February 15, 2017

VIA EMAIL

Honorable Kathleen Burgess
Secretary, New York State Public Service Commission
Three Empire State 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 hereby submit for filing the 2016 Annual Stray Voltage Testing and Facility Inspection Reports in the above referenced proceeding.

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

Respectfully submitted,

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New York State Electric & 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, 2016

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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, March 22, 2013, and January 13, 2015 (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 (URD), 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 Facility Inspection Program conducted in 2016.

II. Company Overview

NYSEG, a subsidiary of AVANGRID serves approximately 883,000 electricity customers and 264,000 natural gas customers across more than 40% of upstate New York.

NYSEG's electric delivery infrastructure consists of approximately 844,512 distribution structures, 67,573 transmission structures, 57,736 underground/URD facilities, 435 substations, and 13,095 streetlight facilities.

III. Stray Voltage Testing Program

During the 12-month period ending December 31, 2016, 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 approximately 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 ≥ 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 ≥ 1.0 volt.
c. Responded, investigated, and mitigated positive findings of shock incidents reported by 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 231,573 facilities visited, 1,985 were deemed Inaccessible to the public. As described below, there are several types of Inaccessible structures:

a. Private Property – 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. NYSEG Property – Structure located on Company property, such as substations, are accessible only to Company personnel and authorized contractors.
c. Buried / Paved Over – 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.
d. Inside Building –The structure was not tested if it is customer owned equipment inside a building, in a locked equipment room, that is accessible to authorized personnel only.
e. Limited Access Highways – Structures located on highways, exit and entrance highway ramps. The performance of stray voltage testing would constitute an unacceptable risk to the employee/contractor.
f. Dangerous Terrain – Poles located on cliffs and other dangerous terrain are generally inaccessible to personnel and are approached only under urgent circumstances. The performance of stray voltage testing would constitute an unacceptable risk to the employee/contractor.

IV. Stray Voltage Testing Facilities

Structure Categories

As presented in Appendix 1, NYSEG visited a total of 231,573 individual facilities in 2016. Of the 231,573 facilities visited, 50,695 did not require stray voltage testing because these structures and their associated equipment are non-metallic and incapable of conducting electricity. Additionally, 1,985 facilities

were deemed inaccessible. As a result, approximately 178,893 facilities required testing for the presence of stray voltage. These facilities are broken down into five main categories including:

Distribution Overhead – Of the 177,761 facilities visited, there are approximately 127,715 distribution pole structures that required 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.

Underground Facilities – Of the 10,370 facilities visited there are approximately 9,953 underground facilities that required 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 – Of the 33,785 facilities visited, there are approximately 17,050 metallic street lights and approximately 16,136 traffic signals within NYSEG's service territory that required 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. All Company-owned streetlights are included in the facility inspection program.

Transmission Structures – Of the 9,605 facilities visited, there are approximately 7,989 individual poles/towers that required 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.

Substations – There are approximately 435 substation fences in NYSEG's territory tested for the presence of stray voltage every five years. Of the 52 substations visited this year 50 required testing for the presence of stray voltage.

V. 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 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."

Generally, there are two types of reported findings;

The first is 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.

The second type is 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. Transmission structures in the absence of apparent damage to the structure grounding system typically are found having an induced voltage deemed normal to operating conditions. 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.

Utilities are required to report on all findings, regardless of whether or not the voltage is abnormal or normal to operating conditions. Causes of these findings can be found in Appendix 1 and 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.

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. A summary of energized objects included as Appendix 2 in this report displays the voltage ranges found for each stray voltage condition encountered this year.

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 there were no energized objects reported within a 30 foot radius of any stray voltage finding.

VI. 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:

Level I – 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.

Level II – 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.

Level III – 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.

Level IV – 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 2016, NYSEG has 6 exceptions to temporary repairs that still remain in place after the 90 day requirement. A list of temporary repairs and justifications can be found in Appendix 5 of this report.

VII. 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 an average of 20% of the overhead distribution facilities, overhead and underground transmission facilities, underground residential distribution facilities, and substation fences per year, over the five year term 2015-2019 for the period ending December 31, 2016.

In addition, in compliance with the Safety Standards, NYSEG has met the second year annual performance target for inspection of its electric facilities for the period ending December 31, 2016; thus continuing the third cycle.

The results are summarized in the table below.

Facility Inspection Program Results

Category	**2016 NYSEG Inspection Target**	**Actual Cumulative Inspected as of 2016**
Overhead Distribution	20%	43%
Overhead Transmission	20%	40%
Underground	20%	46%
Padmounts	20%	37%
Streetlight	20%	19%

5-Year Inspection Performance Summary

Overhead Distribution Facilities

Inspection Year	Number of Overhead Distribution Structures Inspected	% of Overall System Inspected (Cumulative in Five Year Cycle 2015-2019)
2015	174,688	21%
2016	184,869	43%
2017		
2018		
2019		

Overhead Transmission Facilities

Inspection Year	Number of Overhead Transmission Facilities Inspected	% of Overall System Inspected (Cumulative in Five Year Cycle 2015-2019)
2015	17,134	25%
2016	9,837	40%
2017		
2018		
2019		

Underground Facilities

Inspection Year	Number of Underground Facilities Inspected	% of Overall System Inspected (Cumulative in Five Year Cycle 2015-2019)
2015	4,572	21%
2016	5,275	46%
2017		
2018		
2019		

Padmount Facilities

Inspection Year	Number of Underground Facilities Inspected	% of Overall System Inspected (Cumulative in Five Year Cycle 2015-2019)
2015	6,815	19%
2016	6,725	37%
2017		
2018		
2019		

Streetlights

Inspection Year	Number of Streetlights Inspected	% of Overall System Inspected (Cumulative in Five Year Cycle 2015-2019)
2015	2,424	19%
2016	91	19%
2017		
2018		
2019		

VIII. Analysis of Inspection Results

Overhead Distribution Structures

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
184,869	18,889	10.22%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	242	1.28%
2	4,529	23.98%
3	5,531	29.28%
4	8,587	45.46%
Total:	18,889	100%

Overhead Transmission Facilities

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
9,837	1,394	14.17%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	0	0%
2	415	29.77%
3	739	53.01%
4	240	17.22%
Total:	1,394	100%

Underground Facilities

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
5,275	622	11.79%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	27	4.34%
2	34	5.47%
3	120	19.29%
4	441	70.90%
Total:	622	100%

Pad-mounts

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
6,725	71	1.06%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	18	25.35%
2	15	21.13%
3	25	35.21%
4	13	18.31%
Total:	71	100%

Streetlights

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
91	6	6.59%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	0	0%
2	3	50.00%
3	2	33.33%
4	1	16.67%
Total:	6	100%

In 2016, a total of 20,982 Level I – IV deficiencies were identified out of the 206,797 scheduled inspections conducted representing a deficiency rate of about 10.15% of the unique inspections performed. As described by the Safety Standards, Level IV conditions represent "Condition[s] 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 should be used for future monitoring purposes and planning proactive maintenance activities." (Safety Standards Section 4 (j)). By excluding these atypical conditions focusing only on the 11,700 Level I - III deficiencies results in a deficiency rate of 5.66% which is a more accurate representation.

IX. QA/QC Programs

Overhead Transmission and Distribution, Streetlights, and Underground inspections were performed using a Field Workforce Mobility (FWM) Toughbook. The FWM Toughbooks are portable tablet computers with pre-loaded software that displays all assets to be inspected and includes pre-formatted inspection pick tables the inspectors use to document individual inspections. The FWM 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 FWM Toughbook, and the resulting data is uploaded into the Company SAP system.

Notifications are automatically generated from the deficiencies uploaded into the SAP system. Any structure reported as inaccessible due to being buried or paved over in the Field Workforce Mobility (FWM) application is turned in to Maintenance Engineering for verification with the Maps and Records Department. If Maps and Records confirm that the structure does exist, company and contractor crews follow up and attempt to locate, uncover, and inspect/test the structure. If the structure could not be found, it was then considered removed from the field, and updated as such in SAP, our system of record. The company routinely monitors these notifications to report status of the program and track any follow-up repairs.

Stray Voltage Testing QA/QC Program

Stray voltage testing data is acquired through two means. The first is in conjunction with a distribution line or transmission line (DLI/TLI) facility inspection where a stray voltage test is performed at the same time an inspector is doing an inspection. Stray voltage test data is stored on the FWM toughbook and is uploaded weekly along with inspection data.

Test Data with Inspections

Stray voltage tests are conducted on all distribution and transmission facilities and underground residential distribution facilities scheduled for inspection. Since the testing is done at the same time of inspection, test records are linked to the inspection record assuring a test for each asset. Inspectors upload this test data into SAP each week. Upon receipt of these files, QA/QC personnel verify not only every inspected asset has a test record but also all the required data fields are populated accurately.

The second means is in conjunction with the annual obligation to test all streetlights, traffic signal equipment, and underground manhole and handhole facilities. This testing data is also captured on the FWM Toughbook device.

Similar to DLI/TLI Inspections, the Stray Only testing data is uploaded from the FWM Toughbook into the SAP system weekly.

Stray Only Test Data

Stray voltage tests are conducted on all streetlights, traffic signal equipment, and underground manholes and handhole facilities. These are also captured on the FWM device and uploaded weekly to SAP. Upon receipt of the data, QA/QC personnel verify the consistency, completeness and accuracy of the data.

At the end of each year, QA/QC personnel check company asset records to gather any new installations constructed in the current year. This evaluation allows us to identify any new structures which are then included in the testing contractor's scope to obtain going forward.

On an ongoing basis, NYSEG performs additional 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 necessary, problem areas are retested in order to ensure testing accuracy.

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.

Facility Inspections QA/QC Program

A thorough review of inspection data is made by QA/QC personnel to evaluate the effectiveness of the following three primary focus areas.

Focus Area 1- Ensure all planned inspections (that make up the 20% obligation) developed for the current year are performed. To do this, a 5 year plan is established for each cycle which details what transmission and distribution circuits, and accompanying assets, are scheduled for any given year. This plan assures that all circuits are scheduled and any given year's asset count is balanced to the 20% goal. The scope of the inspection plan is communicated to the inspector contractor through data on the FWM toughbook. Inspection results are

returned to the company each week. QA/QC personnel review progress to validate all planned inspections are made.

Focus Area 2 - Ensure inspector's evaluation of asset condition is accurate and consistent and performed in accordance with established procedures and applicable training manuals. To do this, QA/QC personnel conduct two types of assessments.

Field Assessments

In the field review QA/QC personnel are given a list of assets to visit and inspect. This asset list consists of recent inspections made by our inspection contractor and the QA/QC personnel are unaware of the reported results. The QA/QC personnel independently inspect the assets and record their result. The results are then compared and any inconsistencies are discussed at the weekly meeting with the inspection contractor. Meeting Minutes and a Communication Log is used to document reporting decisions.

Internal Assessments

This review looks at deficiencies reported by the inspection contractor. All reported Level 1 – 3 deficiencies have photographs attached. QA/QC personnel review deficiencies and their pictures to assert the accuracy of the reported problem and assigned priority. Any problems noted from this focus area are communicated back to the inspectors for correction. A total of 6,963 pictures were reviewed with 6,534 deemed accurately reported, resulting in a 94% confidence level.

In 2016, in an effort to improve the overall confidence level of reported deficiencies, a new "weekly look back" QAQC process was added. Each week QAQC personnel review inspection results uploaded by the inspection contractor from the previous week. Structures reported with no deficiency are compared to open notifications within the SAP system for these same structures. Any discrepancies are given back to the inspection contractors to review and to confirm if the open deficiency has been repaired or if it was missed by the inspector. If it was verified as repaired, then the outstanding open deficiency is marked as such and closed. If it is found to still be a deficiency, the notification is marked with the appropriate level and the inspector is notified of their mistake. This helps improve the overall consistency and accuracy of the inspections.

Additionally, QA/QC personnel review all inaccessible inspections from the past week and provide contact information to the inspection supervisor. This enables the supervisor to contact the owner, explain the importance of the program and to coordinate a revisit the following week while the inspectors are still in the general area.

Focus Area 3 – Ensure that all reported repairs made on deficiencies found as a result of the inspection program are completed. A sample set of reported deficiencies and associated repairs made are selected throughout each division. This sample set is given to the QA/QC personnel to be field verified. QA/QC personnel visit each specific asset and validate whether the reported repair work has been made. Any issues found with this effort are communicated back to company personnel for follow-up action. QA/QC personnel visited 312 locations to verify repairs and were agreeable with 310, a 99% confidence level.

X. 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.

Appendix 1

Stray Voltage Testing Summary

NYSEG	2016 Targets	Units Completed	Percent Completed	Units with Voltage Found (>= 1.0v)	Percent of Units Tested with Voltage (>= 1.0v)	Units Classified as Inaccessible
Distribution Facilities	**162,765**	177,761	109%	28	0.016%	1,376
Underground Facilities	**11,922**	10,370	87%	0	0.000%	217
Street Lights / Traffic Signals	**33,785**	33,785	100%	13	0.000%	304
Substation Fences	**87**	52	60%	0	0.000%	0
Overhead Transmission	**10,726**	9,605	90%	86	0.895%	88
TOTAL	**219,285**	231,573	106%	127	0.055%	1,985

* 100% of all underground manholes and handholes were tested as required

Appendix 2

Summary of Voltages Found

NYSEG	Initial Readings				Readings after Mitigation		
	1-4.4V	4.5-24.9V	>25V	Totals	< 1V	1-4.4V	>4.5V
Distribution Facilities	23	4	1	**28**	14	0	0
Pole							
Ground	21	4	1	26	12	0	0
Guy	1	0	0	1	1		
Riser	1	0	0	1	1	0	0
Other							
Underground Facilities	0	0	0	**0**	0	0	0
Manhole/ Pull box							
Manhole							
Padmount Switchgear							
Padmount Transformer							
Vault-Cover/Door							
Pedestal							
Other							
Street Lights/Traffic Signals	4	2	7	**13**	13	0	0
Metal Street Light Pole	4	2	7	13	13	0	0
Traffic Signal Pole							
Pedestrian Crossing Pole							
Traffic Control Box							
Other							
Substation Fences	0	0	0	**0**	0	0	0
Fence							
Other							
Transmission (Total)	73	12	1	**86**	48	1	2
Lattice Tower							
Pole							
Ground	64	12	0	76	40	1	2
Guy	9	0	1	10	8	0	0
Other							
Miscellaneous Facilities	0	0	0	**0**	0	0	0
Sidewalk							
Gate/Fence/Awning							
Control Box							
Scaffolding							
Bus Shelter							
Fire Hydrant							
Phone Booth							
Water Pipe							
Riser							
Other							

Appendix 3

Summary of Shock Reports from the Public

	Data collected as of December 31, 2016	Yearly Total
I.	**Total Shock Calls Received:**	**20**
	Unsubstantiated	4
	Normally Energized Equipment	3
	Stray Voltage:	**13**
	Person	10
	Animal	3
II.	**Injuries Sustained/Medical Attention Received:**	**6**
	Person	2
	Animal	4
III.	**Stray Voltage Source:**	**13**
	Utility Responsibility (Total)	**3**
	Overhead Distribution System	3
	Underground Distribution System	0
	Transmission System	0
	Other Utility/Gov't Agency (Total)	**0**
	Streetlight	0
	Other (Total)	0
	Customer Responsibility (Total)	**10**
IV.	**Stray Voltage Range:**	**13**
	1.0V to 4.4V	0
	4.5V to 24.9V	1
	25V and above	0
	Unknown	12

Appendix 4

New York State Electric and Gas

Annual Summary of Deficiencies and Repair Activity Resulting from the Inspection Process

As of December 31, 2016

Detail of Deficiences by Facilities	2012				2013				2014				2015				2016			
Priority Level / **Repair Expected**	I Within 1 week	II Within 1 year	III Within 3 years	IV	I Within 1 week	II Within 1 year	III Within 3 years	IV	I Within 1 week	II Within 1 year	III Within 3 years	IV	I Within 1 week	II Within 1 year	III Within 3 years	IV	I Within 1 week	II Within 1 year	III Within 3 years	IV
Overhead Facilities																				
Repaired in Time Frame	107	1,728	9,621	2,673	161	1,565	4,681	1,754	139	1,414	2,110	950	136	1,062	709	284	212	479	499	197
Repaired - Overdue	46	726	1,722	0	23	84	424	0	1	589	0	0	35	542	0	0	26	0	0	0
Not Repaired - Not Due	0	0	0	25,294	0	0	0	15,617	0	0	1,784	10,043	0	0	2,811	7,162	4	4,050	5,032	8,390
Not Repaired - Overdue	0	0	716	0	0	6	1,408	0	0	150	0	0	0	702	0	0	0	0	0	0
Total Overhead Facilities	**153**	**2,454**	**12,059**	**27,967**	**184**	**1,655**	**6,513**	**17,371**	**140**	**2,153**	**3,894**	**10,993**	**171**	**2,306**	**3,520**	**7,446**	**242**	**4,529**	**5,531**	**8,587**
Underground Facilities																				
Repaired in Time Frame	0	5	5	1	22	31	50	2	15	5	37	25	11	7	9	23	26	6	10	1
Repaired - Overdue	0	0	2	0	21	4	0	0	9	15	0	0	6	8	0	0	1	0	0	0
Not Repaired - Not Due	0	0	0	8	0	0	0	112	0	0	146	121	0	0	43	652	0	28	110	440
Not Repaired - Overdue	0	0	2	0	0	0	28	0	0	30	0	0	0	15	0	0	0	0	0	0
Total Underground Facilities	**0**	**5**	**9**	**9**	**43**	**35**	**78**	**114**	**24**	**50**	**183**	**146**	**17**	**30**	**52**	**675**	**27**	**34**	**120**	**441**
Pad Mount Facilities																				
Repaired in Time Frame	16	33	335	26	33	15	45	8	16	29	29	3	25	16	7	3	16	1	0	0
Repaired - Overdue	7	2	71	0	7	3	2	0	4	7	0	0	9	1	0	0	2	0	0	0
Not Repaired - Not Due	0	0	0	346	0	0	0	132	0	0	23	36	0	0	24	34	0	14	25	13
Not Repaired - Overdue	0	0	120	0	0	2	12	0	0	5	0	0	0	7	0	0	0	0	0	0
Total Pad Mount Facilities	**23**	**35**	**526**	**372**	**40**	**20**	**59**	**140**	**20**	**41**	**52**	**39**	**34**	**24**	**31**	**37**	**18**	**15**	**25**	**13**
Streetlight Facilities																				
Repaired in Time Frame	0	6	17	0	0	2	63	1	0	0	5	7	0	1	0	0	0	1	0	0
Repaired - Overdue	0	0	0	0	0	0	2	0	0	0	0	0	0	1	0	0	0	0	0	0
Not Repaired - Not Due	0	0	0	7	0	0	0	30	0	0	16	76	0	0	6	24	0	2	2	1
Not Repaired - Overdue	0	0	0	0	0	2	116	0	0	1	0	0	0	7	0	0	0	0	0	0
Total Streetlight Facilities	**0**	**6**	**17**	**7**	**0**	**4**	**181**	**31**	**0**	**1**	**21**	**83**	**0**	**9**	**6**	**24**	**0**	**3**	**2**	**1**
Transmission Facilities																				
Repaired in Time Frame	2	69	498	71	1	17	388	1	5	17	117	17	5	64	30	0	0	51	120	6
Repaired - Overdue	0	27	58	0	0	2	14	0	0	41	0	0	2	6	0	0	0	0	0	0
Not Repaired - Not Due	0	0	0	506	0	0	0	128	0	0	628	243	0	0	937	158	0	364	619	234
Not Repaired - Overdue	0	0	143	0	0	2	432	0	0	44	0	0	0	161	0	0	0	0	0	0
Total Transmission Facilities	**2**	**96**	**699**	**577**	**1**	**21**	**834**	**129**	**5**	**102**	**745**	**260**	**7**	**231**	**967**	**158**	**0**	**415**	**739**	**240**

Appendix 4a

NYSEG Summary of Deficiencies and Repair Activity Resulting from the Inspection Process

Year	Priority Level / Repair Expected		Deficiencies Found (Total)	Repaired In Time Frame	Repaired - Overdue	Not Repaired - Not Due	Not Repaired - Overdue
2012							
	I	Within 1 week	**178**	125	53	0	0
	II	Within 1 year	**2,596**	1,841	755	0	0
	III	Within 3 years	**13,310**	10,476	1,853	0	981
	IV	N/A	**28,932**	2,771	n/a	26,161	n/a
2013							
	I	Within 1 week	**268**	217	51	0	0
	II	Within 1 year	**1,735**	1,630	93	0	12
	III	Within 3 years	**7,665**	5,227	442	0	1,996
	IV	N/A	**17,785**	1,766	n/a	16,019	n/a
2014							
	I	Within 1 week	**189**	175	14	0	0
	II	Within 1 year	**2,347**	1,465	652	0	230
	III	Within 3 years	**4,895**	2,298	0	2,597	0
	IV	N/A	**11,521**	1,002	n/a	10,519	n/a
2015							
	I	Within 1 week	**229**	177	52	0	0
	II	Within 1 year	**2,600**	1,150	558	0	892
	III	Within 3 years	**4,576**	755	0	3,821	0
	IV	N/A	**8,340**	310	n/a	8,030	n/a
2016							
	I	Within 1 week	**287**	254	29	4	0
	II	Within 1 year	**4,996**	538	0	4,458	0
	III	Within 3 years	**6,417**	629	0	5,788	0
	IV	N/A	**9,282**	204	n/a	9,078	n/a

Appendix 5

NYSEG Temporary Repair Exceptions

Structure Type	Priority	Inspection Date	Due Date	Functional Location	Temporary Repair	Justification
DISTRIBUTION	Level 2	2/9/2016	5/9/2016	9301-L1123-0900-0011-ED00066	Rope tied in as guy wire for leaning pole	Completed on January 31, 2017
DISTRIBUTION	Level 2	7/27/2016	10/27/2016	9301-L0315-5634-0070-ED00058	Pole brace	Temporary repairs have been made, secured the pole, this is in made safe condition. A line has been built to relocate the feed for this area. Final connections require an outage to over 1500 customers. Once the outage is scheduled a new pole will be installed and the conductor placed on that new pole. Due to high voltage working distance regulations, the new pole can not be installed until the line is de-energized.
DISTRIBUTION	Level 2	9/1/2016	12/1/2016	9301-L0729-4910-0003-ED00004	Guy wire tied to tree with rope	Scheduled for permanent repair before February 6, 2017
DISTRIBUTION	Level 2	9/7/2016	12/7/2016	9301-L0729-4910-0068-ED00019	Pole tied off with rope	Scheduled for permanent repair before February 6, 2017
DISTRIBUTION	Level 2	9/8/2016	12/8/2016	9301-L0723-4910-0109-ED00023	Pole tied off with rope	Scheduled for permanent repair before February 6, 2017
DISTRIBUTION	Level 2	2/19/2016	5/19/2016	9301-L0230-0916-0063-ED00003	Guy wire tied to tree with rope	Scheduled for permanent repair before February 6, 2017

CERTIFICATION
[FACILITY INSPECTIONS]

STATE OF MAINE)
) ss.:
COUNTY OF Kennebec)

Douglas A. Herling, on this 8 day of FEBRUARY 2017, certifies as follows:

1. I am the Vice President, Electric Operations of New York State Electric & Gas (the "Company"), and in that capacity I make this Certification for the annual period ending December 31st, 2016 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, March 22, 2013, and January 13, 2015 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").

3. 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, 2016 (the "Twelve-Month Period"). I hereby certify that the utility has exercised due diligence in carrying out a plan designed to meet the inspection requirements, including quality assurance, and, to the best of my knowledge, the utility has inspected the requisite number of electric facilities. In addition, the utility has inspected all of its electric facilities during the previous five year period, except those identified in the Annual Report.

Douglas A. Harlan

Sworn to before me this 8 day of February, 2017

Notary Public: John M Gaudet

Exhibit 1

CERTIFICATION
[STRAY VOLTAGE TESTING]

STATE OF MAINE)
) ss.:
COUNTY OF Kennebec)

Douglas A. Herling, on this 8 day of FEBRUARY 2017 certifies as follows:

1. I am the Vice President, Electric Operations of New York State Electric & Gas (the "Company"), and in that capacity I make this Certification for the annual period ending December 31st, 2016 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, March 22, 2013 and January 13, 2015 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 31st, 2016 (the "Twelve-Month Period").

4. I hereby certify that the Company exercised due diligence in carrying out a plan designed to meet the stray voltage testing requirements, including quality assurance, and, to the best of my knowledge, the Company has tested all of its publically accessible electric facilities and streetlights, except those identified in the Annual Report. 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.

Douglas A. Hurley

Sworn to before me this 8 day of February, 2017

Notary Public: John M Guedel

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, 2016

Table of Contents

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, July 21, 2010 and January 13, 2015 (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 (URD), and substation fences for stray voltage every five years coinciding with their electric facility inspections.

This report describes the Rochester Gas and Electric Stray Voltage Detection Program, the Mobile Stray Voltage Program, and the Facility Inspection Program conducted in 2016.

II. Company Overview

RG&E, a subsidiary of AVANGRID serves approximately 373,000 electricity customers and 309,000 natural gas customers in a nine-county region centered on the City of Rochester.

RG&E's electric delivery infrastructure consists of approximately 226,996 distribution structures, 17,568 transmission structures, 50,571 underground/URD facilities, 153 substations, and 9,168 streetlight facilities.

III. Stray Voltage Testing Program

During the 12-month period ending December 31, 2016, 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 approximately 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 their system components identified with elevated voltage.

In accordance with the Order, RG&E:

a. Immediately safeguarded and/or mitigated all voltage findings ≥ 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 ≥ 1.0 volt.

c. Responded, investigated, and mitigated positive findings of shock incidents reported by the public.

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 104,086 facilities visited, 507 were deemed Inaccessible to the public. As described below, there are several types of Inaccessible structures:

a. Private Property – 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. RG&E Property – Structure located on Company property, such as substations, are accessible only to Company personnel and authorized contractors.
c. Buried / Paved Over – 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.
d. Inside Building –The structure was not tested if it is customer owned equipment inside a building, in a locked equipment room, that is accessible to authorized personnel only.
e. Limited Access Highways – Structures located on highways, exit and entrance highway ramps. The performance of stray voltage testing would constitute an unacceptable risk to the employee/contractor.
f. Dangerous Terrain – Poles located on cliffs and other dangerous terrain are generally inaccessible to personnel and are approached only under urgent circumstances. The performance of stray voltage testing would constitute an unacceptable risk to the employee/contractor.

As required by the Safety Standards, RG&E completed its annual mobile stray voltage scan of the underground network within the City of Rochester in 2016. The report on results from the mobile scan filed with the Public Service Commission in July can be found in Appendix 5 of this report.

IV. Stray Voltage Testing Facilities

Structure Categories

As presented in Appendix 1, RG&E visited a total of 104,086 individual facilities in 2016. Of the 104,086 facilities visited, 18,739 facilities did not require stray voltage testing because these structures and their associated equipment are non-metallic and incapable of conducting electricity. Additionally, 507 facilities were deemed inaccessible. As a result, approximately 84,840 facilities required testing for the presence of stray voltage. These facilities are broken down into five main categories including:

Distribution Overhead – Of the 48,811 facilities visited there are approximately 30,662 distribution pole structures that required 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.

Underground Facilities – Of the 28,653 facilities visited there are approximately 28,196 underground facilities that required 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 – Of the 23,696 facilities visited there are approximately 12,071 metallic street lights and approximately 11,423 traffic signals within RG&E's service territory that required 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. All Company-owned streetlights are included in the facility inspection program.

Transmission Structures – Of the 2,894 facilities visited there are approximately 2,457 individual poles/towers that required 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.

Substations – There are approximately 153 substation fences in RG&E's territory tested for the presence of stray voltage every five years. Of the 32 substations visited this year 31 required testing for the presence of stray voltage.

V. Analysis of Causes of Findings and Stray Voltage

All New York State utilities maintain an inventory on all findings and report on the number of these findings each year. Section 1(f) of the 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."

Generally, there are two types of reported findings;

The first is 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.

The second type is 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. Transmission structures in the absence of apparent damage to the structure grounding system typically are found having an induced voltage deemed normal to operating conditions. 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.

Utilities are required to report on all findings, regardless of whether or not the voltage is abnormal or normal to operating conditions. Causes of these findings can be found in Appendix 1 and 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.

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. A summary of energized objects included as Appendix 2 in this report displays the voltage ranges found for each stray voltage condition encountered this year.

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 there were no energized objects reported within a 30 foot radius of any stray voltage finding.

VI. 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:

Level I – 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.

Level II – 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.

Level III – 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.

Level IV – 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 2016, RG&E has no temporary repair exceptions to report.

VII. Annual Inspection 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 an average of 20% of the overhead distribution facilities, overhead and underground transmission facilities, underground residential distribution facilities, and substation fences per year, over the five year term 2015-2019 for the period ending December 31, 2016.

In addition, in compliance with the Safety Standards, RG&E has met the second year annual performance target for inspection of its electric facilities for the period ending December 31, 2016; thus continuing the third cycle.

The results are summarized in the table below.

Facility Inspection Program Results

Category	**2016 RG&E Inspection Target**	**Actual Cumulative Inspected as of 2016**
Overhead Distribution	20%	43%
Overhead Transmission	20%	33%
Underground	20%	22%
Padmounts	20%	49%
Streetlight	20%	23%

5-Year Inspection Performance Summary

Overhead Distribution Facilities

Inspection Year	Number of Overhead Distribution Structures Inspected	% of Overall System Inspected (Cumulative in Five Year Cycle 2015-2019)
2015	49,407	22%
2016	49,032	43%
2017		
2018		
2019		

Overhead Transmission Facilities

Inspection Year	Number of Overhead Transmission Facilities Inspected	% of Overall System Inspected (Cumulative in Five Year Cycle 2015-2019)
2015	2,581	15%
2016	3,160	33%
2017		
2018		
2019		

Underground Facilities

Inspection Year	Number of Underground Facilities Inspected	% of Overall System Inspected (Cumulative in Five Year Cycle 2015-2019)
2015	2,784	11%
2016	2,835	22%
2017		
2018		
2019		

Pad-mount Facilities

Inspection Year	Number of Underground Facilities Inspected	% of Overall System Inspected (Cumulative in Five Year Cycle 2015-2019)
2015	5,024	20%
2016	7,021	49%
2017		
2018		
2019		

Streetlights

Inspection Year	Number of Streetlights Inspected	% of Overall System Inspected (Cumulative in Five Year Cycle 2015-2019)
2015	1,610	18%
2016	461	23%
2017		
2018		
2019		

VIII. Analysis of Inspection Results

Overhead Distribution Structures

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
49,032	4,045	8.25%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	32	.79%
2	1,005	24.84%
3	1,545	38.20%
4	1,463	36.17%
Total:	4,045	100%

Overhead Transmission Facilities

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
3,160	486	15.38%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	0	0%
2	20	4.12%
3	417	85.80%
4	49	10.08%
Total:	486	100%

Underground Facilities

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
2,835	203	10.69%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	4	1.97%
2	56	27.59%
3	105	51.72%
4	38	18.72%
Total:	203	100%

Pad-mounts

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
7,021	97	1.38%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	18	18.56%
2	18	18.56%
3	16	16.49%
4	45	46.39%
Total:	97	100%

Streetlights

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
461	1	.22%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	0	0%
2	0	0%
3	0	0%
4	1	100%
Total:	1	100%

In 2016, a total of 4,832 Level I – IV deficiencies were identified out of the 62,509 scheduled inspections representing a deficiency rate of about 7.73% of the unique inspections performed. As described by the Safety Standards, Level IV conditions represent "Condition[s] 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 should be used for future monitoring purposes and planning proactive maintenance activities." (Safety Standards Section 4 (j)). By excluding these atypical conditions focusing only on the 3,236 Level I - III deficiencies results in a deficiency rate of 5.18% which is a more accurate representation.

IX. QA/QC Programs

Overhead Transmission and Distribution, Streetlights, and Underground inspections were performed using a Field Workforce Mobility (FWM) Toughbook. The FWM Toughbooks are portable tablet computers with pre-loaded software that displays all assets to be inspected and includes pre-formatted inspection pick tables the inspectors use to document individual inspections. The FWM 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 FWM Toughbook, and the resulting data is uploaded into the Company SAP system.

Notifications are automatically generated from the deficiencies uploaded into the SAP system. Any structure reported as inaccessible due to being buried or paved over in the Field Workforce Mobility (FWM) application is turned in to Maintenance Engineering for verification with the Maps and Records Department. If Maps and Records confirm that the structure does exist, company and contractor crews follow up and attempt to locate, uncover, and inspect/test the structure. If the structure could not be found, it was then considered removed from the field, and updated as such in SAP, our system of record. The company routinely monitors these notifications to report status of the program and track any follow-up repairs.

Stray Voltage Testing QA/QC Program

Stray voltage testing data is acquired through three means. The first is in conjunction with a distribution line or transmission line (DLI/TLI) facility inspection where a stray voltage test is performed at the same time an inspector is doing an inspection. Stray voltage test data is stored on the FWM Toughbook and is uploaded weekly along with inspection data.

Test Data with Inspections

Stray voltage tests are conducted on all distribution and transmission facilities and underground residential distribution facilities scheduled for inspection. Since the testing is done at the same time of inspection, test records are linked to the inspection record assuring a test for each asset.

Inspectors upload this test data into SAP each week. Upon receipt of these files, QA/QC personnel verify not only every inspected asset has a test record but also all the required data fields are populated accurately.

The second means is in conjunction with the annual obligation to test all streetlights, traffic signal equipment, and underground manhole and handhole facilities. This testing data is also captured on the FWM Toughbook device. Similar to DLI/TLI Inspections, the Stray Only testing is upload from the FWM device into the SAP system weekly.

Stray Only Test Data

Stray voltage tests are conducted on all streetlights, traffic signal equipment, and underground manholes and handhole facilities. These are also captured on the FWM device and uploaded weekly to SAP. Upon receipt of the data, QA/QC personnel verify the consistency, completeness and accuracy of this testing data.

The third means is through our mobile testing effort where data is acquired and tracked in a database system managed by the mobile testing vendor. The mobile testing vendor submits critical findings to the Company on a daily basis and detailed finding information weekly in the form of batches.

Mobile Testing Data

Prior to the mobile scan of the City of Rochester, RG&E provides the vendor with specific locations within the City they are to mobile scan. All data is collected by the mobile vendor in a database system and submitted to RG&E in a specific format. RG&E QA/QC personnel assure that all specified locations are scanned and all critical findings are collected and documented correctly.

At the end of each year, QA/QC personnel check company asset records to gather any new installations constructed in the current year. This evaluation allows us to identify any new structures which are included in the testing contractor's scope to obtain.

On an ongoing basis, RG&E performs additional 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 necessary, problem areas are retested in order to ensure testing accuracy.

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.

Facility Inspections QA/QC Program

A thorough review of inspection data is made by QA/QC personnel to evaluate the effectiveness of the following three primary focus areas.

Focus Area 1- Ensure all planned inspections (that make up the 20% obligation) developed for the current year are performed. To do this, a 5 year plan is established for each cycle which details what transmission and distribution circuits, and accompanying assets, are scheduled for any given year. This plan assures that all circuits are scheduled and any given year's asset count is balanced to the 20% goal. The scope of the inspection plan is communicated to the inspector contractor through data on the FWM toughbook. Inspection results are returned to the company each week. QA/QC personnel review progress to validate all planned inspections are made.

Focus Area 2 - Ensure inspector's evaluation of asset condition is accurate, consistent, and performed in accordance with established procedures and applicable training manuals. To do this, QA/QC personnel conduct two types of assessments.

Field Assessments

In the field review QA/QC personnel are given a list of assets to visit and inspect. This asset list consists of recent inspections made by our inspection contractor and the QA/QC personnel are unaware of the reported results. The QA/QC personnel independently inspect the assets and record their result. The results are then compared and any inconsistencies are discussed at the weekly meeting with the inspection contractor. Meeting Minutes and a Communication Log is used to document reporting decisions.

Internal Assessments

This review looks at deficiencies reported by the inspection contractor. All reported Level 1 – 3 deficiencies have photographs attached. QA/QC personnel review deficiencies and their pictures to assert the accuracy of the reported problem and assigned priority. Any problems noted from this focus area are communicated back to the inspectors for correction. A total of 2,122 pictures were reviewed with 2,100 deemed accurately reported, resulting in a 99% confidence level.

In 2016, in an effort to improve the overall confidence level of reported deficiencies, a new "weekly look back" QAQC process was added. Each week QAQC personnel review inspection results uploaded by the inspection contractor from the previous week. Structures reported with no deficiency are compared to open notifications within the SAP system for these same structures. Any discrepancies are given back to the inspection contractors to review and to

confirm if the open deficiency has been repaired or if it was missed by the inspector. If it was verified as repaired, then the outstanding open deficiency is marked as such and closed. If it is found to still be a deficiency, the notification is marked with the appropriate level and the inspector is notified of their mistake. This helps improve the overall consistency and accuracy of the inspections.

Additionally, QA/QC personnel review all inaccessible inspections from the past week and provide contact information to the inspection supervisor. This enables the supervisor to contact the owner, explain the importance of the program and to coordinate a revisit the following week while the inspectors are still in the general area.

Focus Area 3 – Ensure all reported repairs made on deficiencies found, as a result of the inspection program are completed. QA/QC personnel select a sample set of reported deficiencies and associated repairs made throughout each division. This sample set is given to the QA/QC personnel to be field verified. QA/QC personnel visit each specific asset and validate whether the reported repair work has been made. Any issues found with this effort are communicated back to company personnel for follow-up action. QA/QC personnel visited 110 locations to verify repairs and were agreeable with 105, a 95% confidence level.

X. 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.

Appendix 1

Stray Voltage Testing Summary

RG&E	2016 Targets	Units Completed	Percent Completed	Units with Voltage Found (>= 1.0v)	Percent of Units Tested with Voltage (>= 1.0v)	Units Classified as Inaccessible
Distribution Facilities	**46,257**	48,811	106%	0	0.000%	64
Underground Facilities	**27,955**	28,653	102%	0	0.000%	314
Street Lights / Traffic Signals	**23,696**	23,696	100%	1	0.004%	87
Substation Fences	**30**	32	107%	0	0%	0
Overhead Transmission	**3,115**	2,894	93%	22	0.760%	42
TOTAL	**101,053**	104,086	103%	23	0.022%	507

* 100% of all underground manholes and handholes were tested as required

Appendix 2

Summary of Energized Objects

	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	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	1	0	0	**1**	1	0	0
Metal Street Light Pole	1	0	0	1	1	0	0
Traffic Signal Pole				0			
Pedestrian Crossing Pole				0			
Traffic Control Box				0			
Other				0			
Substation Fences	0	0	0	**0**	0	0	0
Fence				0			
Other				0			
Transmission (Total)	8	14	0	**22**	7	0	0
Lattice Tower				0			
Pole				0			
Ground	6	14	0	20	7	0	0
Guy	2	0	0	2	0	0	0
Other				0			
Miscellaneous Facilities	0	0	0	**0**	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/Cap				0			
Riser				0			
Other				0			

Appendix 3

Summary of Shock Reports from the Public

	Data collected as of December 31, 2016	Yearly Total
I.	**Total Shock Calls Received:**	**10**
	Unsubstantiated	2
	Normally Energized Equipment	1
	Stray Voltage:	**7**
	Person	7
	Animal	0
II.	**Injuries Sustained/Medical Attention Received:**	**2**
	Person	2
	Animal	0
III.	**Stray Voltage Source:**	**7**
	Utility Responsibility (Total)	**0**
	Overhead Distribution System	0
	Underground Distribution System	0
	Transmission System	0
	Other Utility/Gov't Agency (Total)	**0**
	Streetlight	0
	Other (Total)	0
	Customer Responsibility (Total)	**7**
IV.	**Stray Voltage Range:**	**7**
	1.0V to 4.4V	0
	4.5V to 24.9V	0
	25V and above	0
	Unknown	7

Appendix 4

Rochester Gas and Electric

Annual Summary of Deficiencies and Repair Activity Resulting from the Inspection Process

As of December 31, 2016

Detail of Deficiences by Facilities	2012				2013				2014				2015				2016			
Priority Level / **Repair Expected**	**I Within 1 week**	**II Within 1 year**	**III Within 3 years**	**IV**	**I Within 1 week**	**II Within 1 year**	**III Within 3 years**	**IV**	**I Within 1 week**	**II Within 1 year**	**III Within 3 years**	**IV**	**I Within 1 week**	**II Within 1 year**	**III Within 3 years**	**IV**	**I Within 1 week**	**II Within 1 year**	**III Within 3 years**	**IV**
Overhead Facilities																				
Repaired in Time Frame	15	189	958	45	30	541	695	73	26	307	854	81	33	411	1,033	501	20	51	56	462
Repaired - Overdue	1	0	90	0	5	122	170	0	0	329	1	0	14	275	0	0	11	0	0	0
Not Repaired - Not Due	0	0	0	2,617	0	0	0	2,359	0	0	108	2,374	0	0	826	1,123	1	954	1,489	1,001
Not Repaired - Overdue	0	0	13	0	0	2	69	0	0	14	0	0	0	72	0	0	0	0	0	0
Total Overhead Facilities	**16**	**189**	**1,061**	**2,662**	**35**	**665**	**934**	**2,432**	**26**	**650**	**963**	**2,455**	**47**	**758**	**1,859**	**1,624**	**32**	**1,005**	**1,545**	**1,463**
Underground Facilities																				
Repaired in Time Frame	2	57	30	0	1	10	59	17	2	44	9	0	1	13	49	68	2	1	7	24
Repaired - Overdue	1	6	0	0	0	4	0	0	1	34	0	0	2	20	0	0	0	0	0	0
Not Repaired - Not Due	0	0	0	6	0	0	0	7	0	0	49	14	0	0	72	23	2	55	98	14
Not Repaired - Overdue	0	12	1	0	0	4	8	0	0	7	0	0	0	13	0	0	0	0	0	0
Total Underground Facilities	**3**	**75**	**31**	**6**	**1**	**18**	**67**	**24**	**3**	**85**	**58**	**14**	**3**	**46**	**121**	**91**	**4**	**56**	**105**	**38**
Pad Mount Facilities																				
Repaired in Time Frame	4	18	140	10	11	12	18	2	19	8	18	0	14	4	15	13	14	0	2	38
Repaired - Overdue	2	2	39	0	2	0	0	0	7	1	0	0	1	1	0	0	2	0	0	0
Not Repaired - Not Due	0	0	0	211	0	0	0	31	0	0	8	11	0	0	5	1	2	18	14	7
Not Repaired - Overdue	0	2	4	0	0	0	2	0	0	1	0	0	0	4	0	0	0	0	0	0
Total Pad Mount Facilities	**6**	**22**	**183**	**221**	**13**	**12**	**20**	**33**	**26**	**10**	**26**	**11**	**15**	**9**	**20**	**14**	**18**	**18**	**16**	**45**
Streetlight Facilities																				
Repaired in Time Frame	0	0	0	0	0	0	1	0	0	0	0	0	0	0	4	13	0	0	0	0
Repaired - Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0
Not Repaired - Not Due	0	0	0	0	0	0	0	7	0	0	0	27	0	0	3	0	0	0	0	1
Not Repaired - Overdue	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Total Streetlight Facilities	**0**	**0**	**0**	**0**	**0**	**0**	**1**	**7**	**0**	**0**	**0**	**27**	**0**	**1**	**7**	**13**	**0**	**0**	**0**	**1**
Transmission Facilities																				
Repaired in Time Frame	0	15	37	0	0	3	48	0	0	9	81	0	1	12	13	0	0	1	9	6
Repaired - Overdue	0	0	0	0	0	4	49	0	0	0	0	0	0	5	0	0	0	0	0	0
Not Repaired - Not Due	0	0	0	128	0	0	0	5	0	0	237	95	0	0	137	36	0	19	408	43
Not Repaired - Overdue	0	0	5	0	0	0	2	0	0	0	0	0	0	4	0	0	0	0	0	0
Total Transmission Facilities	**0**	**15**	**42**	**128**	**0**	**7**	**99**	**5**	**0**	**9**	**318**	**95**	**1**	**21**	**150**	**36**	**0**	**20**	**417**	**49**

Appendix 4a

RG&E Summary of Deficiencies and Repair Activity Resulting from the Inspection Process

Year	Priority Level / Repair Expected		Deficiencies Found (Total)	Repaired In Time Frame	Repaired - Overdue	Not Repaired - Not Due	Not Repaired - Overdue
2012							
	I	Within 1 week	**25**	21	4	0	0
	II	Within 1 year	**301**	279	8	0	14
	III	Within 3 years	**1,317**	1,165	129	0	23
	IV	N/A	**3,017**	55	n/a	2,962	n/a
2013							
	I	Within 1 week	**49**	42	7	0	0
	II	Within 1 year	**702**	566	130	0	6
	III	Within 3 years	**1,121**	821	219	0	81
	IV	N/A	**2,501**	92	n/a	2,409	n/a
2014							
	I	Within 1 week	**55**	47	8	0	0
	II	Within 1 year	**754**	368	364	0	22
	III	Within 3 years	**1,365**	962	1	402	0
	IV	N/A	**2,602**	81	n/a	2,521	n/a
2015							
	I	Within 1 week	**66**	49	17	0	0
	II	Within 1 year	**835**	440	302	0	93
	III	Within 3 years	**2,157**	1,114	0	1,043	0
	IV	N/A	**1,778**	595	n/a	1,183	n/a
2016							
	I	Within 1 week	**54**	36	13	5	0
	II	Within 1 year	**1,099**	53	0	1,046	0
	III	Within 3 years	**2,083**	74	0	2,009	0
	IV	N/A	**1,596**	530	n/a	1,066	n/a

Appendix 5

RG&E Report of Findings from the Mobile Detection Program

Catherine Driscoll
Analyst, Regulatory Administration

July 5, 2016

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 10-E-0271 – In the Matter of Examining the Mobile Testing Requirements of the Electric Safety Standards.

Dear Secretary Burgess:

Pursuant to the Public Service Commission's *Order Requiring Additional Mobile Stray Voltage Testing* ("Order"), in Case 10-E-0271, issued and effective July 21, 2010; Rochester Gas and Electric ("RG&E") submits its 2016 Mobile Stray Voltage Testing Report.

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

Respectfully submitted,

Catherine Driscoll

Catherine Driscoll

Enclosure

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Rochester Gas and Electric

Report of Findings from the 2016 Mobile Detection Program Case 10-E-0271

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 and June 23, 2011; Rochester Gas and Electric ("RG&E") submits its 2016 Mobile Stray Voltage Testing Results.

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 (2016) marks the eighth 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 2016 mobile stray voltage testing effort.

The Mobile Scan of Rochester

Mobile testing commenced on April 25, 2016 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 advance 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 through various QA/QC reviews by RG&E.

Mobile Testing Process

Power Survey scanned all identified city streets using their SVD2000 mobile system and upon detecting an electric field stopped the vehicle to investigate, identify, measure, and properly document any stray voltage 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 and an electrician. The Field Coordinators accompanied the Power Survey crew throughout the testing effort monitoring the mobile testing activities and collecting GPS data. GPS data was used to document nightly progress, and provide positional attributes to structures with detected voltages aiding in analysis and follow-up repairs. The Field Coordinators also collected independent data on all detections, ensured all documented voltage reads were accurate, and with the electrician, made sure all findings equal to or greater than 4.5 volts were immediately made safe.

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:

2016 Mobile Testing Summary of Events		
Total Number of Events	128	
Below 4.5 Volts	96	75%
Greater or Equal to 4.5 And Less Than 25 Volts	23	18%
Greater or Equal to 25 Volts	9	7%

Of the 128 findings resulting from the 2016 mobile scan 75% of the energized objects were detected 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 and/or the property owner was contacted.

Observations

This year's results show that the majority of energized objects found are on streetlights and traffic signal equipment owned by other Municipalities including the City of Rochester and Monroe County.

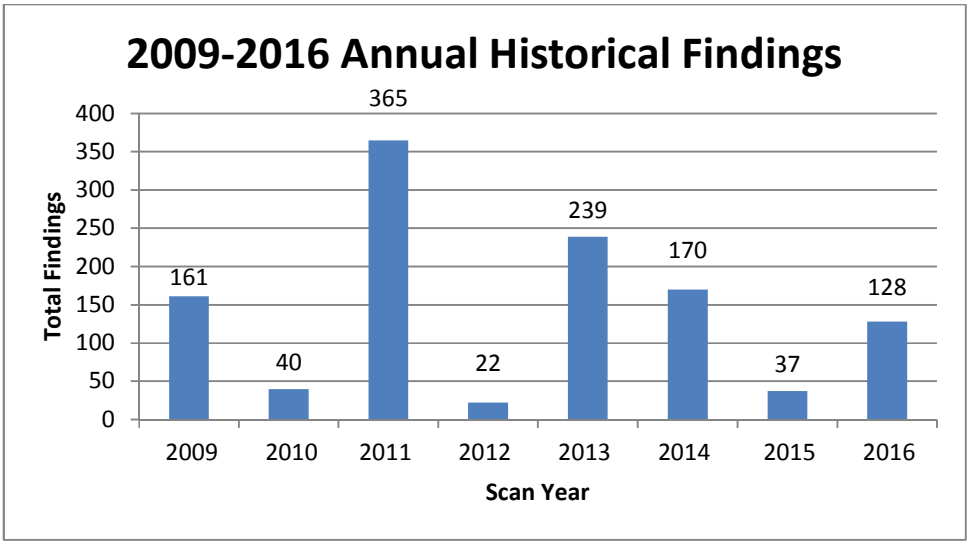
The results of this year's scan show an increase of 91 energized objects compared to what was found last year. This year's scan was completed in the Spring versus the Fall scan last year. Variations in environmental conditions could have contributed to the increase in energized objects. Upon analyzing the 128 objects it was found that the number of discrete detections is 105. The residual detections were found energized in connection with another object and discovered as a result of the 30 foot radius testing.

Historical Costs and Detections for Mobile Testing

The table below lists historical costs incurred from the mobile testing provider, and an equivalent cost if manual testing were performed for the same area, in accordance with the current Electric Safety Standards Order 04-M-0159.

Test Year	Total Number of Detections	Mobile Program Cost	Associated Cost to Manually Test
2016	128	$145,355	$97,880
2015	37	$140,440	$97,880
2014	170	$133,752	$97,880
2013	239	$117,984	$97,880
2012	22	$46,897	$97,567
2011	365	$80,000	$129,000
2010	40	$93,000	$129,000
2009	161	$520,000	$135,000

The graph below illustrates the trend of findings from inception of the Mobile Testing program to the current year.



Historical Findings by Structure Type (cumulative)	
Streetlights	875
Traffic Signals	164
Underground	28
Other	95

Following completion of this year's scan both Municipalities and private property owners have been notified of all findings on their assets, and of their responsibility for follow-up, mitigation, and repair. Specifically, there are three findings between 1 and 5.5 volts that remain to be repaired by the City of Rochester. RG&E notified them on May 17th and June 23rd, 2016 that these require immediate remediation if they have not yet been repaired. All repair activities should continue to be conducted during the night hours to ensure appropriate investigation and remediation. RG&E will continue to monitor all final repairs to encourage and support a timely completion.

A detailed summary of energized objects found during the 2016 mobile testing effort and the status of repairs can be viewed in the Appendix of this report. Out of the 128 detected objects, 125 repairs have been made to date and all RG&E owned equipment has been mitigated.

APPENDIX

2016 Mobile Summary of Energized Objects

RG&E		Initial Readings				Readings after Mitigation		
		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		**7**	**3**	**0**	**10**	**8**	**2**	**0**
	Handhole	5	3	0	8	7	1	
	Manhole	2	0	0	2	1	1	
	Padmount Switchgear				0			
	Padmount Transformer				0			
	Vault-Cover/Door				0			
	Pedestal				0			
	Other				0			
Street Lights/Traffic Signals		**73**	**18**	**8**	**99**	**99**	**0**	**0**
	Metal Street Light Pole	63	14	8	85	85		
	Traffic Signal Pole	4	2	0	6	6		
	Pedestrian Crossing Pole				0			
	Traffic Control Box	6	2	0	8	8		
	Other				0			
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		**16**	**2**	**1**	**19**	**11**	**5**	**0**
	Sidewalk				0			
	Gate/Fence/Awning				0			
	Control Box				0			
	Scaffolding				0			
	Bus Shelter				0			
	Fire Hydrant	2	0	0	2	1	1	
	Phone Booth				0			
	Water Pipe (Cap)	2	0	0	2	2		
	Riser				0			
	Other	12	2	1	15	8	4	
Totals		**96**	**23**	**9**	**128**	**118**	**7**	**0**

CERTIFICATION
[FACILITY INSPECTIONS]

STATE OF MAINE)
) ss.:
COUNTY OF Kennebec)

Douglas A. Herling, on this 8 day of February 2017, certifies as follows:

1. I am the Vice President, Electric Operations of Rochester Gas and Electric (the "Company"), and in that capacity I make this Certification for the annual period ending December 31st, 2016 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, March 22, 2013 and January 13, 2015 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").

3. 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, 2016 (the "Twelve-Month Period").

4. I hereby certify that the utility has exercised due diligence in carrying out a plan designed to meet the inspection requirements, including quality assurance, and, to the best of my knowledge, the utility has inspected the requisite number of electric facilities. In addition, the utility has inspected all of its electric facilities during the previous five year period, except those identified in the Annual Report.

Douglas A. Herling

DOUGLAS A. HERLING

Sworn to before me this 8 day of February, 2017

Notary Public: John Gaudet

Exhibit 1

CERTIFICATION
[STRAY VOLTAGE TESTING]

STATE OF MAINE)
) ss.:
COUNTY OF Kennebec)

Douglas A. Herling, on this 8 day of FEBRUARY 2017 certifies as follows:

1. I am the Vice President, Electric Operations of Rochester Gas and Electric (the "Company"), and in that capacity I make this Certification for the annual period ending December 31st, 2016 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, March 22, 2013 and January 13, 2015 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 31st, 2016 (the "Twelve-Month Period").

4. I hereby certify that the Company exercised due diligence in carrying out a plan designed to meet the stray voltage testing requirements, including quality assurance, and, to the best of my knowledge, the Company has tested all of its publically accessible electric facilities and streetlights, except those identified in the Annual Report. 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.

Douglas A. Herling

DOUGLAS A. HERLING

Sworn to before me this 8 day of February, 2017

Notary Public: John M Gaudet