear substation at Station 23, fed by the existing Lines 901 and 920 that originate at Mortimer and Station 42, respectively. Line 901 will be upgraded to carry 400MVA from Mortimer to Station 23. A phase-shifting transformer will be added on Line 920 at Station 42. A 11kV phase-shifting transformer will be relocated from Station 23 to Station 137.

Two 115-34.5kV transformers will be added at Station 23 and a 34.5kV line will be constructed from each new transformer to feed the bus at new Station 137.

Project Activities / Key Accomplishments in 2013

- Progressed detailed engineering
- Progressed 115kV gas insulated switchgear order; 2nd milestone payment made
- Progressed 34.5kV gas insulated switchgear order; 3rd progress payment made
- Performed routing analysis for Line 901
- Completed manufacture of 115/34.5kV transformers
- Capital investment was \$7.7M during the year.

Project Activities Planned for 2014

- Complete detailed engineering
- Start electrical tie-in Station 42 PST
- Relocate 11kV PST from Station 23 to Station 137
- Begin bid process for cable purchase for Line 901

16 - Station 23 - Transformer & 11kV Switchgear

As of December 31, 2013

Project Overview

Replace two 115kV transformers and four sections of 11.5kV switchgear.

Transformer replacements are due to aging infrastructure, 1T and 2T transformers are leaking and have also reached the end of their useful lives. Two of the four bus sections of 11kV are over dutied and need to be upgraded for proper fault current ratings. There are six over dutied breakers on Bus 1 and six on Bus 2 (all are approximately 125% over dutied). Buses 3 and 4 have all 11kV breakers at 96% of rated capacity.

Project Activities / Key Accomplishments in 2013

- Continue detailed engineering
- Progressed 11.5kV GIS switchgear order
- Completed the manufacture of 115/11.5kV transformer
- Capital investment was \$1.9 million

Project Activities Planned for 2014

- Complete detailed engineering
- Bid construction contracts
- Complete transformer foundations
- Move 11.5kV transformers onto pad and assemble
- Receive switchgear

17 - Station 33 - Replace Transformer 2T

As of December 31, 2013

Project Overview

Station 33 1T and 2T transformers supply 4kV to approximately 3,412 customers. The 2T transformer failed in October 2012 resulting in one transformer, 1T, taking the 4 kV load.

This is an emergency project because the entire 4 kV load cannot be fed from alternative sources should a failure of 1T occur. This would result customer blackouts.

This project will replace the 2T transformer with a spare transformer. A temporary transformer will be installed and prepared to be connected in the 1T position as backup should a 1T failure occur. The spare transformer will be replaced.

Project Activities / Key Accomplishments in 2013

- Completed engineering
- Completed substation construction and place in service in May 2013.
- Completed specification of spare transformer.
- Capital investment was \$1.0M during the year.

Project Activities Planned for 2014

- Procure replacement spare transformer

18 - Station 38 - Substation Modernization

As of December 31, 2013

Project Overview

The project includes the complete installation of new 34.5 kV, 11.5 kV and 4 kV switchgear, replacing all the existing switchgear with new GIS SF6 switchgear; removal and replacement of 3T and 4T which are outdated and replacements parts have become difficult to procure. The entire investment encompasses upgrading auxiliary services for the station, new electronic protection relays with IEC 61850 capabilities, new battery banks and AC,DC control panels will be installed. The entire infrastructure will increase safety for local operators and greater reliability to the downtown underground network.

Project Activities / Key Accomplishments in 2013

- 3T & 4T fabrication progressed; 2nd milestone payment made and drawings approved
- Capital investment was \$1.9 million.

Project Activities Planned for 2014

- Complete structural design
- Complete conceptual electrical engineering design

19 - Station 40 - Circuit 550 Cable Replacement

As of December 31, 2013

Project Overview

Transformer #5 at Station 40 is overloaded and has reached 138% of its PLBN rating during the summer peak of 2011.

Currently Transformer #5 at Station 40 feeds Station 68. The objective of this project is to relieve that transformer by feeding Station 68 from Station 49. In order to feed Station 68 from Station 49, Circuit 550 needs to be up-rated to carry the load.

This project consists of replacing cables in RG&E Circuit 550 from Station 49 to Station 68 in order to increase the capacity of the line. The head-end (Station 49) of the circuit will be re-routed to avoid the need to de-rate the circuit below the needs of this project.

Project Activities / Key Accomplishments in 2013

- Scope definition completed
- Conceptual and detailed engineering completed
- Power cable procured and delivered to RG&E
- Subway installation (including City Permits) completed
- 1,000 feet of cable installed including terminations
- The 2013 capital investment in the project was \$1.2M

Project Activities Planned for 2014

- Procurement of main construction contractor
- Installation of power cable
- Removal of old power cable
- Relay adjustments
- Testing and commissioning
- Project close-out

20 - Station 42 - Add (4) 20MVAR Cap Banks

As of December 31, 2013

Project Overview

This project consists of installing four 20 MVAR capacitor banks with associated 1200A breakers and disconnecting switches for voltage support. Each capacitor will be connected to each 34.5kV bus section at the station. It is also included an upgrade of communication systems for the substation to allow better control of newly installed equipment. The yard and east control house will be expanded to provide space for the installed equipment.

Project Activities / Key Accomplishments in 2013

- Installation of new LAN line equipment in control houses
- Project closeout
- Capital investment of \$1.1M during the year

Project Activities Planned for 2014

- No activities planned for 2014

21 - Station 49 - Replace 34.5-11.5kV Transformer

As of December 31, 2013

Project Overview

Station 49 provides 22MW of power to approximately 6,230 customers that include Bausch Lomb and Rochester General Hospital. During high load periods, loss of one of the 34.5kV/11.5kV transformer at Station 49 results in overloading the other 34.5/11.5kV transformer above its Long Term Emergency Rating (LTE) and voltages at sub marginal levels. This would result in the shedding of approximately 2MW of load to relieve the overload on the remaining transformer. The period of exposure is approximately 400 hours per year. The criteria used for this project is the single contingency criteria for the transmission system that provides for loss of any element results in the remaining elements being below their long term emergency rating.

The Station 49 Transformer Replacement and Switchgear Addition project is being performed in two phases. Phase I will include the replacement of two, 60 year old 34.5kV/11.5kV-18.75MVA transformers with larger (34.5/11.5kV-37MVA) LTC transformers. During Phase II, Rochester Gas & Electric will install 12 bays of 11.5kV Gas Insulated Switchgear (GIS) at Station 49. The GIS will replace 12 oil circuit breakers that were manufactured and installed in the early 1950's. The new GIS will have an interrupting rating of at least 31.5kA, increasing the margin of the interrupting capability. The GIS is intended to be installed within the footprint of the existing breakers negating the need for expansion of the control house or construction of a new enclosure.

Project Activities / Key Accomplishments in 2013

- Completed conceptual design
- Started detailed design
- Completed permitting process
- Started civil construction
- Capital investment of \$2.4M during the year

Project Activities Planned for 2014

- Finished detailed design
- Complete Phase I civil construction

22 - Station 26 Unit 1 Major Overhaul

As of December 31, 2013

Program Overview

The major rebuild includes more efficient turbine blade design (Kaplan style unit) that is expected to provide an additional estimated 3,000 MWhrs per year based on historical average water year. The project was initiated in 3Q2011 (planning/conceptual work scope), unit disassembly and preliminary inspection completed in late early 2012, design and bid specifications, competitive bidding/award, components shipped to manufacturing depot, and rebuild started in 2012. Project is currently projected to be complete with the unit returned to service by February 28, 2014.

Background: Hydroelectric turbine-generating Unit 1 (Allis-Chalmers) with nameplate capacity of 3.0 MW is original plant equipment (1952). The unit capability has gradually degraded over the past 20 years or so. Prior to the outage to implement this project, the average annual output was approximately 12,000 MWhrs. Based on the age and asset condition (60 years old), repairs are no longer effective to maintain unit efficiency, reliability and availability. This project is necessary to return the unit to safe and reliable service and for providing an estimated 15,000 MWhrs/year of renewable energy.

To achieve these objectives, the unit will be completely disassembled/rebuilt including the Kaplan runner assembly. In general, the unit will be completely disassembled to major and individual component level, all end-of-life components will be replaced with newly designed components and equipment such as wicket gates, blades, greaseless stem bushings, turbine guide/shaft bearings, crown and curb seal rings and upper generator guide bearing. Components will be designed, manufactured, machined and installed according to specifications/standards. Upon re-assembly, the completely rebuilt turbine generator assemblies will be tested and its performance verified.

Project Activities / Key Accomplishments in 2013:

- Completed assessment of turbine-generator components;
- Manufacturer completed designs and procurement of long lead items;
- Completed, design, manufacture and machining/rebuild of components (bearings, bushings, wicket gates, Kaplan blades, embeds, draft tube, exciter, etc);
- Reassemble and align turbine-generator (all mechanical and electric components/systems) – on-going with conclusion in January 2014;
- Continue with project documentation/as-built drawings and project closeout – complete 1Q2014
- Capital investment of \$2.6M

Project Activities Planned for 2014:

- Commission and testing of turbine-generator systems for commercial operation by February 28, 2014 with turnover to Operations by 1Q2014;
- Upon return to service, test and verify performance of unit;
- Contractor demobilization - 1Q2014;
- Complete project documentation/as-built drawings and project closeout – 1Q2014;

23 - Station 56 - Additional 12kV Source

As of December 31, 2013

Project Overview

Phase 1 of this project is to install a new source for the existing Station 56 12kV by installing a new 115/12kV, 12/22 MVA transformer (4T), three 115kV breakers and associated disconnect switches, 115kV bus work, 12kV GIS equipment, 12kV GIS building and constructing a control room in the GIS building. All the site work will be contained within the fenced area of the existing substation. The scope of work for this project includes a tie-in to an existing 115kV National Grid Line (Trunk 23).

Phase 2 of this project includes the relocation of the existing 22 MVA transformer (3T), the removal of the associated equipment and the installation of the high side SF6 circuit breaker, associated disconnect switches, CCVTs, bus bar and the demolition of the existing 12kV small control building.

This project will also upgrade circuits 267, 268 and 402 from 4 kV to 12 kV.

Project Activities / Key Accomplishments in 2013

- Detailed engineering completed
- Procurement of power cable
- Completed Phase 1 in ground construction
- Installation and testing of Transformer 4T
- Material procurement
- Construction of the control building started
- Construction (preparation for conversion) of Circuit 267
- RFP for detail engineering of the System Integrator and Testing and Commissioning.
- Capital investment was \$5.5M during the year

Project Activities Planned for 2014

- Completion of the detailed engineering of the System Integrator
- Distribution line upgrades (Circuit 268 and Circuit 402)
- Complete Phase 1 above ground construction
- Complete Phase 2 in ground construction
- Phase 1 testing and commissioning
- Transformer 4T in service

24 - Station 67 to 418 New 115kV Transmission Line

As of December 31, 2013

Project Overview

Station 418 provides approximately 50MW of power to approximately 9,800 customers, including Kodak and Rochester Technology Park. The project will install a new 115kV circuit between Station 67 and Station 418 with overhead and underground portions and the expansion of Station 418 to accommodate receipt of the new circuit including a new control house. All the existing equipment and control from the existing control house at Station 418 will be relocated to the new control house. The expansion of Station 67 is necessary in order to accommodate the new circuit. Modifications to the existing control building are necessary to house the relay and communication equipment for the new line.

During high load periods, loss of Line 910 results in low voltages and loads above the Short-Term Emergency (STE) rating on Line 917. This would result in shedding all 50MW of load at Station 418.

Project Activities / Key Accomplishments in 2013

- Advanced detailed engineering
- Identified detailed routing of line
- Capital investment of \$1.6M during the year

Project Activities Planned for 2014

- Obtain municipal construction permit
- Start procurement of construction contractor
- Complete construction of the control building at Station 418

25 - Station 69 - New 115kV Capacitor (formerly Station 71)

As of December 31, 2013

Project Overview

Install one new 115kV, 50MVAR capacitor bank that will be switched by an independent pole operation circuit breaker with synchronous close control (zero voltage closing). Expansion of the RGE Station 69 yard is necessary to provide room for the new capacitor bank equipment and structures. The plan is to extend High Bus Section #1 to the east and install a motor operated disconnect switch and underground cable riser. The 115kV power cable then will extend north and terminate at a second riser, IPO circuit breaker, and 50MVAR capacitor bank. A new control house is being constructed as part of a reliability upgrade for Line 971. This project will install two relay panels for the capacitor bank protection and control in the new control house. The two new capacitor bank control and relay panels (systems A and B) will be installed in future spaces.

Project Activities / Key Accomplishments in 2013

- Completed in-ground design
- Completed 95% above-ground design
- Completed 90% in-ground construction
- Completed installation of in-ground conductor
- Procured materials
- Capital investment of \$1.4M during the year

Project Activities Planned for 2014

- Approve all designs
- Complete in-ground construction
- Complete material acquisition
- Complete above-ground construction
- Complete testing and commissioning
- Energize

26 - Station 80 - Replace 1T and 3T Transformers

As of December 31, 2013

Project Overview

Replace 345/115kV transformers 1T and 3T with new 345/115kV 400MVA autotransformers with LTC.

Project Activities / Key Accomplishments in 2013

- Completed detailed engineering
- Installed and energized 1T
- Replaced main bus section
- Installed and energized 3T
- Capital investment was \$7.0M during the year

Project Activities Planned for 2014

- Project close out activities

27 - Station 120 - New 34.5kV Capacitors

As of December 31, 2013

Project Overview

The scope of work included the installation of a new 34.5kV, 7.5MVAR capacitor bank, protected with a CLF fuse and switched with a zero voltage closing vacuum switch. The capacitor bank is automatically switched with voltage control. Expansion of the substation yard and fence was required.

Assets energized include:

- 1 – 34.5kV, 1200A, Motor Operated Disconnect switch
- 1 – 34.5kV, 7.5MVAR, 3-phase capacitor bank with 3 – 34.5kV, 200A, 200uH reactors, and 3 – 22kV MCOV intermediate class arresters
- 1 - Structure for the capacitor bank (vacuum switch, reactors and capacitor bank)
- 1 – 34.5kV, 400A, vacuum switch 120VAC solenoid operating mechanism, with ZVC Controls
- 3 – 34.5kV Power fuses, S&C type SM-5, 40A
- 1 - New 34.5kV, 1000 VA, bus PT for bus voltage sensing. The PT will be installed on the structure for power fuses.

Project Activities / Key Accomplishments in 2013:

- Reconciled all design issues
- Completed material acquisitions and all construction
- Completed Testing and Commissioning
- Energized capacitors
- Capital investment of \$0.3M during the year

Project Activities Planned for 2014

- No activities are planned for 2014

28 - Stations 121 & 168 Capacitor Banks

As of December 31, 2013

Project Overview

Station 168

The scope for this project included the installation of two 34.5kV, 12MVAR capacitor banks. The banks are switched by independent pole operation circuit breakers with synchronous close control. A new control house with capacitor bank control and relay panels was installed. The substation yard was expanded to accommodate the control building.

Station 121

The scope for this project included the installation of one 115kV, 75MVAR capacitor bank. The bank is switched by an independent pole operation circuit breaker with synchronous close control. New control and relay panel were installed in the existing control house. The yard was expanded to accommodate the new capacitor bank.

- 1 – 115kV, 75 MVAR, capacitor bank with reactors (GE)
- 1 – 115kV, 2000A ,40kAIC, circuit breaker, independent pole operation for synchronous closing, 12 BCT's total (Siemens)
- 3 – 115kV, station class surge arresters for effectively grounded systems (96 kV, 76 kV MCOV) (GE)
- 2 – Relay & control panels – System “A” & System “B”
- Panel CAP1A 11A - Breaker backup, Control Relay & Metering

Project Activities / Key Accomplishments in 2013

Station 168:

- The cap bank was energized in December, 2012
- In 2013, a communication upgrade was installed and a newly required engineering study conducted.

Station 121:

- Completed material acquisitions and all construction
- Completed Testing and Commissioning
- Energized capacitor bank
- Capital investment (both stations) of \$0.4M during the year

Project Activities Planned for 2014

- No activities planned for 2014

29 - Station 124 - New Phase Shifter Transformer

As of December 31, 2013

Project Overview

Install a +/-20% phase shifter on each of 115kV Circuits 911 and 932 at Station 124 to control power flow and limit the amperage on these circuits to below their capacity ratings.

Due to system source increases, such as that from increasing Ginna Station's output from 500MW to 600MW, power flow on Circuits 911 and 932 continues to increase to levels which may compromise the integrity of the underground pipe cables. The installation of the phase shifters will provide a control mechanism to force the flow of energy away from circuits 911 and 932 and onto other circuits which have the necessary capacity margin.

Project Activities / Key Accomplishments in 2013

- Construction completed for Station 124 and remote locations
- Completed all construction work with final restoration remaining
- Energized transformer
- Completed all testing and commissioning
- Capital investment of \$4.6M during the year

Project Activities Planned for 2014

- Complete punch list items for the project
- Complete as-built documentation for the project
- Project close out

30 - Station 124 - Static VAR Compensator

As of December 31, 2013

Project Overview

Add a +200/-100MVAR Static VAR Compensator (SVC) on the 115kV bus.

Station 42 uses approximately 60 MVAR of reactive supply and is a low point for voltage in the Rochester area. Dynamic voltage support is required for voltage transient stability for large contingencies which includes the tripping of Ginna Nuclear Power plant.

Adding the dynamic support where at Station 124 will provide significant voltage stability to the entire Rochester area.

Project Activities / Key Accomplishments in 2013

- Construction completed
- SVC equipment energized and placed in service
- Capital invested during the year was \$4.9M

Project Activities Planned for 2014

- Complete as-built drawings and project documentation for SVC
- Complete project close-out

31 - Station 125 - New 34.5kV Capacitor Bank

As of December 31, 2013

Project Overview

The scope of work included installation of two 34.5kV, 3.6MVAR capacitor banks. Each capacitor bank is protected with a CLF fuse and switched with a zero voltage closing vacuum switch. The capacitor bank will be automatically switched with voltage control. The substation yard and fence was expanded to accommodate the new capacitor banks.

Assets energized include:

- 2 – 34.5kV, 1200A, MOAB disconnect switches
- 2 – 34.5kV, 3.6MVAR, 3-phase capacitor banks each with 3 – 34.5kV, 200A, 200uH reactors, and 3 – 22kV MCOV intermediate class arresters
- Two structures for the capacitor banks (vacuum switch, reactors and capacitor bank)
- 2 – 34.5kV, 400A, 120VAC solenoid operating mechanism, with ZVC controls' vacuum switches
- 6 – 34.5kV power fuses, S&C type SM-5, 125A
- 2 - 34.5kV, 1000 VA, bus PT for bus voltage sensing. The PT is installed on the structure for power fuses and connected to the 34.5kV Bus

Project Activities / Key Accomplishments in 2013:

- Completed material acquisitions and all construction
- Completed testing and commissioning
- Energized capacitor bank
- Capital investment of \$0.2M during the year

Project Activities Planned for 2014

- No activities planned for 2014

32 - Station 127 - New 34.5kV Capacitor Bank

As of December 31, 2013

Project Overview

Station 127A:

The scope of work included installation of one 34.5kV, 3.0MVAR capacitor bank. The bank is protected with a CLF fuse and switched with a zero voltage closing vacuum switch, automatically switched with voltage control. Manual and SCADA is provided. Bus voltage sensing required for the vacuum switch is provided from the new PT on the 34.5kV bus; 120VAC power for controls and heaters is acquired from the existing AC distribution system.

Assets energized include:

- 1- 34.5kV, 1200A MOAB disconnect switch
- 1- 34.5kV, 3.0MVAR, 3 phase capacitor bank with 3-34.5kV, 200A, 200uH reactors, and 3 – 22kV MCOV intermediate station class arrestors
- 1 - 34.5kV, 400A, 120VAC solenoid operating mechanism with ZVC controls vacuum switch
- 3 - 34.5kV power fuses, S&C type SM-5, 40A
- 1 - 34.5kV 1000VA bus PT for bus sensing voltage

Station 127B:

The scope of work included installation of one 34.5kV, 3.0 MVAR capacitor bank position on the 34.5kV bus with an existing disconnect switch feeding the circuit breaker and capacitor bank. It is protected by two relay systems: 11S (SEL-451) and 11C (SEL-351S). The control panel was installed in the existing control house.

Assets energized include:

- 1 – 34.5kV, 1200A, Independent Pole Operation circuit breaker (Siemens)
- 1 - 34.5kV, 3.0MVAR, 3 phase capacitor bank with 3-34.5kV, 200A, 200uH reactors, and 3 – 22kV MCOV intermediate station class arrestors
- 1 – capacitor bank control panel with 11S (SEL-451) and 11C (SEL351S) relays
- Existing 34.5kV bus PT is used for IPO circuit breaker and relaying. The capacitor bank is incorporated into existing bus differential protection.

Project Activities / Key Accomplishments in 2013:

- Completed material acquisitions and all construction
- Completed testing and commissioning
- Energized both capacitor banks
- Capital investment of \$0.5M during the year

Project Activities Planned for 2014

- No activities planned for 2014

33 - Station 136 - Add 2nd Transformer

As of December 31, 2013

Project Overview

The project consisted of installing a second 34.5/12kV, 13.4/17.9/22.4 MVA transformer at Station 136. Also included was the removal of an existing metal-clad 34.5kV air insulated switchgear (AIS) and installation of a 34.5kV gas insulated switchgear (GIS) that now includes two incoming main feeds. The project added a 12kV bus (Section 2) and installed 12kV gas insulated switchgear to an existing 12kV bus (Section 1). Both GIS-type 34.5kV and 12kV switchgear are housed in a new control building installed near the existing one.

Station 136 was built with room for two transformers but has been operating with only one. The one transformer was overloaded. The purpose of this project was to eliminate overloading and reduce the risk of failure of the existing transformer.

Project Activities / Key Accomplishments in 2013

- Detailed engineering completed
- All permits issued
- Major equipment procurement completed
- Short lead time equipment procured, delivered and installed
- Construction and testing and commissioning procurement processes completed
- Building erection completed
- 2T foundation and oil containment completed
- Firewall installed
- Second transformer delivered and assembled
- Cable trenches installed
- Power and control cables installed
- Control room equipment installed
- GIS delivered and installed
- 12 kV circuit relocation completed (pending on final connection)
- Provisional communication system installed
- Above ground construction completed
- Testing and commissioning completed
- Energized and put in service
- Capital investment of \$4.5M during the year

Project Activities Planned for 2014

- Construct 1T oil containment
- Construct driveway
- Complete 12 kV circuit connection
- Complete final fiber optic communication system design
- Install fiber optic line
- Install exterior site lighting

34 - Station 173 - 34.5kV Switched Capacitor Bank Addition

As of December 31, 2013

Project Overview

Install one 34.5 kV, 1.5MVAR capacitor bank and associated vacuum switch and disconnect switch onto the existing 34.5kV bus.

Project Activities / Key Accomplishments in 2013

- Completed in-ground design
- Completed in-ground construction
- Completed material acquisitions; initiated above ground construction
- Capital investment of \$0.7M during the year

Project Activities Planned for 2014

- Update designs as required
- Completed above ground construction, testing and commissioning
- Energize

35 - Station 178 - 34.5kV Capacitor Bank

As of December 31, 2013

Project Overview

The scope of this project includes the installation of two 34.5kV 2.1MVAR capacitor banks and associated vacuum switches and disconnects.

Project Activities / Key Accomplishments in 2013

- Completed in ground design
- Initiated above ground design
- Procured materials
- Initiated land acquisition
- Capital investment of \$0.4M during the year

Project Activities Planned for 2014

- Complete land acquisition
- Complete material acquisition
- Initiate and complete in-ground construction
- Initiate and complete above-ground construction
- Complete testing and commissioning
- Energize

36 - Station 180 - 34.5kV Capacitor Bank

As of December 31, 2013

Project Overview

The scope of this project includes the installation of one 34.5kV capacitor bank and associated switches and disconnects.

Project Activities / Key Accomplishments in 2013

- Completed in-ground design
- Completed in-ground construction
- Initiated above ground design
- Procured materials
- Capital investment of \$0.6M during the year

Project Activities Planned for 2014

- Completed material acquisition
- Initiate/complete above-ground construction
- Complete testing and commissioning
- Energize

37 - Stations 128 & 180 - Add 115kV Capacitors

As of December 31, 2013

Project Overview

The scope of this project includes the installation of a 115kV capacitor bank at Stations 180 and 128. The banks will be switched by an independent pole operation circuit breaker with synchronous close control. Control and relay panels are installed in the existing control houses. The Station 180 yard was expanded to accommodate the new capacitor bank.

Project Activities / Key Accomplishments in 2013

- Completed in-ground design
- Completed in-ground construction
- Initiated above ground design
- Procured materials
- Capital investment (total for both stations) of \$1.0M during the year

Project Activities Planned for 2014

- Initiate and complete above-ground construction
- Complete testing and commissioning
- Energize

38 - Station 181 - 34.5kV Capacitor Bank

As of December 31, 2013

Project Overview

The scope of work included installation of two 34.5kV, 1.5MVAR capacitor banks. Each capacitor bank is protected with a CLF fuse and switched with a zero voltage closing vacuum switch. The banks are automatically switched with voltage control. The substation yard and fence was expanded to accommodate the new capacitor banks.

Assets energized include:

- 2 - 34.5kV, 1200A, Motor Operated disconnect switches
- 2 – 34.5kV, 1.5MVAR, 3-phase capacitor banks each with 3 – 34.5kV, 200A, 200uH reactors, and 3 – 22kV MCOV intermediate class arresters
- 2 - Structures for the capacitor banks (vacuum switch, reactors and capacitor bank)
- 2 – 34.5kV, 400A, 120VAC solenoid operating mechanism, with ZVC controls vacuum switches
- 6 – 34.5kV Power fuses, S&C type SM-5, 40A
- 2 - New 34.5kV, 1000 VA, bus PTs for bus voltage sensing

Project Activities / Key Accomplishments in 2013

- Completed material acquisitions and all construction
- Completed testing and commissioning
- Energized both capacitor banks
- Capital investment of \$0.4M during the year

Project Activities Planned for 2014

- No activities planned for 2014

39 - Station 194 - 34.5kV Capacitor Bank

As of December 31, 2013

Project Overview

The scope of work included installation of a 34.5kV, 1.5MVAR capacitor bank at Station 194. The bank is protected with a CLF fuse and switched with a zero voltage crossing vacuum switch. The capacitor bank is automatically switched with voltage control; manual control is also provided. The station fence was expanded to accommodate the installed equipment.

Assets energized include:

- 1 - 34.5kV, 1.5MVAR, 3 phase capacitor bank with 3-34.5kV, 200A, 200uH reactors, and 3 – 22kV MCOV intermediate station class arrestors
- 1 - 34.5kV, 400A, 120VAC solenoid operating mechanism with ZVC controls vacuum switch
- 3 - 34.5kV power fuses, S&C type SM-5, 40A
- 1- 34.5kV 1000VA bus PT for bus sensing voltage (connected to the 34.5kV bus)

Project Activities / Key Accomplishments in 2013

- Completed material acquisitions and all construction
- Completed testing and commissioning
- Energized capacitor bank
- Capital investment of \$0.2M during the year

Project Activities Planned for 2014

- No activities planned for 2014

40 - Station 198 - 34.5kV Capacitor Bank

As of December 31, 2013

Project Overview

The scope of work included installation of one (1) new 34.5kV, 1.5MVAR capacitor bank. The capacitor bank is protected with a CLF fuse and switched with a zero voltage closing vacuum switch. The bank is automatically switched with voltage control. The substation yard and fence was expanded to accommodate the new capacitor bank.

Assets energized include:

- 1 – 34.5kV, 1200A, MOAB disconnect switch
- 1 – 34.5kV, 1.5MVAR, 3-phase capacitor bank with 3 – 34.5kV, 200A, 200uH reactors, and 3 – 22kV MCOV intermediate class arresters
- 1 – 34.5kV, 400A, 120VAC solenoid operating mechanism, with ZVC controls vacuum switch
- 3 – 34.5kV Power fuses, S&C type SM-5, 40A
- 1 - New 34.5kV, 1000 VA, bus PT for bus voltage sensing. The PT is installed on the structure for power fuses and connected to the 34.5kV Bus

Project Activities / Key Accomplishments in 2013

- Completed material acquisitions and all construction
- Completed testing and commissioning
- Energized capacitor bank
- Capital investment of \$0.1M during the year

Project Activities Planned for 2014

- No activities planned for 2014

41 - Station 218 - 34.5kV Capacitor Bank

As of December 31, 2013

Project Overview

The scope of work included installation of a 34.5kV, 3.6MVAR grounded wye capacitor bank at Station 218. The bank is protected with a CLF fuse and auto-switched with a zero voltage crossing vacuum switch with voltage control; manual control is also provided. The station fence was expanded to accommodate the installed equipment. The bank is fed from an overhead connection through an existing line switch. This required the installation of a new corner pole.

Assets energized include:

- 3- 24.5kV MCOV at disconnect switch on the tap structure
- 1- 34.5kV 1200A MOAB disconnect switch
- 1- 34.5kV, 3.6MVAR, 3 phase capacitor bank with 3-34.5kV, 200A, 200uH reactors, and 3 – 22kV MCOV intermediate station class arrestors
- 1 – 34.5kV, 400A, 120VAC solenoid operating mechanism with ZVC controls vacuum switch
- 3 – 34.5kV power fuses, S&C type SM-5, 125A
- 1- 34.5kV 1000VA bus PT for bus sensing voltage (connected to the 34.5kV bus)

Project Activities / Key Accomplishments in 2013

- Completed material acquisitions and all construction
- Completed Testing and Commissioning
- Energized capacitor bank
- Capital investment of \$0.4M during the year

Project Activities Planned for 2014

- No activities planned for 2014

42 - Station 218 to Clyde New 34.5kV Transmission Line

As of December 31, 2013

Project Overview

The existing Station 199 in Clyde to Station 218 line provides approximately 25 MW of load to 9,217 customers. During high load periods, the line is loaded above its normal rating. This would result in shedding approximately 3MW of load to eliminate the overload. The period of exposure is approximately 175 hours per year. The criteria used for this project is the system normal criteria for the transmission system that provides when all elements are in-service all elements will be below their normal rating.

The scope of this project includes:

- The existing Circuit 708 originates from Station 199 and serves six substations. In order to split the current load from existing Circuit 708, a new circuit will be constructed somewhat parallel to the existing Circuit 708 to a point near Station 218.
- An outdoor breaker bay and control building expansion at Station 199 is required. The work includes the addition of a second breaker bay, an addition to the existing control building, DC battery system evaluation and design, and SCADA. The existing station has sufficient room to add the second breaker bay.
- The northern loop of the existing Circuit 708 will be split with half being connected to the new circuit. The other half will remain connected to the existing Circuit 708. The existing Circuit 708 will be reconstructed along portions of the route to replace aging infrastructure and improve its line conductor ratings. The project will also replace one set and add one set of 600 Amp, 1,250 kVA of voltage regulators.

Project Activities / Key Accomplishments in 2013

- Closed on several Right of Way (ROW) easement acquisitions
- Progressed detailed engineering
- Performed field work for environmental studies and permits
- Purchased long lead time materials
- Capital investment of \$3.1M during the year

Project Activities Planned for 2014

- Complete detailed engineering
- Submit and receive environmental permits
- Begin construction of the 10.8 mile section of transmission line and Station 199 (Clyde)

43 - Station 251 - University of Rochester - New 115-34.5kV Substation

As of December 31, 2013

Project Overview

Station 251 is being constructed to meet the projected load growth of the University of Rochester and the new Golisano Children's Hospital. The substation will be a 115 kV/11.5 kV breaker and a half substation with two 115 kV/11.5 kV, 70 (78.5) MVA transformers. The substation will connect to transmission lines 901 and 902. The 11.5kV distribution switchgear will be supplied, installed, owned and operated by the University.

Project Activities / Key Accomplishments in 2013

- Engineering design progressed
- Completed permitting
- Started civil construction
- Procured long lead materials
- Capital investment of \$6.0M during the year

Project Activities Planned for 2014

- Complete construction
- Complete engineering
- Complete procurement
- Substation energized and in service

44 - Station 262 - New 115/34.5 kV Substation

As of December 31, 2013

Project Overview

This project entails the construction of a new substation (Station 262) that taps Line 901 with a new 57MVA 115/34.5kV LTC transformer. A new 34.5kV line from Station 262 to existing Station 26 will be added as will a second 37 MVA 34.5/11.5kV transformer at Station 26. This new transformer at Station 26 will replace the existing transformer at Station 26.

Project Activities / Key Accomplishments in 2013

- Closed on property acquisition
- Progressed the fabrication of 3 power transformers; completed 2nd milestone payment
- Progressed Architectural, Structural, Civil and MEP design for Stations 262 and 26
- Capital investment was \$4.4M during the year.

Project Activities Planned for 2014

- Procure and start detailed electrical engineering
- Station 26 permit approvals
- Complete progress payments on power transformers

45 - Webster East New 12 kV Source

As of December 31, 2013

Project Overview

The load in eastern Webster, New York is growing and is served by Station 424. The Webster East New 12kV Source project was to provide the capacity to meet the load growth by upgrading Station 424 and converting existing customers from 4kV to 12kV.

The upgrades to Station 424 established 3 new 12kV circuits by installing a 34.5/12.5kV transformer, 34.5kV circuit switcher, three 12.5kV distribution feeders, 2.5kV control house, associated bus work, switches, conductors, conduit risers, new station service transformer, bus potential devices and CTs.

The distribution work to convert customers from 4kV to 12kV consisted of above ground and in-ground construction. The existing 4kV circuits 5289, 5290, and 5291 were converted to 12kV circuits 5203, 5204, and 5205.

Project Activities / Key Accomplishments in 2013

- Completed final punch list items
- Project closeout
- Capital investment was \$69,000 during the year

Project Activities Planned for 2014

- No activities planned during the year

46 - Agro-Farma, 46kV Trans Line & Sub

As of December 31, 2013

Project Overview

Agro-Farma (Chobani) is expanding production and increasing load beyond NYSEG's current capabilities. They anticipate an increase in production capability of 15MVA and the existing NYSEG system can only support a 5MVA increase. To increase capacity modifications are required to the existing County Line Substation, a new 10.7 mile 46kV transmission line is needed and a new 46/12.5kV substation to replace the existing South Edmeston Substation is required.

Project Activities / Key Accomplishments in 2013

- Completed construction of a new 10.7 mile 46kV transmission line paralleling existing Line 803 from County Line Sub to a new Columbus Substation.
- Completed modifications to the County Line Substation and energized the new transmission line on March 1, 2013.
- Completed the construction of a new Columbus Substation on July 31, 2013.
- Decommissioned the old South Edmeston Substation.
- Capital investment was \$3.1 million.

Project Activities Planned for 2014

- Environmental remediation of the old South Edmeston Substation site and a land transfer between NYSEG and Chobani for this site and the new Columbus Substation site.
- Minor Distribution work associated with the new substation.

47 - Biogas 34.5kV Collection System

As of December 31, 2013

Project Overview

Connect the dairy farms in the Cayuga County area that have bio-gas digesters to the NYSEG 34.5kV transmission system. This region has been heavily penetrated with manure digesters as a result of the limitations on green house gas emissions. The most cost effective use of the manure is to use it to generate electricity.

Project Activities / Key Accomplishments in 2013

- One dairy farm bio-gas digesters application was received to interconnected to the NYSEG 34.5kV systems.
- Approximately a 0.5 mile line was designed and construction to interconnect the Spruce Haven farm.
- Capital investment was \$0.4 million.

Project Activities Planned for 2014

- None.

48 - Brewster RTU Substation Automation

As of December 31, 2013

Project Overview

The Brewster Division has been identified as having poor equipment that is affecting system reliability and operational performance. The objective of this project is to replace or upgrade equipment and move from manual operation to automated control via the Energy Control Centre. The project will improve technical performance, system reliability and operational control.

There are 11 substations involved that will have remote control operation achieved by addition of motors to existing or new 46kV disconnect switches which will be controlled through new SMP-16 RTUs. The existing relaying of the 13.2kV and 4.8kV feeders will be upgraded to SEL-451S relays. The communication modules for the Transformer Load Tap Changers (LTC) and Capacitor Banks will be upgraded. In addition, a pre-wired Control Building will house the following equipment: SMP-16 RTU, 48VDC Battery Bank, 48VDC Battery Charger, 48VDC fused distribution panel, 240/120VAC, Power Distribution Panel, Metering Cabinet, Motor-Operated Disconnect Switch (MOD) Control Cabinets, LTC controls and a termination cabinet for field wiring.

Project Activities / Key Accomplishments in 2013

- Dover Plain, Haviland Hollow, Teakettle Spout and Dingle Ridge have been completed.
- Main equipment in Peach Lake has been commissioned.
- The new communication link between the ECC and Dover Plain, Haviland Hollow, Teakettle Spout are in service.
- Capital investment was \$2.5 million.

Project Activities Planned for 2014

- Complete the above grade construction in Peach Lake station.
- Award construction contract for below grade and above grade construction to Wassaic, West Patterson and Kent Cliffs stations.
- Wassaic, West Patterson and Kent Cliffs will be commissioned during this year
- Put in service the new communication link between the ECC and the stations Dingle Ridge, Peach Lake, Wassaic, West Patterson and Kent Cliffs.
- Put in service the new RTU in Dover Plain, Haviland Hollow, Teakettle Spout , Dingle Ridge, Peach Lake, Wassaic, West Patterson and Kent Cliffs stations.

49 - Brewster T&D Hardening Project

As of December 31, 2013

Project Overview

The Brewster Division has been identified as having poor equipment that is affecting system reliability and operational performance. The objective of this project is to replace or upgrade equipment to provide improved reliability for selected Substation, Distribution and Transmission facilities. Projects were selected by their potential to improve performance for the greatest number of customers.

Brewster work was organized in these groupings:

- Substation improvements: Substation automation projects install Remote Terminal Units (RTU's) at three Brewster substations.
- Transmission improvements: Structure replacements including pole, crossarm, insulator and conductor replacement on four Transmission Lines.
- Distribution improvements: Pole replacements on numerous Distribution Circuits. Installation of Reclosers (including remote control units) on numerous Distribution Circuits. Circuit rebuilds including installation of tree wire on numerous Distribution Circuits.

Project Activities / Key Accomplishments in 2013

- 257 Orders advanced to Construction. 251 Distribution; 3 Transmission; 3 Substation.
- 280 distribution poles installed; 61,000 ft of conductor including 24,500 ft of tree wire installed; 23 reclosers installed.
- 31 transmission poles installed; 7200 ft of conductor installed.
- Construction at the Peach Lake, Kents Cliffs, and West Patterson Substations initiated for RTU unit installations.
- Capital investment was \$4.5 million.

Project Activities Planned for 2014

- Completion of construction on many Distribution orders. Recloser installations, construction of tie lines, pole replacement work orders.
- Completion of transmission structure replacements on 3 orders.

50 - Columbia County Transmission Project, New 115kV Transmission Line (Klinekill)

As of December 31, 2013

Project Overview

Build a new 115kV line from National Grid Trunk #15 to NYSEG Klinekill substation, a new 115kV terminal at Klinekill substation, and a 3-breaker ring bus connecting to the 115kV National Grid line.

Project Activities / Key Accomplishments in 2013

- NYDPS Staff accept application
- Procedural Conference
- Public Statement Hearing
- Ongoing Public Statement Hearing
- Site Visit of NYSEG Proposed & Alternative Routes reflected in application
- Hearing to cross-examine Applicant's direct case
- Completed site tours by ALJ and other parties
- Submitted additional visual simulation requested by ALJ
- Filed architectural reports for structures older than 50 years within one mile of the proposed route
- Completed Cross examination/Testimony for the NYSEG proposed route
- Received alternative proposal to NYSEG's Project for evaluation
- Evaluating DPS Staff 34.5kV alternative
- Capital investment was \$1.6 million.

Project Activities Planned for 2014

The Project is under Article VII procedure, according to Project Schedule in 2014 is considered to accomplish the following activities:

- File alternative analysis report in February per the January 27th Order by the ALJ.
- Provide power-flow output results at a Mechanicville Division load of 252 MW (displaying MW and MVAR; not MVA).
- Post Hearing Briefs and Replay Briefs
- Prefiling of Staff and Intervener direct cases
- Prefiling of NYSEG supplemental direct evidence on NYSEG's 10/29 alternative routes
- Prefiling of rebuttal cases
- Hearing to cross-examine any NYSEG 1/14/14 evidence and Staff and intervener direct cases and rebuttal cases
- Filing of initial post-hearing briefs
- Filing of reply briefs
- ALJ Recommended Decision
- Briefs on exceptions to ALJ's decision
- Reply briefs on exceptions

51 - Coddington LTC Capacity 115-34.5kV Transformer

As of December 31, 2013

Project Overview

Install LTC capacity on the 115/34.5kV, 30/40/50 MVA transformer #2 at the Coddington substation and operate the #2 transformer in parallel with the #3 transformer. Work will include all associated equipment required with this transformer addition.

Project Activities / Key Accomplishments in 2013

- Detailed Engineering completed for SPC 1 and 2. Detailed Engineering for SPC 3 to be completed in early 2014.
- Panels were installed and above ground construction was progressed.
- A 115 kV breaker was installed and energized
- Capital investment was \$0.8 million.

Project Activities Planned for 2014

- Complete construction for above ground and SP&C
- Test, commission and place in service.

52 - Corning Valley Upgrade

As of December 31, 2013

Project Overview

Construct a new 230kV substation and a new approximately 9.5 miles of 115kV line to support load growth in the Corning area.

Project Activities / Key Accomplishments in 2013

- Resolution of condemnation cases resulting in payment to property owners.
- Capital Investment was \$.4 million.

Project Activities Planned for 2014

- One remaining condemnation case to resolve.

53 - DOE Stimulus Program-Capacitor Banks

As of December 31, 2013

Project Overview

Install 115kV Capacitor Banks at the following stations: Ashley Rd., three 50 MVAR; Morgan Rd., two 25 MVAR; Ridge Road, two 25 MVAR; Mountaindale, two 25 MVAR; Amawalk, two 30 MVAR; and Big Tree, two 25 MVAR.

Project Activities / Key Accomplishments in 2013

- Construction completed on 6- Capacitor Bank projects. Ridge Rd., Morgan Rd., Mountaindale, Big Tree, Amawalk and Ashley Road.
- All Capacitor Projects are remotely operational from the ECC.
- Capital investment was \$4.5M

Project Activities Planned for 2014

- Complete remaining post implementation activities and TRV Studies implementation plan upon engineering reviews; and place all equipment in-service without restrictions.

54 - Eelpot New Transformer

As of December 31, 2013

Project Overview

Install a second 115/34.5kV, 30/40/56 MVA LTC transformer at the Eelpot Road substation. Work will include all associated equipment required with this transformer addition.

Project Activities / Key Accomplishments in 2013

- Updated in ground package.
- Updated above ground package.
- HMI implementation to the project.
- Development of RFP's to continue procuring equipment.
- Major equipment was purchased (switches and 34.5 kV breakers).
- In ground work as control house foundation, new 115 kV transformer foundation and oil vessel from phase 1.
- Install control house.
- Capital investment was \$1.6 million.

Project Activities Planned for 2014

- Complete detailed engineering for SPC packages and HMI.
- Continue with ordering remaining materials (communication panels, relay protection, steel structures for above ground work).
- Procure and complete phase B of in ground construction.
- Start the procuring process for the above ground construction in 2015.

55 - Flat Street Substation New Transformer

As of December 31, 2013

Project Overview

Install a new Flat 115/34.5 kV, 20/26/33(36.7) MVA, LTC transformer to operate in parallel with existing one.

Project Activities / Key Accomplishments in 2013

- Updated in ground package.
- Updated above ground package.
- HMI implementation to the project.
- Development of RFP's to continue procuring equipment.
- Major equipment was purchased (switches and 34.5 kV breakers).
- In ground work including control house foundation, new 115 kV transformer foundation, oil vessel and expanding original fence area including grounding system from phase 1.
- Install control house.
- Capital investment was \$1.7 million.

Project Activities Planned for 2014

- Complete detailed engineering for SPC packages and HMI.
- Transport transformer from storage facility to final destination at the substation.

56 - Harris Lake - Diesel Generator Upgrade

As of December 31, 2013

Project Overview

Installation of (1) 2,500 kW diesel generator, with 12.5 kV, 3-Phase, 60 Hz output voltage, capable of frequency with the grid, with extreme cold weather enclosures, black start capability, meeting EPA Tier 4 air emissions requirements. One contractor will complete all the work required for the complete engineering, procurement, installation, testing and commissioning.

Project Activities / Key Accomplishments in 2013

- RFP prepared for the EPC (Engineering, Procurement and Construction) contract was finished.
- Procurement process for the EPC awarding has started.
- Permits obtained:
- Retrofit/upgrade on the existing diesel at the substation in compliance with Subpart zzzz. Johnson Matthey oxidation catalytic converter to control CO emissions in accordance with the EPA RICE NESHAP requirements and CCV filter kit were installed and tested. The catalytic converter is sized to reduce CO emissions by 70% as required by the RICE NESHAP rule for diesel engines.
- Capital investment was \$0.6 million.

Project Activities Planned for 2014

- Procure EPC Contractor and begin engineering
- Obtain the rest of all necessary permits.

57 - Ithaca Reinforcement Project

As of December 31, 2013

Project Overview

Construct a new 345/115kV substation in the vicinity of the existing Lapeer Sub, a new 15 mile 115kV transmission line, and rebuild L947 to 115kV. Install capacitor banks at State St and Wright Ave Substations.

Project Activities / Key Accomplishments in 2013

- Payment of a 2012 invoice.

Project Activities Planned for 2014

- None Project is complete.

58 - Liberty T&D Hardening Project

As of December 31, 2013

Project Overview

The Liberty Division has been identified as having poor equipment that is affecting system reliability and operational performance. The objective of this project is to replace or upgrade equipment to provide improved reliability for selected Distribution and Transmission facilities. Projects were selected by their potential to improve performance for the greatest number of customers.

Project Activities / Key Accomplishments in 2013

- 38 Orders advanced to Construction: 34 Distribution and 4 Transmission.
- 123 distribution poles installed; 27,000 ft of conductor; 21 reclosers installed.
- 49 transmission poles installed; 14,000 ft of conductor installed.
- Capital investment was \$2.4 million.

Project Activities Planned for 2014

- Distribution pole replacement/circuit rebuilds will be completed on 7 Orders. This work will complete activation of reclosers.
- Transmission Structure Rebuilds will be completed on 4 Orders.
- Construction expected to be completed by March, 2014.

59 - Line #807 115kV Conversion

As of December 31, 2013

Project Overview

Convert the existing Carmel to Wood Street to Katonah Line 807 from 46kV to 115kV operation. This line is already constructed to 115kV standards; therefore, the project is primarily substation modifications. A new 115kV line terminal and two new 115kV breakers will be added at Carmel Substation, two new 115kV line terminals and two new 115kV breakers will be added at Wood Street Substation, and a new 115kV line terminal and three new 115kV breakers will be added at Katonah Substation.

Project Activities / Key Accomplishments in 2013

- The project is currently under construction and is approximately 40% complete.
- In Ground and Above Ground construction work progressed at Katonah.
- Above Ground construction work progressed at Wood Street.
- Relay panels for Katonah were manufactured and installed.
- Capital investment was \$1.4 million.

Project Activities Planned for 2014

- Complete the Conceptual & progress the Detail Engineering for the Carmel Substation.
- Prepare RFP's for construction of Carmel, for materials and contractor.
- Complete construction at the Katonah and Wood St Substations.
- Complete Line construction at Whitehall Corners and at Wood St substation

60 - Meyer - Add 115kV Capacitor Bank

As of December 31, 2013

Project Overview

Install new switched 115kV 18 MVAR Capacitor Bank, Circuit Breakers, and Motor-Operated Disconnect Switches at Meyer Substation in Hornell.

Project Activities / Key Accomplishments in 2013

- Engineering was completed
- Panel were completed and installed
- Capital investment was \$.5 million.

Project Activities Planned for 2014

- Finish construction
- Test, Commission and place in Service.

61 - Meyer Substation New Transformer

As of December 31, 2013

Project Overview

This project is to add one more 30/40/50/56 MVA transformer to the 115kV bus at Meyer Substation as well as add one non-LTC transformer relocated from South Perry to operate in parallel with the existing 20/26/33 MVA 115/34.5kV transformer bank 2. Transmission line Section 933 between Meyer and South Perry have been disconnected permanently due to the requirement for this transmission line Section 944 to be rewired with optical fiber ground wire shielding. Meyer Substation is an existing 230/115/34.5kV transmission substation with distribution at 34.5/12.8/4.8kV distribution substation. The 115kV system consists of one 230/115kV transformer (bank 4) connected to 115kV bus, line 968 to Eelpot Road Substation, line 966 to Bennett, two lines 933 and 934 to South Perry Substation and a 115/34.5kV transformer (bank 2) feeding the 34.5kV bus. Additionally, the tertiary of 230/115/34.5kV (bank 4) is also connected to 34.5kV bus. Short Circuit Analysis for this station based on the latest Aspen Model has been considered for this Scope of Work.

Meyer Substation serves approximately 60MW of load and transmission flow which is 6,740 customers. During high-load periods and with the 230/115/34.5kV Meyer transformer out, loss of the existing 115/34.5kV transformer at Meyer Substation results in overloads above STE on the 542 line and low voltages in the area. This would result in shedding approximately 5MW of the load to relieve the overload. The period of exposure is approximately 875 hours per year.

Project Activities / Key Accomplishments in 2013

- Completed conceptual engineering phase
- Ordered long lead items for project including Transformer, Circuit Breakers, Voltage Transformers and MODS
- Capital investment was \$.6 million.

Project Activities Planned for 2014

- Procurement of detailed engineering
- Progress detailed engineering
- Complete delivery of transformer
- Complete environmental, permitting, licensing & land acquisition

62 - Mobile Radio Project

As of December 31, 2013

Project Overview

The NYSEG Mobile Radio Project will install a 150 MHz Trunked system for approximately 1500 vehicles, 300 portables and 57 dispatch consoles. The system requires the development of 52 tower sites with connectivity to the ECC plus the acquisition the required frequencies. This project has been ongoing for several years.

Project Activities / Key Accomplishments in 2013

- Continued the Region 3b (Hornell, Lancaster and Lockport) and Region 4 (Plattsburgh) ongoing legal efforts related to coordination of planned frequencies with the FCC and Industry Canada.
- Continued the Regions 3b and Region 4 re-engineering to analyze, field test and prepare alternate radio system designs and frequency utilization due to the ongoing acceptance/rejection of planned frequencies by Industry Canada.
- Installed the Region 4 Plattsburgh Service Center Microwave Tower.
- Ordered equipment for the Region 4 microwave systems to provide ECC connectivity to Churubusco and Lyon Mountain Sites and the Plattsburgh Service Center.
- Installed the Region 4 new Mount Morris Tower as part of the Essex County Shared Microwave System.
- Capital investment was \$1.3 million; (\$1.0m Electric Allocation) (\$0.3m Gas Allocation).

Project Activities Planned for 2014

- Continue the Region 3b (Hornell, Lancaster and Lockport) and Region 4 (Plattsburgh) ongoing legal efforts related to coordination of planned frequencies with the FCC and Industry Canada.
- Continue the Regions 3b and Region 4 re-engineering to analyze, field test and prepare alternate radio system designs and frequency utilization due to the ongoing acceptance/rejection of planned frequencies by Industry Canada.
- Develop the Region 3b required civil infrastructure at a potentially new site for the Lockport Division.
- Optimize the Region 3b radio system in preparation for cutover.
- Remove the Region 4 old Mount Morris Tower once the Essex County Shared Microwave System is installed.
- Install the Region 4 microwave systems to provide ECC connectivity to Churubusco and Lyon Mountain Sites and the Plattsburgh Service Center.
- Install the Region 4 Essex County Shared Microwave System to provide ECC connectivity to Terry Mountain, Wells Hill, Mount Morris and Blue Mountain Sites.

63 - NERC Alert Program

As of December 31, 2013

Project Overview

NYSEG is under a federal mandate to inspect all bulk power system transmission lines to determine if clearance violations exist. Areas found to have substandard clearance shall be corrected. The IUSA OPCOs are undertaking simultaneous programs to address the October 7, 2010 NERC Recommendation to Industry. This project expenditure covers NYSEG's obligations to meet the federal mandate.

Project Activities / Key Accomplishments in 2013

CIRCUIT	ENGINEERING	PERMITTING	PROCUREMENT	CONSTRUCTION
66	A	A	A	A
67	A	A	A	A
68	A	A	A	A
71	A	A	A	A
81	A	A	A	A
85	A	A	A	A

***A - Accomplished**

- Capital investment was \$10.3 million.

Project Activities Planned for 2014

- Project is complete.

64 - New Bulk Spare Power Transformer - 2012

As of December 31, 2013

Project Overview

Purchase of a Spare Transformer 345/115 kV 400 MVA. The purchase of this transformer is to replace the Bulk Spare that was originally purchased by NYSEG and Installed by RG&E at RG&E's Station 80 to replace the 5T transformer that was destroyed by fire in January 2012. A loss of a bulk transformer puts severe limitations on the power system and can result in canceling planned equipment outages, limit power transfers, limit generation, and result in significant extended load shedding. RG&E paid NYSEG for the cost of the spare transformer in 2012.

Project Activities / Key Accomplishments in 2013

- Completed and approved vendor drawing of transformer.
- Started and completed Core inspection and FAT test.
- Capital investment was \$1.2 million.

Project Activities Planned for 2014

- Delivery of transformer and complete cold storage installation
- Start and complete project closeout.

65 - NYSEG Communications for Automation Initiatives

As of December 31, 2013

Project Overview

This Operation Technologies project is to provide the necessary ECC back end system upgrades and integration changes to allow the ECC System to communicate and display the recloser controls for the ECC Operations. Iberdrola USA's reclosers currently are manually operated. This causes delays in power restoration and lengthens the time it takes to clear circuits and restore power. Providing an automated method of operating a recloser or other distribution device can reduce the time to perform this by an average of 30-45 minutes. This reduction in time is the amount of time it takes to call a line crew in and then for the crew to get onsite. This automation can also speed up storm restoration by saving the line crew from having to drive back to the recloser after clearing the circuit, now the ECC can operate the recloser for the line crews. The benefits of automating the recloser control are:

Reduced time to restore power
Improved system reliability

Project Activities / Key Accomplishments in 2013

- 32 Reclosers were automated.
- Capital Investment was \$1.0 million.

Project Activities Planned for 2014

- 50 Reclosers to be automated.

66 - NYSEG Electric System Security Projects

As of December 31, 2013

Project Overview

This project had multiple facets covering numerous aspects of security. Included were substation perimeter protection and fencing upgrades.

Project Activities / Key Accomplishments in 2013

- Install perimeter protection, fencing, video, and other security measures at various locations.
- Capital investment was \$1.7 million.

Project Activities Planned for 2014

- Replacement of access control security systems providing standardization between NYSEG and RG&E.
- Upgrade of video alarming equipment.
- Upgraded cameras to include thermal capability at bulk power substations and other key critical infrastructure locations.
- Security system installation at Hydro Generating Facilities.
- Continued upgrades and replacement of physical barriers and fencing at key critical facilities.

67 - Perry Center Area Install New 34.5kV Substation

As of December 31, 2013

Project Overview

The Perry Center project is to build a four-breaker 34.5 kV switching station and bring in all three sections of the 591 line. Close the normally open switch. The Perry Center area serves approximately 20MW of load which is 5,469 customers.

During high-load periods, loss of the 591 line in the area results in low voltages and overloads above Short Term Emergency (STE) on the 590 line. This would result in shedding all 5MW of load in the area. This project will reduce overloads and low voltage conditions in the area and improve reliability.

Project Activities / Key Accomplishments in 2013

- Completed preliminary /conceptual engineering
- Began detailed engineering
- Started environmental, permitting, licensing & land acquisition
- Ordered long lead items
- Capital investment was \$.8 million.

Project Activities Planned for 2014

- Complete detailed engineering for control and protection
- Complete environmental, permitting
- Order remaining materials (Control, Protection and Communication Panels, relay protection, Structural Steel and all minor materials).
- Procure construction contractor
- Begin in ground construction

68 - Replace Failed Bank #1 at Watercure Rd Sub

As of December 31, 2013

Project Overview

Emergency replacement of Bank #1 at the Watercure Substation, which catastrophically failed on 2/1/2008. Install new 400 MVA, 360-240-36.2kV LTC Transformer.

Project Activities / Key Accomplishments in 2013

- Noncash adjustment made in January to reduce anticipated insurance proceeds.
- Noncash capital investment was \$1.5 million.

Project Activities Planned for 2014

- None planned.

69 - Transmission Pole Replacement Program

As of December 31, 2013

Project Overview

Replace rejected wood poles identified as a result of the Wood pole inspect and treat program (an incremental O&M program). Includes Transmission poles on selected NYSEG Transmission lines in various NYSEG Divisions statewide.

Project Activities / Key Accomplishments in 2013

- 25 replaced out of 44 identified.
- Capital investment was \$1.2 million.

Project Activities Planned for 2014

- 12 scheduled to be replaced.

70 - Richfield Springs Substation New Transformer

As of December 31, 2013

Project Overview

Replace the existing 115/46kV, 30/40/50 MVA transformer at the Richfield Springs substation with a new 115/46kV 30/40/50 MVA LTC transformer. Work will include all associated equipment required with this transformer addition.

Project Activities / Key Accomplishments in 2013

- Detailed Engineering completed for SPC 1 and 2. Detailed Engineering for SP&C 3 to be completed in early 2014.
- Above ground construction progressed.
- Panels were manufactured and delivered
- Capital investment was \$0.7 million.

Project Activities Planned for 2014

- Complete construction for above ground and SP&C.
- Test, commission and place in service.

71 - Robinson Road 230kV Transformer Replacement

As of December 31, 2013

Project Overview

Replace transformer bank B1 with one new 230/132.8 Grd Y-121GrdY/69kV, 180/240/300 MVA, transformer. This Westinghouse 1972 vintage transformer with a Type UTH LTC is of a vintage with high failure rates. At NYSEG alone, two similar units have failed previously at Oakdale and Watercure Substation.

Project Activities / Key Accomplishments in 2013

- An interim solution (Phase I) was designed to put the new transformer in service using the existing relays and protection devices.
- The new transformer foundation was built including the oil containment completing the in-ground construction work for the Phase I interim solution.
- The new transformer was received on site and assembled and tested by the manufacturer.
- The Phase I interim solution system protection and control (SP&C) design was completed and approved.
- The above ground construction work was completed for the Phase I solution including the 230 and 115 kV buss modification and protection and control wiring.
- The Phase II final solution Conceptual Design was released for final review.
- Capital Investment was \$3.1 million.

Project Activities Planned for 2014

- Complete the Phase I final testing and commissioning of the new transformer.
- Energize the Phase I interim solution.
- Complete the Phase II Conceptual Design review and approval.
- Complete the Phase II final solution Protection and Control Design.
- Complete the installation and testing of the new protection and control equipment, including the addition of new panels in the control house.
- Final testing and commissioning of the new protection and control equipment
- Placing the new final solution with transformer in service
- Project close-out

72 - South Perry New 230kV Transformer

As of December 31, 2013

Project Overview

The original scope was for installation of second 115/34.5kV LTC transformer three phase banks with the existing non-LTC three single-phase banks. Also included was addition of another 230/115kV transformer in South Perry that calls for a complete new 230kV in and out from nearby transmission line to South Perry Substation and a ring bus arrangement. During the on-site visit for the addition of the second transformer, it was observed that the existing 115kV bus arrangement foundations and structures were not in good shape and needed to be renewed. Further, the existing oil circuit breakers needed to be replaced. Based on the condition of the existing 115kV bus arrangement, there is a need for a complete new 230/115/69/34.5kV substation between the existing substation and the 230kV transmission lines.

The actual transformer, 115-69-34.5 kV, will be removed to a new bank to feed the 69kV line. A new transformer, 115/34.5kV 56 MVA, will replace this one.

The existing 115/34.5kV 20/26/33 MVA transformer is a non-LTC three single-phase bank with a spare unit. The capacity of the transformer will not be sufficient to meet the 34.5kV loads. The substation will have to be constructed new as explained above and, as the interim arrangement, a new 115/34.5kV 30/40/50/56MVA transformer will be installed replacing the existing 20/26/33 MVA transformer.

Project Activities / Key Accomplishments in 2013

- Completed preliminary /conceptual engineering
- Completed procurement of detailed engineering
- Ordered long lead items
- Began detailed engineering phase
- Capital investment was \$1.1M

Project Activities Planned for 2014

- Complete environmental, permitting, licensing
- Complete detailed engineering control and protection
- Start and complete procurement of the last long lead items

73 - South Perry New 115kV Transformer

As of December 31, 2013

Project Overview

The original scope was for installation of second 115/34.5kV LTC transformer three phase banks with the existing non-LTC three single-phase banks. Also included was addition of another 230/115kV transformer in South Perry that calls for a complete new 230kV in and out from nearby transmission line to South Perry Substation and a ring bus arrangement. During the on-site visit for the addition of the second transformer, it was observed that the existing 115kV bus arrangement foundations and structures were not in good shape and needed to be renewed. Further, the existing oil circuit breakers needed to be replaced. Based on the condition of the existing 115kV bus arrangement, there is a need for a complete new 230/115/69/34.5kV substation between the existing substation and the 230kV transmission lines.

The actual transformer, 115-69-34.5 kV, will be removed to a new bank to feed the 69kV line. A new transformer, 115/34.5kV 56 MVA, will replace this one.

The existing 115/34.5kV 20/26/33 MVA transformer is a non-LTC three single-phase bank with a spare unit. The capacity of the transformer will not be sufficient to meet the 34.5kV loads. The substation will have to be constructed new as explained above and, in the interim, a new 115/34.5kV 30/40/50/56MVA transformer will be installed replacing the existing 20/26/33 MVA transformer.

Project Activities / Key Accomplishments in 2013

- Complete preliminary / conceptual engineering
- Completed procurement of detailed engineering
- Started detailed engineering
- Started procurement of long lead items
- Capital investment was \$1.1 million.

Project Activities Planned for 2014

- Complete environmental, permitting, licensing
- Complete detailed engineering for control and protection
- Complete procurement of the last long lead items

74 - Silver Creek Substation New Transformer

As of December 31, 2013

Project Overview

Install the former Croton Falls MTA #4 115 – 12.5kV transformer to establish a new 12.5kV source. Add fans to the transformer to upgrade the rating to 10/12.5 (14) MVA. The transformer will be protected by a circuit switcher-type device. A new prefabricated control house will be required to house one relay switchboard panel for transformer protection. Construct an underground cable to connect the transformer to the existing Circuit #179 line position. Feed the existing voltage regulators and circuit breaker at 12.5kV to establish the new 12.5 kV circuit. Install 2.0 miles of system neutral and various step transformers and convert the circuit #179 to 12.5 kV operation.

Project Activities / Key Accomplishments in 2013

- Started and completed procurement of preliminary/conceptual engineering.
- Started preliminary/conceptual engineering phase.
- Started and completed procurement of power transformer.
- Capital investment was \$.9 million.

Project Activities Planned for 2014

- Start and complete procurement of detailed engineering.
- Start and complete detailed engineering phase.
- Start and complete distribution planning engineering phase.
- Start and complete environmental, permitting, licensing & land acquisition

75 - South Park Sub - Bank Installation

As of December 31, 2013

Project Overview

Replace Transformer 1 with a new 12/16/20 MVA 34.5kV/12.5kV transformer with LTC.
Upgrade transformer protection to a circuit breaker and add a new prefabricated control house and relay panels.

Project Activities / Key Accomplishments in 2013

- Completed detailed engineering.
- Started and completed SCADA HMI integration engineering.
- Started and completed SCADA HMI integration construction.
- Started and completed above ground construction.
- Started and completed testing and commissioning.
- Capital investment was \$1.7 million.

Project Activities Planned for 2014

- Start and complete retesting and re-commissioning of relay and equipment.
- Start and completed breaker bushing inspection.
- Put new transformer in service and removed mobile transformer.
- Completed remaining in ground work and fence installation.
- Start and completed site cleanup.
- Start and complete project closeout.

76 - South Perry - Replace 115/34.5 kV Transformer

As of December 31, 2013

Project Overview

Replace the existing 115/34.5 kV, 20/26/33 MVA, NON-LTC transformer at South Perry Substation with a new 115/34.5 kV, 30/40/50/56 MVA, LTC transformer.

Project Activities / Key Accomplishments in 2013

- The transformer T115/34.5 kV, 30/40/50/56 MVA, LTC was put in service in Dec 2013
- Capital investment was \$1.3 million.

Project Activities Planned for 2014

- Close out the project

77 - Stephentown Substation New Transformer

As of December 31, 2013

Project Overview

The Stephentown Project will install a new Stephentown 115/34.5 kV, 20/26/33(37) MVA, LTC transformer to operate in parallel with the existing transformer. Sub-marginal voltages appear in areas served from the Berlin, Stephentown, W. Lebanon, Cannan and SAW+DI substations upon loss of the Stephentown 115/34.5KV Transformer. The summer season exposure is 1750 hours/year. Presently, this contingency causes 5,333 customers (with 14.2 MW of summer load and 22.1 MW of winter load) to be dropped.

Project Activities / Key Accomplishments in 2013

- Completed conceptual engineering
- Progressed detailed engineering through In Ground and Above Ground
- Completed ordering of long lead items included circuit breakers and voltage transformers.
- Capital investment was \$1.2M.

Project Activities Planned for 2014

- Complete detailed engineering
- Start to procure and manufacture relay panels.

78 - Stolle - Dysinger

As of December 31, 2013

Project Overview

This project was originally planned to construct a 345kV switching station at Dysinger, construct a 345kV line from the Dysinger station to the Stolle Rd. substation. An additional 345/115kV transformer would be installed at Stolle Rd.

The Stolle-Dysinger 345kV line and switching station was originally proposed in the rate case as a potential capital project to help alleviate transmission congestion and provide voltage support to the southern tier. Economic conditions due to low natural gas prices has all but eliminated transmission congestion and the need for this project. The lack of congestion has also greatly improved the voltage profile of the southern tier – along with the replacement and spare 345/230kV transformers at Watercure. System Planning will review the need for this project on a year by year basis going forward.

79 - Substation Automation (RTU Program)

As of December 31, 2013

Project Overview

The NYSEG RTU Upgrade Program consists of replacement of thirty obsolete substations ECC controlled Remote Terminal Units (RTU). The program does not include the Brewster Division RTU Upgrade Project. The installation of thirty new RTUs will reduce the requirements to obtain spare parts for the obsolete units. The additional SCADA points will help identify the cause of outages and reduce restoration time. Phase one of the program began in 2010 with the purchase and installation of thirty remote terminal units. Phase Two includes engineering and design (E&D) review of existing substation facilities and application of modernization/automation standards; update substations to the new IUSA TM 3.51.01 Technical Manual in order to meet the requirements for the new ECC.

Project Activities / Key Accomplishments in 2013

- Macedon and Noyes Island have been completed.
- Awarded and started conceptual engineering for Amawalk.
- Awarded and started conceptual and detailed engineering for Coopers Corners 115kV.
- Ordered and reception relays and ethernet equipment for Coopers Corners 115kV and Amawalk.
- Capital investment was \$1.8 million.

Project Activities Planned for 2014

- Amawalk, complete conceptual engineering.
- Regarding engineering for Coopers Corners 115kV, complete conceptual and detailed engineering.
- Order and reception for all the materials pending in Coopers Corners 115kV: control cable, cable trenches, control cabinets, motor operators, AC/DC panels.
- Carry out construction and Commissioning in Coopers Corners 115kV.

80 - The Mechanicville Reinforcement Project

As of December 31, 2013

Project Overview

The Mechanicville Reinforcement Project includes constructing a new 115-34.5kV substation and two 34.5kV distribution lines to provide a second source of supply to the Mechanicville Division and to accommodate anticipated load related to the Luther Forest Industrial Park.

Project Activities / Key Accomplishments in 2013

- The final section of new 34.5kV distribution circuit along Werner Road and Anthony Road was completed and placed in service
- Two new 115-34.5kV transformers (one is a “spare”), a new Control House, and seven new relay Control Panels were delivered to the Luther Forest Substation
- In-Ground Construction at the new Luther Forest substation was completed
- Above-Ground Construction at the new Luther Forest substation was completed except for the work inside the new Control House which was 75% completed.
- A new 70' tall communications tower was installed at the new Luther Forest substation
- NYSEG and National Grid executed a formal agreement to allow National Grid to begin design work for the installation of metered 115kV power to NYSEG's new Luther Forest substation
- Capital investment was \$2.2 million.

Project Activities Planned for 2014

- Completion of the wiring in the new Control House at the Luther Forest substation
- Completion of HMI Integration design, installation, and testing at the new Luther Forest substation
- Completion of the purchase of the land parcel where the new Luther Forest substation is located. (Work to date has been authorized by an easement agreement.)
- Completion of a new communications link between the new Luther Forest substation and the Energy Control Center (ECC) located in Binghamton, NY
- Design and material procurement by National Grid for the 115kV metered power feed

81 - Tom Miller Rd New Substation

As of December 31, 2013

Project Overview

The Tom Miller Road project will build a new 46-12.5 kV distribution substation on company owned property along Tom Miller Road. The substation will include a 12/16/20 MVA transformer and three distribution circuits. Hammond Lane Substation is a single bank 46-12.5 KV 12/16/20 MVA substation with three distribution feeders. The summer peak load to date was 22,021KVA or 98% of the bank's planned life beyond nameplate (PLBN) rating.

The Tom Miller Road Substation will serve the Hammond Lane distribution load eliminating the overload.

Project Activities / Key Accomplishments in 2013

- Completed preliminary/conceptual engineering
- Continue detailed engineering phase
- Continue ordering long lead items
- Capital investment was \$.8 million.

Project Activities Planned for 2014

- Complete detailed engineering of Control and Protection phase
- Order remaining materials required (Control, Protection and Communication Panels, relay protection, Structural Steel and all minor materials).
- Procure construction contractor
- Complete in ground construction

82 - Transit St Sub - Relocate 12kV Circuits MGP

As of December 31, 2013

Project Overview

Relocate control house and two 12 kV distribution circuits from the west end of the existing substation to facilitate MGP remediation.

Project Activities / Key Accomplishments in 2013

- Completed In Ground and Above Ground detailed engineering
- Completed ordering of long lead items
- Completed Distribution network work
- Capital investment was \$1.2 million.

Project Activities Planned for 2014

- Completed detailed engineering
- Start, procure and manufacture relay cabinets
- Start In Ground and Above Ground Construction

83 - Walden 69kV Transmission Line Upgrade

As of December 31, 2013

Project Overview

Rebuild .86 miles of single pole double circuit 69kV transmission with two separate single circuit overhead lines. Approximately 1,600 feet of the new lines will be underground construction. Central Hudson is upgrading the 69kV transmission due to system growth in the Central Hudson, Orange and Rockland, and NYSEG service territories.

Project Activities / Key Accomplishments in 2013

- Completed all construction and placed the project in service on 3/15/13.
- Completed project close-out.
- Capital investment was \$1.0 million.

Project Activities Planned for 2014

- None, project is completed.

84 - Wehrle Dr, Replace Cable, Terminations & Switch Gear

As of December 31, 2013

Project Overview

Complete the remaining sections of the Eastern Hills Mall cable, termination and switch gear replacement. Eastern Hills Mall is a major customer in the Lancaster Division. They have experienced 7 significant failures in the recent past.

Project Activities / Key Accomplishments in 2013

- Phase IV construction completed August 2013
- Capital Investment was \$1.1 million
- Entire Project Completed

Project Activities Planned for 2014

- Project is complete.

85 - Westover Substation New 115kV Transformer & Binghamton Division Capacitors

As of December 31, 2013

Project Overview

This project includes the installation of new Westover (Goudey) 115/34.5 kV, 30/40/50 MVA, LTC transformer bank. Install 102 MVAR, 2-step, switched capacitor bank, at the Westover (Goudey) Substation 115 kV bus. Install 12.6 MVAR switched capacitor bank at the Robble Ave Substation 115 kV bus. Install 13.2 MVAR switched capacitor bank at the Noyes Island Substation 34.5 kV bus. Install 7.2 MVAR switched capacitor bank at the Oakdale Substation 34.5 kV bus. Install 2.4 MVAR switched capacitor bank at the Whitney Ave. Substation 34.5 kV bus. Install 2.4 MVAR switched capacitor bank along the 34.5 kV transmission line #431 in the vicinity of the Conklin Substation. Install 1.2 MVAR switched capacitor bank along the 34.5 kV transmission line #453 in the vicinity of the Bevier Street Substation.

Sub-marginal voltages appear in the area(s) served from the Morgan, Langdon, Fuller Hollow, Jones, and Conklin Substations, and the Long Term Emergency (LTE) rating is exceeded at the Westover #7 115/13.8 kV and 34.5/13.8 kV transformers upon the simultaneous loss of the Oakdale 345/115/34.5 kV transformer # 3 and the Oakdale 345/115 kV transformer #2, in summer 2009. The exposure to either sub-marginal voltages or thermal overload, given the contingency, is 25 hours/day. This contingency causes 1,750 customers (with 4.6 MW of summer load and 2.8 MW of winter load) to be dropped. The installation of a new 115/34.5 kV LTC 30/40/50 MVA transformer, operating in parallel with the 115/34.5 kV banks #5 and #6, will allow all of the 115/34.5 kV transformer banks (and windings) at the Westover (Goudey) Substation to safely transport present and future thermal flows.

Installation of switched capacitor banks will provide local sources of reactive power and voltage support during this contingency.

Project Activities / Key Accomplishments in 2013

- Started procurement of the detailed engineering for all sites.
- Started procurement of key long lead items including switches, breakers, voltage transformers and capacitor banks.
- Capital investment was \$.5 million.

Project Activities Planned for 2014

- Start and complete procure detailed engineering for the Bevier Street Substation
- Start and complete environmental, permitting, licensing
- Complete the ordering of long lead items.
- Start and complete the detailed engineering phase for the Bevier Street Substation
- Start procurement for construction contractor for the Bevier Street Substation

86 - Willet Substation New Transformer

As of December 31, 2013

Project Overview

Purchase and install a new 115/34.5kV, 20/26/33MVA, LTC transformer to operate in parallel with the existing substation transformer and provide necessary switchyard equipment plus protection and control equipment to bring the substation up to the latest standards.

Presently, sub-marginal voltages appear in the area(s) served from the Marathon, Chenango Forks, Dorchester, Greene, Katelville, Willet, High Street, Tarbell and Whitney Avenue Substations upon loss of the Willet 115/34.5kV transformer. Exposure to sub-marginal voltages, given the transformer loss contingency, during the winter season, is 3070 hours/year. This contingency causes 5,097 customers (with 16.3 MW of summer load and 20.7 MW of winter load) to be dropped. In summer 2011, the sub-marginal voltage problem will appear in areas served from the same set of substations upon loss of the Willet 115/34.5kV transformer. The installation of a new transformer will increase system reliability by allowing at least one transformer to remain in-service when one of the transformers is out-of-service.

Project Activities / Key Accomplishments in 2013

- Completed conceptual engineering
- Ordered long lead items
- Capital investment was \$.7 million.

Project Activities Planned for 2014

- Detailed design
- Procure Protection & Control and Communication equipment
- Procure Cable/Auxiliary services and other materials
- Procure construction contractor

87 - Energy Control Center

As of December 31, 2013

Project Overview

The design and installation of a fully integrated EMS/SCADA/DMS/OMS system that replaces the existing EMS/SCADA systems and combines the NYSEG and RG&E Control Centers into a single transmission center. A new distribution dispatch center will also resolve trouble and outage calls for both utilities. Install new infrastructure that facilitates increased automation on the transmission and distribution system while providing a robust foundation for additional automation of the system.

Project Activities / Key Accomplishments in 2013

- The Substation GIS grew to hold more than 1,500 substations.
- The GIS to Siemens interface program evolved far enough to translate Transmission Lines, Substations, and Distribution Circuits from the GIS into operational displays in the Spectrum System.
- Pre-Factory Acceptance Testing began on 7/1/2013, using data and displays imported from the GIS.
- 46% of the Pre-FAT test plan was completed. A number of variances were identified and many of them were resolved.
- New interfaces to the Siemens data historian were successfully tested in conjunction with existing back-office applications.
- A working prototype of the Outage Management User interface was developed and integrated with the data from the Distribution GIS and the Siemens system.
- Preliminary testing of the binary comparison of the Siemens On-Line Database to the GIS database, and the resulting incremental update to the Siemens On-Line Database was successful.
- The design and testing of the process to update the Siemens On-Line Database while maintaining NERC Compliance was completed then implementation and testing began.
- Construction of the new Alternate Energy Control Center at our Kirkwood General Office was completed and the computer room is ready for the new Siemens System installation.
- Overall capital spend in 2013 was \$5.3 million (NYSEG - \$3.7M, RG&E - \$1.8M)

Project Activities Planned for 2014

- Pre Factory Acceptance Testing, Factory Acceptance Testing, Pre-Site Acceptance Testing, and Site Acceptance Testing of the SCADA system for Transmission and Distribution will be completed in 2014.
- 2014 testing will include performance testing. The current plan includes core OMS functionality.
- Integrating the EMS/SCADA/OMS/DMS system to provide additional functionality with:
 - with the mobility solution
 - new outage reporting system
 - “planned outage” scheduling and approval tool set
 - new historical outage database.
- Portions of the NYSEG and RG&E transmission and distribution systems will be cutover and controlled via the Siemens system starting on 9/30/2014. A controlled cutover for each of the operating companies will continue through 2014.
- The Transmission Network Applications will be further developed, and integrated. Testing of this database and module will begin in 2014.

88 - OMS/GIS

As of December 31, 2013

Project Overview

Complete replacement of the existing GIS platform in NY and enhance the existing Outage Analysis System (OAS)

Project Activities / Key Accomplishments in 2013

- Full Conversion of existing electric distribution assets to ESRI based Enterprise GIS platform.
- Finalized development and implementation of enhanced interim outage analysis system.
- Finalized development and implementation of upgraded web – based map viewing application for both Outage and GIS purposes.
- Project fully completed.
- Capital investment was \$0.1 million.

Project Activities Planned for 2014

- None project is complete.

89 - IUSA SAP Project

As of December 31, 2013

Project Overview

Project objective is the implementation of the Group's SAP in the Iberdrola's USA companies, with the following benefits:

- Inclusion of new functional enhancements to New York and Maine companies due to the new SAP platform, which will allow increase in quality of processes, control and information of the US companies.
- Homogenization and implementation of the best practices of corporate processes of the Group, adapted to specific local legislation and regulation requirements.
- Homogenization and increase of the automation of Networks processes and optimization of their integration with the Corporate functions, aligned with the Networks Management Model, to increase the operational efficiency.
- Increase of the current systems efficiency by implementation of same key functionalities in the systems and through the use of global infrastructures.

Project Activities / Key Accomplishments in 2013

- Completed Project Planning and Initiation
- Completed Global Model Review and FIT-GAP Analysis
- Completed IUSA Requirements Specification definition
- Capital investment was \$11.6 million (\$7.7M at NYSEG and \$3.9M at RG&E)

Project Activities Planned for 2014

- Complete Interfaces with local systems requirements specification definition
- Complete Integration with Networks processes requirements specification definition
- Complete SAP Customizing (Configuration)
- Complete Authorization (Security) Customizing
- Complete Custom Developments build and test
- Complete Interfaces build and test
- Complete Data Migration
- Complete Functional and Integration Testing
- Complete Training
- Complete Cutover
- Go-Live for Delegated Purchasing in July 2014
- Go-Live for Budget Planning in September 2014
- Full Go-Live in January 2015

90 - Gas Regulator Modernization & Automation Program

As of December 31, 2013

Program Overview

This scope includes improvements in regulator/gate stations within the RG&E/NYSEG gas system. Typical upgrades included replacement of regulators, filters, chart recorder, valves, inlet and outlet piping and enclosures with standardized equipment, piping and associated fittings, including corrosion protection for equipment and piping. Replace equipment that is obsolete, corroded, or in poor operating condition: regulators, filters, chart recorders, valves, inlet and outlet piping, enclosures, associated fittings, and corrosion protection. Program includes RTU's and other automation improvements.

These improvements enhance system reliability associated with corroded piping, fittings and aging equipment. The programs included replacement of obsolete equipment for which there are no repair parts available.

Program improves system reliability, reduces maintenance costs, reduces potential outages due equipment failures, and improves equipment standardization and safety.

Project Activities / Key Accomplishments in 2013

RG&E

- Fourteen (14) projects were completed in 2013
- Total spent in 2013 was \$1.0M

NYSEG

- Twenty (20) projects were completed in 2013
- Total spent in 2013 was \$0.8M

Project Activities Planned for 2014

RG&E

- Nineteen (19) projects are planned in 2014
 - Projects vary in size and are in various stages of development from planning, design, and construction. Projects were selected based on collaborative prioritization between System Planning engineers and Division Engineering Supervisors.

NYSEG

- Twenty(20) projects are planned in 2014
 - Projects vary in size and are in various stages of development from planning, design, and construction. Projects were selected based on collaborative prioritization between System Planning engineers and Division Engineering Supervisors.

91 - Leak Prone Main Replacement Program

As of December 31, 2013

Program Overview

A minimum of 24 miles of leak prone mains (RG&E) and 24 miles of leak prone mains (NYSEG) were required to be replaced or retired to meet the Rate Plan requirements, including mains replaced due to condition and municipal projects. The leak prone gas main works was selected based upon leak history, condition, inspection reports, and various risk factors.

Project Activities / Key Accomplishments in 2013

RG&E

- Actual mileage completed: 26.7 miles
- Capital investment in 2013 for leak prone mains was \$10.2M

NYSEG

- Actual mileage completed: 25.8 miles
- Capital investment in 2013 for leak prone mains was \$12.5M

Project Activities Planned for 2014

RG&E

- Retire (cut dead) a minimum of 24 miles of leak prone mains

NYSEG

- Retire (cut dead) a minimum of 24 miles of leak prone mains

92 - Leak Prone Services Renewals

As of December 31, 2013

Program Overview

A minimum of 1000 leak prone services (RG&E) and 1200 services (NYSEG) per year were required to be replaced or retired to meet the Rate Plan requirements.

Replace existing services associated with municipal projects, leak prone services program and other projects.

Project Activities / Key Accomplishments in 2013

RG&E

- Actual number of leak prone services completed: 1,123
- Capital investment in 2013 for leak prone mains was \$2.2M

NYSEG

- Actual number of leak prone services completed: 1,381
- Capital investment in 2013 for leak prone mains was \$5.1M

Project Activities Planned for 2014

RG&E

- Retire (cut dead) a minimum of 1,000 leak prone services

NYSEG

- Retire (cut dead) a minimum of 1,200 leak prone services

93 - Distribution Mains, New Business

As of December 31, 2013

Program Overview

Install gas mains as required due to main condition (immediate safety), conflicts, code violations, and other miscellaneous field conditions discovered as part of normal operations or other construction and inspection activities. This line item covers safety and code violations discovered during normal operation and maintenance of the gas distribution system.

Project Activities / Key Accomplishments in 2013

RG&E

- Installation of new gas mains for system improvements or customer requests providing new service to customers.
- Capital investment in 2013 for gas mains was \$1.2M

NYSEG

- Installation of new gas mains for system improvements or customer requests providing new service to customers.
- Capital investment in 2013 for gas mains was \$2.1M

Project Activities Planned for 2014

RG&E

- Install gas mains affected by main condition (immediate safety), conflicts, code violations, and other field conditions discovered during normal operation and maintenance of the gas distribution system.

NYSEG

- Install gas mains affected by main condition (immediate safety), conflicts, code violations, and other field conditions discovered during normal operation and maintenance of the gas distribution system.

94 - New Gas Services

As of December 31, 2013

Program Overview

Install new gas services to new customers in accordance with tariff and replace gas services in conflict with street reconstruction projects in accordance with terms and conditions to occupy public rights-of-way.

Project Activities / Key Accomplishments in 2013

RG&E

- Installation of new residential services
- Capital investment in 2013 for gas services was \$5.2M

NYSEG

- Installation of new residential services
- Capital investment in 2013 for gas services was \$5.7M

Project Activities Planned for 2014

RG&E

- Install new gas services to new customers in accordance with tariff and replace in conflict with street reconstruction projects.

NYSEG

- Install new gas services to new customers in accordance with tariff and replace in conflict with street reconstruction projects.

95 - Gas Meters

As of December 31, 2013

Program Overview

Purchase of gas meters to replace existing, aged meters as they are removed from service as well as for new installations. Gas meters are exchanged for annual PSC required programs including Statistical Sampling and Remediation programs and for other various reasons including relocation, load increases, meter damaged, special testing, replace non-tc meters.

Project Activities / Key Accomplishments in 2013

RG&E

- New gas meters purchased: 8,541
- Capital investment in 2013 for gas meters was \$2.3M

NYSEG

- New gas meters purchased: 6,599
- Capital investment in 2013 for gas meters was \$3.1M

Project Activities Planned for 2014

RG&E

- Purchase new gas meters for services. Estimate: 8,368

NYSEG

- Purchase new gas meters for services. Estimate: 4,274

96 - Distribution Main, Replacements

As of December 31, 2013

Program Overview

Replacement of gas mains is due to a number of factors including; poor conditions, conflicts with existing or proposed structures, and other miscellaneous field conditions discovered as part of normal operations or other construction and inspection activities.

Project Activities / Key Accomplishments in 2013

RG&E

- Main extensions and replacements
- Capital investment in 2013 for gas mains was \$0.4M

NYSEG

- Main extensions and replacements
- Capital investment in 2013 for gas mains was \$0.6M

Project Activities Planned for 2014

RG&E

- Replace or extend gas mains affected by main condition (immediate safety), conflicts, code violations, and other field conditions discovered as part of normal operations or other construction and inspection activities.

NYSEG

- Replace or extend gas mains affected by main condition (immediate safety), conflicts, code violations, and other field conditions discovered as part of normal operations or other construction and inspection activities.

97 – Gas Government Jobs

As of December 31, 2013

Program Overview

Replace gas mains in conflict with street reconstruction projects in accordance with terms and conditions to occupy public rights-of-way.

Government agencies complete various highway improvement projects which require the relocation of existing gas mains. Regulations and terms of highway access permits allow NYSEG facilities to be located within municipal rights-of-way, but mandate relocation of those facilities when it conflicts with street or highway reconstruction projects.

Relocation of our facilities prior to the start of construction reduces the potential for damage to company facilities and prevents unscheduled interruption of service to our customers in the affected surrounding area.

Project Activities / Key Accomplishments in 2013

RG&E

- Relocation of existing gas mains
- Capital investment in 2013 for gas mains was \$0.1M

NYSEG

- Relocation of existing gas mains
- Capital investment in 2013 for gas mains was \$1.3M

Project Activities Planned for 2014

RG&E

- Replaced gas mains in conflict with street reconstruction projects in accordance with terms and conditions to occupy public rights-of-way.

NYSEG

- Replaced gas mains in conflict with street reconstruction projects in accordance with terms and conditions to occupy public rights-of-way.

98 - SmarTRAC Replacement

As of December 31, 2013

Project Overview

This project replaces outdated and unsupported software that is used for NYSEG and RG&E's Electronic Bulletin Board that is used to monitor third party gas supplies coming to the utilities city gates.

The project will reduce maintenance and supports improvements in system performance.

Project Activities / Key Accomplishments in 2013

RG&E

- Completed Technical Design.
- Began Build phase of the project
- Capital investment in 2013 for SmartTRAC was \$1.1M

NYSEG

- Completed Technical Design.
- Began Build phase of the project
- Capital investment in 2013 for SmartTRAC was \$1.1M

Project Activities Planned for 2014

RG&E

- Complete build phase and user acceptance testing
- Go-live date November 2014

NYSEG

- Complete build phase and user acceptance testing
- Go-live date November 2014

99 - New Empire West Gate Station

As of December 31, 2013

Program Overview

Install a new gate station near Humphrey Rd. and NYS Rte 386 in the Town of Chili. Rebuild regulator stations 424 and 425. Replace inlet piping to regulator stations: 214, 295, 358, 460, 461, and Buffalo Rd.

This project when completed will improve system operations and safety by reducing operating pressure to a portion of CM-1 to less than 20% of SMYS (reclassification from transmission to distribution) and increases system capacity for long term growth and reduce operating constraints. The new gate station will provide load growth capabilities and improve system reliability. The project is intended to improve service capabilities to the following major commercial customers in the Rochester area: Eastman Business Park, the City of Rochester (compressed natural gas fueling station), Waste Management (compressed natural gas fueling station), and Flow City Tissue Paper (conversion of coal generation to natural gas).

Project Activities / Key Accomplishments in 2013

- Procurement and Purchasing of materials and equipment started (Heaters, monitors, valves and pipes, 4 Regulators)
- Preliminary engineering.
- 3 regulator stations were cut dead and installed September through December 2013.
- A total of \$1.8M was spent in 2013.

Project Activities Planned for 2014

- The project management plan will be finished by the end of March.
- Procurement and purchasing continues.
- Project construction work will start in June 2014.
- Foundation layout, site work, install driveway, mount the heater, regulator station replacements.

100 - Northeast 60 - Penfield

As of December 31, 2013

Project Overview

Install 3.5 miles of 8" plastic gas main.

Existing system is less than 50% of maximum operating pressure on design day. The system is experiencing growth and lacks capacity to support additional load. This project increases gas distribution system capacity to accept new load from South Pointe Cove. South Pointe Cove is an identified new multi-use residential development that RG&E is required to serve by tariff. The new main extending to South Pointe Cove must replace an existing gas main with larger diameter in order to serve the new load in 2013. The number of customer meters requires RG&E to install the main extension based on tariff allocation of 100 feet of main per new customer.

Project Activities / Key Accomplishments in 2013

- Project start was delayed because of state permitting.
- Construction and installation of the gas main started towards the end of October 2013.
- Approximately 2.5 miles of the 8" plastic gas main was installed.
- A total of \$0.7M was spent in 2013.

Project Activities Planned for 2014

- The remaining 8" plastic gas main will be installed.
- The pipeline will be energized and commissioned.
- Project is scheduled to be completed by May 30th 2014.

101 - Ridge Rd East, Replace Gas Mains

As of December 31, 2013

Program Overview

Replace existing gas mains with 8" PE along Ridge Road East (St Paul St east to Marburger St, within City of Rochester)

Required by Regulation. Replace gas mains in conflict with City of Rochester road construction project.

Project Activities / Key Accomplishments in 2013

- Gas mains energized and commissioned.
- Restoration complete.
- Project finished June 3rd 2013.
- A total of \$1.2M was spent in 2013.

Project Activities Planned for 2014

- No planned work, project completed in 2013.

102 - West Henrietta @ Canal, I-390 Highway Improvement Phase

As of December 31, 2013

Program Overview

Relocation of existing 12" wrapped steel gas main in conflict with new I-390 highway ramp for West Henrietta Rd. Install 650 feet of new 12" wrapped steel at Erie Canal Crossing.

Required by Regulation. Replace gas mains in conflict with NYSDOT highway project.

Project Activities / Key Accomplishments in 2013

- Construction started November 22nd 2013.
- Some delays in the construction process due to deep freeze.
- 80% of pipe has been installed in 2013.
- A total of \$0.8M was spent in 2013.

Project Activities Planned for 2014

- Install the remaining pipe.
- Remove aerial structure.
- Backfill and restoration in canal.
- Completion of job by April 1st 2014.

103 - Cargill Salt Gas Main Upgrade Watkins Glen

As of December 31, 2013

Project Overview

The existing 6" PE Gas Main and Service is not adequate to serve the new 200MCFH Gas Load at Cargill Salt. In order to adequately serve this new gas load NYSEG will need to install approximately 3,200 feet of 8" MDPE Gas Main and approximately 350' - 8" HDPE Gas Main, as a dedicated gas supply to Cargill Salt in Watkins Glen, New York.

Project Activities / Key Accomplishments in 2013

- Planning and Procurement had been in progress since late 2012.
- Construction and installation of the two gas mains started in February 2013
- Construction finished in early October 2013 with the tie-in to the Plant.
- A total of \$0.5M was spent in 2013

Project Activities Planned for 2014

- No planned work, project completed in 2013

104 - Horseheads Gas Service Replacements

As of December 31, 2013

Project Overview

Replace approximately 800 (1" and 1-1/4" steel) medium pressure gas services located in the Horseheads municipality.

Following a gas incident in the Horseheads area, NYSEG conducted a condition assessment of the gas services in the surrounding area. For Phase 1, it was recommended the replacement of approximately 150 services that were deemed high priority prior December 1, 2013 to avoid potential degradation due to frost and cold weather concerns.

Phase 2 of the project will focus on about 650 additional services. Phase 2 of the project will be carried out in 2014.

Project Activities / Key Accomplishments in 2013

- 24 exploratory excavations were performed in 2013 costing a total of \$0.8M
- 132 services were replaced from September 2013 to December 2013 to comply with Phase 1. A total of \$0.5M was spent in 2013 for these 132 services.
- A total of \$1.3M was spent in 2013

Project Activities Planned for 2014

- Approximately 650 services will be done in Phase 2 during 2014, consistent with the NYPSC Order issued on February 20, 2014 in Case 11-G-0565.

105 - Robinson Road Gate Station Rebuild

As of December 31, 2013

Project Overview

This is for the portion of assets that will be built and owned by Tennessee Pipeline.

Rebuild Robinson Road gate station including new: metering, regulators and monitors, heaters, odorizers and control lines, SCADA, RTU's, phone and electric lines, relief valves and buildings. The project includes a second tap off the Tennessee Gas Pipeline.

The existing gate station cannot supply the required demand, the equipment is outdated, and the heater is failing.

Project Activities / Key Accomplishments in 2013

- Preliminary engineering.
- Procurement and Purchasing of materials and equipment started (Control valves, Heater, purchased).
- A total of \$1.1M was spent in 2013.

Project Activities Planned for 2014

- Procurement and Purchasing of materials and equipment in progress.
- Replace SCADA System.
- Install foundations, heater, associated piping with heater.
- Project construction work will start in June 2014.

106 - Seneca West Pipeline Interconnect to Elmira

As of December 31, 2013

Project Overview

The scope of this project includes 4.9 miles of natural gas transmission pipeline that will connect to Inergy's Seneca West Lake Storage Facility West Pipeline. This is an Article VII application project. The project includes a meter and regulator station at the interconnection with Inergy that will reduce gas pressure to 1100 psi. The 4.9 miles of natural gas transmission pipeline will operate at 1100 psi. A second, downstream regulator station will connect the new 4.9 miles of NYSEG gas transmission pipeline to NYSEG's Elmira gas distribution system and reduce gas pressure to 60 psi.

Project Activities / Key Accomplishments in 2013

- Received Order from PSC granting approval to construct project.
- Acquired final pipeline easements and fee parcels through Eminent Domain (condemnations).
- Ordered and/or took delivery of all major equipment and material.
- Evaluated bids, awarded construction and inspection contracts and completed facility construction and temporary restoration
- A total of \$10.0M was spent in 2013

Project Activities Planned for 2014

- Continue Eminent Domain and landowner claims process
- Electrical check-out and start-up of facilities and equipment
- Complete final restoration activities of the pipeline right-of-way and station site areas.

107 - Binghamton Gas SCADA System Migration

As of December 31, 2013

Project Overview

The Gas Supervisory Control and Data Acquisition (SCADA) system is a high availability control system which provides 24x7 monitoring and control of the gas transmission and distribution system. This project was established to replace the current Gas SCADA System in Binghamton. The project includes replacement of servers, workstations, hardware, software and operating systems.

The system is critical to safe and reliable gas operations and needs to be replaced due to the following:

- The current system was installed in 1999. It is well beyond its expected eight-year lifespan and has been experiencing an increasing number of hardware failures.
- The current server hardware, operating systems, software and security patches are unavailable because they are no longer manufactured or supported by their respective manufacturers.

Project Activities/Key Accomplishments in 2013

- Completed Site Acceptance Testing Milestone (April 30th).
- Completed Point-to-Point Check-in (May 29th).
- Completed System Commissioning/In Service (July 27th).
- Decommissioned old Gas SCADA system (August 13th).
- Completed Final System Acceptance Milestone (August 19th).
- Completed 30-day Operation Milestone (September 19th).
- A total of \$0.6M was spent in 2013.

Project Activities Planned for 2014

- Warranty support mode (until August 19th).
- Project completed in 2013, no capital investment planned for 2014.

**New York State Electric & Gas Corporation
Rochester Gas and Electric Corporation
Annual Capital Investment Report
Schedule C**

NYSEG - Electric Capital Investment
(\$000s)
December Results

Project	YTD Actuals	YTD Plan	YTD Variance	Variance Explanation - + - 10% of Annual Plan	In Service Date
<u>Projects in Appendix L</u>					
Line #807 115kV Conversion	\$ 1,427	\$ 800	\$ 627	Additional work completed in 2013 vs. original plan.	Apr-16
CCTP New 115 kV Transmission Line (Klinekill)	\$ 1,606	\$ 700	\$ 906	Additional work and costs associated with expanded PSC proceedings and public outreach efforts due to the public opposition to the project.	Apr-17
Stephentown Substation New Transformer	\$ 1,194	\$ 1,100	\$ 94		Dec-14
Tom Miller Road New Substation	\$ 817	\$ 1,005	\$ (188)	Less work completed this year compared to original plan, and will carryover to 2014 & 2015.	Jul-15
Harris Lake - Diesel Generator Upgrade	\$ 629	\$ 1,300	\$ (671)	Only Permitting & Engineering work completed this year due to the lengthy permitting process in the Adirondack Park.	Aug-15
Transit St Sub - Relocate 12kV Ckts MGP	\$ 1,164	\$ 1,300	\$ (136)	Remediation work delayed, will push some construction work into 2014.	Jun-15
Flat Street Substation New Transformer	\$ 1,736	\$ 1,500	\$ 236	The variance is due to timing of work vs. planned cash flows, and additional that was completed in 2013.	Dec-15
Auburn Transmission Project	\$ 2,020	\$ 800	\$ 1,220	Additional funding added for environmental sighting, data requests, and to option critical property on this Article VII project.	Apr-16
Eelpot, Add 2nd 115-34.5kV Transformer	\$ 1,570	\$ 1,500	\$ 70		Jun-14
S. Perry New Add 2nd 115-34.5kV Transformer	\$ 1,059	\$ 1,005	\$ 54		Nov-14
S. Perry New 230kV Transformer Project	\$ 1,085	\$ 1,056	\$ 29		Nov-14
Perry Center Area Install New 34.5kV Sub	\$ 790	\$ 1,247	\$ (457)	Less work completed this year compared to original plan, and will carryover to 2014 .	Dec-14
Westover (Goudey) New Xfmer Bank	\$ 510	\$ 1,800	\$ (1,290)	Major equipment was not ordered as planned.	Jan-15
Mobile Radio Project	\$ 1,001	\$ 2,147	\$ (1,146)	Less work completed this year compared to original plan. Delay is due to Canadian frequency approval issues. The project will carryover to 2014, 2015, & 2016.	Dec-16
DOE Stimulus Prgm-Capacitor Banks-NYSEG	\$ 4,479	\$ 1,471	\$ 3,008	Work carried over from 2012, annual plan was underestimated, additional studies were completed, and some work will carryover to 2014.	Apr-14
Energy Control Center	\$ 3,748	\$ 4,570	\$ (822)	Construction stage started later than forecasted, out of scope activities were moved out of the project in 12/2013.	Dec-14

NYSEG - Electric Capital Investment
(\$000s)
December Results

Project	YTD Actuals	YTD Plan	YTD Variance	Variance Explanation - + - 10% of Annual Plan	In Service Date
<u>Programs included in Appendix L</u>					
Transmission Distribution Infrastructure Reliability Program (TDIRP)	8,130	5,510	2,620	Additional TDIRP Projects not in original plan.	Various
NYSEG Electric System Security Projects	\$ 1,660	\$ 1,788	\$ (128)	Timing of work vs. scheduled cash flows for 2013 Plan. Delays caused small carryover to 2014.	Various
Fleet - Electric Portion	2,939	2,769	170		Various
Division Projects - Minors (Schedule C-4)	54,916	48,900	6,016	Customer driven work exceeded plan by \$2.8M, and Mandated Line Inspection replacements exceed budget by \$3.2M.	Various
<u>Projects/Programs Supplemental to Appendix L</u>					
Brewster RTU Project	\$ 2,529	\$ 1,239	\$ 1,290	Additional work vs. planned to complete 6 of the stations this year. 5 Stations are complete and in service, 1 will carryover into 2014 to be completed with the remaining stations.	Dec-14
Brewster T&D Hardening Project	\$ 4,484	\$ -	\$ 4,484	System Hardening Project not included in 2013 Plan.	Dec-13
Brewster T&D Readiness Plan	\$ 841	\$ -	\$ 841	T&D Readiness not included in 2013 Plan.	Dec-13
The Mechanicville Reinforcement Project	\$ 2,155	\$ 1,494	\$ 661	Construction, communication, protection and control equipment budgeted in 2012 was charged in 2013.	Jul-15
Agro-Farma, 46kV Trans Line & Sub	\$ 3,143	\$ -	\$ 3,143	Timing of payment by customer Agro-Farma.	Jul-13
South Park Sub - Bank Installation	\$ 1,714	\$ -	\$ 1,714	Project not included in 2013 Plan	Feb-14
Wehrle Dr, Replace Cable, Terminations & Switch Gear	\$ 1,115	\$ 150	\$ 965	Carryover work from 2012 not planned for in 2013.	Aug-13
Robinson Road 230kV Transf Replacement	\$ 3,067	\$ 3,000	\$ 67		Feb-14
DolomiteVanBuren/606 Transm Underbld	\$ -	\$ 1,400	\$ (1,400)	Project suspended due to customer dispute.	N/A
Repl Failed Bank #1 at Watercure Rd Sub	\$ 1,496	\$ -	\$ 1,496	Anticipated insurance proceeds less than originally anticipated for failed transformer.	May-11
South Perry - Replace 115/34.5 kV Transformer	\$ 1,344	\$ 1,005	\$ 339	Additional work performed vs. what was planned for the year to meet the anticipated in service date in 2014.	Nov-14
Glenwood - Replace Substation Transformers	\$ 597	\$ 1,000	\$ (403)	Less work completed this year compared to original plan, and will carryover to 2014 .	Dec-14

NYSEG - Electric Capital Investment
(\$000s)
December Results

Project	YTD Actuals	YTD Plan	YTD Variance	Variance Explanation - + - 10% of Annual Plan	In Service Date
Liberty T&D Hardening Project - Phase 2	\$ 2,437	\$ -	\$ 2,437	System Hardening Project Phase 2 not included in 2013 Plan.	Nov-14
Substation Automation (RTU Program)	\$ 1,841	\$ 3,140	\$ (1,299)	Less work completed this year than originally planned.	Various
NERC Alert Program - NYSEG	\$ 10,252	\$ 5,831	\$ 4,421	Additional work was done to meet the required in service dates, and higher than planned costs. Work is complete.	Complete, Various ISD's
New Bulk Spare Power Transformer - 2012	\$ 1,192	\$ 1,075	\$ 117	The variance is due to timing of work vs. planned cash flows, and some cost slightly higher than originally planned.	Mar-14
NYSEG Communications for Automation Initiatives	\$ 1,006	\$ 914	\$ 92	Some costs higher than originally planned.	Various
Replace Rejected Wood Trans Poles 2013	\$ 1,201	\$ 501	\$ 700	Construction costs per pole were higher than originally planned, and more contractors were used than originally planned.	Various
NYSEG - WPC Red Circuit Projects	\$ 7,828	\$ -	\$ 7,828	As of October's report, Worst Performing Circuit Projects (Red Circuits) are being tracked separately from Dist. Pole Replacements. Work performed in the 4th quarter.	Various
TDIRP- DPRP	\$ 4,380	\$ 14,500	\$ (10,120)	Worst Performing Circuits are being tracked separately as of October's Report.	Various
NYSEG Battery Replacement Program-2011 - TDIRP	\$ 1,475	\$ 800	\$ 675	Additional Battery replacements done vs. original plan.	Various
NYSEG Circuit Breaker Replacement Program - TDIRP	\$ 637	\$ 3,690	\$ (3,053)	Timing of work vs. planned cash flows, and fewer Breaker Replacements under this project than planned.	Various
TDIRP- NYSEG Sectionalizer Replacement	\$ 307	\$ 500	\$ (193)	Less work completed vs. what was originally planned.	Various
Common - IT SAP Unification	\$ 6,105	\$ 6,049	\$ 56		Jan-15
Other Common Projects - Electric allocation (Schedule C-1)	8,062	7,788	274		Various
Other Electric projects (Schedule C-2)	18,878	16,323	2,555	Spending on carryover projects from 2012. On Dec. report 4 projects previously in this row are now reported individually: Agro-Farma, Wehrle Drive, Communications for Automation, and Replace Rejected Trans Poles.	Various
Generation projects (Schedule C-5)	1,128	2,030	(902)		Various
Total	\$ 181,694	\$ 154,695	\$ 26,999		

RG&E - Electric Capital Investment
(\$000s)
December Results

Project	YTD Actuals	YTD Plan	YTD Variance	Variance Explanation - ±10% of Annual Plan	In Service Date
<u>Projects in Appendix L</u>					
Station 23 New Downtown 115kV Source	\$ 7,686	\$ 7,200	\$ 486		Dec-15
Station 218 to Clyde New 34.5kV Transmission Line	3,054	1,600	1,454	Advanced engineering and material purchases to progress work	Sep-14
Station 124 New Phase Shifter Transformer	4,577	1,000	3,577	Advanced work to place PST in service during 2013.	Apr-13
Station 180-128 115 kV Cap Bank	946	450	496	Construction costs higher than originally planned.	Feb-14
Station 124 New SVC	4,922	3,062	1,859	Additional charges were submitted by vendor on this project due to an increased scope of work. Transformer placed in service on August 30, 2013.	Aug-13
Station 42 - Add (4) 20 MVAR Cap Banks	1,075	95	980	Construction was delayed in 2012 in order to move resources to storm repair (Sandy and winter storms). Due to these resource movements, construction was extended into 2013 and not included in the original plan.	Apr-13
Station 69 New 115kV Capacitor (formerly Station 71)	1,411	966	445	Portions of the construction moved from 2014 into 2013.	Mar-14
Station 262 New 115kV /34.5kV Substation	4,378	3,975	404	Moved a portion of a transformer payment from 2014 to 2013	Jun-15
Station 67 to 418 New 115 kV Transmission Line	1,552	4,800	(3,248)	Some material purchases now expected in 2014 vs 2013.	Dec-14
Rochester Area Reliability Project	17,018	30,486	(13,468)	Certain pieces of major equipment now expected to be delivered in 2014 versus 2013. Delay in design due to property acquisition issues.	Apr-16
U of R New 115 /34.5kV Substation	6,011	6,328	(317)		Aug-14
Energy Control Center	1,773	1,958	(185)		Oct-14
Station 56 - Additional 12kV Source	5,480	3,961	1,518	Construction work originally planned in 2014 was moved into 2013.	Jul-14
Midtown Relocate Facilities	921	1,008	(87)		Sep-14

RG&E - Electric Capital Investment
(\$000s)
December Results

Project	YTD Actuals	YTD Plan	YTD Variance	Variance Explanation - ±10% of Annual Plan	In Service Date
<u>Programs in Appendix L</u>					
Transmission, distribution infrastructure reliability program (TDIRP)	7,081	2,335	4,746	Advancement of project material purchases and engineering ahead plan. Added breaker replacements at three stations, relay replacement at one station and replacement and relocation of approximately 2,300 feet of overhead conductor to underground conductor. Moved some projects planned for 2014 into 2013. Inclusion of several sectionalizer projects from TDIRP Sectionalizer program below.	Various
Electric System Security	1,616	1,600	16		Various
Fleet - Electric Portion	3,828	2,275	1,553	Additional Single Trouble Mechanic vehicles purchased in 2013. These vehicles were not in the original 2013 plan	Various
Division Projects (Schedule C-4)	19,532	21,000	(1,468)		Various
<u>Projects/Programs Supplemental to Appendix L</u>					
Station 2 Browns Race Excavation	5	1,706	(1,700)	Project placed on hold due to project economics	TBD
Station 26 Unit 1 Major Overhaul	2,584	1,670	914	After full disassembly of the turbine to the component level and detailed inspection of inaccessible components, the gates and other critical components need to be replaced with new components.	Dec-13
Station 2 11kV and DC controls	1,727	-	1,727	Project included in order to replace the existing interconnect between Sta 2 and Sta 6 which is at the end of its life	Dec-13
Station 95 - Add 2nd 34.5-11.5kV Transformer	469	637	(168)	Engineering did not progress as expected during 2012 due to site conditions. This has caused a delay in construction work during 2013 versus what was planned.	Jun-15
Station 40 - Circuit 550 Cable Replacement	1,168	850	318	Material purchases advanced ahead of plan.	May-14
Station 49 Transformer Addition	2,366	1,761	605	Accelerated material purchases ahead of plan.	TBD - 2014
Substation Modernization Project - Station 5	1,378	-	1,378	Continued conceptual engineering design, component design and order materials.	TBD

RG&E - Electric Capital Investment
(\$000s)
December Results

Project	YTD Actuals	YTD Plan	YTD Variance	Variance Explanation - ±10% of Annual Plan	In Service Date
Rochester - Sectionalize and Reconductor 115kV Circuit 917 (S7 - S418)	1,554	596	958	Additional effort required during 2013 to sectionalize the line.	Dec-14
Mobile Substation #3 115/34.5kV	122	1,119	(997)	Project delayed to accommodate higher priority projects	Dec-15
Station 80 - Replace 1T and 3T Transformers	6,987	1,600	5,387	Project was re-estimated at conceptual engineering completion. Major changes are testing and commissioning not in original estimate and increased cost for materials. Intend to replace both 1T & 3T in 2013 to address NYISO analysis. Project schedule was shortened to complete work in 2013, increasing costs during 2013. 1T placed in service May, 2013. 3T placed in service on November 22, 2013.	Nov-13
Station 23 Transformer & 11kV Switchgear	1,908	800	1,108	Engineering and materials purchases were moved to an earlier date in accordance with an updated schedule.	Dec-14
Station 136, Add 2nd Transformer	4,495	750	3,745	Advancement of material purchases and construction schedule has increased project expenses over the originally planned amount. Project placed in service December 20, 2013.	Dec-13
Station 33 - Replace 2T	1,023	463	560	Engineering and materials purchases were moved to an earlier date in accordance with an updated schedule.	May-13
Line 926 - Upgrade 115kV Line - Rochester	35	1,600	(1,565)	Re-engineering this line replacement to reduce project costs. Project alternatives analysis under evaluation.	Dec-14
RTU Program	2,736	2,500	236		Various
Station 38 Substation Modernization	1,861	3,320	(1,459)	More project spending expected in 2014 vs 2013.	Jun-15
RGE - WPC Red Circuit Program	1,073	-	1,073	Work on individual smaller projects on circuits recognized as worst performing circuits grouped into Worst Performing Circuits program. Many of these projects were originally included in Division Minors.	Various
Cablecure Program	1,142	800	342	Vegetation clearing costs higher than planned	Various

RG&E - Electric Capital Investment
(\$000s)
December Results

Project	YTD Actuals	YTD Plan	YTD Variance	Variance Explanation - ±10% of Annual Plan	In Service Date
Distribution Pole Replacement Program - TDIRP	4,054	8,000	(3,946)	Inclement weather in May and June has reduced the number of poles replaced.	Various
Substation Battery Replacement Program - TDIRP	555	1,500	(945)	Portions of project have been delayed.	Various
Substation Breaker Replacement Program - TDIRP	210	2,665	(2,455)	Portions of project have been delayed to accommodate higher priority projects	Various
Sectionalizer Replacement Program - TDIRP	93	500	(407)	Several projects moved from this project to main Transmission, distribution infrastructure reliability program (TDIRP) line item. Delay in obtaining materials on several projects.	Various
Replace DC Pilot Wire System	172	1,433	(1,262)	Project delayed to accommodate higher priority projects.	Various
East Ridge Road - Relocate Electric Facilities	3,261	500	2,761	Scope of project has increased relative to the original plan. Advancement of engineering, material purchases and construction ahead of original plan due to increase in project scope.	Apr-14
Lake Ave. (Merrill St. to 600' s of Burley St.) Relocate Electric Facilities	1,590	3,950	(2,360)	Project start delayed by Municipality.	TBD
Recloser Automation - ECC Interface Communications	1,098	1,184	(86)		Various
Major Telecom Projects	1,384	950	434	East and West Monroe Radio Towers advanced further than planned	Various
SAP Unification - Electric Allocation	2,533	2,459	74		Jan-15
Other Common Projects - Electric allocation (Schedule C-1)	3,255	3,607	(352)		Various
All Other Electric Projects (Schedule C-2)	14,744	11,018	3,725	Acceleration of various projects and carryover project spending. On Dec. report 2 projects previously in this row are now reported individually: Section 40 - Circuit 550 Cable Replacement and Major Telecom Projects.	Various
All Other Generation Projects (Schedule C-5)	1,125	1,287	(162)	Decrease in overall amounts due to Sta 2 11kV & DC controls listed separately.	Various
Total	\$ 159,569	\$ 153,326	\$ 6,244		

Schedule C-1
Electric Common

NYSEG	(\$000)
Project Title	2013 Actuals
NYSEG GENERAL LAND & STRUCT MAJOR PROJEC	2,395
NYSEG GENERAL EQUIPMENT BLANKET	2,159
NYSEG GENERAL LAND & STRUCT BLANKET	1,148
NYSEG Revenue Recovery	149
IT MINOR CAPITAL PROJECTS	948
IT MAJOR CAPITAL PROJECTS	1,404
TLCM-TELECOM MAJOR CAPITAL PROJECTS	656
All Other	172
SAP Allocation Adjustment	(821)
Total NYSEG Common - Electric	8,062

Schedule C-1
Electric Common

RG&E	(\$000)
Project Title	2013 Actuals
RG&E - GENERAL EQUIPT	773
RG&E - GENERAL LAND & STRUCT PLANNING	311
Upgrade RGE ITRON Metering Reading Syste	570
RG&E - PROPERTY MANAGEMENT MAJOR PROJECTS	1,496
IT MAJOR CAPITAL PROJECTS	642
IT MINOR CAPITAL PROJECTS	579
All Other	84
SAP Allocation adjustment	(1,200)
Total RG&E Common - Electric	3,255

NYSEG Other Electric Projects

(\$000)

Project Title	2013 Actuals
Walden 69kV Transmission Line Upgrade	992
Silver Creek Substation New Transformer	915
Coddington LTCCapacity 115-34.5kV Xfmr	838
Amphenol Facility Interconnection - 100% Reimb.	743
Willet Substation New Transformer	696
Replacement of Rejected Wood Transmission Poles 2012	662
Richfield Springs Substa New Transformer	658
Jennison S/S - Separation from AES Plant	657
Seneca Ordinance 207 Infrastructure Reinforcement	584
Meyer Substation New Transformer	568
Meyer - Add 115kV Capacitor Bank	547
Silicon Carbide Change out Progm - 2013	501
NYSEG Recloser Automation - 2013	498
National Pipe and Plastics 15kV Circuit	464
Watercure Rd Sub-Install 2nd 345kV Xfmr	456
Callicoon 285-New Gas Compressor Sta	454
Biogas 34.5kV Collection System	401
Corning Valley Upgrade	392
Substation Modernization Project - Phase 1 - South Owego	390
Applex Suite HW	374
ESRI	373
Spare Single Phase Transfromers - 2013	373
DOT Relocation Chenango Street UG Installation	347
Greenidge S/S - Separation from AES Plnt	334
Windham Capacitor Bank Project	302
Homer City Breaker 304 Replacemnt - 2013	281
Insulator Change Out Program - 2013	270
Davis Road - Add 4th Circuit - Electric - Lancaster	238
Hardie Farms 3 Phase Electric Service	226
590 Line 34.5kV Silver Springs to Warsaw - Relocation	225
Philo 328 - CR 64 Highway Relocation	221
Guthrie Healthcare Corning Hospital Line Extension Rte 352 - 100% Reimb	214
High Speed Comm Link	202
Replacement of Transmission Deficiencies Poles	198
Waste Disposal - PCB	173
Glen Meadows URD - Phase 1	162
FERC 'Bright Line' Compliance Project	161
Afton Substation - Add New 34.5kV Circuit	159
Waste Disposal - Non PCB	133
West Woodbourne 34.5kV Capacitor Bank	126
Keuka Substation - Replace Bank #2 Transformer	125
Serenity Gardens URD - Town of Monticello	121
NYSEG Substation Animal Fences Program - 2012	114
Hanshaw Road Highway Job - Ithaca	113
Swatling Falls URD - Phase 2	110
Alternate Energy Control Center - Physical Security System	101
Line 517 34.5kV Gardenville - Ebenezer	101
L442 and L511 New Taps into New BU Subst	(232)
T & D Disposal and Salvage - NYSEG	(693)
Other Projects Summary	2,511
Total	\$18,878

Schedule C-2
Other Projects

RG&E Other Electric Projects

(\$000)

Project Title	2013 Actuals
Station 56 - Replace (2) 115-34.5kV transformer	\$883
Fiber Optic Cable Replacement Between Stations 42, 124, 204	788
Station 173 34.5 kV Switched Capacitor Bank Addition	652
Oil Containment Compliance with EPA Regulations (SPCC)	626
Recloser Automation	621
Station 91 - INGETEAM 61850 RTU Demonstration - Automation	597
Station 180 - 34kV cap Bank	592
Stations 127 New 34.5kV Capacitors	505
Padmount Switchgear Replacement	503
Station 168 Service Area Reinforcement	466
T&D Reject Pole Replacement	458
Station 80 - 5T Replacement	450
Capacitors - DOE Stations 121 & 168- 50% Reimbursable	420
Substation Modernization Project - Station 205	393
Station 132 - ABB 61850 RTU Demonstration - Automation	391
Station 178 - 34kV Cap banks	361
Station 181 - 34kv Cap bank	357
The Reserve at the Erie Canal - Underground Residential Distribution Project	348
Station 218 - 34kV Cap Bank	347
Substation Modernization- Station 37	320
Station 42 - Replace 34.5-11.5kV 3T Transformer - New 12T	294
Substation modernization- Station 43	287
Cobbs Hill Hwy Reloc Electric Facilities	276
City of Rochester - Port of Rochester Marina Development	276
Station 120 - New 34.5kV Capacitors	264
Substation Modernization- Station 29	261
Substation Modernization Project - Station 210	253
Westfall Rd. Highway Relocation, Relocate Electric Facilities	246
Portland Ave. Highway, Relocate Electric Facilities	242
Substation Modernization- Station 34	218
Old Insulator Change out Program	217
Station 125 - New 34.5kV Cap Bank	209
Station 194 - 34kV Cap Bank	160
FERC- Bright Line BES - Order No. 773	147
Stations 198 New 34.5kV Capacitors	131
Applex Suite HW	127
ESRI	126
Ridgeway Ave Hwy Reloc	124
RGE - Comm for RTU	105
Other Electric Projects less than \$100K	704
Total	\$14,744

**New York State Electric & Gas Corporation
Rochester Gas and Electric Corporation
2013 TDIRP Investments
Schedule C-3**

March 1, 2014

2013 TDIRP Program
 NYSEG Electric
 (\$000)

NYSEG	2013 Actual	2013 Plan
Substations	\$ 797	\$ -
Transmission Line	620	-
Distribution Line	6,713	5,510
DPRP - Distribution Pole Replacement	4,380	14,500
Sectionalizer Replacement	307	500
Substation Battery Replacement	1,475	800
Substation Breaker Replacement	637	3,690
NYSEG - WPC Red Circuit Projects	7,828	-
TOTAL	\$ 22,757	\$ 25,000

2013 TDIRP Program
RGE Electric
(\$000)

RGE	2013 Actual	2013 Plan
Substations	\$ 1,550	\$ -
Transmission Line	233	-
Distribution Line	5,298	2,335
DPRP - Distribution Pole Replacement	4,054	8,000
Sectionalizer Replacement	555	1,500
Substation Battery Replacement	210	2,665
Substation Breaker Replacement	93	500
RG&E - WPC Red Circuit Projects	1,073	-
TOTAL	\$ 13,066	\$ 15,000

**New York State Electric & Gas Corporation
Rochester Gas and Electric Corporation
2013 Division Projects
Schedule C-4**

March 1, 2014

2013 Division Projects
NYSEG Electric
(\$000)

NYSEG	2013 Actual	2013 Plan
Distribution Line	\$18,830	\$12,500
Distribution Line Inspection	1,856	0
Government Highway Minor	1,438	600
Industrial/Commercial	1,177	1,000
Residential Line Extensions	3,367	2,500
Service Connects	2,636	3,500
Storm	998	1,500
Street Lighting	688	1,000
Substations	1,993	2,500
Transformers, Meters, Regulators, Capacitors and Protection	17,691	17,800
Transmission Line	4,242	6,000
TOTAL	\$54,916	\$48,900

2013 Division Projects
RG&E Electric
(\$000)

RG&E	2013 Actual	2013 Plan
Distribution Line	\$5,896	\$6,000
Distribution Line Inspection	15	0
Government Highway Minor	517	515
Industrial/Commercial	2,181	1,000
Residential Line Extensions	2,052	1,915
Service Connects	1,352	500
Storm	310	400
Street Lighting	308	700
Substations	557	1,500
Transformers, Meters, Regulators and Capacitors	5,371	6,970
Transmission Line	973	1,500
Total	\$19,532	\$21,000

Schedule C-5
Other Projects

NYSEG Other Generation Projects

(\$000)

Project Title	2013 Actuals
Rainbow Falls Intake Gate upgrade	\$423
High Falls Access Road to Intake	240
NYSEG Generation Minors	227
Mechanicville Drainage Pit Discharge	182
Cadyville Air Admission System (Phase 2 - lower section)	177
Rainbow Falls Intake Gate Gantry System Replacement	134
Other Generation Projects less than \$100K ¹	(256)
Total	\$1,128

Note:

1. Includes partial insurance proceeds in the amount of \$642 for Rainbow Falls facility damaged in Hurricane Irene.

Schedule C-5
Other Projects

RG&E Other Generation Projects

(\$000)

Project Title	2013 Actuals
Station 5 Units 1,2,3 Wicket Gates, Bearings, Bushings	\$718
Station 5 Tunnel Relining	\$166
Station 5 Plant Electric Distribution	165
Station 5 Unit 3 Lube Oil System	138
Other Generation Projects less than \$100K	(62)
Total	\$1,125

**New York State Electric & Gas Corporation
Rochester Gas and Electric Corporation
Annual Capital Investment Report
Schedule D**

NYSEG - Gas Capital Investment
(\$000s)
December Results

Project	YTD Actuals	YTD Plan	YTD Variance	Variance Explanation - ±10% of Annual Plan	In Service Date
Projects/Programs in Appendix L					
Seneca West-Pipeline Interconnect to Elmira	\$ 10,037	\$ 7,896	\$ 2,141	The scope of work in 2013 increased. Capitalization of additional work/costs not originally budgeted	Dec-13
Distribution Mains, New Business	2,052	1,136	917	This customer-driven work trended higher than planned.	Various
Distribution Mains, Replacements	570	1,900	(1,330)	Non-leak prone main replacements occurred less frequently than planned	Various
New Gas Services	5,716	5,085	631	Additional funding provided to this program as demand for new gas service higher than originally planned.	Various
Leak Prone Main Replacement	12,500	7,756	4,744	Cost per mile trended higher than expected due to complexity of selected projects.	Various
Minor Leak Prone Service Renewals	5,085	3,469	1,616	Cost per service trended higher than estimated.	Various
Gas Meters	3,112	2,985	127		Various
Gas Government Jobs	1,310	706	604	An unplanned older project that had been delayed because of litigation, progressed in 2013.	Various
Gas Regulator Modernization & Automation Program	774	2,244	(1,470)	Construction started later than originally expected and the scope of work in 2013 was reduced	Various
Robinson Road Gate Station Rebuild	1,046	1,510	(464)	Work originally scheduled for 2013 has been postponed to 2014	Oct-14
Seneca East Odorizers, Elmira	259	600	(341)	Work originally scheduled for 2013 has been postponed to 2014.	Feb-14
Binghamton Gas SCADA System Migration	642	-	642	Project completion was extended into 2013 due to delays in 2012 caused by a security breach at vendor location.	Dec-13
SmarTRAC Replacement	1,089	1,275	(185)	Timing of invoices and labor charges did not trend as expected	Nov-14
Horseheads Gas Service Replacements, Phase I	486	-	486	New project, not planned for in the 2013 Planning process to conduct an assessment of the condition of gas services in the Town and Village of Horseheads	Dec-13
Transmission Casing Replacement Program	223	1,057	(834)	Individual project work is in various stages of construction and material acquisition. The scope of work in 2013 was reduced.	Various
Fleet	776	732	45		Various
Common - IT SAP Unification	1,613	1,598	15		Jan-15
Other Common Projects - Gas Allocation (Schedule D-1)	3,433	2,625	808	Increase in Gas Allocated Communication and other Equipment purchases	Various
Other projects (Schedule D-2)	2,428	489	1,939	Carry over project work from previous year and project scopes increased over what was originally planned	Various
Total	\$ 53,152	\$ 43,062	\$ 10,090		

RG&E - Gas Capital Investment
(\$000s)
December Results

Project	YTD Actuals	YTD Plan	YTD Variance	Variance Explanation - ±10% of Annual Plan	In Service Date
Projects/Programs in Appendix L					
New Empire West Gate Station	\$ 1,840	\$ 4,296	\$ (2,456)	Work originally scheduled for 2013 has been postponed to 2014	Oct-15
Distribution Mains, New Business	1,156	1,330	(174)	New main work is primarily customer-driven and was slower than expected.	Various
New Gas Services	5,184	1,335	3,849	Original 2013 Plan funding inadvertently included in Leak Prone Service Renewals. Customer driven service work trended higher than expected.	Various
Leak Prone Main Replacement Program	10,174	8,713	1,461	Additional projects added to the program than originally planned in 2013	Various
Leak Prone Service Renewals	2,192	5,000	(2,808)	Original 2013 Plan inadvertently included \$3.3 million of New Gas Services in Leak Prone Service Renewals	Various
Gas Meters	2,306	2,206	100		Various
Gas Government Jobs	124	650	(526)	Municipal driven work trended slower than expected.	Various
Gas Regulator Modernization & Automation Program	1,030	765	265	Additional projects were added to the program scope of work	Various
Northeast 60 - Penfield	653	850	(197)	Delays with approval of Town, County, and NYS permits delayed the start of construction.	Various
SmarTRAC Replacement	1,102	1,275	(173)	Timing of invoices and labor charges did not trend as expected	Nov-14
Ridge Road East, Replace Gas Mains	1,199	250	949	Scope of work increased due to unforeseen underground conditions.	Oct-13
Fleet	2,061	1,225	836	Additional Purchases not originally planned	Dec-13
Common - IT SAP Unification	1,364	1,324	40		Jan-15
Other Common Projects - Gas Allocation (Schedule D-1)	3,599	1,942	1,656	Increase in Gas Allocated Communication and other Equipment purchases	Various
Other projects (Schedule D-2)	1,937	956	980	Mainly unplanned carryovers from 2012 and unplanned additional work in 2013.	Various
Total	\$ 35,921	\$ 32,117	\$ 3,804		

Schedule D-1
Gas Common

NYSEG		(\$000)
Project Title	2013 Actuals	
NYSEG GENERAL LAND & STRUCT MAJOR PROJEC	633	
NYSEG GENERAL EQUIPMENT BLANKET	571	
NYSEG GENERAL LAND & STRUCT BLANKET	303	
Radio Replacement Project AE 5952	264	
IT MINOR CAPITAL PROJECTS	250	
IT MAJOR CAPITAL PROJECTS	371	
TLCM-TELECOM MAJOR CAPITAL PROJECTS	173	
All Other	45	
SAP Allocation Adjustment	821	
Total NYSEG Common - Gas	3,433	

Schedule D-1
Gas Common

RG&E

(\$000)

Project Title	2013 Actuals
RG&E - GENERAL EQUIPT	416
RG&E - GENERAL LAND & STRUCT PLANNING	167
Upgrade RGE ITRON Metering Reading Syste	307
RG&E - PROPERTY MANAGEMENT MAJOR PROJECTS	806
IT MAJOR CAPITAL PROJECTS	346
IT MINOR CAPITAL PROJECTS	312
All Other	45
SAP Allocation adjustment	1,200
Total RG&E Common - Gas	3,599

Schedule D-2
Other projects

NYSEG

(\$000)

Project Title	2013 Actuals
Horseheads Leak Prone BS Srv Repl	\$807
Cargill Salt Gas Main Upgrd Watkins Glen	\$542
Route 22 Main Relocation - Brewster	\$476
NYSEG Gas Regulators	\$239
Royalton Pipeline Launcher Rec Install	\$114
Mechanicville Compressed Nat Gas	\$102
All Other	148
Total	2,428

NOTE: The Horseheads project and the Cargill Salt project were inadvertently left off of the December PSC Variance report for projects over \$500K.

Schedule D-2
Other projects

RG&E

(\$000)

Project Title	2013 Actuals
W. Henrietta @ Canal, 1-390 HW Imp Ph 4	800
RGE - Dist Mains Replacement Planning	380
Henrietta 42 Phase 3B, Inst Gas Mn RGE	211
RGE - Gas Regulators	154
All Other	391
Total	1,937

NOTE: The West Henrietta project was inadvertently left off of the December PSC Variance report for projects over \$500K.

**New York State Electric & Gas Corporation
Rochester Gas and Electric Corporation
Annual Capital Expenditures Report
Schedule E**

STATUS OF THE AUBURN TRANSMISSION PROJECT

NYSEG, in collaboration with National Grid (NGRID), has jointly filed a supplemental application for an Article VII Certificate of Environmental Compatibility and Public Need for the Auburn Transmission Project (the "Project") - a new 14 mile, 115kV line from Elbridge Substation (National Grid) to State Street Substation (NYSEG) - in November 2013.

Currently, conceptual engineering packages have been completed and are undergoing reviews by both NYSEG and NGRID project teams for comments. Considering Article VII proceedings and the need for an accelerated settlement in this case, NYSEG is anticipating that detailed engineering for the Project could begin in April 2014.

NYSEG plans to procure materials and supplies for the Project that will allow for construction to begin in compliance with an Article VII Certificate in July 2014.

NYSEG and National Grid have determined that the NYISO requirements for a System Impact Study do not apply to the Project due to its low impact on power transfers. The Project will be included in NYSEG's Local Transmission Plan for any studies that include the proposed in-service date of June 2016.

NYSEG continues to work with DPS Staff, NYISO Planning, and National Grid to analyze and review long-term transmission options that resolve the on-going Cayuga Generation Mothball issues, over and above the original scope for the Project. Additional NYSEG and/or National Grid transmission option scope associated with the Cayuga Generation Mothball issue may increase the cost and scope of the supplemental Article VII application.