
2013

**CONTACT VOLTAGE TEST &
FACILITY INSPECTION
ANNUAL REPORT**

CONSOLIDATED EDISON COMPANY OF NEW YORK, INC.

Report on the results of contact voltage tests & facility inspections for the period
beginning January 1, 2013 and ending on December 31, 2013.

February 15, 2014

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I. Background

The New York State Public Service Commission’s (“PSC” or “Commission”) Electric Safety Standards (“Safety Standards”), issued on January 5, 2005 in Case 04-M-0159, with subsequent revisions issued on July 21, 2005, December 15, 2008, and March 22, 2013, require utilities to conduct an annual system-wide contact (stray) voltage detection program on underground assets and municipality owned streetlights and a five-year equipment inspection program to mitigate contact (stray) voltage risks to the public and promote reliability.

The term “stray voltage” is historically associated with neutral-to-earth voltage (NEV) encountered by farm livestock at contact points. Stray voltage is a normally occurring phenomenon that can be found at low levels between two contact points at any property where electricity is grounded.¹ In recent years, the term “contact voltage” has been used to describe voltage resulting from abnormal power system conditions associated with low voltage secondary system faults.

This report describes Consolidated Edison Company of New York, Inc’s (“Con Edison” or “the Company”) contact voltage detection program and equipment inspection program conducted in 2013.

II. Company Overview

Con Edison is an investor owned utility that provides electric service to approximately 3.3 million customers in a service area of approximately 604 square miles within New York State encompassing New York City, except the Rockaway Peninsula, and most of Westchester County. The Company operates an electric transmission and distribution (“T&D”) system that provides a high level of reliability in a very dense urban environment.

¹ Electrical systems — both farm systems and utility distribution systems — are grounded to the earth to ensure safety and reliability. Inevitably, some current flows through the earth at each point where the electrical system is grounded and a small voltage develops. This voltage is called neutral-to-earth voltage (NEV). When NEV is found at animal contact points, it is frequently called stray voltage. Stray voltage is this small voltage that is measured between two points that livestock can simultaneously touch. If these points are simultaneously contacted by an animal, a current will flow through the animal. See, <http://psc.wi.gov/utilityInfo/electric/documents/strayVoltage/svUpdate2006.pdf>

- Distribution
 - a. *Underground* – The underground system has approximately 278,000 manholes, service boxes, transformer vaults, and above ground pad mounted structures; approximately 24,700 miles of underground duct; and approximately 95,000 miles of underground cable including primary, secondary and service cables. Underground network cables operating at primary voltages of 27 kV and 13.8 kV supply underground transformers that step the primary voltages down to 120/208 distribution voltages that are used by customers.
 - b. *Overhead* – The overhead system includes: 154 auto loops, 7 - 4 kV multi-bank substations, 243 – 4 kV unit substations, approximately 278,000 Con Edison owned poles, and approximately 34,000 miles of overhead wires including primary, secondary, and services. Cables operating at primary voltages of 33 kV, 27 kV, 13.8 kV, and 4 kV supply 49,752 overhead transformers that step the primary voltages down to 120/208/240 distribution voltages that are used by customers.
 - c. *Streetlights* – Con Edison does not own, install, or maintain streetlights and traffic signals within its service territory. The New York City Department of Transportation (NYCDOT) and the local Westchester municipalities primarily own the streetlights and traffic signals in New York City and Westchester County. There are approximately 185,000 metal pole street lights and metal pole traffic signals within Con Edison’s service territory.

- Transmission
 - a. *Underground* – The underground transmission system delivers power at 69 kV, 138 kV, and 345 kV to various switching substations and area substations. The underground system has approximately 1,900 manholes and approximately 796 circuit miles of cable. Of the 796 circuit miles, Con Edison owns approximately 727 miles.
 - b. *Overhead* - The overhead transmission system consists of 138 kV and 345 kV high voltage cable supported on towers and poles on rights-of-way located for the most part, north of New York City and terminating in Westchester County where the underground transmission system begins.

- Substations and Unit Substations

There are 41 transmission substations, 62 area substations, 243 unit substations, and 11 Public Utility Regulating Stations (PURS).

III. Inspection and Contact Voltage Testing Frequency for Company and Municipally Owned Facilities

The Safety Standards require that all electric facilities be inspected at least once every five years.

The Safety Standards require annual contact voltage testing for all streetlights and for all underground electric facilities that are publicly accessible, including, but not limited to, manholes, service boxes and transformer vaults.

The Safety Standards require contact voltage testing at least once every five years for overhead distribution facilities, underground residential distribution facilities, overhead and underground transmission facilities, and substation fences. This testing may be conducted concurrently with the five-year facility inspection by the Safety Standards.²

The following five categories of facilities in Con Edison's service area must be inspected every five years and tested for the presence of contact voltage annually or every five years:

- *Underground Distribution* – There are approximately 278,000 underground facilities in Con Edison's Distribution systems. A subsurface structure is defined as any manhole (MH), service box (SB), transformer vaults (V, VS), transformer manholes (TM), customer boxes (CB), buried boxes (BB), injunction boxes (IJ), P-Boxes (PB), and T-Tap boxes and switchgears specifically associated with Underground Residential Distribution systems ("URD"). All Underground Distribution facilities are inspected every five years and are tested for contact voltage annually in either the manual and mobile contact voltage testing program, except for URD facilities, which are tested every five years. . The contact voltage testing criteria include all subsurface structures at grade level, including above ground, pad-mounted structures.
- *Street Lights and Traffic Signals* – There are approximately 185,000 metal pole street lights and are traffic signals within Con Edison's service territory. Streetlights and traffic signals are included in the annual contact voltage testing program. Con Edison does not own any metal pole streetlights, and therefore, these structures are not included in the facility inspection program. Area and street lighting that is privately owned is not included in the contact voltage testing program, as per the Safety

² The Public Service Commission's "Order Granting Petition In Part And Modifying Electric Safety Standards," issued March 22, 2013 in Case 04-M-0159 ("March 22, 2013 Order"), modified the Safety Standards to change the contact voltage test frequency from one year to five years for overhead distribution facilities, underground residential distribution facilities, overhead and underground transmission facilities, and substation fences.

Standards. The contact voltage testing criteria include all municipally owned metal pole streetlights, traffic signals, and pedestrian crosswalk signals located on publicly accessible thoroughfares and areas that have streetlights directly supplied by the Company. All contact voltage testing of street lights is performed at night while the fixtures are energized.

- *Overhead Distribution* – There are approximately 278,000 distribution pole structures that support electric facilities in Con Edison’s overhead distribution system. Distribution overhead facilities are inspected and tested for contact voltage every five years. The contact voltage testing criteria include all utility-owned or joint use wooden poles with utility electrical facilities located on public thoroughfares or customer property, including backyards or alleys. Contact 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.
- *Substations* – Con Edison’s 103 substations and 11 PURS stations are inspected and tested for contact voltage every five years. The contact voltage testing criteria consist of perimeter fencing and other electrically conductive materials where such materials are accessible to the general public. These materials include but are not limited to fences, doors, roll-up gates, metallic delivery boxes, dielectric fluid delivery ports and Siamese connections.
- *Unit Substations* – Con Edison’s 243 4kV multi-bank and unit stations are inspected and tested for contact voltage every five years. The contact voltage testing criteria consist of perimeter fencing and other electrically conductive materials where such materials are accessible to the general public. These materials include but are not limited to fences, doors, roll-up gates, metallic delivery boxes, and Siamese connections.
- *Overhead Transmission* – Con Edison’s overhead transmission system includes 1,212 individual poles or towers. These transmission structures support circuit voltages of 69 kilovolts and greater. Structures that support circuits of lower voltage in addition to the transmission voltage levels are included in this category. Con Edison’s overhead transmission structures are inspected and tested for contact voltage every five years. The contact voltage testing criteria include all structures, guys, and down leads attached to these structures.

IV. Contact Voltage Testing Program

The Safety Standards require that Con Edison complete annual contact voltage testing by December 31 each year.

During the annual period ending December 31, 2013, Con Edison transitioned toward the modified contact voltage testing frequencies established in the March 22, 2013 Order. All facilities requiring annual contact voltage testing were tested. Most facilities requiring testing every five years were also tested during 2013. In addition, Con Edison tested for contact voltage all municipally owned metallic streetlights and traffic signals that are located on thoroughfares or areas that are publicly accessible and are directly supplied with electricity by the Company.

In addition, and in compliance with the Safety Standards, Con Edison:

- Immediately safeguarded and /or mitigated all voltage findings greater than or equal to 1.0 volt. The Company uses its best efforts to effectuate a permanent repair within 45 days to all Company-owned equipment determined to have caused a voltage finding and remaining necessary to provide our customers with safe and reliable service. The aforesaid permanent repairs not effectuated within 45 days are periodically monitored and tracked to completion. In instances where the contact voltage finding was determined to be caused by equipment that is not owned by Con Edison, the Company, after making the area safe, notified a responsible person associated with the premises of the unsafe condition and the need for the owner to arrange for a permanent repair.
- Tested all publicly accessible structures, streetlights, sidewalks and metal objects within a 30 foot radius of an energized structure, or contact voltage finding greater than or equal to 1.0 volt.
- Responded to, investigated and mitigated positive findings of shock incidents reported by the public.

Training

Con Edison manages its contact voltage testing program and uses both Company field personnel and contractor forces to conduct the testing of utility owned electric facilities and municipal streetlights.

Training for the contact voltage testing program consists of an eight hour class at our training facility for contractor forces and on the job training, performed by Supervisors for Company field forces. The training is based on Company specifications on how to properly test an electric facility for contact voltage. Topics covered in the training are:

Scope of the contact voltage testing program
Performing the test and completing the testing form
Data entry process
Status of contact voltage testing to annual goal
Abnormal systems conditions to be reported
Performance mechanism

Underground Distribution Contact Voltage Testing

Of the total population of approximately 278,000 underground facilities, 165,053 were fielded for manual testing. The remaining facilities were tested under the mobile contact voltage program. Of the 165,053 underground facilities visited during manual testing, 285 did not require contact voltage testing due to inaccessibility, structures taken out of service, or customer owned structures.

Inaccessible underground facilities include:

- a. *Locked Gate/Fence* – Structures behind locked gates and fences that are not accessible to the public, i.e., facilities located in fenced areas owned by other utilities, such as, Water Companies.
- b. *Company Property* – Structures located on Company property, such as substations, are accessible only to Company personnel and authorized contractors.
- c. *Construction* – A structure located within a construction site. These structures are accessible only to construction personnel.
- d. *Buried* – A structure below grade that requires excavation to access the structure.
- e. *Vaults* – Structures located inside buildings. These structures are accessible only to Company and building maintenance personnel.
- f. *Highway* – Structures located on highways and on exit and entrance highway ramps. The performance of contact voltage testing would constitute an unacceptable risk to the employee.

Overhead System Contact Voltage Testing

Of the population of approximately 35,885 overhead facilities (Con Edison owned) that were visited to be tested for contact voltage, 3,226 did not require contact voltage testing because of the reasons stated below.

- a. *Locked Gate/Fence* – Structures behind locked gates and fences that are not accessible to the public, i.e., facilities located in fenced areas owned by other utilities, such as, Water Companies.
- b. *Company Property* – Structures located on Company property, such as substations, are accessible only to Company personnel and authorized contractors.
- c. *Construction* – A structure located within a construction site. These structures are accessible only to construction personnel.
- d. *Highway* – Structures located on highways and exit and entrance highway ramps. The performance of contact voltage testing would constitute an unacceptable risk to the employee.
- e. *Rail Road* – Structures behind railroad fences or on a railroad right-of-way.
- f. *Not Required due to change in Safety Standards*- Structures already tested during past inspections as part of the 5 year inspection cycle.

Streetlight and Traffic Signal Contact Voltage Testing

Of the total population of approximately 185,000 streetlight and traffic signal facilities, which the Company directly supplies electric service or which are located on public thoroughfare, approximately 113,000 facilities were required to be tested manually. The remaining facilities were tested under the mobile contact voltage program. Of the facilities visited, 269 did not require contact voltage testing because these structures were not publicly accessible.

Inaccessible streetlights and traffic signals include:

- a. *Construction* – A structure located within a construction site. These structures are only accessible to construction personnel.
- b. *Restricted Access* – Structures located within areas with active public improvement efforts or the World Trade Center.
- c. *Highway* – Structures located on highways or access roads to highways

Underground Transmission Contact Voltage Testing

Under the March 22, 2013 Order, testing for contact voltage on underground transmission facilities may be conducted every five years during the five-year inspection cycle. However, for 2013, Con Edison tested for contact voltage 1,900 of the population of approximately 2,200 underground transmission facilities while these facilities were being inspected. Those facilities that are not publicly accessible do not require contact voltage testing. Inaccessible transmission facilities include:

- a. *Construction* – A structure located within a construction site. These structures are only accessible to construction personnel.
- b. *Con Edison Property* – Structures located on or adjacent to Con Edison properties which are secured from the public via fencing or other barriers and are inaccessible to the public.
- c. *Bridges* – Structures located on bridges, such as bridge joints
- d. *Buried* - A structure below grade that requires excavation to access the structure

Overhead Transmission Contact Voltage Testing

Con Edison visited and tested all of the 1,212 overhead transmission facilities on the Company's overhead transmission system. This testing was conducted during scheduled inspections for the structures.

Mobile Contact Voltage Testing

In accordance with the PSC's "Order Establishing Rates for Electric Service," issued March 25, 2008 in Case 08-E-0539, Con Edison performed 12 underground system scans in underground distribution areas of New York City using mobile contact voltage detection technology. In accordance with the PSC's "Order Adopting Changes to Electric Safety Standards," issued December 15, 2008 in Case 04-M-0159, the 12 underground system scans must be performed within each rate year (April 1st to March 31st). In addition, Con Edison performed one underground system scan using mobile contact voltage detection technology annually in New Rochelle, Yonkers, and White Plains, as ordered in 10-E-0271. Con Edison also performed an underground system scan in Mount Vernon.

Results of the 2013 Contact Testing Program

The results of the 2013 Contact Testing Program are provided in the following appendixes to this report:

- Appendix 1, titled “Contact Voltage Testing Summary”
- Appendix 2a, titled, “Summary of Energized Objects - Mobile Testing”
- Appendix 2b, titled, “Summary of Energized Objects - Manual Testing + Other”
- Appendix 3, titled, “Summary of Shock Reports from the Public.”

V. Facility Inspection Program

The Commission’s Safety Standards require all utilities to inspect all electric facilities at least once every five years. The first five-year cycle covered the period of 2005 through 2009. The second cycle is the period of 2010 through 2014. The Safety Standards also require that utilities inspect a minimum number of electric facilities each year of the five-year cycle based on an annual percentage of total electric facilities as follows: 17 percent in the first year, 18 percent in the second year, and 19 percent in the third, fourth and fifth years except that by the end of every fifth year, the utility must ensure that it has inspected 100 percent of its facilities. A utility may inspect its facilities pursuant to a compressed schedule and complete its inspection cycle prior to the end of the five-year period so long as the cumulative number of inspections at the end of any year is at least the minimum number required by the annual target formula – 17 percent in first year, 35 percent by end of second year, 54 percent by end of third year, 73 percent by end of fourth year, and 100 percent by end of fifth year. In addition, the Safety Standards require that defective equipment found during an inspection be repaired. In accordance with the Safety Standards, Con Edison 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.
NOTE: Con Edison requires that company forces repair level I defects before leaving the structure.
- *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 is used for future monitoring purposes and planning proactive maintenance activities.

In accordance with the Safety Standards, 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.

Training

Con Edison manages its inspection program and uses both company field personnel and contractor forces to conduct the inspection of utility owned electric facilities.

Training of the contractor force utilized to perform inspections on our overhead and underground systems consists of classes at our learning facility as well as on the job training performed by Contractor Oversight Supervisors who have attended a train-the-trainer session with a Con Edison Subject Matter Expert (SME). For company field forces, the training is based on company specifications on how to properly inspect an electric facility which is acquired through their promotional classes, as well as on the job training performed by their supervisor.

In addition to the above, the Secondary System Analysis Section of Distribution Engineering conducted train-the-trainer sessions in each of the major workout locations since the inception of the program. The participants included the managers, planners, and supervisors of the crews that would be performing the inspections. The Secondary System Analysis Team has also conducted various training seminars at all of the major work out locations which included the following topics:

- The PSC Safety Standards
- Scope of the inspection
- Completing the inspection form
- Data entry process
- Status of inspections to annual goal
- Repairs pending
- Accounting of the inspection
- Performance mechanism

In addition to the train-the-trainer sessions, an E-Learning Training Module was developed. This training module can be accessed from any computer on the Con Edison Network. This class is also part of the curriculum in career advancement for new mechanics.

Results of the 2013 Facility Inspection Program

The results of the 2013 Facility Testing Program and associated facility repairs are provided in Appendix 4, titled “Summary of Deficiencies and Repair Activity Resulting from the Inspection Process.”

VI. Annual Performance Targets

Con Edison performed the required contact voltage testing and facilities inspections in accordance with the requirements of the Safety Standards.

In compliance with the Safety Standards, Con Edison has met the annual performance target for contact voltage testing of publicly accessible electric facilities, streetlights, and traffic signals supplied directly from Con Edison’s distribution system for the annual period ending December 31, 2013.

In compliance with the Safety Standards, Con Edison has met the fourth-year performance target for cumulative inspection of 73% of its electric facilities during the first four years (2010 to 2013) of the five-year period ending December 31, 2014. By the end of the fourth year of this period (December 31, 2013), Con Edison had cumulatively inspected 87.9% of its overall population of electric facilities. The percentages of inspections by structure category are summarized in the table below.

Facility Inspection Program Results

Category	Actual Cumulative Inspected as of 2013
Overhead Distribution	100%
Overhead Transmission	100%
Underground / URD Distribution	69.63%
Underground Transmission	100%
Substation and PURS Facilities	84.35%
Unit Substations	100%
Company-owned Streetlights*	0

*Con Edison does not own streetlight facilities. These facilities are owned by the City of New York and municipalities located in Westchester County.

5-Year Inspection Performance Summary

The following tables provide the cumulative percentages of inspections by structure category over the current five-year (2010-2014) inspection cycle.

Overhead Distribution Facilities

Inspection Year	Unique Number of Overhead Distribution Structures Inspected	% of Overall Facilities Inspected (Cumulative)
2010	85,124	31.47%
2011	86,548	63.46%
2012	80,610	93.26%
2013	35,885	99%
2014		

Overhead Transmission Facilities

Inspection Year	Unique Number of Overhead Transmission Facilities Inspected	% of Overall Facilities Inspected (Cumulative)
2010	1212	100%*
2011	1212	100%*
2012	1212	100%*
2013	1212	100%*
2014		

*Con Edison inspects the entirety of its overhead transmission system once a year

Underground Distribution and URD Facilities

Inspection Year	Unique Number of Underground / URD Facilities Inspected	% of Overall Facilities Inspected (Cumulative)
2010	43,183	15.54%
2011	27,584	25.47%
2012	48,720	43.01%
2013	73,976	69.63%
2014		

Underground Transmission Facilities

Inspection Year	Unique Number of Underground Transmission Facilities Inspected	% of Overall Facilities Inspected (Cumulative)
2010	542	25.12%*
2011	615	53.61%*
2012	641	83.32%*
2013	360	100%
2014		

*Con Edison inspects its underground transmission system at multiple intervals, all less than 5 years. The data above captures all inspections performed. The total number of underground transmission facilities to be inspected is 2158.

Substation Facilities (including PURS)

Inspection Year	Unique Number of Substation Facilities (including PURS)	% of Overall Facilities Inspected (Cumulative)
2010	26	23.21%
2011	25	44.73%
2012	23	64.91%
2013	22	84.62%
2014		

Unit Substation Facilities

Inspection Year	Unique Number of Unit Substation Facilities Inspected	% of Overall Facilities Inspected (Cumulative)
2010	243	100%
2011	243	100%
2012	243	100%
2013	243	100%
2014		

*Con Edison inspects the entirety of its Unit Substation facilities once a year

VII. Certifications

Pursuant to Section 7 of the Safety Standards, attached as Exhibit 1 of this report are the certifications of Con Edison's officer with direct responsibility for overseeing contact voltage testing and facility inspections that Con Edison has, to the best of his knowledge, exercised due diligence in carrying out a plan, including quality assurance, that is designed to meet the contact voltage testing and inspection requirements in 2013, and that Con Edison has:

- Tested its publicly accessible electric facilities and street lights in accordance with the Safety Standards as modified by the March 22, 2013 Order, as referred to in the body of the February 15, 2014 Report, and
- Inspected the requisite number of electric facilities.

VIII. Analysis of Causes of Findings and Contact Voltage

All New York State utilities prepare an inventory of all "findings" and report on the number of these findings each year. Section 1(f) of the Safety Standards 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 (referred to herein as Contact 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."

Although not all findings are due to contact voltage, NYS Utilities are required to report on all findings, regardless of whether the voltage is normal to the operating system. In 2013, 7585 voltage findings resulted from contact voltage testing. These findings resulted from 3272 sources of contact voltage. A total of 6983, approximately 92% of these findings, were detected by the Mobile Contact Voltage Testing Program. There were 520 findings (4%) identified by manual contact voltage testing.

In accordance with the Safety Standards requirements, when a finding is discovered on an electric facility or streetlight during contact voltage testing, the Company must manually test all publicly accessible structures, streetlights, and sidewalks, within a minimum 30 foot radius of the energized object. An additional 17 findings were found as a result of the 30-foot radius testing during manual contact voltage testing.

Contact voltage findings resulted from a variety of conditions including deterioration of conductors and insulation, damaged neutrals and connections, and

defective customer equipment. The following table contains a breakdown of the 2013 causes of contact voltage findings that were Con Edison responsibility:

**2013 Sources of Contact Voltage Finding
Con Edison Responsibility**

Source of Contact Voltage	Con Ed
UG Service	432
UG Streetlight Service	477
UG Streetlight Con Edison Neutral	85
UG Main	215
Secondary Burnout	145
UG Service Con Edison Neutral	134
Crab	65
UG Main Con Edison Neutral	81
Abandoned Service	48
Sump Pump	39
Abandoned SL Service	20
Overhead Streetlight Service Neutral	7
Loose UG SL Service Connection at CE Structure	2
Overhead Service	9
Overhead Service Neutral	13
Overhead Streetlight Service	4
Con Ed S/L Reversed Polarity	2
Damaged/Missing Ground Rod	3
Defective Riser/Insulator	4
Con Ed non-S/L Reversed Polarity	1
Temporary Service	3
Overhead Secondary	5
Overhead Primary	2
Defective Pigtail/ISO	7
Defective Transformer Equipment	3
Total	1806

The following table contains a breakdown of the 2013 causes of contact voltage findings that were the responsibility of entities other than Con Edison (“Non Con Edison Responsibility”):

Source of Contact Voltage	Non Con Edison
Defective Customer Equipment	278
Defective Contractor Equipment	40
Defective Pigtail/Internal City Streetlight Wiring/Loose Connection at Lamp Base/Open Ended Control Wiring	904
Dept. of Transportation (DOT)/City Streetlight Neutral	190
Defective Neon Sign	13
DOT Temp Service	20
DOT Reverse Polarity	3
Contractor or Customer Damage	18
Total	1466

Mitigation through Detection

Five factors affect the likelihood that a member of the public or animal could experience a shock. These factors are the number of energized structures (ENEs), duration of a mobile system scan, voltage levels associated with the ENEs, population density, and the weather. A table containing the breakdown of Electric Shock Reports (ESRs) reported to Con Edison during 2013 can be found in Appendix 3.

Since the likelihood of an ESR will increase or decrease in proportion to the total number of energized structures, the detection and repair of identified sources of contact voltage is the principal mitigation effort for reducing ESRs. Each completed repair effectively represents a mitigation of possible ESRs. As these repairs accumulate over time, the potential ESRs decrease accordingly.

Although, ENE voltage levels and population density are recognized as contributory factors in ESR occurrences, these two factors are not subject to control such that they can be meaningfully incorporated into ESR or Generation Rate analyses.

The ESRs associated with Con Edison’s equipment appear on Chart 1. As mentioned above, weather also plays a role in ESR generation. The higher precipitation in 2013 increased the generation rate of Con Edison responsible ESRs. This weather variable is accounted for in the underlying models and in both the 2013 and long term predictions. The duration between scans ranges from approximately 30 to 35 days per scan. If we continue with a comparable ENE

repair rate and scan interval in 2014, as well as experience similar weather patterns, we can expect ESRs to be approximately 2 per scan. This prediction is consistent with the 2013 actual results of 23 shocks due to Con Edison responsibility.

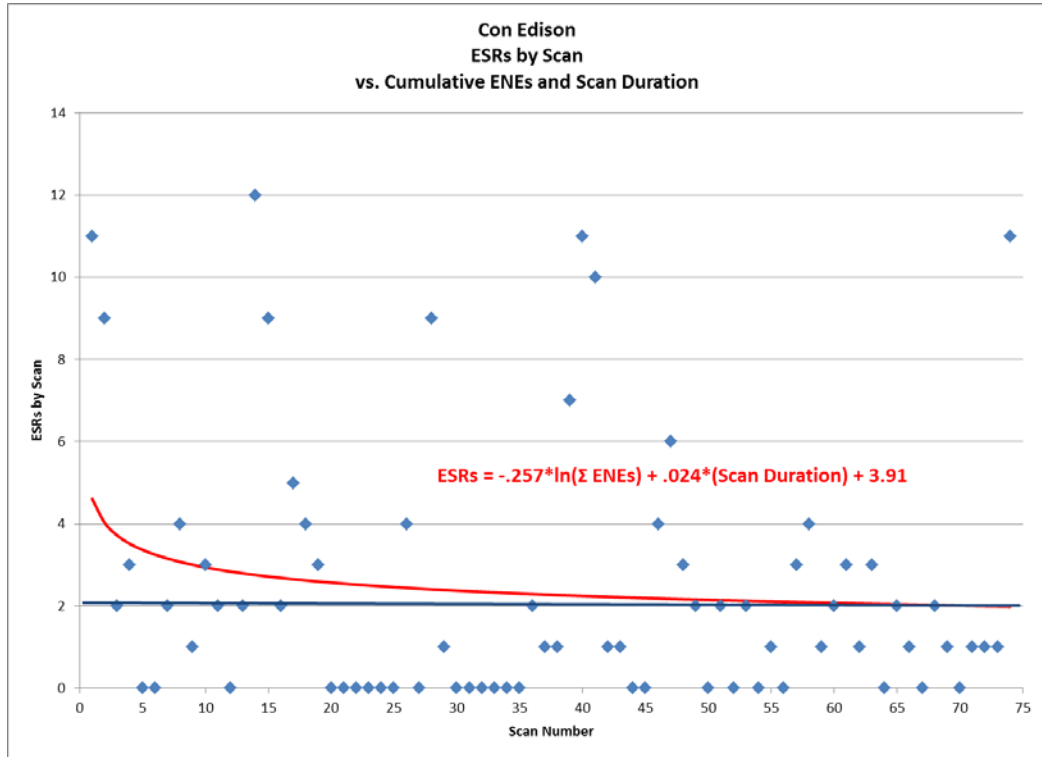


Chart 1

The increase of ESRs associated with the DOT appears on Chart 2. The duration of scans is 30 to 35 days per scan. If we continue a comparable ENE repair rate and scan duration in 2014, we can expect ESRs at this scan duration level to be approximately 1 per scan. The expected ESR per scan rate has decreased from 2 ESR every 1 scan to 1 ESR per scan. In 2013 there were 8 shocks associated with DOT equipment failures. This result is in-line with what was predicted, and is likely the result of various programs implemented by both DOT and Con Edison to mitigate shocks.

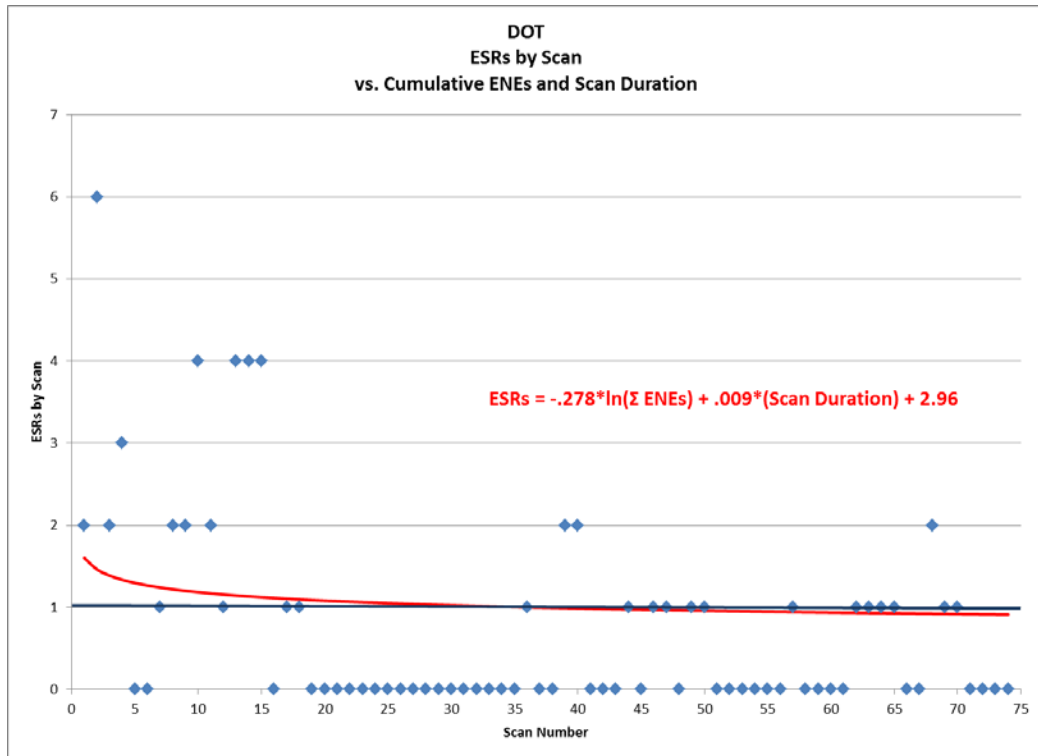


Chart 2

The increase of ESRs associated with Customer Equipment (Public Access) appears on Chart 3. The duration of scans is 30 to 35 days per scan. If we continue a comparable ENE repair rate and scan duration in 2014, we can expect ESRs to remain at 2 per scan, with no significant reduction anticipated below that level in the near future. The actual performance indicates that these shock events are less sensitive to our mitigation efforts than we initially projected. In 2013, we responded to 34 validated shock reports on publicly accessible customer equipment.

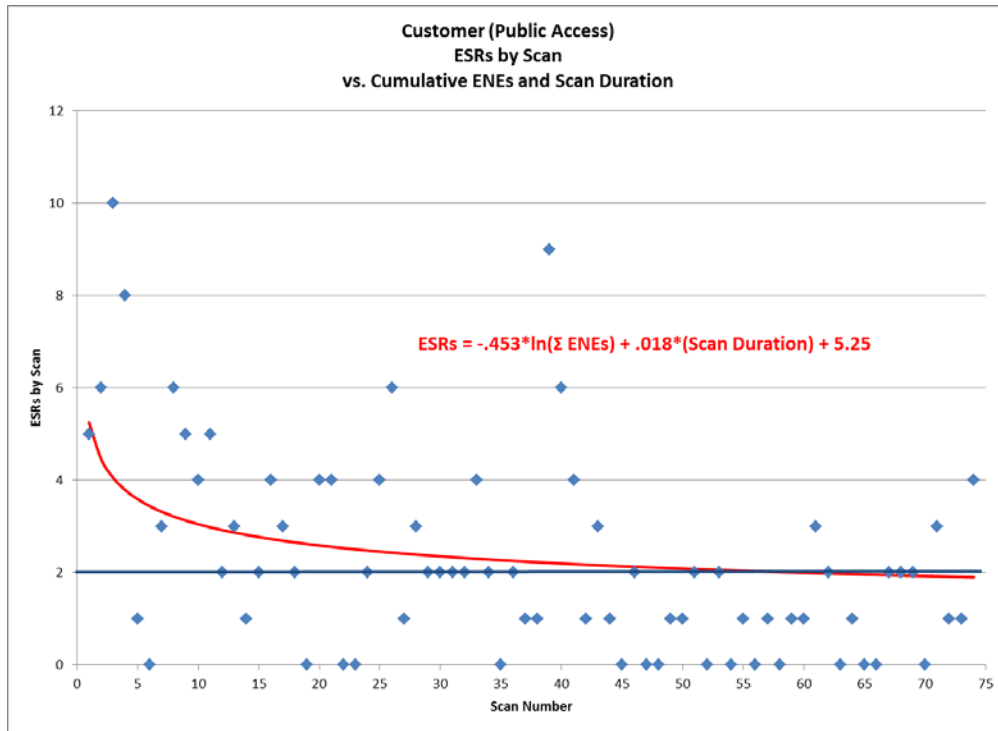


Chart 3

As mentioned in previous year's report a strong correlation was observed between weather and shocks during 2013.

When we look at snow and rainfall year over year (chart 4), we see the system response to ground conditions, as level of precipitation change from 2009 to 2013. As snowfall and rainfall increase from 2009 to 2013, ESRs also increase and as snow and rainfall increased there is an increase in number of ENE/ESR in 2013. We will continue to monitor this correlation in 2014.

Compared to 2012, 2013 was a more severe year in terms of weather with 20 more inches of snow and 173,000 tons more of salt. Despite more severe weather, overall performance year over year remains flat. Overall, ESR emergence rate per scan seems to be at steady state.

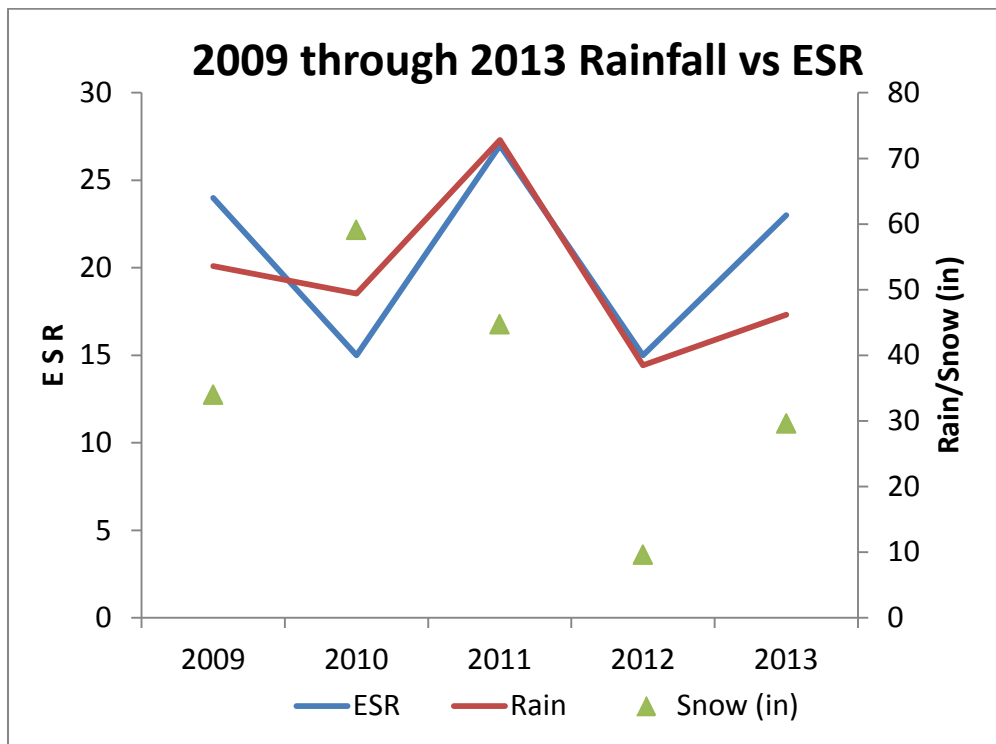


Chart 4

IX. Analysis of Inspection Results

Inspection Breakdown

Facility Inspection Program	2010	2011	2012	2013	2014	5-Year Cumulative Unique Inspections	Percent Completed
Distribution Underground/URD	43,183	27,584	48,720	73,976		193,463	69.63%
Distribution Overhead	85,124	86,548	80,610	35,885		288,167	99%
Transmission Underground	542	615	641	360		2,158	100%
Transmission Overhead	1,212	1,212	1,212	1,220		1,220	100.00%
Substations	23	23	21	20		87	84.47%
PURS Facilities	3	2	2	2		9	81.82%
Unit Substations	243	243	243	243		243	100.00%
Total	130,330	116,227	131,449	111,706		485,347	87.86%

Overhead Distribution Structures

Breakdown of Locations with Deficiencies**

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	33	0.61%
2	1,112	20.50%
3	2,952	54.42%
4	1,327	24.47
Total:	5,424	100.00%

Overhead Transmission Facilities

Breakdown of Locations with Deficiencies**

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	0	0.00%
2	0	0.00%
3	10	10.20%
4	88	89.80%
Total:	601	100.00%

Underground Distribution and URD Facilities

Breakdown of Locations with Deficiencies**

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	15,471	7.49%
2	79,450	38.47%
3	13,708	6.64%
4	97,887	47.40%
Total:	206,516	100%

** Locations may have multiple deficiencies

Streetlights

Con Edison does not own streetlight facilities. Streetlight facilities in the Company's service area are owned by the City of New York and municipalities located in Westchester County.

Repair of Deficiencies

During 2013, the Company repaired 98.1% of the Level I defects found, 84.3% of the Level II defects found, 19.6% of the Level III defects found, and 4.7% of the level IV defects found. Thus, 77.2% of the Level I, II & III defects found in 2013 were repaired in 2013. The total number of open and overdue repairs from the 2013 Underground, Overhead, and URD programs is 269.

As of February 12, 2014, 250 Level I defects from 2013 are reported as open and overdue in the Underground and URD programs. These include 185 repairs associated with the URD Program and 65 repair associated with the Underground Program. The only remaining level I defects from 2011 and from 2012 UG program have been completed upon administrative review.

As of February 12, 2014, 2,016 Level II repairs identified in 2012 in the Underground, Overhead, and URD programs were reported as open and overdue with the majority being in our Underground Program. We are in the process of making these repairs.

Temporary Repairs

Our inspection database identifies temporary repairs that have remained in place more than 90 days as shown in the following chart:

	Level I	Level II	Level III
Underground Distribution	4	121	125
Overhead Distribution	0	5	5
URD	29	6	0

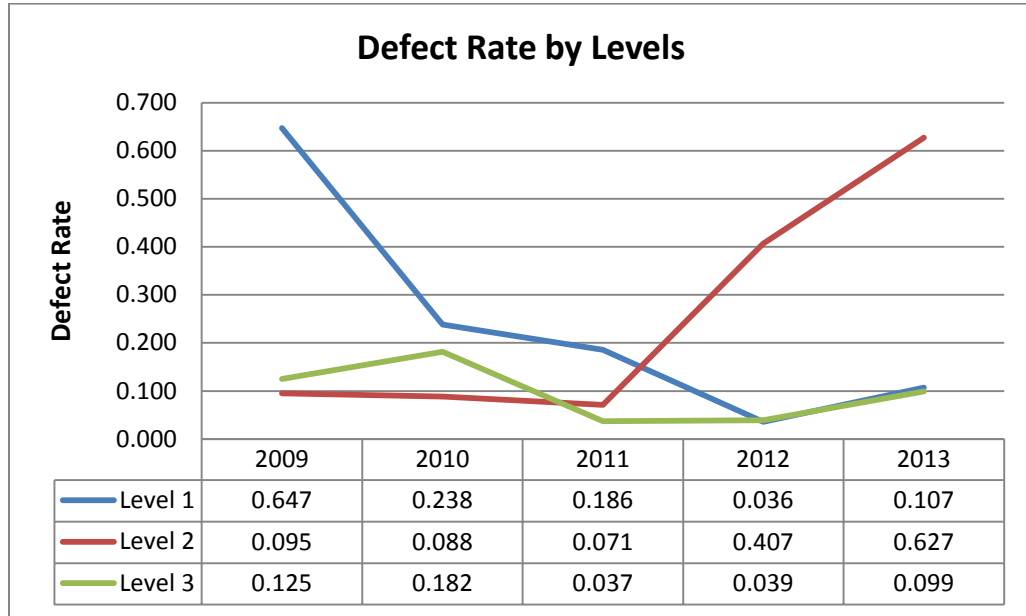
The level I temporary repairs on the UG & URD system are currently being reviewed. The majority should have been completed in the field and are pending administrative closure.

The majority of Level II and III temporary repairs were made during the initial inspection prior to the crew leaving the work site. We are in the process of making these repairs permanent within the one and three year periods applicable to correction of Level II and Level III conditions, respectively.

Once the company's new work management system for Electric Operations is complete in 2014, all repair work (including new and existing defects) and inspections will be issued, captured, and tracked within that system.

Analysis of Defects Found

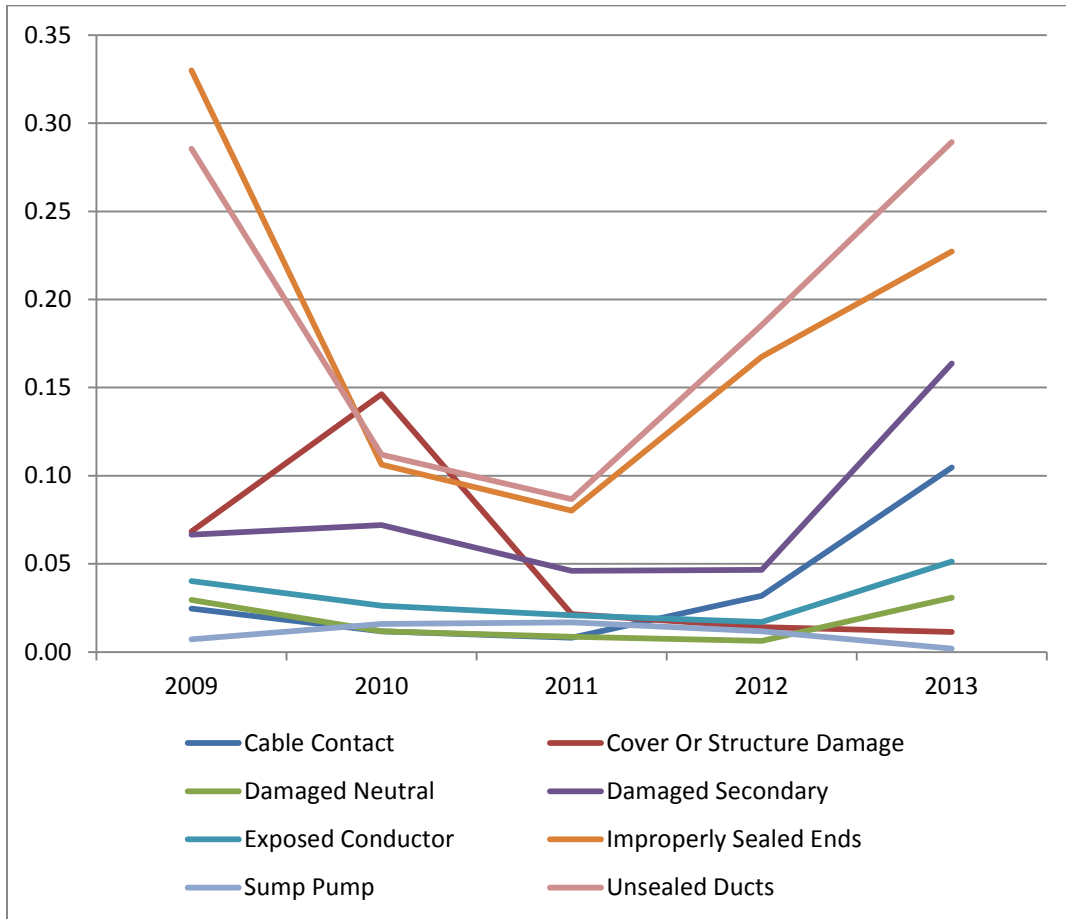
The chart below shows the number of defects found per inspection:



*Note:

Starting in 2012, the company reclassified Unsealed Ducts and Improperly Sealed Ends from Level I to Level II defects. This was done to account for defects generated by a change in specification and not a true defect condition. Repairs will continue to follow level 1 criteria. This reclassification has led to an overall increase in Level II defects found in 2012 and 2013.

The defect found ratio can be broken down further, by type of repair:



In most categories, we see increases in defect rate from 2012 to 2013. As mentioned earlier, 2013 was a challenging year in terms of weather with 20 more inches of snow and 173k tons more of salt spread when compared to 2012. This weather contributed to a more than doubling of manhole events from the prior year. These manhole events represent stresses to the system and associated components that we may now see revealed through the increasing inspection program defect rates.

The weather directly contributed to the increase in damaged secondary, exposed conductor and damaged neutrals. We also saw an increase in reported cable contact by our contractors due to a misinterpretation of the required cable clearance, which has been addressed through training. We are currently investigating increases in unsealed ducts and improperly sealed ends, but we believe there may be multiple factors involved including: 1) The Company has increased the number of vented covers on the system, which could lead to an increase in the number of structures requiring a flush. This could, in turn, cause

the loosening of end seals and/or dislocation of duct seals, 2) Our current tracking system, in some cases, does not allow us to differentiate between defects found due to field conditions versus defects created during a new installation process (i.e. new crab installations).

The Company is enhancing its process for structural inspections and inspection reporting as follows:

- Field or structural engineers will perform a follow-up field assessment to establish the repair classification of structures identified by field inspection forces as containing Level 1 repair conditions.
- The field inspection form is being enhanced to provide for field inspectors to record the observed structure conditions.
- Field inspections crews and field engineers are receiving enhanced training in structural evaluations.

The defect and repair status data provided in Appendix 4 relates to equipment defects and does not include structure conditions. At year-end 2013, 2,734 unrepaired structures currently classified as Level 3 are pending more than three years. These structures are due for inspection during 2014 in the current inspection cycle and may be reclassified at that time to reflect inspection specification modifications made since the initial inspection. At year-end 2013, there are 773 unrepaired structures identified upon the initial field inspection as containing a Level 1 repair condition. These 773 structures will receive a follow-up field assessment by a field engineer during 2014 to establish the repair classification.

X. Quality Assurance

The Safety Standards require electric companies to develop a quality assurance program to “ensure timely and proper compliance with these safety standards.” Con Edison has developed a comprehensive quality assurance program to address the contact voltage testing and facility inspections requirements. The quality assurance program includes:

- Contact voltage testing of underground distribution structures including Underground Residential Distribution (URD), overhead distribution structures and municipality owned streetlights
- Contact voltage testing of transmission and substation facilities
- Facility inspections of underground distribution, URD, and overhead distribution structures
- Facility inspections of transmission facilities and substation facilities

This section addresses Con Edison’s quality assurance program for the aforementioned contact voltage testing and facility inspections.

Quality Assurance Measures Instituted: Contact Voltage Testing of Underground Distribution Structures, Overhead Distribution Structures, and Municipality Owned Streetlights.

Con Edison developed a quality assurance plan to ensure that contact voltage testing was performed as specified. The reliability and error design parameters used were:

95% reliability within a $\pm 10\%$ relative precision level and satisfy established industry sample design criteria.

1200 quality assurance checks are required to achieve a 95% confidence rate with a $\pm 10\%$ overall error that the contact voltage tests were conducted in accordance with Company specifications.

Specification EO-10315 (Quality Assurance of the Contact (Stray) Voltage and Periodic Distribution Structure Safety Inspection Programs) calls for 1200 quality assurance checks to be performed on the contractor contact voltage testing. The quality assurance checks are randomly selected from a database of all contact voltage tests and includes a field test for contact voltage. Con Edison performed 400 quality assurance checks of the underground distribution structures including underground residential distribution (URD), 400 quality assurance checks of overhead distribution structures and 400 quality assurance checks of municipality owned streetlights. Contact voltage was not found during any of these quality assurance reviews. In addition to the 1200 quality assurance checks discussed above, Con Edison also conducted Random Quality Assurance reviews of “work in progress.”

Quality Assurance Measures Instituted: Contact Voltage Testing of Transmission and Substation Facilities.

In accordance with CE-ES-1043, a planner in Transmission Line Maintenance who has knowledge and expertise in overhead transmission, but who did not perform or directly supervise the contact voltage testing, conducted quality assurance inspections at locations on various transmission lines for overhead transmission facilities. Contact voltage was not found during any of these quality assurance reviews.

Con Edison performed several types of quality assurance on the underground transmission contact voltage-testing program. Contractors, who also performed testing on underground distribution structures, performed the contact voltage testing of underground transmission facilities. Following this contact voltage testing, Con Edison Construction Management personnel performed audits at several locations. Contact voltage was not found during any of these quality assurance reviews.

Substations Operations Methods and Procedures group performed quality assurance for the substation contact voltage-testing program. The quality assurance consisted of a documents search, records review, as well as physical contact voltage testing. Contact voltage was not found during any of these quality assurance reviews.

Quality Assurance performed a quality review on a randomly selected sample of unit substations. Contact voltage was not found during any of these quality assurance reviews.

These QA checks confirmed the accuracy of the results from the Contact voltage-testing program.

Quality Assurance Measures Instituted: Inspections of Underground Distribution Structures and Overhead Distribution Structures.

A Central Quality Assurance group (QA) was established to oversee work done on the underground electrical system. QA observes specification compliance of the underground inspection program. EO-10315 (Quality Assurance of the Contact Voltage and Periodic Distribution Structure Safety Inspection Programs) establishes standards for the QA program in order to ensure that the underground structure inspections are performed in accordance with the Safety Standards and Con Edison's specifications. The reliability and error design parameters used were:

95% reliability within a $\pm 10\%$ relative precision level and satisfy established industry sample design criteria.

800 quality assurance checks are required to achieve a 95% confidence rate with a $\pm 10\%$ overall error that the inspections were conducted in accordance with Company specifications.

Con Edison employees from the centralized quality assurance department conduct the quality assurance for each of the Company's operating regions. These employees are experienced cable splicers, linemen and mechanics that have been trained in facility inspection and the quality assurance specifications.

The quality assurance personnel performed a complete re-inspection of 400 underground and 400 overhead facilities. The results of the randomly selected facilities are compared with the results to the previous inspected facilities. Deficiencies identified during quality assurance reviews are communicated to field crews, supervisors, planners, and managers who have been required to reinforce inspection procedures with field crews.

Quality Assurance Measures Instituted: Transmission and Substation Facility Inspections.

Company specifications CE-SS-6830 (Low and Medium Feeder Pressure Periodic Inspection Procedure) and CE-SS-6045 (Inspection and Preventive Maintenance and Contact Voltage Testing of Pipe Type Cable Systems) require that quality assurance inspections of randomly selected transmission manholes be performed. These randomly selected manholes are re-inspected or re-tested by trained and knowledgeable employees who did not perform or directly supervise this work.

Substation Operations' quality assurance program consists of periodic document reviews and field observations to ensure that 100% of the required contact voltage tests and a minimum of 20% of the Safety and Reliability Inspections of Substation facilities will be completed by December 31 of each year and that the testing and inspections are properly conducted.

Quality assurance was performed by members of the SSO Methods and Procedures group and consisted of a documents search, records review, and physical critical visual inspection. Critical visual inspection quality assurance was performed. In addition, all inspection and follow-up work order documentation was reviewed. Work orders are entered into our work management system and processed by appropriate personnel. These work orders are tracked closely until all repairs are completed. All personnel are trained on proper reporting and referral of repairs identified during facility inspections. The quality assurance inspections yielded results indicating that the original inspections were performed in accordance with the applicable specifications.

XI Other Pertinent Information

Con Edison continues to develop tools, techniques, and management applications to improve public safety, troubleshooting, and program efficacy. In 2013, the Secondary Analysis Engineering team lead research into the detection of overhead service neutral problems; asset inspection for non-visible defects; quantification of salt and its effects on underground structures; arcing detection; and public safety program optimization.

Appendix 1 : Summary of Contact Volatge Testing

	Total System Units Requiring Testing	Units Completed	Percent Completed	Units with Voltage Found* ($\geq 1.0v$)	Percent of Units Tested with Voltage ($\geq 1.0v$)	Units Classified as Inaccessible
Distribution Facilities**	277,427	277,427	100.00%	0	0.000%	3,226
Quarterly Update		2,639		0	0.000%	3,226
Underground Facilities	154,740	165,053	106.66%	0	0.000%	285
Quarterly Update		24,921		0	0.000%	156
Street Lights / Traffic Signals	111,894	112,987	100.98%	318	0.281%	269
Quarterly Update		1,566		0	0.000%	79
Substation Fences**	392	392	100.00%	1	0.255%	0
Quarterly Update		0		0	0.000%	0
Transmission (69kV and Above)**	1,212	1,212	100.00%	0	0.000%	0
Quarterly Update		0		0	0.000%	0
TOTAL	545,665	557,071	102.09%	319	0.537%	3,780
Quarterly Update			0.00%	0	0.000%	3,461

*Stray voltage sources on Con Edison structures and streetlights

**Tested for contact voltage during 5 year inspection cycle 2010-2014

194,249 structures tested with Mobile Detection

Data Collected through December 31, 2013

Appendix 2a : Summary of Energized Objects* - Mobile Testing



2013 Year
Jan 1, 2013 - Dec 31, 2013

	2013 Year Jan 1, 2013 - Dec 31, 2013						
	Initial Readings				Readings after Mitigation		
	1.0V - 4.4V	4.5V - 24.9V	> 25V	Total	< 1.0V	1.0V - 4.4V	> 4.5V
Distribution Facilities	2	4	4	10	10	0	0
Pole	2	4	3	9	9	0	0
Ground	0	0	0	0	0	0	0
Guy	0	0	0	0	0	0	0
Riser	0	0	1	1	1	0	0
Other	0	0	0	0	0	0	0
Underground Facilities	396	145	20	561	561	0	0
Service Box	367	134	20	521	521	0	0
Manhole	29	10	0	39	39	0	0
Padmount Switchgear	0	0	0	0	0	0	0
Padmount Transformer	0	0	0	0	0	0	0
Vault - Cover/Door	0	1	0	1	1	0	0
Pedestal	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Street Lights / Traffic Signals	1,036	477	246	1,759	1,759	0	0
Metal Street Light Pole	367	276	196	839	839	0	0
Traffic Signal Pole	596	158	39	793	793	0	0
Traffic Control Box	2	1	0	3	3	0	0
Pedestrian Crossing Pole	46	16	3	65	65	0	0
Other	25	26	8	59	59	0	0
Substation Fences	0	0	0	0	0	0	0
Fence	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Transmission (Total)	0	0	0	0	0	0	0
Lattice Tower	0	0	0	0	0	0	0
Pole	0	0	0	0	0	0	0
Ground	0	0	0	0	0	0	0
Guy	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Miscellaneous Facilities	3,129	1,220	304	4,653	4,653	0	0
Sidewalk	2	2	1	5	5	0	0
Gate/Fence/Awning	720	298	73	1,091	1,091	0	0
Traffic Sign	217	85	15	317	317	0	0
Scaffolding	52	14	20	86	86	0	0
Bus Shelter	13	16	1	30	30	0	0
Fire Hydrant	96	18	0	114	114	0	0
Phone Booth	0	1	0	1	1	0	0
Control Box	0	0	0	0	0	0	0
Water Pipe	3	0	0	3	3	0	0
Riser	0	0	0	0	0	0	0
Other	2,026	786	194	3,006	3,006	0	0
Total	4,563	1,846	574	6,983	6,983	0	0

*Data collected from 1/1/2013 through 12/31/2013

Appendix 2b : Summary of Energized Objects* - Manual Testing + Other



2013 Year
Jan 1, 2013 - Dec 31, 2013

	2013 Year Jan 1, 2013 - Dec 31, 2013						
	Initial Readings				Readings after Mitigation		
	1.0V - 4.4V	4.5V - 24.9V	> 25V	Total	< 1.0V	1.0V - 4.4V	> 4.5V
Distribution Facilities	4	15	2	21	21	0	0
Pole	1	6	0	7	7	0	0
Ground	0	1	0	1	1	0	0
Guy	0	2	0	2	2	0	0
Riser	3	0	0	3	3	0	0
Other	0	6	2	8	8	0	0
Underground Facilities	10	9	6	25	25	0	0
Service Box	6	3	3	12	12	0	0
Manhole	3	3	1	7	7	0	0
Padmount Switchgear	0	0	0	0	0	0	0
Padmount Transformer	0	0	0	0	0	0	0
Vault - Cover/Door	1	0	2	3	3	0	0
Pedestal	0	0	0	0	0	0	0
Other	0	3	0	3	3	0	0
Street Lights / Traffic Signals	86	195	78	359	359	0	0
Metal Street Light Pole	10	66	32	108	108	0	0
Traffic Signal Pole	18	34	3	55	55	0	0
Traffic Control Box	0	1	1	2	2	0	0
Pedestrian Crossing Pole	3	4	1	8	8	0	0
Other	55	90	41	186	186	0	0
Substation Fences	0	0	0	0	0	0	0
Fence	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Transmission (Total)	0	0	0	0	0	0	0
Lattice Tower	0	0	0	0	0	0	0
Pole	0	0	0	0	0	0	0
Ground	0	0	0	0	0	0	0
Guy	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Miscellaneous Facilities	35	21	7	63	63	0	0
Sidewalk	0	0	0	0	0	0	0
Gate/Fence/Awning	8	4	1	13	13	0	0
Traffic Sign	0	1	0	1	1	0	0
Scaffolding	1	0	0	1	1	0	0
Bus Shelter	0	0	0	0	0	0	0
Fire Hydrant	4	1	1	6	6	0	0
Phone Booth	0	1	0	1	1	0	0
Control Box	0	0	0	0	0	0	0
Water Pipe	1	2	1	4	4	0	0
Riser	0	0	0	0	0	0	0
Other	21	12	4	37	37	0	0
Total	135	240	93	468	468	0	0

*Data collected from 1/1/2013 through 12/31/2013

Appendix 3 : Summary of Shock Reports from the Public



2013 4th Quarter
Jan 1, 2013 - Dec 31, 2013

**Quarterly
Update**

**Yearly
Update**

I. Total Shock Calls Received:	45	160
Unsubstantiated	24	71
Normally Energized Equipment	0	15
Stray Voltage:	21	74
Person	7	51
Animal	14	23
II. Injuries Sustained	0	1
Utility Responsibility		
Person	0	0
Animal	0	0
Non Utility Responsibility		
Person	0	1
Animal	0	0
Unsubstantiated		
Person	0	0
Animal	0	0
III. Medical Attention Received	0	3
Utility Responsibility		
Person	0	0
Animal	0	0
Non Utility Responsibility		
Person	0	0
Animal	0	0
Unsubstantiated		
Person	0	3
Animal	0	0
IV. Voltage Source:	21	74
Utility Responsibility:		
Issue with primary, joint, or transformer	0	0
Secondary Joint (Crab)	1	1
SL Service Line	3	4
Abandoned SL Service Line	0	0
Abandoned Service Line	0	1
Defective Service Line	8	16
OH Secondary	1	1
OH Service	0	0
OH Service Neutral	0	0
OH SL Service	0	0
OH SL Service Neutral	0	0
Pole	0	0
Riser	0	0
Other	0	0
Customer Responsibility:		
Contractor Damage	1	5
Customer Equipment/Wiring	6	33
Other Utility/Gov't Agency Responsibility:		
SL Base Connection	0	1
SL Internal Wiring or Light Fixture	0	7
Overhead Equipment	0	1
Other	1	4
V. Voltage Range:	21	74
1.0V to 4.4V	4	16
4.5V to 24.9V	4	10
25V and above	13	45
No Reading	0	3

Appendix 4 : Summary of Deficiencies and Repair Activity Resulting from the Inspection Process

Summary of Deficiencies and Repair Activity Resulting from the Inspection Process - Distribution															
Overhead Facilities	2009			2010			2011			2012			2013		
Priority Level	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III
Repair Expected	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years
Poles															
Pole Condition															
Number of Deficiencies															
Repaired in Time Frame															
Repaired - Overdue															
Not Repaired - Not Due															
Not Repaired - Overdue															
Grounding System															
Number of Deficiencies			4,272			5,357			2,273			4,035			771
Repaired in Time Frame			4,006			2,846			328			481			190
Repaired - Overdue			154			181			0			0			0
Not Repaired - Not Due			0			0			1,945			3,554			581
Not Repaired - Overdue			112			2,330			0			0			0
Anchors/Guy Wire															
Number of Deficiencies			34			413			342			934			564
Repaired in Time Frame			21			173			83			263			331
Repaired - Overdue			5			18			0			0			0
Not Repaired - Not Due			0			0			259			671			233
Not Repaired - Overdue			8			222			0			0			0
Cross Arm/Bracing															
Number of Deficiencies		123			478			239			144			507	
Repaired in Time Frame		118			260			97			64			488	
Repaired - Overdue		5			163			64			7			0	
Not Repaired - Not Due		0			0			0			0			19	
Not Repaired - Overdue		0			55			78			73			0	
Riser															
Number of Deficiencies			617			731			662			614			196
Repaired in Time Frame			594			134			104			81			86
Repaired - Overdue			8			5			0			0			0
Not Repaired - Not Due			0			0			558			533			110
Not Repaired - Overdue			15			592			0			0			0

Conductors															
Primary Wire/Broken Ties															
Number of Deficiencies	3	337	4,862	28	1,261	5,434	16	395	4,287	20	253	3,218	16	159	932
Repaired in Time Frame	3	274	4,417	8	795	3,036	8	228	1,501	8	163	967	8	111	378
Repaired - Overdue	0	63	274	20	391	320	8	88	0	12	14	0	8	0	0
Not Repaired - Not Due	0	0	0	0	0	0	0	0	2,786	0	0	2,251	0	48	554
Not Repaired - Overdue	0	0	171	0	75	2,078	0	79	0	0	76	0	0	0	0
Secondary Wire															
Number of Deficiencies			29			577			97			103			387
Repaired in Time Frame			26			217			39			45			357
Repaired - Overdue			2			59			0			0			0
Not Repaired - Not Due			0			0			58			58			30
Not Repaired - Overdue			1			301			0			0			0
Neutral															
Number of Deficiencies		185			19			18			10			21	
Repaired in Time Frame		185			15			11			7			17	
Repaired - Overdue		0			4			4			1			0	
Not Repaired - Not Due		0			0			0			0			4	
Not Repaired - Overdue		0			0			3			2			0	
Insulators															
Number of Deficiencies		108			441			246			129			289	
Repaired in Time Frame		107			255			85			71			276	
Repaired - Overdue		1			138			68			8			0	
Not Repaired - Not Due		0			0			0			0			13	
Not Repaired - Overdue		0			48			93			50			0	
Pole Equipment															
Transformers															
Number of Deficiencies	4			37			3			8			10		
Repaired in Time Frame	3			22			0			4			7		
Repaired - Overdue	1			15			3			4			3		
Not Repaired - Not Due	0			0			0			0			0		
Not Repaired - Overdue	0			0			0			0			0		
Cutouts															
Number of Deficiencies				3			6			3			5		
Repaired in Time Frame				1			4			1			2		
Repaired - Overdue				2			2			2			3		
Not Repaired - Not Due				0			0			0			0		
Not Repaired - Overdue				0			0			0			0		

Lightning Arrestors															
Number of Deficiencies		33			78			33			75			51	
Repaired in Time Frame		33			35			15			22			23	
Repaired - Overdue		0			39			5			4			0	
Not Repaired - Not Due		0			0			0			0			28	
Not Repaired - Overdue		0			4			13			49			0	
Other Equipment															
Number of Deficiencies			95			144			42			102	2	85	102
Repaired in Time Frame			79			98			18			55	1	81	80
Repaired - Overdue			7			3			0			0	1		0
Not Repaired - Not Due			0			0			24			47	0	4	22
Not Repaired - Overdue			9			43			0			0	0		0
Miscellaneous															
Trimming Related															
Number of Deficiencies															
Repaired in Time Frame															
Repaired - Overdue															
Not Repaired - Not Due															
Not Repaired - Overdue															
Other															
Number of Deficiencies			1,293												
Repaired in Time Frame			1,293												
Repaired - Overdue			0												
Not Repaired - Not Due			0												
Not Repaired - Overdue			0												
Overhead Facilities Total															
Total															
Number of Deficiencies	7	2,079	9,909	68	2,277	12,656	25	931	7,703	31	611	9,006	33	1,112	2,952
Repaired in Time Frame	6	2,010	9,143	31	1,360	6,504	12	436	2,073	13	327	1,892	18	996	1,422
Repaired - Overdue	1	69	450	37	735	586	13	229	0	18	34	0	15	0	0
Not Repaired - Not Due	0	0	0	0	0	0	0	0	5,630	0	0	7,114	0	116	1,530
Not Repaired - Overdue	0	0	316	0	182	5,566	0	266	0	0	250	0	0	0	0

Summary of Deficiencies and Repair Activity Resulting from the Inspection Process - Transmission

Transmission Facilities	2009			2010			2011			2012			2013		
	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III
	Repair Expected Within 1 week	Repair Expected Within 1 year	Repair Expected Within 3 years	Repair Expected Within 1 week	Repair Expected Within 1 year	Repair Expected Within 3 years	Repair Expected Within 1 week	Repair Expected Within 1 year	Repair Expected Within 3 years	Repair Expected Within 1 week	Repair Expected Within 1 year	Repair Expected Within 3 years	Repair Expected Within 1 week	Repair Expected Within 1 year	Repair Expected Within 3 years
Towers/Poles															
Steel Towers															
Number of Deficiencies															
Repaired in Time Frame															
Repaired - Overdue															
Not Repaired - Not Due															
Not Repaired - Overdue															
Poles															
Number of Deficiencies															
Repaired in Time Frame															
Repaired - Overdue															
Not Repaired - Not Due															
Not Repaired - Overdue															
Anchors/Guy Wire															
Number of Deficiencies															
Repaired in Time Frame															
Repaired - Overdue															
Not Repaired - Not Due															
Not Repaired - Overdue															
Crossarm/Brace															
Number of Deficiencies															
Repaired in Time Frame															
Repaired - Overdue															
Not Repaired - Not Due															
Not Repaired - Overdue															
Grounding System															
Number of Deficiencies			51			60			9			0			2
Repaired in Time Frame			51			60			9			0			2
Repaired - Overdue			0			0			0			0			0
Not Repaired - Not Due			0			0			0			0			0
Not Repaired - Overdue			0			0			0			0			0

Secondary Cable															
Number of Deficiencies	4,993	12,631		3,144	4,742		2,183	3,021		2,135	3,789		8,115	12,272	
Repaired in Time Frame	3,339	9,684		2,596	3,342		1,894	1,902		1,579	1,769		1,500	1,602	
Repaired - Overdue	1,654	1,549		531	81		124	0		32	0		0	0	
Not Repaired - Not Due	0	0		0	0		0	1,119		0	2,020		6,615	10,670	
Not Repaired - Overdue	0	1,398		17	1,319		165	0		524	0		0	0	
Neutral Cable															
Number of Deficiencies	8,481			1,003			738			634			3,843		
Repaired in Time Frame	7,422			799			569			395			394		
Repaired - Overdue	1,059			196			95			18			0		
Not Repaired - Not Due	0			0			0			0			3,449		
Not Repaired - Overdue	0			8			74			221			0		
Racking Needed															
Number of Deficiencies															
Repaired in Time Frame															
Repaired - Overdue															
Not Repaired - Not Due															
Not Repaired - Overdue															
Miscellaneous															
Other															
Number of Deficiencies	108,186	309		1,315	19,617		1,027	15,057		3,513	35,859		13,282	64,546	
Repaired in Time Frame	108,186	11		1,236	19,273		950	14,682		3,459	35,624		13,198	64,132	
Repaired - Overdue	0	298		79	337		76	313		53	105		20	0	
Not Repaired - Not Due	0	0		0	0		0	0		0	0		4	414	
Not Repaired - Overdue	0	0		0	7		1	62		1	130		60	0	
Underground Facilities Total															
Total															
Number of Deficiencies	108,194	15,855	14,914	1,378	25,386	5,003	1,064	19,502	3,133	3,549	40,006	3,855	13,334	78,146	12,332
Repaired in Time Frame	108,191	11,616	11,962	1,276	23,796	3,486	962	18,188	1,963	3,474	38,300	1,807	13,216	66,498	1,628
Repaired - Overdue	3	4,195	1,549	102	1,477	85	101	777	0	74	195	0	30	0	0
Not Repaired - Not Due	0	0	0	0	0	0	0	0	1,170	0	0	2,048	4	11,648	10,704
Not Repaired - Overdue	0	44	1,403	0	113	1,432	1	537	0	1	1,511	0	84	0	0

Summary of Deficiencies and Repair Activity Resulting from the Inspection Process - Pad Mount Transformers

Pad Mount Transformers	2009			2010			2011			2012			2013		
	I	II	III	I	II	III	I	II	III	I	II	III	I	II	III
	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years	Within 1 week	Within 1 year	Within 3 years
Pad Mount Transformers															
Damaged Structure															
Number of Deficiencies		229		36	294		44	44	45	116	29	28	203	313	15
Repaired in Time Frame		57		36	251		43	40	34	113	16	10	99	75	2
Repaired - Overdue		154		0	7		0	1	0	1	0	0	28	0	0
Not Repaired - Not Due		0		0	0		0	0	11	0	0	18	6	238	13
Not Repaired - Overdue		18		0	36		1	3	0	2	13	0	70	0	0
Damaged Equipment															
Number of Deficiencies		7			32										
Repaired in Time Frame		1			24										
Repaired - Overdue		5			0										
Not Repaired - Not Due		0			0										
Not Repaired - Overdue		1			8										
Cable Condition															
Number of Deficiencies	116	44	9	13	378		67	494	65	76	461	114	656	745	361
Repaired in Time Frame	111	5	1	13	354		64	404	1	72	279	3	617	238	9
Repaired - Overdue	5	34	1	0	3		0	5	0	1	33	0	11	1	0
Not Repaired - Not Due	0	0	0	0	0		0	0	64	0	0	111	1	506	352
Not Repaired - Overdue	0	5	7	0	21		3	85	0	3	149	0	27	0	0
Oil Leak															
Number of Deficiencies	1	1		3			19	1		11	1		8	3	
Repaired in Time Frame	0	0		3			15	0		11	0		2	0	
Repaired - Overdue	1	0		0			0	0		0	0		1	0	
Not Repaired - Not Due	0	0		0			0	0		0	0		0	3	
Not Repaired - Overdue	0	1		0			4	1		0	1		5	0	
Off Pad															
Number of Deficiencies				23			10			5			25		
Repaired in Time Frame				23			7			4			5		
Repaired - Overdue				0			1			0			2		
Not Repaired - Not Due				0			0			0			3		
Not Repaired - Overdue				0			2			1			15		

Lock/Latch/Penta															
Number of Deficiencies	11			44			44			34			75		
Repaired in Time Frame	5			44			44			34			62		
Repaired - Overdue	6			0			0			0			0		
Not Repaired - Not Due	0			0			0			0			5		
Not Repaired - Overdue	0			0			0			0			8		
Miscellaneous															
Other															
Number of Deficiencies	469	10		96	150	207	337	251	9	682	241		1170	243	
Repaired in Time Frame	469	0		96	149	67	336	238	4	671	137		1093	118	
Repaired - Overdue	0	9		0	0	5	0	1	0	1	0		17	0	
Not Repaired - Not Due	0	0		0	0	0	0	0	0	0	0		0	125	
Not Repaired - Overdue	0	1		0	1	135	1	12	5	10	104		60	0	
Pad Mount Total															
Total															
Number of Deficiencies	597	291	9	215	854	207	521	790	119	924	732	142	2137	1304	376
Repaired in Time Frame	585	63	1	215	778	67	509	682	39	905	432	13	1878	431	11
Repaired - Overdue	12	202	1	0	10	5	1	7	0	3	33	0	59	1	0
Not Repaired - Not Due	0	0	0	0	0	0	0	0	75	0	0	129	15	872	365
Not Repaired - Overdue	0	26	7	0	66	135	11	101	5	16	267	0	185	0	0

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
2009	I	Within 1 week	108,798	108,782	16	0	0
	II	Within 1 year	18,225	13,689	4,466	0	70
	III	Within 3 years	24,900	21,174	2000	0	1,726
	IV	N/A	35,367	16,608	N/A	18,759	N/A
2010	I	Within 1 week	1,662	1,523	139	0	0
	II	Within 1 year	28,517	25,934	2,222	0	361
	III	Within 3 years	17,949	10,117	676	0	7,156
	IV	N/A	60,848	14,183	N/A	46,665	N/A
2011	I	Within 1 week	1,610	1,483	115	0	12
	II	Within 1 year	21,223	19,306	1,013	0	904
	III	Within 3 years	10,982	4,085	0	6,892	5
	IV	N/A	41,399	7,121	N/A	34,278	N/A
2012	I	Within 1 week	4,504	4,392	95	0	17
	II	Within 1 year	41,349	39,059	262	0	2,028
	III	Within 3 years	13,040	3,712	0	9,328	0
	IV	N/A	53,542	4,567	N/A	48,975	N/A
2013	I	Within 1 week	15,504	15,112	104	19	269
	II	Within 1 year	80,562	67,925	1	12,636	0
	III	Within 3 years	15,670	3,063	0	12,607	0
	IV	N/A	99,302	4,695	N/A	94,607	N/A

Summary of Deficiencies and Repair Activity Resulting from the Inspection Process - Level IV Conditions

Overhead Facilities	2009		2010		2011		2012		2013	
	Number of Conditions Found	Number of Conditions Repaired	Number of Conditions Found	Number of Conditions Repaired	Number of Conditions Found	Number of Conditions Repaired	Number of Conditions Found	Number of Conditions Repaired	Number of Conditions Found	Number of Conditions Repaired
Overhead Facilities										
Pole Condition										
Pole Condition	7,194	7,031	11,089	2,836	1,183	121	695	142	916	641
Grounding System										
Anchors/Guy Wire										
Cross Arm/Bracing										
Riser										
Conductors										
Primary Wire/Broken Ties										
Secondary Wire										
Neutral										
Insulators										
Pole Equipment										
Transformers										
Cutouts										
Lightning Arrestors										
Other Equipment										
Miscellaneous										
Trimming Related										
Other	4,374	4,120	1,738	577	922	299	1,197	194	411	172
Overhead Facilities Total	11,568	11,151	12,827	3,413	2,105	420	1,892	336	1,327	813
Transmission Facilities										
Tower/Poles										
Steel Towers			7		13		7		4	
Poles			0		0		0		0	
Anchors/Guy Wire			0		0		0		0	
Crossarm/Brace			0		0		0		0	
Grounding System			10		14		3		4	
Conductors										
Cable			3		0		2		2	
Static/Neutral			3		0		0		0	
Insulators			0		0		0		0	
Miscellaneous										
Right of Way Conditions			0		0		0		0	
Other			0		155		204		78	
Transmission Facilities Total	0	0	23	0	182	0	216	0	88	0
Underground Facilities										
Underground Structures										
Damage Covers										
Damage Structures										
Congested Structures			2,042	242	1,799	100	1,445	32	2,050	41
Damage Equipment										
Conductors										
Primary Cable										
Secondary Cable										
Neutral Cable										
Racking Needed	23,785	5,446	13,012	2,613	9,698	1,338	14,119	785	32,651	667
Miscellaneous										
Other			32,302	7,401	25,748	3,915	34,085	2,352	61,289	2,499
Underground Facilities Total	23,785	5,446	47,356	10,256	37,245	5,353	49,649	3,169	95,990	3,207

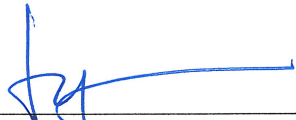
Pad Mount Transformers										
Underground Structures										
Damage Structures					561	331	396	163	668	95
Damage Equipment										
Damage Cable										
Oil Leak										
Off Pad										
Lock/Latch/Penta										
Miscellaneous										
Other	14	11	642	514	1,306	1,017	1,389	899	1,229	580
Pad Mount Transformers Total	14	11	642	514	1,867	1,348	1,785	1,062	1,897	675
Streetlights										
Streetlights										
Base/Standar/Light										
Handhole/Service Box										
Service/Internal Wiring										
Access Cover										
Miscellaneous										
Other										
Streetlight Total										
Total Level IV Conditions										
Overall Total	35,367	16,608	60,848	14,183	41,399	7,121	53,542	4,567	99,302	4,695

Exhibit 1

Certification of Contact Voltage Testing

Robert Schimmenti, on this 13 day of February 2014, certifies as follows:

1. I am Vice President of Consolidated Edison Company of New York, Inc. (“Con Edison” or “the Company”).
2. I am responsible for overseeing Con Edison’s contact voltage testing program, and in that capacity I have monitored the Company’s contact voltage testing program during the twelve months ended December 31, 2013 (“the twelve month period”). During the twelve-month period, Con Edison instituted and diligently carried out a program designed to meet the contact voltage testing requirements of the Public Service Commission’s Safety Standards, issued in Case 04-M-0159, Proceeding Instituting Safety Standards.
3. To the best of my knowledge, information, and belief, during the twelve month period, Con Edison identified and tested for contact voltage (i) all publicly accessible electric facilities owned by the Company for which testing is required pursuant to the Safety Standards as modified by the Public Service Commission’s Order issued March 22, 2013 in Case 04-M-0159, and (ii) all publicly accessible streetlights and traffic signals located in public thoroughfares in the Company’s service territory and directly supplied by the Company as identified through a good faith effort by the Company, except for such facilities that are identified in the Company’s Annual Report, submitted herewith.



Robert Schimmenti

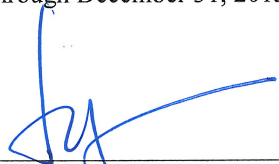
Certification of Inspections

Robert Schimmenti, on this 13 day of February 2014, certifies as follows:

1. I am Vice President of Consolidated Edison Company of New York, Inc. ("Con Edison" or "the Company").

2. I am responsible for overseeing Con Edison's electric facility inspection program, and in that capacity I have monitored the Company's inspection program during the twelve months ended December 31, 2013 ("the twelve-month period"). During the twelve-month period, Con Edison instituted and diligently carried out a program designed to meet the inspection requirements established by the Public Service Commission's Safety Standards, issued in Case 04-M-0159, Proceeding Instituting Safety Standards.

3. To the best of my knowledge, information, and belief, Con Edison has visually inspected the requisite number of electric facilities during the twelve-month period, including the requirement to have conducted a visual inspection of at least 80% of its electric facilities through December 31, 2013.



Robert Schimmenti

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