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, 2019

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, 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 Corporation ("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 NYSEG's Stray Voltage Detection Program and Facility Inspection Program conducted in 2019.

II. Company Overview

NYSEG, a subsidiary of AVANGRID serves approximately 902,500 electricity customers and 268,800 natural gas customers across more than 40% of upstate New York.

NYSEG's electric delivery infrastructure consists of approximately 833,630 distribution structures, 61,988 transmission structures, 60,812 underground/URD facilities, 435 substations, and 11,840 streetlight facilities.

III. Stray Voltage Testing Program

During the 12-month period ending December 31, 2019, 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 18% 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 ≥ 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 208,757 facilities visited, 2,330 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 208,757 individual facilities in 2019. Of the 208,757 facilities visited, 45,011 did not require stray voltage testing because these structures and their associated equipment are non-metallic and incapable of conducting electricity. Additionally, 2,330 facilities were deemed inaccessible to the public. As a result, approximately 161,416

facilities required testing for the presence of stray voltage. These facilities are broken down into five main categories including:

Distribution Overhead – Of the 147,578 facilities visited, there are approximately 103,063 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 8,518 facilities visited there are approximately 8,209 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 34,530 facilities visited, there are approximately 17,032 metallic street lights and approximately 16,989 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 17,916 facilities visited, there are approximately 15,908 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 that require testing for the presence of stray voltage every five years. 215 substation fences were tested or recorded under this program throughout this cycle year.

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 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 2019, NYSEG had no open temporary repair exceptions to report at the end of the year.

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 approximately 20% of the overhead distribution facilities, overhead and underground transmission facilities, underground residential distribution facilities, and substation fences for the period ending December 31, 2019.

In compliance with the Safety Standards, NYSEG has met the fifth year annual inspection performance target for 100% of its electric facilities for the period ending December 31, 2019; thus completing the third full cycle.

The inspection results are summarized in the table below.

Facility Inspection Program Results

Category	**NYSEG Inspection Target**	**Actual Cumulative Inspected as of 2019**
Overhead Distribution	100%	100%
Overhead Transmission	100%	100%
Underground	100%	100%
Padmounts	100%	100%
Streetlight	100%	100%
Substation	100%	100%

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	169,236	63%
2018	163,563	82%
2019	148,062	100%

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	26%
2016	9,837	41%
2017	11,061	58%
2018	8,234	71%
2019	18,915	100%

Underground Facilities

Inspection Year	Number of Underground Facilities Inspected	% of Overall System Inspected (Cumulative in Five Year Cycle 2015-2019)
2015	4,572	20%
2016	5,275	44%
2017	4,187	63%
2018	4,306	82%
2019	4,064	100%

Padmount Facilities

Inspection Year	Number of Underground Facilities Inspected	% of Overall System Inspected (Cumulative in Five Year Cycle 2015-2019)
2015	6,815	20%
2016	6,725	40%
2017	7,597	63%
2018	7,860	86%
2019	4,826	100%

Streetlights

Inspection Year	Number of Streetlights Inspected	% of Overall System Inspected (Cumulative in Five Year Cycle 2015-2019)
2015	2,424	19%
2016	91	20%
2017	33	20%
2018	5,007	58%
2019	5,554	100%

VIII. Analysis of Inspection Results

Overhead Distribution Structures

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
148,062	8,696	5.87%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	149	1.71%
2	2,169	24.94%
3	4,942	56.83%
4	1,436	16.51%
Total:	8,696	100%

Overhead Transmission Facilities

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
18,915	630	3.33%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	7	1.11%
2	66	10.48%
3	500	82.92%
4	57	9.05%
Total:	630	100%

Underground Facilities

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
4,064	439	10.80%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	2	0.46%
2	43	9.79%
3	392	89.29%
4	2	0.46%
Total:	439	100%

Pad-mounts

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
4,826	79	1.64%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	9	11.39%
2	25	31.65%
3	45	56.96%
4	0	0.00%
Total:	79	100%

Streetlights

Table of Locations with Deficiencies

Locations Inspected	Locations w/ Deficiencies	% Locations w/ Deficiencies
5,554	118	2.12%

Breakdown of Locations with Deficiencies

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	0	0.00%
2	32	27.12%
3	74	62.71%
4	12	10.17%
Total:	118	100%

In 2019, a total of 9,962 Level I – IV deficiencies were identified out of the 181,421 inspections conducted representing a deficiency rate of about 5.49% 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 8,455 Level I - III deficiencies results in a deficiency rate of 4.66% 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 T&D Network Maintenance for verification with the Master Data Department. If Master Data confirms 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.

Stray Only Test Data

Stray voltage tests are conducted on all streetlights, traffic signal equipment, and underground manhole and handhole facilities. This testing data is also pre-loaded onto the FWM Toughbook device and displays all assets to be tested and includes pre-formatted pick tables the testers use to document individual tests. Similar to DLI/TLI Inspections, the Stray Only testing data is uploaded from the FWM Toughbook into the SAP system weekly. 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, if any 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 structures to check that 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. Please note that the number of structures at NYSEG is slightly different than the number set as the 5 year target (983,351) back in 2015 due to normal system changes. Our QA/QC process includes reconciling those system changes to insure compliance with the order.

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 7,950 pictures were reviewed with 7,920 deemed accurately reported, resulting in a 99.6% confidence level.

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 discrepancies found with this effort are communicated back to Company personnel for follow-up action.

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.

The certifications are attached as Exhibit 1 of this report.

Appendix 1

Stray Voltage Testing Summary

NYSEG	2019 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	**135,096**	147,578	109%	10	0.007%	1,398
Underground Facilities	**7,354**	8,518	116%	0	0.000%	91
Street Lights / Traffic Signals	**34,052**	34,530	101%	11	0.032%	269
Substation Fences	**195**	215	110%	0	0.000%	0
Overhead Transmission	**15,359**	17,916	117%	13	0.073%	572
TOTAL	**192,056**	208,757	109%	34	0.016%	2,330

Appendix 2

Summary of Energized Objects

	Initial Readings				Readings after Mitigation		
	1-4.4V	4.5-24.9V	>25V	Totals	< 1V	1-4.4V	>4.5V
Distribution Facilities	6	2	2	**10**	9	1	0
Pole				0			
Ground	1	1		2	2		
Guy	5	1	1	7	6	1	
Riser			1	1	1		
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	5	3	3	**11**	11	0	0
Metal Street Light Pole	5	3	3	11	11		
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)	10	1	2	**13**	12	0	0
Lattice Tower				0			
Pole				0			
Ground	10	1	2	13	12		
Guy				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				0			
Riser				0			
Other				0			

Appendix 3

Summary of Shock Reports from the Public

	Data collected as of December 31, 2019	Yearly Total
I.	**Total Shock Calls Received:**	**48**
	Unsubstantiated	12
	Normally Energized Equipment	10
	Stray Voltage:	**26**
	Person	22
	Animal	4
II.	**Injuries Sustained/Medical Attention Received:**	**10**
	Person	7
	Animal	3
III.	**Stray Voltage Source:**	**26**
	Utility Responsibility (Total)	**12**
	Overhead Distribution System	11
	Underground Distribution System	1
	Transmission System	0
	Other Utility/Gov't Agency (Total)	**3**
	Streetlight	0
	Other (Total)	0
	Customer Responsibility (Total)	**14**
IV.	**Stray Voltage Range:**	**26**
	1.0V to 4.4V	1
	4.5V to 24.9V	0
	25V and above	4
	Unknown	21

Appendix 4

New York State Electric and Gas

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

As of December 31, 2019

Detail of Deficiences by Facilities	2015				2016				2017				2018				2019			
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**	**IV**	**Within 1 week**	**Within 1 year**	**Within 3 years**	**IV**	**Within 1 week**	**Within 1 year**	**Within 3 years**	**IV**	**Within 1 week**	**Within 1 year**	**Within 3 years**	**IV**	**Within 1 week**	**Within 1 year**	**Within 3 years**	**IV**
Overhead Facilities																				
Repaired in Time Frame	184	1,089	1,289	761	283	1,537	2,458	513	240	1,071	1,543	190	240	893	520	66	129	147	119	3
Repaired - Overdue	55	1,071	863	0	38	1,952	404	0	19	1,946	0	0	23	670	0	0	20	1	0	0
Not Repaired - Not Due	0	0	0	11,892	0	0	0	13,610	0	0	6,879	8,805	0	0	5,358	2,880	0	2,021	4,823	1,433
Not Repaired - Overdue	0	152	1,325	0	0	1,001	2,662	0	0	2,579	0	0	0	2,294	0	0	0	0	0	0
Total Overhead Facilities	**239**	**2,312**	**3,477**	**12,653**	**321**	**4,490**	**5,524**	**14,123**	**259**	**5,596**	**8,422**	**8,995**	**263**	**3,857**	**5,878**	**2,946**	**149**	**2,169**	**4,942**	**1,436**
Underground Facilities																				
Repaired in Time Frame	11	8	16	24	26	15	53	19	18	1	24	0	5	11	6	0	2	0	0	0
Repaired - Overdue	6	16	19	0	1	14	2	0	0	15	0	0	1	0	0	0	0	0	0	0
Not Repaired - Not Due	0	0	0	651	0	0	0	422	0	0	68	48	0	0	64	11	0	43	392	2
Not Repaired - Overdue	0	6	18	0	0	5	64	0	0	11	0	0	0	21	0	0	0	0	0	0
Total Underground Facilities	**17**	**30**	**53**	**675**	**27**	**34**	**119**	**441**	**18**	**27**	**92**	**48**	**6**	**32**	**70**	**11**	**2**	**43**	**392**	**2**
Pad Mount Facilities																				
Repaired in Time Frame	25	20	16	6	16	6	12	2	32	8	22	5	27	13	4	0	5	2	0	0
Repaired - Overdue	9	4	4	0	2	6	2	0	2	24	0	0	6	7	0	0	4	0	0	0
Not Repaired - Not Due	0	0	0	32	0	0	0	11	0	0	49	24	0	0	44	6	0	23	45	0
Not Repaired - Overdue	0	2	12	0	0	3	12	0	0	15	0	0	0	35	0	0	0	0	0	0
Total Pad Mount Facilities	**34**	**26**	**32**	**38**	**18**	**15**	**26**	**13**	**34**	**47**	**71**	**29**	**33**	**55**	**48**	**6**	**9**	**25**	**45**	**0**
Streetlight Facilities																				
Repaired in Time Frame	0	1	3	0	0	1	1	0	0	0	2	0	0	51	328	0	0	0	0	0
Repaired - Overdue	0	3	1	0	0	1	0	0	0	0	0	0	0	8	0	0	0	0	0	0
Not Repaired - Not Due	0	0	0	24	0	0	0	1	0	0	3	2	0	0	104	7	0	32	74	12
Not Repaired - Overdue	0	3	2	0	0	1	1	0	0	5	0	0	0	4	0	0	0	0	0	0
Total Streetlight Facilities	**0**	**7**	**6**	**24**	**0**	**3**	**2**	**1**	**0**	**5**	**5**	**2**	**0**	**63**	**432**	**7**	**0**	**32**	**74**	**12**
Transmission Facilities																				
Repaired in Time Frame	5	66	116	0	1	88	248	45	1	48	80	6	3	23	39	1	7	3	5	0
Repaired - Overdue	2	36	23	0	0	67	2	0	0	17	0	0	2	10	0	0	0	0	0	0
Not Repaired - Not Due	0	0	0	181	0	0	0	198	0	0	624	413	0	0	412	107	0	63	495	57
Not Repaired - Overdue	0	127	824	0	0	249	493	0	0	242	0	0	0	111	0	0	0	0	0	0
Total Transmission Facilities	**7**	**229**	**963**	**181**	**1**	**404**	**743**	**243**	**1**	**307**	**704**	**419**	**5**	**144**	**451**	**108**	**7**	**66**	**500**	**57**

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
2015	I	Within 1 week	**297**	225	72	0	0
	II	Within 1 year	**2,604**	1,184	1,130	0	290
	III	Within 3 years	**4,531**	1,440	910	0	2,181
	IV	N/A	**13,570**	791	n/a	12,779	n/a
2016	I	Within 1 week	**367**	326	41	0	0
	II	Within 1 year	**4,946**	1,647	2,040	0	1,259
	III	Within 3 years	**6,414**	2,772	410	0	3,232
	IV	N/A	**14,824**	579	n/a	14,245	n/a
2017	I	Within 1 week	**312**	291	21	0	0
	II	Within 1 year	**5,982**	1,128	2,002	0	2,852
	III	Within 3 years	**9,294**	1,671	0	7,623	0
	IV	N/A	**9,493**	201	n/a	9,292	n/a
2018	I	Within 1 week	**307**	275	32	0	0
	II	Within 1 year	**4,151**	991	695	0	2,465
	III	Within 3 years	**6,879**	897	0	5,982	0
	IV	N/A	**3,078**	67	n/a	3,011	n/a
2019	I	Within 1 week	**167**	143	24	0	0
	II	Within 1 year	**2,335**	152	1	2,182	0
	III	Within 3 years	**5,953**	124	0	5,829	0
	IV	N/A	**1,507**	3	n/a	1,504	n/a

CERTIFICATION
[FACILITY INSPECTIONS]

STATE OF Connecticut)
) ss.:
COUNTY OF New Haven)

Jorge Fernando Brisolla Aith, on this 7th day of February 2020, certifies as follows:

1. I am the Vice President, Processes and Technologies, Avangrid Service Company and in that capacity I make this Certification for New York State Electric & Gas (the "Company") for the annual period ending December 31st, 2019 based on my knowledge of the inspection program adopted by the Company in accordance with 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, 2019 (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.

Sworn to before me this 7th day of February, 2020

Notary Public:

ANGELA HALLORAN-VENEGAS
NOTARY PUBLIC
MY COMMISSION EXPIRES 8/31/24

Exhibit 1

CERTIFICATION
[STRAY VOLTAGE TESTING]

STATE OF Connecticut)
) ss.:
COUNTY OF New Haven)

Jorge Fernando Brisolla Aith, on this 7th day of February 2020 certifies as follows:

1. I am the Vice President, Processes and Technologies, Avangrid Service Company and in that capacity I make this Certification for New York State Electric & Gas (the "Company") for the annual period ending December 31st, 2019 based on my knowledge of the testing program adopted by the Company in accordance with 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, 2019 (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.

Sworn to before me this 7th day of February, 2020
Notary Public:

ANGELA HALLOHAN-VENEGAS
NOTARY PUBLIC
MY COMMISSION EXPIRES 8/31/24