



February 18, 2014

#### **VIA ELECTRONIC MAIL**

Honorable Kathleen Burgess Secretary to the Commission New York State Public Service Commission Three Empire Plaza Albany, New York 12223

Re: Case 04-M-0159 - Proceeding on Motion of the Commission to Examine the Safety of Consolidated Edison Company of New York, Inc.'s Electric Transmission and Distribution Systems.

#### Dear Secretary Burgess:

New York State Electric & Gas Corporation and Rochester Gas and Electric Corporation submits for filing the <u>2013 Annual Stray Voltage Testing and Facility Inspection Reports in the above referenced proceeding.</u>

If you have any questions pertaining to this information, please contact Jennifer R. Smith at 585.771.4282

Respectfully submitted,

Lori A. Cole

Manager - Regulatory & Tariffs Rates and Regulatory Economics

Enclosure





# New York State Electric and Gas Corporation

# STRAY VOLTAGE TEST AND FACILITY INSPECTION PROGRAM

Report on the results of Stray Voltage Tests and Facility Inspections for the 12-month period ending on December 31, 2013

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#### I. Background

The New York State Public Service Commission's ("PSC" or "Commission") Electric Safety Standards Order issued on January 5, 2005, with subsequent revisions issued on July 21, 2005, December 15, 2008, and March 22, 2013 (Case 04-M-0159), and July 21, 2010 and June 23, 2011 (Case 10-E-0271), (collectively referred to herein as the "Safety Standards" or "Order"), require electric utilities in New York State, including New York State Electric & Gas ("NYSEG" or the "Company") to test annually all of their publicly accessible streetlights and underground electric facilities, and test their overhead distribution facilities, overhead and underground transmission facilities, underground residential distribution facilities, and substation fences for stray voltage every five years coinciding with their electric facility inspections.

This report describes New York State Electric & Gas's Stray Voltage Detection Program and Equipment Inspection Program conducted in 2013.

#### II. Company Overview

NYSEG is located in upstate New York and serves approximately 878,000 electric customers. NYSEG covers an area of about 18,359 square miles or 40% of upstate New York, and serves a primarily rural area composed of 149 small cities and villages.

NYSEG's electric delivery infrastructure consists of 519 substations, approximately 49,758 underground facilities and 5,412 streetlight/traffic signal facilities. This system includes an estimated 820,049 distribution structures and 76,841 transmission structures.

#### III. Stray Voltage Testing Program

During the period ending December 31, 2013, NYSEG conducted stray voltage testing of all its publicly accessible underground electric facilities, and all Company and non-Company owned metallic streetlights and traffic signals, as well as 20% of its overhead transmission and distribution facilities, and underground residential distribution facilities that are capable of conducting electricity. The Company also tested all publicly accessible third party facilities in close proximity to NYSEG's system components identified with elevated voltage.

In addition, and in compliance with the Order, NYSEG:

a. Immediately safeguarded and/or mitigated all voltage findings  $\geq 1.0$  volt. In instances where the stray voltage finding was determined to be caused by customer-owned equipment, the area was immediately made safe and the

customer or responsible party associated with the premises was notified of the unsafe condition and the need for the customer to arrange for a permanent repair. Voltage findings determined to be caused by a utility-owned facility were immediately safeguarded and/or mitigated. All permanent repairs were made within 45 days.

- b. Tested all publicly accessible structures within a 30 foot radius of the electric facility or streetlight where there was a stray voltage finding  $\geq 1.0$  volt.
- c. Responded, investigated, and mitigated positive findings of shock incidents reported by the public.

Of the 397,445 facilities visited, 37,331did not require stray voltage testing because these are wood poles that have no attached appurtenances capable of conducting electricity; their electrically conductive appurtenances are not accessible to the public (pre-wired wood); the facilities are enclosed in fiberglass (non-conductive materials); de-energized facilities; and/or the facilities are deemed inaccessible to the public.

#### Structures Inaccessible to the Public

Contractors made every attempt to locate and test all structures. If the contractor could not reach the structure to perform a test, it was identified as "Inaccessible" and all other pertinent data was collected in the field. Of the 397,445 facilities visited, 472 were deemed Inaccessible to the public. As described below, there are several types of Inaccessible structures:

- a. <u>Private Property</u> The structure was not tested if it was located on private property and was inaccessible due to walls, fences or barriers such as a locked gate, if excavation or bush/tree removal was required, or if there was unauthorized construction around the structure.
- b. <u>NYSEG Property</u> Structure located on Company property, such as substations, are accessible only to Company personnel and authorized contractors.
- c. <u>Buried / Paved Over</u> The structure was not tested if it had been covered over with dirt, pavement, or other foreign objects that would prohibit public access and prevent testing the structure. Contractors noted the structure ID on the issued maps and turned them in to Maintenance Engineering for verification with the Maps and Records Department. If Maps and Records confirmed that the structure does exist, company and contractor crews followed up and attempted to locate, uncover, and test the structure. If the structure could not be found, it was then considered removed from the field, and revisions to mapping were generated.
- d. <u>Inside Building</u> If a tester identified a structure as being inside a building, NYSEG personnel verified that the structure was actually inside the building. If the NYSEG personnel verified that the structure was accessible to the public, a test was performed. Typically, customer owned equipment that is inside a building is in a locked equipment room that is accessible to authorized personnel only.

- e. <u>Limited Access Highways</u> Structures located on highways, exit and entrance highway ramps. The performance of stray voltage testing would constitute an unacceptable risk to the employee.
- f. <u>Dangerous Terrain</u> Poles located on cliffs and other dangerous terrain are generally inaccessible to Company personnel and are approached only under urgent circumstances. The performance of stray voltage testing would constitute an unacceptable risk to the employee.

#### **IV.** Facility Inspection Program

The Safety Standards require NYSEG to visually inspect approximately 20% of its facilities annually, resulting in 100% inspection of its electric facilities every five years.

The objective of all inspections is to conduct a careful and critical examination of an electric facility by a qualified individual to determine the condition of the facility and the potential to cause, or lead to safety hazards, or adverse effects on reliability.

Inspections conducted during routine maintenance and other work not directly related to the inspection program count as an inspection visit, provided that the inspection is performed using the same safety and reliability criteria and to the same extent as would otherwise be required under the Electric Safety Standards.

In accordance with the Safety Standards, NYSEG uses the following severity levels to establish priority for repairs and scheduling:

<u>Level I</u> – Repair as soon as possible but not longer than one week. A Level I deficiency is an actual or imminent safety hazard to the public or poses a serious and immediate threat to the delivery of power. Critical safety hazards present at the time of the inspection shall be guarded until the hazard is mitigated. <u>Level II</u> – Repair within one year. A Level II deficiency is likely to fail prior to the next inspection cycle and represent a threat to safety and / or reliability should a failure occur prior to repair.

<u>Level III</u> – Repair within three years. A Level III deficiency does not present immediate safety or operational concerns and would likely have minimum impact on the safe and reliable delivery of power if it does fail prior to repair.

<u>Level IV</u> – Condition found but repairs not needed at this time. Level IV is used to track atypical conditions that do not require repair within a five year timeframe. This level shall be used for future monitoring purposes and planning proactive maintenance activities.

In accordance with the PSC requirements, when a temporary repair is located during inspection or performed by the company, best efforts are put forth to make

a permanent repair of the facility within 90 days. Temporary repairs that remain on the system for more than 90 days are due to extraordinary circumstances, i.e. storms, and require extensive repair activity. The Company puts forth best efforts to conduct permanent repairs in the field, and only construct a temporary repair if/when absolutely necessary. For cycle year 2013, NYSEG has no temporary repair exceptions to report.

#### V. <u>Company Facilities</u>

#### **Structure Categories**

NYSEG has approximately 341,642 individual facilities that require testing for the presence of stray voltage in 2013. These facilities are broken down into four main categories including:

<u>Distribution Overhead</u> – There are approximately 262,345 distribution pole structures that require testing for the presence of stray voltage in NYSEG's territory. The testing criteria include all utility-owned or joint use wooden poles with utility electrical facilities located on both public thoroughfares and customer property, including backyards or alleys. Stray voltage tests are performed on all wooden poles with metallic attachments such as ground wires, ground rods, anchor guy wires, riser pipes, or any electrical equipment within reach of the general public. Distribution overhead facilities are included in both the stray voltage and inspection programs.

<u>Underground Facilities</u> – There are 20,265 underground facilities that require testing for the presence of stray voltage that comprise NYSEG's system. The testing criteria are comprised of subsurface structures, including above ground pad-mounted structures. Included in the underground facilities are pad-mount switchgear cases, pad-mount transformer cases, electric utility manhole covers, submersible transformer covers, electric utility handhole covers, network vaults and grates. These facilities are included in both the stray voltage and facility inspection programs.

Street lights and Traffic Signals – There are approximately 17,238 metallic street lights and approximately 15,467traffic signals within NYSEG's service territory that require testing for the presence of stray voltage. This total includes metallic street lights owned by NYSEG with the balance of the equipment owned by various municipalities. The testing criteria include all metallic streetlights, traffic signals, and pedestrian crosswalk signals located on publicly accessible thoroughfares. All stray voltage testing of street lights is performed at night while the fixtures are energized. Area and street lighting that is privately owned is not included in the stray voltage testing program, as per the Order's requirements. All Company-owned streetlights are included in the facility inspection program.

<u>Transmission Structures</u> – There are 26,224 individual poles/towers that require testing for the presence of stray voltage that comprise NYSEG's transmission system. The testing criteria is comprised of all structures, guys, and down leads attached to the structures. Transmission structures support circuit voltages of 34.5 kilovolts and greater. Transmission poles as described above, with distribution under-build, are included in this transmission category. All transmission structures are included in both the stray voltage and facility inspection programs.

<u>Substations</u> – There are 103 substation fences that require testing for the presence of stray voltage in NYSEG's territory.

#### VI. Annual Performance Targets

NYSEG performed the required stray voltage testing and facilities inspections in accordance with the requirements set forth in the Order.

In compliance with the Safety Standards, NYSEG has met the annual performance target for stray voltage testing of 100% of streetlights and underground electric facilities, and 20% of the overhead distribution facilities, overhead and underground transmission facilities, underground residential distribution facilities, and substation fences for the period ending December 31, 2013.

In addition, in compliance with the Safety Standards, NYSEG has met the fourth year annual performance target for inspection of its electric facilities for the period ending December 31, 2013.

The results are summarized in the table below.

#### Facility Inspection Program Results

Category	NYSEG Inspection Target	Actual Cumulative Inspected as of 2013
Overhead Distribution	80%	83%
Overhead Transmission	80%	75%
Underground	80%	69%
Streetlight	80%	100%

#### **5-Year Inspection Performance Summary**

#### Overhead Distribution Facilities

Inspection	Number of Overhead Distribution	% of Overall System
Year	Structures Inspected	Inspected (Cumulative in
		Five Year Cycle 2010-2014)
2010	168,617	21%
2011	173,214	42%
2012	177,732	63%
2013	160,341	83%
2014		

#### **Overhead Transmission Facilities**

Inspection	Number of Overhead Transmission	% of Overall System
Year	Facilities Inspected	Inspected (Cumulative in
		Five Year Cycle 2010-2014)
2010	20,143	26%
2011	13,869	44%
2012	13,299	62%
2013	9,994	75%
2014		

#### **Underground Facilities**

Inspection	Number of Underground Facilities	% of Overall System
Year	Inspected	Inspected (Cumulative in
		Five Year Cycle 2010-2014)
2010	11,488	23%
2011	6,706	37%
2012	6,691	50%
2013	9,206	69%
2014		

#### **Streetlights**

Inspection	Number of Streetlights Inspected	% of Overall System
Year		Inspected (Cumulative in
		Five Year Cycle 2010-2014)
2010	1,970	36%
2011	848	52%
2012	1,191	74%
2013	2,135	100%
2014		

#### VII. Certifications

Pursuant to Section 7 of Appendix A of the Safety Standards, the president or officer of each utility with direct responsibility for overseeing stray voltage testing and facility inspections shall provide an annual certification to the Commission that the utility has, to the best of his or her knowledge, exercised due diligence in carrying out a plan, including quality assurance, that is designed to meet the stray voltage testing and inspection requirements, and that the utility has:

- Tested all of its publicly accessible electric facilities and street lights, as referred to in the body of the February 15 Report, and
- Inspected the requisite number of electric facilities.

The certifications are attached as Exhibit 1 of this report.

#### VIII. Analysis of Causes of Findings and Stray Voltage

All New York State utilities perform an inventory on all findings and report on the number of these findings each year. Section 1(f) of the December 15, 2008 Order defines a finding as "any confirmed voltage reading on an electric facility or streetlight greater than or equal to 1 volt measured using a volt meter and 500 ohm shunt resistor." Section 1(c) defines Stray Voltage as "voltage conditions on electric facilities that should not ordinarily exist. These conditions may be due to one or more factors, including, but not limited to, damaged cables, deteriorated, frayed or missing insulation, improper maintenance, or improper installation." A Summary of Energized Objects for the manual program can be found in Appendix 2 of this report.

Generally, there are two types of reported findings; a confirmed voltage reading greater than or equal to 1 volt measured using a volt meter and 500 ohm shunt resistor which is the result of an abnormal power system condition, and a confirmed voltage reading greater than or equal to 1 volt measured using a volt meter and 500 ohm shunt resistor which results from the normal delivery and/or use of electricity. Utilities are required to report on all findings, regardless of whether or not the voltage is abnormal or normal to operating conditions. The detection rate for all findings in 2013 as shown in Appendix 1 is .085%. Inclusion of these normal occurring voltages in the total findings can result in the perception that there are more potentially hazardous voltage findings than actually exist. Upon excluding these normal occurring voltages illustrates a detection rate of .035% which more accurately represents confirmed abnormalities across our total system.

Causes of these findings include, but are not limited to, naturally occurring neutral to earth voltages (as part of a multi-grounded WYE power system); poor soil grounding conditions; load imbalance between phases; long low voltage single phase circuit spurs with high current loads; and/or proximity to transmission lines. Attempts to mitigate these conditions include a high cost, and there is no guarantee of resolution.

True hazardous voltages have been identified and mitigated through the stray voltage testing program. These voltages resulted from a variety of conditions including: deterioration of conductors; age of equipment; exposure to the elements; and various customer related issues. Through the efforts of the stray voltage testing program, NYSEG has been able to repair these issues and mitigate the danger associated with the elevated voltage.

Some distinction needs to be made between these two classes of findings: findings due to potentially hazardous Stray Voltage, and findings normal to the operating system.

The following table contains a breakdown of the causes of Stray Voltage Findings identified through the 2013 manual testing effort:

Structure Type	Cause of Stray Voltage	Stray Voltages Found
Distribution	Ground Rods	60
Distribution	Customer Owned Equipment	8
Distribution	Transformers/ Capacitors	2
Distribution	Guy Wire	3
Distribution	Defective Cutout/Lightening Arrestor	1
Distribution	Defective Insulator	7
Distribution	Vegetation	1
Distribution	Defective Primary Neutral Connection	2
Distribution	Loose Connections	8
Distribution	Open Secondary Neutral	2
Distribution	Defective Underground Cable	1
Streetlights	Defective Neutral – Underground Cable	2
Streetlights	City/Town Owned Equipment	11
Streetlights	Defective Light Fixture	2
Streetlights	Defective Neutral Connection- Light Pole	1
Streetlights	Defective Cable- Handhole	1
Streetlights	Defective Conductor Connection- Light Pole	1
Streetlights	Loose Connections	2
Transmission	Ground Rods	7
		122

In accordance with the PSC requirements; when a finding is discovered on an electric facility or streetlight during stray voltage testing, the Company is obligated to perform stray voltage testing on all publicly accessible structures and sidewalks within a minimum 30 foot radius of the electric facility or streetlight. In this year's testing cycle 122 findings were identified. A total of 11 additional objects were tested as a result of testing within a 30 foot radius. Of the 11objects tested, 2 were energized associated with the initial tested structure. One object was mitigated when the initial tested structure was repaired, and one was energized resulting from normal system current.

#### IX. Analysis of Inspection Results

#### **Overhead Distribution Structures**

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
160,341	25,709	16.03%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	184	.72%
2	1,659	6.45%
3	6,509	25.32%
4	17,357	67.52%

Total: 25,709 100%

#### **Overhead Transmission Facilities**

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
9,994	986	9.86%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	1	.10%
2	21	2.13%
3	835	84.69%
4	129	13.08%
Total:	986	100%

#### **Underground Facilities**

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
9,206	511	5.55%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	71	13.89%
2	53	10.37%
3	133	26.03%
4	254	49.71%

Total: 511 100%

#### **Streetlights**

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
2,135	215	10.07%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	0	0%
2	3	1.40%
3	181	84.19%
4	31	14.42%
- T	215	1000/

Total: 215 100%

In 2013, a total of 27,421 deficiencies were identified through scheduled inspections which represent a deficiency rate of about 15.09% of the total unique inspections performed.

This was the second year NYSEG outsourced the inspection effort after previously utilizing internal resources, and instituted a new inspection protocol. Overhead Distribution and Underground inspections were performed using a Distribution Line Inspection ("DLI") Toughbook. The DLI Toughbooks are portable laptop computers with pre-loaded software that displays all assets to be inspected and includes pre-formatted inspection pick tables the inspectors will use to document individual inspections. The DLI Toughbook has built-in GPS capability that displays its real-time position in relation to any company asset. Inspectors are required to document all inspections on the DLI Toughbook, and the resulting data is uploaded into the Company SAP system.

The Company's asset records within the work management system are being enhanced through data obtained through the annual inspection program to better reflect specific equipment or structure classifications. This is an ongoing effort and will result in the Company being able to better distinguish separation of the Underground and Pad-Mount Facilities. Accordingly, for this report, combining the Underground and Pad-Mount Facility tables more accurately represents the actual inspection progress made within this asset grouping.

The collection and management of data was centralized into a single program group to provide an effective way to communicate inspection progress and issues to and from field operations and inspectors. The asset data received continues to enhance the quality of information we had in place identifying in more detail specific structure attributes giving us the ability to document accurate GPS locations in the field. Common training efforts were conducted among all field

personnel through the centralized program group resulting in uniform standardized reporting of field conditions.

Each and every year since the commencement of the Safety Standards Order in 2005, NYSEG has continually made improvements toward the administration of the Facility Inspection program. The results of these improvements have provided some additional benefits to the Company.

Other groups within the company have also capitalized on this information to assist them in their particular needs. Asset Management groups have used inspection information to assist them in trending analysis and preparation of targeted maintenance efforts such as pole treatment and replacement projects, and other equipment issues. Vegetation Management groups routinely use inspection information to look for potential trouble spots where out of cycle trimming may be necessary. Master data groups use the information to update existing records for better accuracy, and to add, move, or remove structures from mapping to better reflect positional accuracy in the field.

#### X. Stray Voltage Testing and Inspection QA/QC Programs

#### Stray Voltage Testing QA/QC Program

Throughout the stray voltage testing effort, the testing contractor submits their testing data to NYSEG in the form of batch files. These batch files are submitted for multiple QA/QC reviews. The first review that takes place is for data accuracy. Batch files are scanned to ensure formatting and proper data is populated in each of the required fields. If approved, the file is loaded into the production database and a copy forwarded to the Global Positioning System (GPS) QA/QC Team for the second review to check the data for positional accuracy and content. If the data is not acceptable, the contractor is notified of such and the reasons for failure. The testing contractor remedies the problems and re-submits the file with corrections.

Following vendor batch file approval through the program administrator, the GPS QA/QC team loads the batch file into the NYSEG/RGE GIS database. The QA/QC team uses the GIS application Arc Map to evaluate and certify the testing results. The data, GPS location, test results and time stamp are recorded at each structure on Trimble GeoXt handheld devices with sub-meter GPS capability during the field testing effort. This collection method has been extensively used and successfully tested by NYSEG as an effective means of monitoring progress and ensuring the stray voltage testing contractor is acquiring all test points and delivering complete and accurate results.

Additionally, the GPS QA/QC team employs the use of high level satellite ortho photography to verify positional accuracy.

The methodologies deployed to conduct the QA/QC evaluation are as follows:

- Upon data load into the GIS database, the level of digitized data points is checked and recorded to insure that the number of points does not exceed the expected level based on satellite position, interference (i.e. buildings, vegetation) and equipment capabilities. This level is generally < 1%. Also, at this time a gross high level check is made looking for gross geographical errors that would indicate a batch file processing error by the vendor. If either of these conditions is not acceptable the "batch" is rejected.
- Following the initial checks above, the batch data is overlaid on top of the previous years' data in Arc Map. All data is 100% evaluated against the prior testing effort plus some additional safeguards to be covered later. These methods have proven to be very effective in ensuring that all structures have been tested. The overall management of the process is through a grid system on which the field testing maps are based. As data accumulates throughout the year the grids are attributed to reflect their completeness based on structure type, i.e. Streetlights OK = Yes and so on.
- The next aspect of QA/QC effort is final certification by division. When we are notified by the vendor that a division is complete and all data has been submitted we initiate a final audit of the division. This is a final review of any missed structures and any new structures not tested. Any structures deemed "missed" are extracted into a shape-file (GIS database) and fed back to the vendor for follow up testing, thus completing a continuous feedback loop year to year to cover missed structures. At this time the QA/QC team does a high level grid check to make sure no map sheets were omitted.
- The additional safeguards mentioned above are as follows:
  - ➤ Duplicate testing of structures: The analysts are prompted to be aware of and flag any evidence of massive duplicate testing.
  - ➤ GPS time stamp anomalies: Analysts are aware to look for suspicious time intervals between structures, particularly on heavily digitized areas (i.e. 3 seconds between poles 300' apart).

The QC team does a periodic review of the Stray Voltage data vs. The Corporate electrical distribution asset system called Smart-map. This evaluation allows us to identify any new or previously missed structures which are extracted and sent back to the vendor for testing.

#### Random Quality Assurance

On an ongoing basis, NYSEG performs many quality assurance measures to ensure testing data accuracy. These include, but are not limited to; investigations into inaccessible structures to determine the nature of inaccessibility, performance of individual testers, miscellaneous anomalies found in testing data, and checking

circuit maps to ensure all structures have been visited. Problem testers are identified to the testing contractor and, if need be, removed from the testing effort. If needed, problem areas are retested in order to ensure testing accuracy. Any discrepancies found as a result of random data sampling checks like wrong town or street name and incorrect spellings are then corrected.

In addition to these measures, Field Coordinators conduct random field visits to ascertain that field contractors are performing tests on all required structures. During these visits, the Field Coordinator will observe testers performing their work to ensure they're doing it correctly and answer any questions about map reading, structure IDs, and location of structures. The Field Coordinator also performs follow up on randomly chosen completed maps to check that all structures were tested and recorded properly.

#### Inspection QA/QC Program

NYSEG's inspection program is administered through the Inspection Tracking System (ITS) Group. The ITS Group monitors all company assets in a central database to ensure all planned inspections for the current year are performed.

The ITS Group randomly selects a sample set of reported repaired deficiencies throughout each division. This sample set contains all information regarding the deficiency including the cause and the reported repair effort and is given to the QA/QC Coordinators to be field evaluated. NYSEG performs field verifications in each of its thirteen divisions to assess the reported results from inspectors. QA/QC Coordinators visit the specific asset and validate whether the reported repair work has been made. Independent results of the verification effort are compared to the original reporting to assess effectiveness.

In addition, the ITS Group develops a random sample of assets from each of the circuits inspected in the current year. Administered by a third party of QA/QC Coordinators who are qualified to perform utility inspections, they are deployed to perform independent field inspections on these random assets. Results of their findings are compared with results submitted by the field inspectors to assess effectiveness.

## **Appendix 1 Stray Voltage Testing Summary**

NYSEG	Total System Units	Units Completed	Percent Completed	Units with Voltage Found (>= 1.0v)	Percent of Units Tested with Voltage (>= 1.0v)	Units Classified as Inaccessible
Distribution Facilities	164,010	299,370	100%	105	0.035%	288
Underground Facilities	12,519	20,331	100%	0	0.000%	66
Street Lights / Traffic Signals	32,743	32,743	100%	20	0.061%	38
Substation Fences	103	103	100%	0	0%	0
Overhead Transmission	15,368	26,898	100%	198	0.736%	80
Underground Transmission	0					
TOTAL	224,743	379,445	100%	323	0.085%	472

# Appendix 2 Summary of Energized Objects (Manual Program)

-									
		Initial Re	adings		Read	ings after M	tigation		
NYSEG	1-4.4V	4.5-24.9V	>25V	Totals	< 1V	1-4.4V	>4.5V		
Distribution Facilities	83	17	5	105	84	15	2		
Pole				0					
Ground	60	14	5	79	62	12	2		
Guy	22	2	0	24	20	3			
Riser	0	1	0	1	1	0	0		
Other	1	0	0	1	1	0	0		
Underground Facilities	0	0	0	0	0	0	0		
Manhole/ Pull box				0					
Manhole				0					
Padmount Switchgear				0					
Padmount Transformer				0					
Vault-Cover/Door				0					
Pedestal				0					
Other				0					
Street Lights/Traffic Signals	5	8	7	20	18	0	0		
Metal Street Light Pole	4	7	7	18	18	0	0		
Traffic Signal Pole				0					
Pedestrian Crossing Pole				0					
Traffic Control Box				0					
Other	1	1	0	2	0	0	0		
Substation Fences	0	0	0	0	0	0	0		
Fence				0					
Other				0					
Transmission (Total)	177	20	1	198	7	3	0		
Lattice Tower				0					
Pole	1	0	0	1	0	0	0		
Ground	118	16	1	135	7	2	0		
Guy	57	4	0	61	0	1	0		
Other	1	0	0	1	0	0	0		
Miscellaneous Facilities	2	0	0	2	2	0	0		
Sidewalk				0					
Gate/Fence/Awning				0					
Control Box				0					
Scaffolding				0					
Bus Shelter				0					
Fire Hydrant				0					
Phone Booth				0					
Water Pipe				0					
Riser				0					
Other	2	0	0	2	2	0	0		

### Appendix 3 Summary of Shock Reports from the Public

		ix 3 Summary of Shock Reports from the		
			Yearly	
, 1	IYSEG	Data collected as of December 31, 2013	Total	
I.	Total Sho	ck Calls Received:		38
	Ur	nsubstantiated		12
	No	ormally Energized Equipment		12
	St	ray Voltage:		
	Pe	erson		14
		imal		
II.	Injuries S	ustained/Medical Attention Received:		13
	_	erson		13
		imal		
III.	Voltage S			14
		ility Responsibility		
		sue with primary, joint, or transformer		2
		condary joint (Crab)		
	_	service Line		
		andoned SL service line		
		efective service line		
		andoned service line		
		1 Secondary		
	_	1 Service		
		1 Service neutral		2
	Po	ser		2
		her		1
		ıstomer Responsibility		1
		ontractor damage		
		istomer equipment/wiring		a
		her Utility/Gov't Agency Responsibility		J
		Base Connection		
		. Internal wiring or light fixture		
		verhead equipment		
IV.	Voltage R			14
		0V to 4.4V		1
		5V to 24.9V		1
		V and above		4
		Reading		8

NYSEG		Арре	endix 4 - S	Summary o	f Deficier	ncies and	Repair A	ctivity Re	sulting fr	om the In	spection	Process	- Distribut	ion	
Overhead Facilities		2009			2010			2011			2012			2013	
Priority Level	I	II	III	I	II	III	ı	II	III	I	II	III	I	II	III
Repair Expected	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years
			•					Poles			1				ı
Pole Condition															
Number of Deficiencies	5	82	68	4	139	123	5	369	400	23	976	3,460	7	599	1,362
Repaired in Time Frame	1	79	62	1	122	106	4	240	177	7	658	731	6	132	81
Repaired - Overdue	4	3	6	3	17	16	1	128	2	16	188		1		
Not Repaired - Not Due									221			2,729		467	1,281
Not Repaired - Overdue						1		1			130				
Grounding System															
Number of Deficiencies	1	5	1	5	29	5	5	9	23	0	89	1,449	0	366	691
Repaired in Time Frame	1	5	1	4	22	4	5	9	15		52	244		168	128
Repaired - Overdue				1	7						37				
Not Repaired - Not Due									8			1,205		198	563
Not Repaired - Overdue						1									
Anchors/Guy Wire															
Number of Deficiencies	1	24	111	11	53	140	4	124	119	1	42	1,536	8	28	427
Repaired in Time Frame	1	19	111	9	52	135	3	96		1	26	153	8	7	32
Repaired - Overdue	-	5		2	1	4	1	28		-	16				
Not Repaired - Not Due				_		•			79			1,383		21	395
Not Repaired - Overdue						1						1,000			000
Riser						·									
Number of Deficiencies	_	1		_	5	3	0	3	1	0	0	8	1	8	966
Repaired in Time Frame	_	1	_	_	5	3		3	•		U	1	1		27
Repaired - Overdue		1			3							1	1		21
Not Repaired - Not Due									1			7		8	939
Not Repaired - Not Due									'			- /		- 0	939
·															
Cross Arm/Bracing	10	446	204	25	460	242	•	242	400	7	746	2 402	44	200	4 200
Number of Deficiencies	19	116	301	25	163	243	9	313	433	7	<b>716</b>	2,492	11	309	1,206
Repaired in Time Frame	11	106	286	23	161	211	6	256	192	2	502	263	8	73	74
Repaired - Overdue	8	10	15	2	2	28	3	55		5	176	0.000	3	000	4.400
Not Repaired - Not Due						4			241		00	2,229		236	1,132
Not Repaired - Overdue						4		2			38				
			<u> </u>		1	1	С	onductors							I
Primary Wire/Broken Ties															
Number of Deficiencies	23	59	24	73	98	31	37	165	83	51	92	125	90	121	244
Repaired in Time Frame	22	58	23	64	95	27	32	136		45	61	23	81	51	6
Repaired - Overdue	1	1	1	9	3	3	5	28		6	31		9		
Not Repaired - Not Due									42			102		70	238
Not Repaired - Overdue						1		1							
Neutral															
Number of Deficiencies	1	1	2	5	5	7	1	8	16	1	2	24	0	3	9
Repaired in Time Frame	1	1	2	5	5	7	1	8	14	1	2	2		1	
Repaired - Overdue															
Not Repaired - Not Due									2			22		2	9
Not Repaired - Overdue															
Insulators															
Number of Deficiencies	5	20	27	8	30	79	4	68	84	10	224	609	2	89	851
Repaired in Time Frame	3	20	27	8	30	78	4	59		6	152	236	2	28	
Repaired - Overdue	2					1		9		4	53				
Not Repaired - Not Due									40	·		373		61	763
Not Repaired - Overdue											19				, 50

NYSEG		Арре	endix 4 - S	Summary o	f Deficier	ncies and	Repair Ac	ctivity Re	sulting fr	om the Ins	spection	Process	- Distribu	tion	
Overhead Facilities		2009			2010			2011			2012		2013		
Priority Level	I	II	III	I	II	III	ı	II	III	ı	II	III	I	II	III
Repair Expected	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years
			*				Pole	Equipme	nt						<u>'</u>
Transformers															
Number of Deficiencies	2	11	12	1	20	19	3	7	22	1	47	1,012	7	34	216
Repaired in Time Frame	1	11	12	1	20	18	2	6	6	1	30	561	7	13	27
Repaired - Overdue	1					1	1	1			17				
Not Repaired - Not Due									16			451		21	189
Not Repaired - Overdue															
Cutouts															
Number of Deficiencies	-	4	19	2	6	43	0	30	17	1	33	10	1	15	15
Repaired in Time Frame		4	19	2	6	42		23	14	1	30	7	1	4	1
Repaired - Overdue		-r	.0			1		7	1.4		3	,	'		'
Not Repaired - Not Due						'			3			3		11	14
Not Repaired - Overdue									3			3		- 11	17
Lightning Arrestors															
Number of Deficiencies	_	12	14	1	31	26	0	35	164	0	47	275	0	77	514
Repaired in Time Frame		9	13	1	31	24		29	35		27	64	J	21	62
Repaired - Overdue		3	13	'	31	1		6	33		17			21	02
Not Repaired - Not Due		3	'			<u> </u>			129		17	211		56	452
Not Repaired - Overdue						1			123		3			- 30	432
Skypin/Skypin Bolt						1					3				
Number of Deficiencies	_		_	_	_	_	0	0	0	0	0	0	0	0	0
	-			-					U	0		0	U		U
Repaired in Time Frame Repaired - Overdue															
·															
Not Repaired - Not Due Not Repaired - Overdue															
Not Repaired - Overdue							Mie	cellaneou	IC .						
Trimming Related			I				IVIIS	Cenaneou	3						
Number of Deficiencies	50	390	796	106	72	76	66	1	1	52	3	18	57	0	0
Repaired in Time Frame	45	381	796	90	71	76	54	1	1	38	3	10	47	<u> </u>	J
Repaired - Overdue	5	9	730	16	1	70	12	<u> </u>	'	14	3		10		
Not Repaired - Not Due	3	3		10	'		12			14		18			
Not Repaired - Overdue												10			
Other															
Number of Deficiencies	6	16	17	11	16	40	4	22	32	0	148	1,120	0	10	8
Repaired in Time Frame	3	16	17	11	16		3	21	23	0	139		U	7	
Repaired - Overdue	3	10	17	11	10	55	1	1	23		9	1,074			
Not Repaired - Not Due	3					3	- 1	<u> </u>	9		9	46		3	6
Not Repaired - Not Due									9			40		3	6
Not Repaired - Overdue							Overhead	d Facilitie	s Total						
Total							Overnead	a i acilitie	3 I Utal						
Number of Deficiencies	113	741	1,392	252	667	835	138	1,154	1,395	147	2,419	12,138	184	1,659	6,509
	89	710	1,392	219	636	766	114	887	602	102	1,682			505	
Repaired in Time Frame	24						24				547	3,359	23	0	
Repaired - Overdue	24	31	23	33	31	60		263	2	45		0.770			
Not Repaired - Not Due	-	-	-	-	-	- 0	-	- 4	791	0	100	,	0		
Not Repaired - Overdue	-	-	-	-	-	9	-	4	-	0	190	0	0	0	0

NYSEG		Summary of Deficiencies and Repair Activity Resulting from the Inspection								Inspection	Process -	Transmiss	sion		
Transmission Facilities		2009			2010			2011			2012			2013	
Priority Level	I	II	III	I	II	Ш	I	II	III	I	II	III	I	II	Ш
Repair Expected	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years
		T					To	owers/Pol	es			1			
Steel Towers						_						_			
Number of Deficiencies	-	-	-	-	-	4	-	2	-	-	-	2	-	-	<u>-</u>
Repaired in Time Frame						2									-
Repaired - Overdue								2							-
Not Repaired - Not Due												2			<b></b>
Not Repaired - Overdue						2									ı
Poles															
Number of Deficiencies	-	-	125	-	42	171	1	14	219	-	52	267	-	6	253
Repaired in Time Frame			65		28	114	1	4	72		27	35			
Repaired - Overdue			60		14	29		9			11				
Not Repaired - Not Due									147			232		6	252
Not Repaired - Overdue						28		1			14				
Anchors/Guy Wire															
Number of Deficiencies	_	1	12	2	28	14	1	2	11			30	_	_	20
Repaired in Time Frame		1	8	2	24	13		2	5			7		_	3
		'	3		24	13	'		3			,			
Repaired - Overdue			3		4	I						22			1-
Not Repaired - Not Due									6			23			17
Not Repaired - Overdue			1												
Crossarm/Brace															-
Number of Deficiencies	-	12	56	2	54	91	-	82	76	-	24	79	-	1	143
Repaired in Time Frame		9	23	2	32	74		29	31		18	11			
Repaired - Overdue		3	33		22	17		50			5				
Not Repaired - Not Due									45			68		1	143
Not Repaired - Overdue								3			1				
Grounding System															
Number of Deficiencies	-	-	53	45	28	107	2	38	107	-	10	276		5	380
Repaired in Time Frame			48	44	18	85	1	32	56		2	58		4	4
Repaired - Overdue			5	1	10	20	1	6			8				
Not Repaired - Not Due									51			218		1	376
Not Repaired - Overdue						2			0.			2.0		'	
Tractitopamen Creature						_		Conductor	S						
Cable								onauctor							
Number of Deficiencies	_	1	_		3		2	3		2		3	_	3	_
		1	_	_	1	-	2	2	-	2	-	3	-	3	
Repaired in Time Frame		1												1	
Repaired - Overdue					2			1							
Not Repaired - Not Due												3		2	
Not Repaired - Overdue															
Static/Neutral															<b>—</b>
Number of Deficiencies	-	3	1	-	1	1	-	1	5	-	2	5	-	-	-
Repaired in Time Frame		3	1		1	1		1	3		1	2			ļ
Repaired - Overdue											1				
Not Repaired - Not Due									2			3			
Not Repaired - Overdue															
Insulators															
Number of Deficiencies	-	9	46	1	9	41	4	50	63	-	9	37	-	5	39
Repaired in Time Frame		9	32	-	8	21	4	22	36		8	1			
Repaired - Overdue			14	1	1	13		28			1	•			
Not Repaired - Not Due			17	'	•	.5			27		•	36		5	38
Not Repaired - Not Due												30		J	

Not Repaired - Overdue

NYSEG			Sum	nmary of D	eficiencie	s and Repa	air Activity	Resulting	from the	Inspection	Process -	Transmis	sion		
Transmission Facilities		2009			2010		2011				2012			2013	
Priority Level	I	II	III												
Repair Expected	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years
							M	iscellaneo	us						
Right of Way Condition															
Number of Deficiencies	-	3	23	41	41	84	6	1	-	-	-	•	1	-	-
Repaired in Time Frame		3	16	41	39	76	6	1					1		
Repaired - Overdue			7		2	8									
Not Repaired - Not Due															
Not Repaired - Overdue															
Other															
Number of Deficiencies	2	6	11	2	5	31	-	4	7	-		3	-	1	-
Repaired in Time Frame	2	6	10	2	5	30		3	7			3		1	
Repaired - Overdue			1			1		1							
Not Repaired - Not Due															
Not Repaired - Overdue															
							Transmis	sion Facil	ities Total						
Total															
Number of Deficiencies	2	35	327	93	211	544	16	197	488	2	97	702	1	21	835
Repaired in Time Frame	2	32	203	91	156	416	15	96	210	2	56	117	1	6	9
Repaired - Overdue	-	3	123	2	55	89	1	97	-	-	26	-	-	-	-
Not Repaired - Not Due	-	-	-	-	-	-	-	-	278	-	-	585	-	15	826
Not Repaired - Overdue	-	-	1	-	-	39	-	4	-	-	15	-	-	-	-

NYSEG			Sum	mary of D	eficiencies	s and Repa	air Activity	Resulting	from the	Inspection	Process -	Undergro	und		
Underground Facilities		2009			2010			2011			2012			2013	
Priority Level	ı	II	III	ı	II	III	I	II	III	I	II	III	ı	II	III
	Within	Within	Within	Within	Within	Within	Within	Within	Within	Within	Within	Within	Within	Within	Within
Repair Expected	1 week	1 year	3 years	1 week	1 year	3 years	1 week	1 year	3 years	1 week	1 year	3 years	1 week	1 year	3 years
							Underg	round Str	uctures						
Damaged Cover															
Number of Deficiencies	5	2	2	21	23	5	6	7	4	-	3	7	28	27	19
Repaired in Time Frame	1	1	2	21	23	5	6	6	4		3	1	18	1	
Repaired - Overdue	4	1						1					10		
Not Repaired - Not Due												6		26	19
Not Repaired - Overdue															
Damaged Structure															
Number of Deficiencies	14	10	7	8	10	3	-	-	-	-	2	1	1	4	4
Repaired in Time Frame	13	8	7	7	10	3					2		1		
Repaired - Overdue	1	2		1											
Not Repaired - Not Due												1		4	4
Not Repaired - Overdue															
Congested Structure															
Number of Deficiencies	4	21	102	-	-	4	-	-	-	-	-	-	1	-	47
Repaired in Time Frame	4	19	98										1		
Repaired - Overdue		2	4			4									
Not Repaired - Not Due															47
Not Repaired - Overdue															
Damaged Equipment															
Number of Deficiencies	14	25	34	4	6	3	-	-	-	-	-	-	-	1	1
Repaired in Time Frame	13	24	31	4	6	2									
Repaired - Overdue	1	1	3			1									
Not Repaired - Not Due														1	1
Not Repaired - Overdue															
Drive and Calda								Conductor	S						
Primary Cable	4	1	1	1											
Number of Deficiencies	1	1	7		-	-	-	1	-	-	-	-	-	-	-
Repaired in Time Frame	1	1	1	1				I							
Repaired - Overdue Not Repaired - Not Due															
Not Repaired - Not Due															
Secondary Cable															
Number of Deficiencies	_	9	9	_	_	_	-		_	_	_	-	-	-	_
Repaired in Time Frame	-	9	9	-	-		-		-	-	-	-	-	-	
Repaired - Overdue		9	9												
Not Repaired - Not Due															
Not Repaired - Not Due															
Neutral Cable															
Number of Deficiencies	_	_		_	_	_	-		_		-	-	_	-	
Repaired in Time Frame															
Repaired - Overdue															
Not Repaired - Not Due															
Not Repaired - Overdue															
Racking Needed															
Number of Deficiencies	3	4	1	_	_	_	-		_			_	_	-	
Repaired in Time Frame		1										1			
Repaired - Overdue	3	3	'												
Not Repaired - Not Due		3													
Not Repaired - Overdue															
, , , , , , , , , , , , , , , , , , ,															

NYSEG		Summary of Deficiencies and Repair Activity Resulting from the Inspection Process - Underg											und			
Underground Facilities		2009		2010				2011		2012				2013		
Priority Level	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III	
Repair Expected	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	
							Mi	scellaneo	us							
Other																
Number of Deficiencies	32	79	203	6	12	19	-	5	1	-	-	2	1	1	4	
Repaired in Time Frame	26	74	200	6	12	15		3	1				1			
Repaired - Overdue	6	5	3			4		2								
Not Repaired - Not Due												2		1	4	
Not Repaired - Overdue																
							Undergro	und Facili	ties Total							
Total																
Number of Deficiencies	73	151	359	40	51	34	6	13	5	-	5	10	31	33	75	
Repaired in Time Frame	58	137	349	39	51	25	6	10	5	-	5	1	21	1	-	
Repaired - Overdue	15	14	10	1	-	9	-	3	-	-	-	-	10	-	-	
Not Repaired - Not Due	-	-	-	-	-	-	-	-	-	-	-	9	-	32	75	
Not Repaired - Overdue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

NYSEG			Summary	of Deficie	ncies and	Repair Act	ivity Resu	Iting from	the Inspe	ction Proce	ess - Pad M	Mount Tra	nsformers		
Pad Mount Transformers	2009			2010			2011			2012			2013		
Priority Level	I	II	III	I	II	III	I	II	III	I	II	Ш	I	II	III
	Within	Within	Within	Within	Within	Within	Within	Within	Within	Within	Within	Within	Within	Within	Within
Repair Expected	1 week	1 year	3 years	1 week	1 year	3 years	1 week	1 year	3 years	1 week	1 year	3 years	1 week	1 year	3 years
							Pad Mo	unt Trans	formers						
Damaged Structure		4	40	_				0.4		4				_	
Number of Deficiencies	-	1	49	7	33	8	4	34	9	1	7	95	4	5	22
Repaired in Time Frame		1	49	7	27	6 2	3	21	6	1	7	13	2	2	
Repaired - Overdue		1			6	2	1	13	2			00	2	2	20
Not Repaired - Not Due									3			82		3	22
Not Repaired - Overdue															
Damaged Equipment				2				-		4		47			•
Number of Deficiencies	-	-	-	2	3	8	-	5	-	1	3	17	1	-	2
Repaired in Time Frame				1	3	8		4		1	3	3	1		
Repaired - Overdue Not Repaired - Not Due				Т				1		Т		14			2
Not Repaired - Not Due  Not Repaired - Overdue												14			
Cable Condition															
				4			4	•				- 44			
Number of Deficiencies	-	-	-	1	-	3	1	3	-	-	-	11	1	-	-
Repaired in Time Frame				4		3	1	2				1	1		
Repaired - Overdue				1				1				40			
Not Repaired - Not Due												10			
Not Repaired - Overdue															
Oil Leak										40					
Number of Deficiencies	-	-	-	9	25	8	2	8	-	12	7	7	23	4	1
Repaired in Time Frame				8	22	5	2	8		8	7		19		
Repaired - Overdue				1	3	3				4			4		
Not Repaired - Not Due												7		4	1
Not Repaired - Overdue															
Off Pad				40			_							_	
Number of Deficiencies	-	-	-	13	20	8	7	15	1	1	3	2	10	4	1
Repaired in Time Frame				11	18	8	7	11		1	2		9		
Repaired - Overdue				2	2			4			1		1		4
Not Repaired - Not Due									1			2		4	1
Not Repaired - Overdue															
Lock/Latch/Penta										_					
Number of Deficiencies	-	-	14	11	22	17	3	7	3	7	7	45	-	1	4
Repaired in Time Frame			14	11	21	16	3	7	3	5	7	6			
Repaired - Overdue					1					2					
Not Repaired - Not Due						4						39		1	4
Not Repaired - Overdue						1									
	Miscellaneous														
Other		_											-	_	
Number of Deficiencies	-	3	5	11	60	138	1	9	89	1	8	373	1	6	28
Repaired in Time Frame		_	5	11	59	137	1	7	86	1	7	71	1		4
Repaired - Overdue		3			1	1		2			1			_	
Not Repaired - Not Due									3			302		6	24
Not Repaired - Overdue															
Taral							Pac	d Mount To	otal				1		
Total		_													=-
Number of Deficiencies	-	4	68	54	163	190	18	81	102	23	35	550	40	20	58
Repaired in Time Frame	-	-	68	49	150	183	17	60	95	16	33	94	33	2	4
Repaired - Overdue	-	4	-	5	13	6	1	21	-	7	2		7	-	-
Not Repaired - Not Due	-	-	-	-	-	-	-	-	7	-	-	456	-	18	54
Not Repaired - Overdue	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-

NYSEG			Sum	mary of De	eficiencies	and Repa	ir Activity	Resulting	from the Ir	spection	Process - S	Streetlight	S		
Overhead Facilities		2009			2010			2011			2012			2013	
Priority Level	I	II	III	ı	II	III		II	III	ı	II	III	I	ll l	III
Repair Expected	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years
							St	treetlight							
Base/Standard/Light															
Number of Deficiencies	-	2	1	2	51	-	-	-	1	-	4	4	-	2	34
Repaired in Time Frame		2	1	2	51				1		4				
Repaired - Overdue															
Not Repaired - Not Due												4		2	34
Not Repaired - Overdue															
Handhole/Service Box															
Number of Deficiencies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Repaired in Time Frame															
Repaired - Overdue															
Not Repaired - Not Due															
Not Repaired - Overdue															
Service/Internal Wiring															
Number of Deficiencies	_	_	_	_	9	_	_	_	_	_	1	_	_	_	-
Repaired in Time Frame					9						1				
Repaired - Overdue					3						· ·				
Not Repaired - Not Due															
Not Repaired - Not Due															
Access Cover															
Number of Deficiencies	3			4	39						4	11		4	147
	3	-	-	4	39	-	-	-	-	-	1	11	-	•	5
Repaired in Time Frame	3			4	39						1				5
Repaired - Overdue												4.4			4.40
Not Repaired - Not Due												11		1	142
Not Repaired - Overdue															
							IVIIS	cellaneous	5			ı		1	
Other			===		-			-							
Number of Deficiencies	-	1	53	-	3		-	1	-	-	-	1	-	-	-
Repaired in Time Frame		1	53		3			1							
Repaired - Overdue															
Not Repaired - Not Due												1			
Not Repaired - Overdue															
							Stree	etlight Tota	al						
Total															
Number of Deficiencies	3	3	54	6	102	-	-	1	1	-	6	16	-	3	181
Repaired in Time Frame	3	3	54	6	102	-	-	1	1	-	6	-	-	-	5
Repaired - Overdue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Not Repaired - Not Due	-	-	-	-	-	-	-	-	-	-	-	16	-	3	176
Not Repaired - Overdue	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NYSEG		Summary	y of Deficiencies	s and Repair A	Activity Resultin	g from the Ins	pection Process	s - Level IV Co	nditions	
Overhead Facilities	200	09	2010		2011		201	2	20	13
	Number of Conditions Found	Number of Conditions Repaired								
					Overhead	Facilities				
Pole Condition										
Pole Condition	104	22	49	20	93	23	853	64	1,363	61
Grounding System			4	4	5	2	160	35	53	15
Anchors/Guy Wire	4	3	133	128	52	41	3,629	206	2,176	312
Riser	9	9	11	11			6		33	1
Cross Arm/Bracing	12		102	10	55	11	173	27	1,048	21
Conductors										
Primary Wire/Broken Ties	4	3	32	21	74	5	23	4	101	5
Neutral					3	2			2	
Insulators	21	18	310	72	814	15	295	2	51	7
Pole Equipment										
Transformers	8	4	34	5	314	4	370	12	4,127	163
Cutouts	2	2	33	30	20	17	43	41	12	3
Lightning Arrestors	1		6	6	9	5	51	9	29	3
Other Equipment			1	1						
Miscellaneous										
Trimming Related	78	38	1580	630	2,260	665	4,030	265	6,587	27
Other	9	6	14	6	77	42	18,345	1,170	1,775	208
Overhead Facilities Total	252	105	2309	944	3,776	832	27,978	1,835	17,357	826
					Transmissio	n Facilities				
Towers/Poles										
Steel Towers	17		2				1			
Poles	134	5	299	6	55	15	60	11	12	
Anchors/Guy Wire	4		3		4	1	124		84	1
Crossarm/Brace	10		42	8	10	4	24		26	
Grounding System			34	1	7	5	29		3	
Conductors										
Cable	1		1	1	3				1	
Static/Neutral	1		4		1		33	10		
Insulators	33	3	55	6	28	13	3	1		
Miscellaneous										
Right of Way Condition	4	3	255	52	308	15	9			
Other	9		69	56	22	21	296	27	3	
Transmission Facilities Total	213	11	764	130	438	74	579	49	129	1

NYSEG		Summary	of Deficiencies	s and Repair A	ctivity Resultin	g from the Ins	pection Proces	s - Level IV Co	nditions		
Overhead Facilities	200	9	201	0	201	11	201	12	2013		
	Number of Conditions Found	Number of Conditions Repaired									
					Undergroun	d Facilities					
Underground Structures											
Damaged Cover	3	2	6	3			6	1	17		
Damaged Structure	3	3	1	1			2		1		
Congested Structure	5	5							88		
Damaged Equipment	2	1									
Conductors											
Primary Cable			2	1					1		
Secondary Cable	1	1									
Neutral Cable											
Racking Needed											
Miscellaneous											
Other	56	46	107	83			1		6		
Underground Facilities Total	70	58	116	88	0	0	9	1	113	(	
					Pad Mount T	ransformers					
Pad Mount Structures											
Damaged Structure	9	5	6	3	2		141	3	47	3	
Damaged Equipment			3	3	2	2	12				
Damaged Cable					4	3	5				
Oil Leak			4		2		7	1			
Off Pad			2	2	2		2		5		
Lock/Latch/Penta			32	31	1		16	1	2		
Miscellaneous											
Other	5	2	512	374	167	152	189	20	87	5	
Pad Mount Transformer Total	14	7	559	413	180	157	372	25	141	8	
					Street	lights					
Streetlight											
Base/Standard/Light			13				2		14	1	
Handhole/Service Box									-	·	
Service/Internal Wiring											
Access Cover			9	2					15		
Miscellaneous											
Other			11				5		2		
Streetlight Total	0	0	33	2	0	0	7	0	31	1	
	9	<u> </u>	30		Total Level IV	-	,	Ü	31		
Overall Total	549	181	3,781	1,577	4,394		28,945	1,910	17,771	836	

NYSEG	Appendix 4 - Summary of Deficiencies and Repair Activity Resulting from the Inspection Process							
Year		riority Level / pair Expected	Deficiencies Found (Total)	Repaired In Time Frame	Repaired - Overdue	Not Repaired - Not Due	Not Repaired - Overdue	
2009		-						
	I	Within 1 week	191	152	39	0	0	
	П	Within 1 year	934	882	52	0	0	
	III	Within 3 years	2,200	2,043	156	0	1	
	IV	N/A	549	181	n/a	368	n/a	
2010								
	I	Within 1 week	445		41	0	0	
	П	Within 1 year	1,194		99	0	0	
	Ш	Within 3 years	1,603		164	0	49	
	IV	N/A	3,781	1,577	n/a	2,204	n/a	
2011								
	I	Within 1 week	178		26	0	0	
	П	Within 1 year	1,446	-	384	0	8	
	Ш	Within 3 years	1,991		2	1,076	0	
	IV	N/A	4,394	1,063	n/a	3,331	n/a	
2012								
	I	Within 1 week	172	120	52	0	0	
	II	Within 1 year	2,562	1,782	575	0	205	
	III	Within 3 years	13,416	-	0	9,845	0	
	IV	N/A	28,945	1,910	n/a	27,035	n/a	
2013								
	I	Within 1 week	256		40	0	0	
	Ш	Within 1 year	1,736		0	1,222	0	
	III	Within 3 years	7,658	546	0	7,112	0	
	IV	N/A	17,771	836	n/a	16,935	n/a	

#### CERTIFICATION [FACILITY INSPECTIONS]

STATE OF NEW YORK	)	
	)	SS.:
COUNTY OF Monroe	)	

Franklyn D. Reynolds, on this Aday of February 2014, certifies as follows:

- 1. I am the Vice President, Asset Management and Planning of New York State Electric & Gas (the "Company"), and in that capacity I make this Certification for the annual period ending December 31<sup>st</sup>, 2013 based on my knowledge of the inspection program adopted by the Company in accordance the Public Service Commission's Orders issued and effective January 5, July 21, 2005, December 15, 2008, and March 22, 2013 in Case 04-M-0159 and July 21, 2010 and June 23, 2011 in Case 10-E-0271 (collectively the "Orders"), including the Quality Assurance Program filed by the Company with the Commission.
- 2. The Company has an inspection program that is designed to inspect all of its electric facilities on a five-year inspection cycle, as identified through a good faith effort by the Company ("Facilities"), in accordance with the requirements of the Orders (the "Facility Inspection Program").
- I am responsible for overseeing the Company's Facility
   Inspection Program and in that capacity I have monitored the

program during the twelve months ended December 31st, 2013 (the "Twelve-Month Period").

4. I hereby certify that, to the best of my knowledge. information and belief, the Company has implemented and completed its Facility Inspection Program to inspect approximately 20 % of its Facilities during calendar year 2013, in order to comply with the five-year inspection cycle required under the Orders.

Sworn to before me this 13th day of February, 2014

**Notary Public:** 

Notary Public, State of New York No. 01SA6072590 Qualified in Monroe County Commisson Expires April 08, 20

anna M. Salens

#### Exhibit 1

# CERTIFICATION [STRAY VOLTAGE TESTING]

STATE OF NEW YORK	)
	) ss.:
COUNTY OF MONROE	)

Franklyn D. Reynolds on this 24 day of February, 2014 certifies as follows:

- 1. I am the Vice President, Asset Management and Planning of New York State Electric & Gas (the "Company"), and in that capacity I make this Certification for the annual period ending December 31<sup>st</sup>, 2013 based on my knowledge of the testing program adopted by the Company in accordance the Public Service Commission's Orders issued and effective January 5, July 21, 2005, December 15, 2008, and March 22, 2013 in Case 04-M-0159 and July 21, 2010 and June 23, 2011 in Case 10-E-0271 (collectively the "Orders"), including the Quality Assurance Program filed by the Company with the Commission.
- 2. In accordance with the requirements of the Orders, the

  Company developed a program designed to test (i) all of the

  publicly accessible electric facilities owned by the Company

  ("Facilities") and (ii) all streetlights located in public

  thoroughfares in the Company's service territory

  ("Streetlights"), as identified through a good faith effort by

- the Company, for stray voltage (the "Stray Voltage Testing Program").
- 3. I am responsible for overseeing the Company's Stray Voltage Testing Program and in that capacity I have monitored the Company's Stray Voltage Testing Program during the twelve months ended December 31<sup>st</sup>, 2013 (the "Twelve-Month Period").
- 4. I hereby certify that, to the best of my knowledge, information and belief, the Company has implemented and completed its Stray Voltage Testing program for the Twelve Month Period. Except for untested structures that are identified as inaccessible or not required in the Company's Annual Report, submitted herewith, the Company is unaware of any Facilities or Streetlights that were not tested during the Twelve-Month Period.
- 5. I make this certification subject to the condition and acknowledgment that it is reasonably possible that, notwithstanding the Company's good faith implementation and completion of the Stray Voltage Testing Program, there may be Facilities and Streetlights that, inadvertently, may not have been tested or were not discovered or known after reasonable review of Company records and reasonable visual inspection of the areas of the service territory where Facilities

and Streetlights were known to exist or reasonably expected to be found.

Franklyn D. Reynolds

Sworn to before me this <u>/3</u> day of February, 2014

Notary Public:

ANNA M. SABERS
Notary Public, State of New York
No. 01SA6072590
Gualified in Monroe County
Commisson Expires April 08, 20



# Rochester Gas and Electric Corporation

# STRAY VOLTAGE TEST AND FACILITY INSPECTION PROGRAM

Report on the results of Stray Voltage Tests and Facility Inspections for the 12-month period ending on December 31, 2013

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**Exhibit 1: Certifications** 

# I. Background

The New York State Public Service Commission's ("PSC" or "Commission") Electric Safety Standards Order issued on January 5, 2005 (Case 04-M-0159), with subsequent revisions issued on July 21, 2005, December 15, 2008, March 22, 2013 and July 21, 2010 (Case 10-E-0271), (collectively referred to herein as the "Safety Standards" or "Order"), require electric utilities in New York State, including Rochester Gas and Electric ("RG&E" or the "Company") to test annually all of their publicly accessible streetlights and underground electric facilities, and test their overhead distribution facilities, overhead and underground transmission facilities, underground residential distribution facilities, and substation fences for stray voltage every five years coinciding with their electric facility inspections.

This report describes Rochester Gas and Electric Stray Voltage Detection Program and Equipment Inspection Program conducted in 2013.

# II. Company Overview

RG&E is located in upstate New York and serves approximately 368,000 electric customers. RG&E covers an area of about 2,700 square miles and serves a primarily rural area composed of 1 large city and 80 villages.

RG&E's electric delivery infrastructure consists of 170 substations, approximately 43,214 underground facilities and 513 streetlight/traffic signal facilities. This system includes an estimated 211,298 distribution structures and 19,767 transmission structures.

# III. Stray Voltage Testing Program

During the period ending December 31, 2013, RG&E conducted stray voltage testing of all its publicly accessible underground electric facilities, and all Company and non-Company owned metallic streetlights and traffic signals, as well as 20% of its overhead transmission and distribution facilities, and underground residential distribution facilities that are capable of conducting electricity. The Company also tested all publicly accessible third party facilities in close proximity to RG&E's system components identified with elevated voltage.

In accordance with the Order, RG&E:

a. Immediately safeguarded and/or mitigated all voltage findings  $\geq 1.0$  volt. In instances where the stray voltage finding was determined to be caused by customer-owned equipment, the area was immediately made safe and the customer or responsible party associated with the premises was notified of the unsafe condition and the need for the customer to arrange for a permanent repair. Voltage findings determined to be caused

- by a utility-owned facility were immediately safeguarded and/or mitigated. All permanent repairs were made within 45 days.
- b. Tested all publicly accessible structures within a 30 foot radius of the electric facility or streetlight where there was a stray voltage finding  $\geq 1.0$  volt.
- c. Responded, investigated, and mitigated positive findings of shock incidents reported by the public.

Of the 137,638 facilities visited, 9,064 did not require stray voltage testing because these are wood poles that have no attached appurtenances capable of conducting electricity; their electrically conductive appurtenances are not accessible to the public (pre-wired wood); the facilities are enclosed in fiberglass (non-conductive materials); and/or deenergized facilities.

#### Structures Inaccessible to the Public

Contractors made every attempt to locate and test all structures. If the contractor could not reach a structure to perform a test, it was identified as "Inaccessible" and all other pertinent data was collected in the field. Of the 137,638 facilities visited, 102 were deemed Inaccessible to the public. As described below, there are several types of Inaccessible structures:

- a. <u>Private Property</u> The structure was not tested if it was located on private property and was inaccessible due to walls, fences or barriers such as a locked gate, if excavation or bush/tree removal was required, or if there was unauthorized construction around the structure.
- b. <u>RG&E Property</u> Structure located on Company property, such as substations, are accessible only to Company personnel and authorized contractors.
- c. <u>Buried / Paved Over</u> The structure was not tested if it had been covered over with dirt, pavement, or other foreign objects that would prohibit public access and prevent testing the structure. Contractors noted the structure ID on the issued maps and turned them in to Maintenance Engineering for verification with the Maps and Records Department. If Maps and Records confirmed that the structure does exist, company and contractor crews followed up and attempted to locate, uncover, and test the structure. If the structure could not be found, it was then considered removed from the field, and revisions to mapping were generated.
- d. <u>Inside Building</u> If a tester identified a structure as being inside a building, RG&E personnel verified that the structure was actually inside the building. If the RG&E personnel verified that the structure was accessible to the public, a test was performed. Typically, customer owned equipment that is inside a building is in a locked equipment room that is accessible to authorized personnel only.
- e. <u>Limited Access Highways</u> Structures located on highways, exit and entrance highway ramps. The performance of stray voltage testing would constitute an unacceptable risk to the employee.
- f. <u>Dangerous Terrain</u> Poles located on cliffs and other dangerous terrain are generally inaccessible to Company personnel and are approached only under urgent

circumstances. The performance of stray voltage testing would constitute an unacceptable risk to the employee.

## IV. Facility Inspection Program

The Safety Standards require RG&E to visually inspect approximately 20% of its facilities annually, resulting in 100% inspection of its electric facilities every five years.

The objective of all inspections is to conduct a careful and critical examination of an electric facility by a qualified individual to determine the condition of the facility and the potential to cause, or lead to safety hazards, or adverse effects on reliability.

Inspections conducted during routine maintenance and other work not directly related to the inspection program count as an inspection visit, provided that the inspection is performed using the same safety and reliability criteria and to the same extent as would otherwise be required under the Electric Safety Standards.

In accordance with the Safety Standards, RG&E uses the following severity levels to establish priority for repairs and scheduling:

<u>Level I</u> – Repair as soon as possible but not longer than one week. A Level I deficiency is an actual or imminent safety hazard to the public or poses a serious and immediate threat to the delivery of power. Critical safety hazards present at the time of the inspection shall be guarded until the hazard is mitigated.

<u>Level II</u> – Repair within one year. A Level II deficiency is likely to fail prior to the next inspection cycle and represent a threat to safety and / or reliability should a failure occur prior to repair.

<u>Level III</u> – Repair within three years. A Level III deficiency does not present immediate safety or operational concerns and would likely have minimum impact on the safe and reliable delivery of power if it does fail prior to repair.

<u>Level IV</u> – Condition found but repairs not needed at this time. Level IV is used to track atypical conditions that do not require repair within a five year timeframe. This level shall be used for future monitoring purposes and planning proactive maintenance activities.

In accordance with the PSC requirements, when a temporary repair is located during inspection or performed by the company, best efforts are put forth to make a permanent repair of the facility within 90 days. Temporary repairs that remain on the system for more than 90 days are due to extraordinary circumstances, i.e. storms, and require extensive repair activity. The Company puts forth best efforts to conduct permanent repairs in the field, and only construct a temporary repair if/when absolutely necessary. For cycle year 2013, RG&E has no temporary repair exceptions to report.

## V. <u>Company Facilities</u>

## **Structure Categories**

RG&E has approximately 128,472 individual facilities that require testing for the presence of stray voltage in 2013. These facilities are broken down into four main categories including:

<u>Distribution Overhead</u> – There are approximately 62,238 distribution pole structures that require testing for the presence of stray voltage in RG&E's territory. The testing criteria include all utility-owned or joint use wooden poles with utility electrical facilities located on both public thoroughfares and customer property, including backyards or alleys. Stray voltage tests are performed on all wooden poles with metallic attachments such as ground wires, ground rods, anchor guy wires, riser pipes, or any electrical equipment within reach of the general public. Distribution overhead facilities are included in both the stray voltage and inspection programs.

<u>Underground Facilities</u> – There are 33,562 underground facilities that require testing for the presence of stray voltage that comprise RG&E's system. The testing criteria are comprised of subsurface structures, including above ground pad-mounted structures. Included in the underground facilities are padmount switchgear cases, padmount transformer cases, electric utility manhole covers, submersible transformer covers, electric utility handhole covers, network vaults and grates. These facilities are included in both the stray voltage and facility inspection programs.

Street lights and Traffic Signals – There are approximately 12, 062 metallic street lights and approximately 11,565 traffic signals within RG&E's service territory that require stray voltage testing. This total includes all conductive street lights owned by RG&E with the balance of the equipment owned by various municipalities. The testing criterion includes all metallic streetlights, traffic signals, and pedestrian crosswalk signals located on publicly accessible thoroughfares. All stray voltage testing of street lights is performed at night while the fixtures are energized. Area and street lighting that is privately owned is not included in the stray voltage testing program, as per the Order's requirements. All Company-owned streetlights are included in the facility inspection program.

<u>Transmission Structures</u> – There are 9,011 individual poles/towers that require testing for the presence of stray voltage that comprise RG&E's transmission system. The testing criteria are comprised of all structures, guys, and down leads attached to the structures. Transmission structures support circuit voltages of 34.5 kilovolts and greater. Transmission poles as described above, with distribution under-build, are included in this transmission category. All transmission structures are included in both the stray voltage and facility inspection programs.

<u>Substations</u> – There are a total of 34 substation fences in RG&E's territory that require testing for the presence of stray voltage.

# VI. Annual Performance Targets

RG&E performed the required stray voltage testing and facilities inspections in accordance with the requirements set forth in the Order.

In compliance with the Safety Standards, RG&E has met the annual performance target for stray voltage testing of 100% of streetlights and underground electric facilities, and 20% of the overhead distribution facilities, overhead and underground transmission facilities, underground residential distribution facilities, and substation fences for the period ending December 31, 2013.

In addition, in compliance with the Safety Standards, RG&E has met the fourth year annual performance target for inspection of its electric facilities for the period ending December 31, 2013.

The results are summarized in the table below.

# Facility Inspection Program Results

Category	RG&E Inspection Target	Actual Cumulative Inspected as of 2013
Overhead Distribution	80%	83%
Overhead Transmission	80%	64%
Underground	80%	86%
Streetlight	80%	100%

# **5-Year Inspection Performance Summary**

# **Overhead Distribution Facilities**

Inspection	Number of Overhead Distribution	% of Overall System
Year	Structures Inspected	Inspected (Cumulative in
	_	Five Year Cycle 2010-2014)
2010	39,325	19%
2011	46,760	41%
2012	46,061	62%
2013	42,580	83%
2014		

# **Overhead Transmission Facilities**

Inspection	Number of Overhead Transmission	% of Overall System
Year	Facilities Inspected	Inspected (Cumulative in
	_	Five Year Cycle 2010-2014)
2010	6,570	33%
2011	2,804	47%
2012	1,927	57%
2013	1,313	64%
2014		

# **Underground Facilities**

Inspection	Number of Underground Facilities	% of Overall System
Year	Inspected	Inspected (Cumulative in
		Five Year Cycle 2010-2014)
2010	4,227	18%
2011	6,175	44%
2012	4,691	63%
2013	6,287	89%
2014		

# Pad-mount Facilities

Inspection	Number of Underground Facilities	% of Overall System
Year	Inspected	Inspected (Cumulative in
		Five Year Cycle 2010-2014)
2010	3,760	19%
2011	4,658	43%
2012	4,688	68%
2013	3,225	84%
2014		

# **Streetlights**

Inspection	Number of Streetlights Inspected	% of Overall System
Year		Inspected (Cumulative in
		Five Year Cycle 2010-2014)
2010	1,347	21%
2011	0*	100%
2012	0*	100%
2013	0*	100%
2014		

<sup>\*</sup> In 2010 RG&E sold all its city streetlights to the City of Rochester and retains ownership of 513 streetlights outside city boundaries; inspections due next in 2015.

# VII. <u>Certifications</u>

Pursuant to Section 7 of Appendix A of the Safety Standards, the president or officer of each utility with direct responsibility for overseeing stray voltage testing and facility inspections shall provide an annual certification to the Commission that the utility has, to the best of his or her knowledge, exercised due diligence in carrying out a plan, including quality assurance, that is designed to meet the stray voltage testing and inspection requirements, and that the utility has:

- Tested all of its publicly accessible electric facilities and street lights, as referred to in the body of the February 15 Report, and
- Inspected the requisite number of electric facilities.

The certifications are attached as Exhibit 1 of this report.

#### VIII. Analysis of Causes of Findings and Stray Voltage

All New York State utilities perform an inventory on all findings and report on the number of these findings each year. Section 1(f) of the December 15, 2008 Order defines a finding as "any confirmed voltage reading on an electric facility or streetlight greater than or equal to 1 volt measured using a volt meter and 500 ohm shunt resistor." Section 1(c) defines Stray Voltage as "voltage conditions on electric facilities that should not ordinarily exist. These conditions may be due to one or more factors, including, but not limited to, damaged cables, deteriorated, frayed, or missing insulation, improper maintenance, or improper installation." A Summary of Energized Objects for the manual program can be found in Appendix 2 of this report.

Generally, there are two types of reported findings; a confirmed voltage reading greater than or equal to 1 volt measured using a volt meter and 500 ohm shunt resistor which is the result of an abnormal power system condition, and a confirmed voltage reading greater than or equal to 1 volt measured using a volt meter and 500 ohm shunt resistor which results from the normal delivery and/or use of electricity. Utilities are required to

report on all findings, regardless of whether or not the voltage is abnormal or normal to operating conditions. The detection rate for all findings in 2013 as shown in Appendix 1 is .100%. Inclusion of these normal occurring voltages in the total findings can result in the perception that there are more potentially hazardous voltage findings than actually exist. Upon excluding these normal occurring voltages illustrates a detection rate of .029% which more accurately represents confirmed abnormalities across our total system.

Causes of these findings include, but are not limited to, naturally occurring neutral to earth voltages (as part of a multi-grounded WYE power system); poor soil grounding conditions; load imbalance between phases; long low voltage single phase circuit spurs with high current loads; and/or proximity to transmission lines. Attempts to mitigate these conditions include a high cost, and there is no guarantee of resolution.

True hazardous voltages have been identified and mitigated through the stray voltage testing program. These voltages resulted from a variety of conditions including: deterioration of conductors; age of equipment; exposure to the elements; and various customer related issues. Through the efforts of the stray voltage testing program, RG&E has been able to repair these issues and mitigate the danger associated with the elevated voltage.

Some distinction needs to be made between these two classes of findings: findings due to potentially hazardous Stray Voltage, and findings normal to the operating system.

The following table contains a breakdown of the causes of Stray Voltage findings identified through the 2013 manual testing effort:

Structure Type	Cause of Stray Voltage	Stray Voltages Found
Streetlights	Owned by Other Municipality	6
Distribution	Defective Primary Neutral Connection	5
Distribution	Old/Loose Connections	13
Distribution	Guy Wire	2
Distribution	Grounds and Ground Rods	12
Distribution	Customer Owned Equipment	1
		39

In accordance with the PSC requirements; when a finding is discovered on an electric facility or streetlight during stray voltage testing, the Company is obligated to perform stray voltage testing on all publicly accessible structures and sidewalks within a

minimum 30 foot radius of the electric facility or streetlight. In this year's testing cycle 39 findings were identified. A total of 3 additional objects were tested as a result of testing within a 30 foot radius, none of which were energized.

# IX. Analysis of Inspection Results

## Overhead Distribution Structures

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
42,580	4,053	9.52%

Breakdown of Locations with Deficiencies

	3	3
Priority Rating	Number of Deficiencies	% Deficiencies Found
1	35	.86%
2	662	16.33%
3	930	22.95%
4	2,426	59.86%
Total:	4,053	100%

## **Overhead Transmission Facilities**

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
1,313	105	7.99%

Breakdown of Locations with Deficiencies

	<i>y</i>	9
Priority Rating	Number of Deficiencies	% Deficiencies Found
1	0	0%
2	6	5.71%
3	94	89.52%
4	5	4.76%
Total:	105	100%

# **Underground Facilities**

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
6,287	108	1.72%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	1	.93%
2	18	16.67%
3	65	60.18%
4	24	22.22%
Total:	108	100%

# <u>Pad-mounts</u>

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
3,225	75	2.32%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	13	17.33%
2	11	14.67%
3	18	24%
4	33	44%
Total:	75	100%

# **Streetlights**

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
340	8	2.35%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	0	0%
2	0	0%
3	1	12.5%
4	7	87.5%
Total:	8	100%

In 2013, a total of 4,349 deficiencies were identified through scheduled inspections which represent a deficiency rate of about 8.09% of the total unique inspections performed.

This was the second year RG&E outsourced the inspection effort after previously utilizing internal resources, and instituted a new inspection protocol. Overhead Distribution and Underground inspections were performed using a Distribution Line Inspection ("DLI") Toughbook. The DLI Toughbooks are portable laptop computers with pre-loaded software that displays all assets to be inspected and includes pre-formatted inspection pick tables the inspectors will use to document individual inspections. The DLI Toughbook has built-in GPS capability that displays its real-time position in relation to any company asset. Inspectors are required to document all inspections on the DLI Toughbook, and the resulting data is uploaded into the Company SAP system.

Each and every year since the commencement of the Safety Standards Order in 2005, RG&E has continually made improvements toward the administration of the Facility Inspection program. The results of these improvements have provided some additional benefits to the company.

The collection and management of data was centralized into a single program group to provide an effective way to communicate inspection progress and issues to and from field operations and inspectors. The asset data received continues to enhance the quality of information we had in place identifying in more detail specific structure attributes giving us the ability to document accurate GPS locations in the field. Common training efforts were conducted among all field personnel through the centralized program group resulting in uniform standardized reporting of field conditions.

Other groups within the company have also capitalized on this information to assist them in their particular needs. Asset Management groups have used inspection information to assist them in trending analysis and preparation of targeted maintenance efforts such as pole treatment and replacement projects, and other equipment issues. Vegetation Management groups routinely use inspection information to look for potential trouble spots where out of cycle trimming may be necessary. Master data groups use the information to update existing records for better accuracy, and to add, move, or remove structures from mapping to better reflect positional accuracy in the field.

# X. Stray Voltage Testing and Inspection QA/QC Programs

# Stray Voltage Testing QA/QC Program

Throughout the stray voltage testing effort, the testing contractor submits their testing data to RGE in the form of batch files. These batch files are submitted for multiple QA/QC reviews. The first review that takes place is for data accuracy. Batch files are scanned to ensure formatting and proper data is populated in each of the required fields. If approved, the file is loaded into the production database and a copy forwarded to the

Global Positioning System (GPS) QA/QC Team for the second review to check the data for positional accuracy and content. If the data is not acceptable, the contractor is notified of such and the reasons for failure. The testing contractor remedies the problems and resubmits the file with corrections.

Following vendor batch file approval through the program administrator, the GPS QA/QC team loads the batch file into the RGE GIS database. The QA/QC team uses the GIS application Arc Map to evaluate and certify the testing results. The data, GPS location, test results and time stamp are recorded at each structure on Trimble GeoXt handheld devices with sub-meter GPS capability during the field testing effort. This collection method has been extensively used and successfully tested by RGE as an effective means of monitoring progress and ensuring the stray voltage testing contractor is acquiring all test points and delivering complete and accurate results. Additionally, the GPS QA/QC team employs the use of high level satellite ortho photography to verify positional accuracy.

The methodologies deployed to conduct the QA/QC evaluation are as follows:

- Upon data load into the GIS database, the level of digitized data points is checked and recorded to insure that the number of points does not exceed the expected level based on satellite position, interference (i.e. buildings, vegetation) and equipment capabilities. This level is generally < 1%. Also, at this time a gross high level check is made looking for gross geographical errors that would indicate a batch file processing error by the vendor. If either of these conditions is not acceptable the "batch" is rejected.
- Following the initial checks above, the batch data is overlaid on top of the previous years' data in Arc Map. All data is 100% evaluated against the prior testing effort plus some additional safeguards to be covered later. These methods have proven to be very effective in ensuring that all structures have been tested. The overall management of the process is through a grid system on which the field testing maps are based. As data accumulates throughout the year the grids are attributed to reflect their completeness based on structure type, i.e. Streetlights OK = Yes and so on.
- The next aspect of QA/QC effort is final certification by division. When we are notified by the vendor that a division is complete and all data has been submitted we initiate a final audit of the division. This is a final review of any missed structures and any new structures not tested. Any structures deemed "missed" are extracted into a shape-file (GIS database) and fed back to the vendor for follow up testing, thus completing a continuous feedback loop year to year to cover missed structures. At this time the QA/QC team does a high level grid check to make sure no map sheets were omitted.
- The additional safeguards mentioned above are as follows:
  - ➤ Duplicate testing of structures: The analysts are prompted to be aware of and flag any evidence of massive duplicate testing.
  - ➤ GPS time stamp anomalies: Analysts are aware to look for suspicious time intervals between structures, particularly on heavily digitized areas (i.e. 3 seconds between poles 300' apart).

The QC team does a periodic review of the Stray Voltage data vs. The Corporate electrical distribution asset system called Smart-map. This evaluation allows us to identify any new or previously missed structures which are extracted and sent back to the vendor for testing.

#### Random Quality Assurance

On an ongoing basis, RG&E performs many quality assurance measures to ensure testing data accuracy. These include, but are not limited to; investigations into inaccessible structures to determine the nature of inaccessibility, performance of individual testers, miscellaneous anomalies found in testing data, and checking circuit maps to ensure all structures have been visited. Problem testers are identified to the testing contractor and, if need be, removed from the testing effort. If needed, problem areas are retested in order to ensure testing accuracy. Any discrepancies found as a result of random data sampling checks like wrong town or street name and incorrect spellings are then corrected.

In addition to these measures, Field Coordinators conduct random field visits to ascertain that field contractors are performing tests on all required structures. During these visits, the Field Coordinator will observe testers performing their work to ensure they're doing it correctly and answer any questions about map reading, structure IDs, and location of structures. The Field Coordinator also performs follow up on randomly chosen completed maps to check that all structures are tested and recorded properly.

#### Inspection QA/QC Program

RGE's inspection program is administered through the Inspection Tracking System (ITS) Group. The ITS Group monitors all company assets in a central database to ensure all planned inspections for the current year are performed.

The ITS Group randomly selects a sample set of reported repaired deficiencies throughout each division. This sample set contains all information regarding the deficiency including the cause and the reported repair effort and is given to the QA/QC Coordinators to be field evaluated. RG&E performs field verifications in each of its four divisions to assess the reported results from inspectors. QA/QC Coordinators visit the specific asset and validate whether the reported repair work has been made. Independent results of the verification effort are compared to the original reporting to assess effectiveness.

In addition, the ITS Group develops a random sample of assets from each of the circuits inspected in the current year. Administered by a third party of QA/QC Coordinators who are qualified to perform utility inspections, they are deployed to perform independent field inspections on these random assets. Results of their findings are compared with results submitted by the field inspectors to assess effectiveness.

# XI. Report of Findings from the Mobile Detection Program

#### **Background**

Pursuant to the Public Service Commission's *Order Requiring Additional Mobile Stray Voltage Testing* ("Order"), Case 10-E-0271- In the Matter of Examining the Mobile Testing Requirements of the Electric Safety Standards, issued and effective July 21, 2010; Rochester Gas and Electric ("RG&E") submits its 2013 Mobile Stray Voltage Testing Report.

In accordance with the Order, RG&E's annual Mobile Stray Voltage Testing obligation consists of one mobile scan of the underground network within the City of Rochester. This year (2013) marks the fifth consecutive year RG&E has been performing mobile testing in the City of Rochester which began in 2009. RG&E contracted with Power Survey, 25 Campus Drive, Kearny, NJ 07031 to perform the 2013 mobile stray voltage testing effort.

Over the past four years the mobile scan effort consisted of 495 miles of roads to be scanned within the City of Rochester. Prior to the 2013 effort, RG&E visited all roads to assess areas where overhead facilities might impact the effectiveness of mobile test equipment to detect findings and removed these areas from the mobile testing scope. The net effect reduced the original 495 miles of roads to be scanned to 331 miles. All streets removed from the mobile testing scope were included in the manual testing effort.

#### The Mobile Scan of Rochester

Mobile testing commenced on November 18, 2013 at darkness each night in order to ensure all street light circuits would be energized. Power Survey provided a single crew (2 Technicians) and their truck mounted test equipment and drove the 331 street miles identified by RG&E requiring mobile testing. City agencies were given advanced notice of the event to prepare for any questions or concerns residents of the city might have. Upon conclusion of field testing, all data was received and validated as of December 27, 2013. Results of the 2013 scan can be found in section D below.

#### **Mobile Testing Procedure**

Power Survey scanned city streets using their SVD2000 mobile system and upon detecting an energized object stopped the vehicle to investigate, identify, measure, and properly document the finding in accordance to RG&E's Stray Voltage Mobile Test Procedure.

In addition to the mobile detection equipment and technicians provided by Power Survey, RG&E provided two full-time Field Coordinators who accompanied the Power Survey crew. The Field Coordinators monitored the mobile testing activities and collected GPS coordinates of the nightly routes traveled. GPS data was also acquired to provide positional attributes to structures with detected voltages and to ensure all structures and streets reported by Power Survey were complete. The Field Coordinators also collected data on all

hot structures including all false positives, ensured all documented voltage reads were accurate, and all energized objects found to be energized at 4.5 volts or greater were immediately made safe and turned over to the appropriate owner for repair. RG&E also provided a full-time electrician to immediately isolate and make safe all energized objects reading 4.5 volts or greater with a 500 ohm shunt resistor.

## **Mobile Testing Results**

The mobile scan of the City of Rochester included approximately 19,304 testable structures and the results for this effort are as follows:

2013 Mobile Testing Summary of Events						
Total Number of Events 239						
Below 4.5 Volts	198	83%				
Greater or Equal to 4.5 And Less Than 25 Volts	33	14%				
Greater or Equal to 25 Volts	8	3%				

The table below categorizes all the low voltage findings into smaller voltage classes to illustrate the specific findings.

Breakdown Of Voltages Below 4.5 Volts					
Total Number of Events < 4.5 volts	198				
1-1.9 volts	136	69%			
2-2.9 volts	42	21%			
3-4.4 volts	20	10%			

#### **Analysis**

Final results of the mobile scan confirmed 239 energized objects with over 83% below 4.5 volts. All stray voltage findings greater than or equal to 1 volt and less than 4.5 volts were immediately safeguarded and all finding greater or equal to 4.5 volts were immediately made safe to the public and turned over to the appropriate owner to initiate permanent repair.

All energized objects greater than or equal to 1 volt have been turned over to either Monroe County or the City of Rochester, the current owner of all Streetlights for further investigation and to conduct permanent repairs. A summary of energized objects can be found in Appendix A.

#### **Mobile Testing Historical Summary**

Historical detections and costs incurred from the Mobile Testing efforts are demonstrated below along with a cost comparison for performing manual stray voltage testing in the exact same areas.

Test Year	Total Number of Detections	Company Test Procedure Used	Mobile Program Costs	Manual Program Costs
2013	239	RG&E	\$117,984	\$97,880
2012	113	RG&E	\$46,897	\$97,567
2011	365	Power Survey	\$80,000	\$129,000
2010	40	RG&E	\$93,000	\$129,000
2009	161	RG&E	\$520,000	\$135,000

#### **Observations**

The results of this year's scan of the City of Rochester confirmed the vast majority (93%) of findings were detected on Streetlights. All Streetlights with reported findings from this year's scan are owned by either Monroe County or the City of Rochester. Both Municipalities have been notified of all findings on their streetlights and traffic signal equipment, and of their responsibility for follow-up mitigation and repair.

RG&E has observed several streetlight locations that continue to show up on the list of energized objects year after year. RG&E has worked closely with the City of Rochester to encourage proper investigation and remediation work be completed on a timely basis and recognizes that not all planned repairs were made in 2013. This year, RG&E is planning to offer additional technical support to the City to help plan repairs in a structured way focusing efforts on the root cause.

# **Appendix 1 Stray Voltage Testing Summary**

RG&E	Total System Units	Units Completed	Percent Completed	Units with Voltage Found (>= 1.0v)	Percent of Units Tested with Voltage (>= 1.0v)	Units Classified as Inaccessible
Distribution Facilities	42,260	71,185	100%	48	0.067%	30
Underground Facilities	10,940	33,612	100%	0	0%	50
Street Lights / Traffic Signals	23,640	23,640	100%	7	0.030%	9
Substation Fences	34	34	100%	0	0%	0
Overhead Transmission	3,954	9,167	100%	83	0.905%	13
Underground Transmission	0					
TOTAL	80,828	137,638	100%	138	0.100%	102

Appendix 2 Summary of Energized Objects (Manual Program)

Name			Initial Rea	adings		Readings after Mitigation			
Pole   Ground   28	RG&E	1-4.4V	4.5-24.9V	>25V	Totals	< 1V	1-4.4V	>4.5V	
Ground   Guy   13	Distribution Facilities	46	2	0	48	29	19	0	
Guy Riser   3	Pole				0				
Riser Other   2	Ground	28	1	0	29	21	8	0	
Other   2	Guy	13	1	0	14	4	10	0	
Underground Facilities	Riser		0	0	3	2	1	0	
Manhole   Pull box	Other	2	0	0	2	2	0	0	
Manhole	Underground Facilities	0	0	0	0	0	0	0	
Padmount Switchgear	Manhole/ Pull box				0				
Padmount Transformer   Vault-Cover/Door   Pedestal   O	Manhole				0				
Vault-Cover/Door	Padmount Switchgear				0				
Pedestal Other	Padmount Transformer				0				
Street Lights/Traffic Signals	Vault-Cover/Door				0				
Street Lights/Traffic Signals   2	Pedestal				0				
Metal Street Light Pole Traffic Signal Pole Pedestrian Crossing Pole Traffic Control Box Other O O I I I I I I I I I I I I I I I I I	Other				0				
Traffic Signal Pole	Street Lights/Traffic Signals	2	1	4	7	6	1	0	
Pedestrian Crossing Pole	Metal Street Light Pole	1	1	3	5	5	0	0	
Pedestrian Crossing Pole	Traffic Signal Pole	1	0	0	1	0	1	0	
Traffic Control Box					0				
Substation Fences	Traffic Control Box				0				
Fence Other	Other	0	0	1	1	1	0	0	
Other	Substation Fences	0	0	0	0	0	0	0	
Transmission (Total)	Fence				0				
Lattice Tower	Other				0				
Pole   1	Transmission (Total)	76	7	0	83	0	0	0	
Ground   Guy   22	Lattice Tower				0				
Control Box Scaffolding Bus Shelter Fire Hydrant Phone Booth Water Pipe Riser   Control Box Sisser   Control Box	Pole	1	1	0	2	0	0	0	
Other         0         0           Miscellaneous Facilities         0         0         0         0           Sidewalk         0         0         0         0         0           Gate/Fence/Awning         0         <	Ground	53	5	0	58	0	0	0	
Miscellaneous Facilities         0 <td>Guy</td> <td>22</td> <td>1</td> <td>0</td> <td>23</td> <td>0</td> <td>0</td> <td>0</td>	Guy	22	1	0	23	0	0	0	
Sidewalk         0           Gate/Fence/Awning         0           Control Box         0           Scaffolding         0           Bus Shelter         0           Fire Hydrant         0           Phone Booth         0           Water Pipe         0           Riser         0	Other				0				
Gate/Fence/Awning         0           Control Box         0           Scaffolding         0           Bus Shelter         0           Fire Hydrant         0           Phone Booth         0           Water Pipe         0           Riser         0	Miscellaneous Facilities	0	0	0	0	0	0	0	
Control Box         0           Scaffolding         0           Bus Shelter         0           Fire Hydrant         0           Phone Booth         0           Water Pipe         0           Riser         0	Sidewalk				0				
Scaffolding         0           Bus Shelter         0           Fire Hydrant         0           Phone Booth         0           Water Pipe         0           Riser         0	Gate/Fence/Awning				0				
Bus Shelter         0           Fire Hydrant         0           Phone Booth         0           Water Pipe         0           Riser         0	Control Box				0				
Bus Shelter         0           Fire Hydrant         0           Phone Booth         0           Water Pipe         0           Riser         0	Scaffolding				0				
Fire Hydrant         0           Phone Booth         0           Water Pipe         0           Riser         0					0				
Phone Booth Water Pipe Riser 0 0 0	Fire Hydrant				0				
Water Pipe 0 Riser 0					0				
Riser 0									
Other									
	Other				0				

		Initial Readings Readings after Mitigation					
RG&E	1- 4.4V	4.5- 24.9V	>25V	Totals	< 1V	1- 4.4V	>4.5V
Distribution Facilities	0	0	0	0	0	0	0
Pole				0			
Ground				0			
Guy				0			
Riser				0			
Other				0			
Underground Facilities	3	0	0	3	0	0	0
Service Box				0			
Manhole	3	0	0	3			
Padmount Switchgear				0			
Padmount Transformer				0			
Vault-Cover/Door				0			
Pedestal				0			
Other				0			
Street Lights/Traffic Signals	182	32	8	222	11	0	0
Metal Street Light Pole	158	23	7	188	11	0	0
Traffic Signal Pole	3	3	0	6			
Pedestrian Crossing Pole	0	0	0	0			
Traffic Control Box	8	2	0	10			
Other	13	4	1	18			
Substation Fences	0	0	0	0	0	0	0
Fence				0			
Other				0			
Transmission (Total)	0	0	0	0	0	0	0
Lattice Tower				0			
Pole				0			
Ground				0			
Guy				0			
Other				0			
Miscellaneous Facilities	13	1	0	14	0	0	0
Sidewalk				0			
Gate/Fence/Awning	2	0	0	2			
Control Box				0			
Scaffolding				0			
Bus Shelter				0			
Fire Hydrant				0			
Phone Booth				0			
Water Pipe (Cap)	2	0	0	2			
Riser				0			
	9	1		10			

# Appendix 3 Summary of Shock Reports from the Public

	444	Traix o Carrinary or Orlock Reports from the	Yearly
	RG&E	D	Total
		Data collected as of December 31, 2013	TOtal
I.	Total	Shock Calls Received:	10
		Unsubstantiated	1
		Normally Energized Equipment	2
		Stray Voltage:	
		Person	7
		Animal	
II.	Injurie	s Sustained/Medical Attention Received:	0
		Person	0
		Animal	
III.	Voltag	ge Source:	7
		Utility Responsibility	
		Issue with primary, joint, or transformer	
		Secondary joint (Crab)	
		SL service Line	
		Abandoned SL service line	
		Defective service line	
		Abandoned service line	
		OH Secondary	
		OH Service	
		OH Service neutral	
		Pole	
		Riser	1
		Other	1
		Customer Responsibility	
		Contractor damage	
		Customer equipment/wiring	5
		Other Utility/Gov't Agency Responsibility	
		SL Base Connection	
		SL Internal wiring or light fixture	
		Overhead equipment	
IV.	Voltag	ge Range:	7
		1.0V to 4.4V	
		4.5V to 24.9V	
		25V and above	1
		No Reading	6

RG&E		Appe	endix 4 - S	Summary o	of Deficier	ncies and	Repair A	ctivity Re	sulting fr	rom the Ins	spection	Process	- Distribu	tion	
Overhead Facilities		2009			2010			2011			2012			2013	
Priority Level		II	III	I	II	III	ı	II	III	I	II	III	ı	II	III
Repair Expected	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years
Pole Condition								Poles		<b>I</b> 1					
Number of Deficiencies	_	16	44	_	5	9	0	10	12	1	5	17	0	27	119
Repaired in Time Frame	-	15	39	_	5	0	U	10			5		U	15	68
Repaired - Overdue		13	59		5	9		10	12	1		12		10	00
Not Repaired - Not Due		<u>'</u>										5		12	51
Not Repaired - Overdue												3		12	- 31
· ·															
Grounding System  Number of Deficiencies	_	•	36	_	4		0	4	2	0	39	313	0	474	125
Repaired in Time Frame	-	<b>9</b>	36	_	4	4	U	1	3	0	<b>39</b>		U	23	<b>135</b> 41
-		9	30		4	4		1	3		39	260		23	41
Repaired - Overdue												53		451	94
Not Repaired - Not Due Not Repaired - Overdue												53		451	94
· ·															
Anchors/Guy Wire			45			40		40	-			000		•	45
Number of Deficiencies	-	6	15	-	4	13	0	18	7	1	4	202	0	0	15
Repaired in Time Frame		6	14		3	12		18	7	1	4	146			8
Repaired - Overdue			1		1	1						50			
Not Repaired - Not Due												56			/
Not Repaired - Overdue															
Riser														- 10	
Number of Deficiencies	-	-	-	-	-	1	0	1	0	0	2		0	16	345
Repaired in Time Frame						1		4			2	10		4	53
Repaired - Overdue								1				_		10	
Not Repaired - Not Due												/		12	292
Not Repaired - Overdue															
Cross Arm/Bracing								1-							
Number of Deficiencies	-	8	27	-	9	12	3	17	8	0	0		0	4	13
Repaired in Time Frame		8	26		/	12	2	17	8			21		3	6
Repaired - Overdue			1		2		1					7		4	
Not Repaired - Not Due												/		1	/
Not Repaired - Overdue							•								
Diam'r (Dala Ti							C	onductors							
Primary Wire/Broken Ties	44	205	4.40		70			00	45	_		045	0.4	07	405
Number of Deficiencies	11	225	143	1	76	68	6	98	45		57	315	24	87	185
Repaired in Time Frame	10	216	143	1	72	68	6	95		/	57	214	22	30	56
Repaired - Overdue	1	9			4			3	•			404	2		400
Not Repaired - Not Due									3			101		57	129
Not Repaired - Overdue															
Neutral									•						
Number of Deficiencies	<b>52</b>	3	4	8	2	1	24	1	0	0	19		0	1	1
Repaired in Time Frame	50	3	4	8	2	1	24	1			19	55		1	1
Repaired - Overdue	2											4			
Not Repaired - Not Due												4			
Not Repaired - Overdue															
Insulators					40			00	10			40		25	
Number of Deficiencies	1	3	4	-	12	2	2	26	10		40		0	35	28
Repaired in Time Frame	1	3	4		12	2	2	25	10	1	40	44		2	8
Repaired - Overdue								1						00	
Not Repaired - Not Due												5		33	20
Not Repaired - Overdue															

RG&E		Appe	ndix 4 - S	Summary o	f Deficier	ncies and	Repair A	ctivity Re	sulting fr	om the In	spection	Process	- Distribu	tion	
Overhead Facilities		2009			2010			2011			2012			2013	
Priority Level	ı	II	III	ı	II	III	ı	II	III	I	II	III	I	II	III
Repair Expected	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years
							Pole	Equipme	nt						
Transformers															
Number of Deficiencies	-	5	2	-	1	-	0	0	1	0	16	39	2	0	0
Repaired in Time Frame		5	2		1				1		16	38	2		
Repaired - Overdue															
Not Repaired - Not Due												1			
Not Repaired - Overdue															
Cutouts															
Number of Deficiencies	1	18	5	2	15	3	0	2	2	0	1	5	0	4	6
Repaired in Time Frame	1	18	5	2	15	3		2	1		1	5		2	3
Repaired - Overdue															
Not Repaired - Not Due									1					2	3
Not Repaired - Overdue															
Lightning Arrestors															
Number of Deficiencies	-	5	24	-	7	3	0	10	7	0	6	5	1	3	66
Repaired in Time Frame		5	23		7	3		10	6		6	4	. 1	1	20
Repaired - Overdue			1												
Not Repaired - Not Due									1			1		2	46
Not Repaired - Overdue															
Skypin/Skypin Bolt															
Number of Deficiencies	1	10	5	-	7	3	0	2	2	0	0	0	0	0	C
Repaired in Time Frame	1	10	5		7	3		2	2						
Repaired - Overdue															
Not Repaired - Not Due															
Not Repaired - Overdue															
							Mis	cellaneou	s						
Trimming Related															
Number of Deficiencies	1	22	52	4	24	3	0	0	0	5	0	1	8	2	0
Repaired in Time Frame	1	22	52	3	23	3				4		1	5	1	
Repaired - Overdue				1	1					1			3		
Not Repaired - Not Due														1	
Not Repaired - Overdue															
Other															
Number of Deficiencies	1	31	64	6	50	30	2	14	6	1	0	11	0	9	17
Repaired in Time Frame	1	31	64	6	48	30	1	11	6	1		6	3	4	2
Repaired - Overdue					2		1	3							
Not Repaired - Not Due												5		5	15
Not Repaired - Overdue															
							Overhea	d Facilitie	s Total						
Total															
Number of Deficiencies	68	361	425	21	216	152	37	200	103	16	189	1,061	35	662	930
Repaired in Time Frame	65	351	417	20	206	151	35	192	98	15	189	816	30	86	266
Repaired - Overdue	3	10	8	1	10	1	2	8	-	1	-	-	5		(
Not Repaired - Not Due	-	-	-	-	-	-	-	-	5	-	-	245	-		664
Not Repaired - Overdue	-	-	-	-	-	-	-	-	-	-	-	-	0		

RG&E			Summar	y of Defic	ciencies a	nd Repai	r Activity	Resultinç	g from the	e Inspecti	on Proce	ss - Trans	smission		
Transmission Facilities		2009			2010			2011		I	2012			2013	
Priority Level	1	II	III	1	II	III	ı	II	III	-	II	III	1	II	III
Filolity Level	'			'			-			<del>  '</del>			- '		
Repair Expected	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years
							T	owers/Pol	es						
Steel Towers															
Number of Deficiencies	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-
Repaired in Time Frame									1						
Repaired - Overdue															
Not Repaired - Not Due															
Not Repaired - Overdue															
Poles															
Number of Deficiencies	-	20	33	-	-	7	-	7	6	-	1	7	-	-	-
Repaired in Time Frame		18	31			7		7	6	<b>.</b>	1	2			
Repaired - Overdue		2	1												
Not Repaired - Not Due												5			
Not Repaired - Overdue			1												
Anchors/Guy Wire															
Number of Deficiencies	-	-	4	-	-	1	-	-	1	-	1	4	-	-	2
Repaired in Time Frame			4						1		1				
Repaired - Overdue															
Not Repaired - Not Due												4			2
Not Repaired - Overdue						1									
Crossarm/Brace															
Number of Deficiencies	-	13	28	-	5	14	-	-	10	-	-	2	-	-	-
Repaired in Time Frame		13	27		3	14			8						
Repaired - Overdue			1		2										
Not Repaired - Not Due									2			2			
Not Repaired - Overdue															
Grounding System															
Number of Deficiencies		3	10	•	1	15	-	16	4	-	13	26	-	6	92
Repaired in Time Frame		3	9			15		16	4		13	2			12
Repaired - Overdue			1		1										
Not Repaired - Not Due												24		6	80
Not Repaired - Overdue															
								Conductor	S						
Cable															
Number of Deficiencies		3	1	•	1	-	-	3	8	-	-	-		-	-
Repaired in Time Frame		3	1					3	8						
Repaired - Overdue					1										
Not Repaired - Not Due															
Not Repaired - Overdue															
Static/Neutral															
Number of Deficiencies	-	-	-	•	-	-	-	1	2	-	-	-	-	-	-
Repaired in Time Frame								1	2						
Repaired - Overdue															
Not Repaired - Not Due															
Not Repaired - Overdue															
Insulators															
Number of Deficiencies	-	34	53	-	2	9	-	-	5	-	-	3	-	-	-
Repaired in Time Frame		33	52		2	9			5			1			
Repaired - Overdue		1	1												
Not Repaired - Not Due												2			
Not Repaired - Overdue															

RG&E			Summar	y of Defic	iencies a	nd Repai	r Activity	Resulting	g from the	Inspecti	on Proce	ss - Trans	smission		
Transmission Facilities		2009			2010			2011			2012			2013	
Priority Level		II	III	ı	II	III	I	l II	III	I	II	III	ı	II	III
Repair Expected	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years
Nopali Zapostos			-		· ·		M	iscellaneo							
Right of Way Condition															
Number of Deficiencies	-	183	2	-	-	-	-	-	-	-	-	-	-	-	-
Repaired in Time Frame		183	2												
Repaired - Overdue															
Not Repaired - Not Due															
Not Repaired - Overdue															
Other															
Number of Deficiencies	-	191	73	-	5	19	-	5	8	-	-	-	-	-	-
Repaired in Time Frame		190	66		5	18		5	8						
Repaired - Overdue		1	6			1									
Not Repaired - Not Due															
Not Repaired - Overdue			1												
							Transmis	sion Facil	ties Total						
Total															
Number of Deficiencies	-	447	204	-	14	65	-	32	45	-	15	42	-	6	94
Repaired in Time Frame	-	443	192	-	10	63	-	32	43	-	15	5	-	-	12
Repaired - Overdue	-	4	10	-	4	1	-	-	-	-	-	-	-	-	-
Not Repaired - Not Due	-	-	-	-	-	-	-	-	2	-	-	37	-	6	82
Not Repaired - Overdue	-	-	2	-	-	1	-	-	-	-	-	-	-	-	-

RG&E			Summar	y of Defic	ciencies a	ınd Repai	r Activity	Resulting	g from the	e Inspecti	on Proces	ss - Unde	rground		
Underground Facilities		2009			2010			2011			2012			2013	
Priority Level	ı	II	III	1	II	III	ı	II	III	ı	II	III	ı	II	III
Repair Expected	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years
							Underg	round Stru	uctures						
Damaged Cover															
Number of Deficiencies	-	1	-	2	2	3	2	19	26	-	20	5	-	7	6
Repaired in Time Frame		1		2	2	3	2	17	26		20	5		5	3
Repaired - Overdue								1							
Not Repaired - Not Due														2	3
Not Repaired - Overdue								1							
Damaged Structure															
Number of Deficiencies	-	-	-	-	8	6	1	5	13	1	24	19	-	3	12
Repaired in Time Frame					5	2	1	5	12	1	24	19		3	12
Repaired - Overdue					3										
Not Repaired - Not Due									1						
Not Repaired - Overdue						4									
Congested Structure															
Number of Deficiencies	-	_	-	_	-	-	-	-	-	-	-	-	_	2	42
Repaired in Time Frame														1	29
Repaired - Overdue															
Not Repaired - Not Due														1	13
Not Repaired - Overdue															
Damaged Equipment															
Number of Deficiencies		_	_	_	5	4	2	3	2	_	6	1	_	3	3
Repaired in Time Frame					2	2	1	-			•	1			
Repaired - Overdue					3		1	1			1	-			
Not Repaired - Not Due							•	'	2					3	3
Not Repaired - Overdue						2		2			5			3	<u> </u>
140t Hopaired Overdae						_		onductors	9		Ū				
Primary Cable								onaaotore							
Number of Deficiencies		_	_	1	8	3	1	4	1	1	11		1	3	1
Repaired in Time Frame				1	8	3	1	2	•	1	1		1	<u> </u>	
Repaired - Overdue				'	0	3	1	1		'	1		1		
Not Repaired - Not Due								1	1		1			3	1
Not Repaired - Not Due								1	1		9			3	<u>'</u>
Secondary Cable								'			3				
Number of Deficiencies		_	1	2	5	2	2	2	_	_	2	_	_	_	_
Repaired in Time Frame	-	-	1	2	<b>5</b>	1	<b>2</b>	1	-	-	2	-	-	-	-
Repaired - Overdue					5	1		1							
Not Repaired - Not Due						ı		I							
Not Repaired - Not Due  Not Repaired - Overdue															
· · · · · · · · · · · · · · · · · · ·															
Neutral Cable  Number of Deficiencies					4	4		3	4		4				
	-	-	-	-	1	1	-	3	4	-	1	-	-	-	-
Repaired in Time Frame					1	1		2	4		1				
Repaired - Overdue															
Not Repaired - Not Due								4							
Not Repaired - Overdue								1							
Racking Needed															
Number of Deficiencies	-	-	-	-	-	2	-	-	1	-	-	-	-	-	-
Repaired in Time Frame						1									
Repaired - Overdue															
Not Repaired - Not Due									1						
Not Repaired - Overdue						1									

RG&E			Summar	y of Defic	iencies a	ınd Repai	r Activity	Resulting	g from the	e Inspecti	on Proces	ss - Unde	rground		
Underground Facilities		2009			2010			2011			2012			2013	
Priority Level	I	ll l	III	ı	II	III		II	III	I	II	III	I	II	III
Repair Expected	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years
							М	iscellaneo	us						
Other															
Number of Deficiencies	-	-	-	-	1	7	1	8	3	1	11	6	-	-	1
Repaired in Time Frame					1	4		4	1		1	5			
Repaired - Overdue							1	1		1	1				
Not Repaired - Not Due									2			1			1
Not Repaired - Overdue						3		3			9				
							Undergro	und Facili	ties Total						
Total															
Number of Deficiencies	-	1	1	5	30	28	9	44	50	3	75	31	1	18	65
Repaired in Time Frame	-	1	1	5	24	17	7	31	43	2	49	30	1	9	44
Repaired - Overdue	-	-	-	-	6	1	2	5	-	1	3	-	-	-	-
Not Repaired - Not Due	-	-	-	-	-	-	-	-	7	-	-	1	-	9	21
Not Repaired - Overdue	-	-	-	-	-	10	-	8	-	-	23	-	-	-	-

RG&E		Sum	mary of D	Deficiencie	es and Re	pair Activ	vity Result	ting from	the Inspe	ection Pro	cess - Pa	d Mount	Transforn	ners	
Pad Mount Transformers		2009			2010			2011			2012			2013	
Priority Level		II	III	I	II	III									
Repair Expected	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years
							Pad Mo	unt Transf	ormers						
Damaged Structure															
Number of Deficiencies	2	262	112	1	44	24	1	52	26	1	3	16	1	2	1
Repaired in Time Frame	2	200	103		31	20		40	21	1	2	10	1	1	1
Repaired - Overdue		62	8	1	13	3	1	12							
Not Repaired - Not Due									5			6		1	
Not Repaired - Overdue			1			1					1				
Damaged Equipment															
Number of Deficiencies	1	5	3	-	1	-	•	38	13	•	4	1	4	2	6
Repaired in Time Frame		4	3		1	_		33	8		4		3	1	3
Repaired - Overdue	1	1						5					1		
Not Repaired - Not Due									5			1		1	3
Not Repaired - Overdue															
Cable Condition															
Number of Deficiencies	1	-	-	-	-	-	2	3	-	1	-	-	-	1	2
Repaired in Time Frame														1	
Repaired - Overdue	1						2	3		1					_
Not Repaired - Not Due															2
Not Repaired - Overdue															
Oil Leak	_												_		
Number of Deficiencies	2	24	16	-	12	2	-	11	1	2	13	24	7	-	-
Repaired in Time Frame	1	10	8		7	2		4	1	1	9	2	6		
Repaired - Overdue	1	14	8		5			7		1	2		1		
Not Repaired - Not Due Not Repaired - Overdue											2	22			
·											2				
Off Pad  Number of Deficiencies	_	24	11		4	0	_	1		1		2	1	2	1
Repaired in Time Frame	-	14	10	-	3	<b>9</b>	-	1	-	1	-	<b>2</b>	1	<b>2</b>	1
Repaired - Overdue		10	10		1	0		ı		1			1		1
Not Repaired - Not Due		10	ı.		<u>'</u>										
Not Repaired - Overdue						3									
Lock/Latch/Penta															
Number of Deficiencies	_	32	226	4	52	23	1	19	5	_	_	5	_	1	_
Repaired in Time Frame		19	211	1	30	23	1	15	2			4		1	
Repaired - Overdue		13	14	3	22			4							
Not Repaired - Not Due									3			1			
Not Repaired - Overdue			1												
		Miscellaneous													
Other															
Number of Deficiencies	2	64	393	-	68	54	-	6	7	1	2	135	-	3	8
Repaired in Time Frame	2	10	345		38	53		6	4	1	2	102		3	2
Repaired - Overdue		54	48		30										
Not Repaired - Not Due									3			33			6
Not Repaired - Overdue						1									
							Pad	Mount To	otal						
Total															
Number of Deficiencies	8	411	761	5	181	112	4	130	52	6	22	183	13	11	18
Repaired in Time Frame	5	257	680	1	110	104	1	99	36	4	17	120	11	9	7
Repaired - Overdue	3	154	79	4	71	3	3	31	-	2	2	-	2	-	-
Not Repaired - Not Due	-	-	-	-	-	-	-	-	16	-	-	63	-	2	11
Not Repaired - Overdue	-	-	2	-	-	5	-	-	-	-	3	-	-	-	-

RG&E			Summar	y of Defic	iencies a	nd Repair	Activity F	Resulting	from the	Inspection	n Proces	ss - Street	lights		
Overhead Facilities		2009			2010			2011			2012			2013	
Priority Level		II	III	I	II	III									
Repair Expected	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years
					T	1	St	reetlight	1	<u> </u>	1	<u> </u>	ı	1	
Base/Standard/Light															
Number of Deficiencies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1
Repaired in Time Frame															
Repaired - Overdue															
Not Repaired - Not Due															1
Not Repaired - Overdue															
Handhole/Service Box															
Number of Deficiencies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Repaired in Time Frame															
Repaired - Overdue															
Not Repaired - Not Due															
Not Repaired - Overdue															
Service/Internal Wiring															
Number of Deficiencies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Repaired in Time Frame															
Repaired - Overdue															
Not Repaired - Not Due															
Not Repaired - Overdue															
Access Cover															
Number of Deficiencies	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Repaired in Time Frame															
Repaired - Overdue															
Not Repaired - Not Due															
Not Repaired - Overdue															
							Misc	cellaneous	3						
Other				1											
Number of Deficiencies	_	-	-	_	-	1	-	-	_	_	-	_	_	_	_
Repaired in Time Frame						1									
Repaired - Overdue															
Not Repaired - Not Due															
Not Repaired - Overdue															
Not repaired everage							Stree	tlight Tota	al						
Total				1			01.00								
Number of Deficiencies		_		_	_	1	_	_	_	_	_	_	_	_	1
Repaired in Time Frame	_	_	_	_	_	1	_	_	_	_	_	-	_	_	_ '
Repaired - Overdue		_		_	_	_ '	_	_	_	_	_	_	_	_	_
Not Repaired - Not Due	<u> </u>	-			_	_			_	-	_	-		_	
Not Repaired - Not Due  Not Repaired - Overdue		-			-	-	-		-	-	-	-		-	

RG&E		Summary of	Deficiencies a	and Repair A	ctivity Resultii	ng from the In	spection Proc	ess - Level IV	Conditions	
Overhead Facilities	200	09	201	10	20	11	201	2	20	13
	Number of Conditions Found	Number of Conditions Repaired	Number of Conditions Found	Number of Conditions Repaired	Number of Conditions Found	Number of Conditions Repaired	Number of Conditions Found	Number of Conditions Repaired	Number of Conditions Found	Number of Conditions Repaired
		-			Overhead	Facilities				
Pole Condition							0.0		200	
Pole Condition			2		8		30		262	
Grounding System			24	5	3		8	_	6	
Anchors/Guy Wire			8		19		307	3	128	;
Riser			2				11		51	
Cross Arm/Bracing					3		11		8	
Conductors										
Primary Wire/Broken Ties			2		4		59	2	775	
Neutral							11		22	
Insulators					1		38	4	15	
Pole Equipment										
Transformers							16		424	
Cutouts							59	8	13	
Lightning Arrestors							1		2	
Other Equipment					1					
Miscellaneous										
Trimming Related			34	1	126		329	4	697	
Other			3	1	8		1,781	22	23	
Overhead Facilities Total	0	0	75	7	173	0	2,661	43	2,426	(
					Transmission	on Facilities				
Towers/Poles										
Steel Towers										
Poles	234	2					4			
Anchors/Guy Wire	7						29		5	
Crossarm/Brace	110		2	2	1		4			
Grounding System	3						4			
Conductors										
Cable	9									
Static/Neutral			2	1	26					
Insulators	257		2	2	8					
Miscellaneous	237				, and the second					
Right of Way Condition	241						6			
Other	326	1	3	1	15		81			
Transmission Facilities Total	1,187	3		6				0	5	

RG&E		Summary of	Deficiencies	and Repair A	ctivity Resultii	ng from the Ir	spection Prod	ess - Level I\	/ Conditions	
Overhead Facilities	20	09	201	10	20	11	20	12	20	13
	Number of Conditions Found	Number of Conditions Repaired								
					Undergrour	nd Facilities				
Underground Structures										
Damaged Cover			9		4				7	4
Damaged Structure			31				3		5	5
Congested Structure									12	8
Damaged Equipment			10							
Conductors										
Primary Cable	1		12							
Secondary Cable			1							
Neutral Cable										
Racking Needed			8							
Miscellaneous										
Other			6	1			3			
Underground Facilities Total	1	0	77	1	4	0	6	0	24	17
					Pad Mount T	ransformers				
Pad Mount Structures										
Damaged Structure			168		2		56		11	1
Damaged Equipment					1		6	1	6	
Damaged Cable										
Oil Leak							25			
Off Pad			1				1			
Lock/Latch/Penta	241	1	270	2			5	1		
Miscellaneous										
Other	4		145	2	62		128	8	16	
Pad Mount Transformer Total	245	1	584	4	65	0	221	10	33	1
					Street	lights				
Streetlight										
Base/Standard/Light									3	
Handhole/Service Box										
Service/Internal Wiring									3	
Access Cover										
Miscellaneous										
Other			8						1	
Streetlight Total	0	0		0	0	0	0	0	7	C
						V Conditions				
Overall Total	1,433	4	753	18			3,016	53	2,495	24

RG&E	A	ppendix 4 - Sum	nmary of Deficier	ncies and Repair	Activity Resultin	g from the Inspe	ction Process
Year		riority Level / pair Expected	Deficiencies Found (Total)	Repaired In Time Frame	Repaired - Overdue	Not Repaired - Not Due	Not Repaired - Overdue
2009							
	I	Within 1 week	76	70	6	0	0
	Ш	Within 1 year	1,220	1052	168	0	0
	Ш	Within 3 years	1,391	1,290	97	0	4
	IV	N/A	1,433	4	n/a	1,429	n/a
2010							
	I	Within 1 week	31	26	5	0	0
	Ш	Within 1 year	441	350	91	0	0
	Ш	Within 3 years	358	336	6	0	16
	IV	N/A	753	18	n/a	735	n/a
2011							
	I	Within 1 week	50	43	7	0	0
	II	Within 1 year	406	354	44	0	8
	III	Within 3 years	250	220	0	30	0
	IV	N/A	292	0	n/a	292	n/a
2012							
	I	Within 1 week	25	21	4	0	0
	II	Within 1 year	301	270	5	0	26
	III	Within 3 years	1,317		0	346	0
	IV	N/A	3,016	53	n/a	2,963	n/a
2013					_		
		Within 1 week	49	42	7	0	0
		Within 1 year	697	104	0	593	0
		Within 3 years	1,108		0	779	0
	IV	N/A	2,495	24	n/a	2,471	n/a

# <u>CERTIFICATION</u> [FACILITY INSPECTIONS]

STATE OF NEW YORK	)
COUNTY OF MONROE	) ss.: )

Franklyn Reynolds, on this  $\frac{13^{11}}{13}$  day of February 2014, certifies as follows:

- 1. I am the Vice President, Asset Management and Planning of Rochester Gas and Electric (the "Company"), and in that capacity I make this Certification for the annual period ending December 31<sup>st</sup>, 2013 based on my knowledge of the inspection program adopted by the Company in accordance the Public Service Commission's Orders issued and effective January 5, July 21, 2005, December 15, 2008 and March 22, 2013 in Case 04-M-0159 and July 21, 2010 and June 23, 2011 in Case 10-E-0271 (collectively the "Orders"), including the Quality Assurance Program filed by the Company with the Commission.
- 2. The Company has an inspection program that is designed to inspect all of its electric facilities on a five-year inspection cycle, as identified through a good faith effort by the Company ("Facilities"), in accordance with the requirements of the Orders (the "Facility Inspection Program").
- I am responsible for overseeing the Company's Facility
   Inspection Program and in that capacity I have monitored the

program during the twelve months ended December 31<sup>st</sup>, 2013 (the "Twelve-Month Period").

4. I hereby certify that, to the best of my knowledge, information and belief, the Company has implemented and completed its Facility Inspection Program to inspect approximately 20 % of its Facilities during calendar year 2013, in order to comply with the five-year inspection cycle required under the Orders.

Franklyn D. Reynolds

Sworn to before me this  $\frac{13^{11}}{13}$  day of February, 2014

Notary Public:

ANNA M. SABERS
Notary Public, State of New York
No. 01SA6072590
Qualified in Monroe County

Qualified in Monroe County /

#### Exhibit 1

# CERTIFICATION [STRAY VOLTAGE TESTING]

STATE OF NEW YORK	)
COUNTY OF MONROE	) ss.: )

Franklyn D. Reynolds on this <u>13</u>th day of February, 2014 certifies as follows:

- 1. I am the Vice President, Asset Management and Planning of Rochester Gas and Electric (the "Company"), and in that capacity I make this Certification for the annual period ending December 31<sup>st</sup>, 2013 based on my knowledge of the testing program adopted by the Company in accordance the Public Service Commission's Orders issued and effective January 5, July 21, 2005, December 15, 2008, and March 22, 2013 in Case 04-M-0159 and July 21, 2010 and June 23, 2011 in Case 10-E-0271 (collectively the "Orders"), including the Quality Assurance Program filed by the Company with the Commission.
- 2. In accordance with the requirements of the Orders, the

  Company developed a program designed to test (i) all of the

  publicly accessible electric facilities owned by the Company

  ("Facilities") and (ii) all streetlights located in public

  thoroughfares in the Company's service territory

  ("Streetlights"), as identified through a good faith effort by

- the Company, for stray voltage (the "Stray Voltage Testing Program").
- 3. I am responsible for overseeing the Company's Stray Voltage Testing Program and in that capacity I have monitored the Company's Stray Voltage Testing Program during the twelve months ended December 31<sup>st</sup>, 2013 (the "Twelve-Month Period").
- 4. I hereby certify that, to the best of my knowledge, information and belief, the Company has implemented and completed its Stray Voltage Testing program for the Twelve Month Period. Except for untested structures that are identified as inaccessible or not required in the Company's Annual Report, submitted herewith, the Company is unaware of any Facilities or Streetlights that were not tested during the Twelve-Month Period.
- 5. I make this certification subject to the condition and acknowledgment that it is reasonably possible that, notwithstanding the Company's good faith implementation and completion of the Stray Voltage Testing Program, there may be Facilities and Streetlights that, inadvertently, may not have been tested or were not discovered or known after reasonable review of Company records and reasonable visual inspection of the areas of the service territory where Facilities

and Streetlights were known to exist or reasonably expected

to be found.

Franklyn D. Reynolds

Sworn to before me this 13th day of February, 2014

Notary Public:

ANNA M. SABERS
Notary Public, State of New York
No. 01SA6072590
Qualified in Monroe County