
2014

**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, **2014** and ending on December 31, **2014**.

February 15, **2015**

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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 for 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 any location 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 2014.

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: 157 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 1,220 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, 2014, Con Edison continued the transition toward the modified contact voltage testing frequencies established in the March 22, 2013 Order. All facilities requiring annual contact voltage testing were tested. All facilities requiring testing on a five year cycle were tested by 2014. In addition, Con Edison tested for contact voltage on all municipally owned metallic streetlights and traffic signals located on thoroughfares or areas that are publicly accessible and 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, 150,147 were fielded for manual testing. The remaining facilities were tested under the mobile contact voltage program. Of the 150,147 underground facilities visited during manual testing, 201 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 2,076 overhead facilities (Con Edison owned) that were visited to be tested for contact voltage, 398 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 and which are located on public thoroughfare, approximately 113,622 facilities were required to be tested manually. The remaining facilities were tested under the mobile contact voltage program. Of the facilities visited, 172 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 2014, Con Edison tested for contact voltage 572 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 1,220 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 2014 Contact Testing Program

The results of the 2014 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 2014 Facility Inspection Program

The results of the 2014 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 Commission's Safety Standards.

The Commission's May 22, 2013 Order in Case 04-M-0159, granted Con Edison a three-month extension of time to complete the 2010 to 2014 inspection cycle of its electric facilities such that the current inspection cycle would run through March 31, 2015 instead of December 31, 2014.³

During the five-year period ended December 31, 2014, Con Edison had cumulatively inspected 99.88% of its overall population of electric facilities. The Company will further report on the status of electric facility inspections following the three-month extension period provided for in the Commission's May 22, 2013 order. Additionally, the Company will submit an inspection affidavit certifying that all mandated inspections were completed by the Commission's March 31, 2015 deadline. The percentages of inspections through December 31, 2014 by structure category are summarized in the table below.

Facility Inspection Program Results

Category	Actual Cumulative Inspected as of 2014
Overhead Distribution	100%
Overhead Transmission	100%
Underground / URD Distribution	99.74%
Underground Transmission	100%
Substation and PURS Facilities	100%
Unit Substations	100%
Company-owned Streetlights*	N/A

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

³ *Proceeding on Motion of the Commission to Examine the Safety of Electric Transmission and Distribution Systems*, 04-M-0159, Order Approving Staff Memorandum, issued May 22, 2013.

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	2,076	100%

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	1220	100%

*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	83,659	99.74%

** Due to Super Storm Sandy, there are a maximum 1,500 UG structures that were allowed to be inspected in the first quarter of 2015; 711 are being carried over into 2015

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	1220	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	19	100%

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	243	100%

*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 the officer's 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 2014, 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, 2015 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 2014, 8759 voltage findings resulted from contact voltage testing. These findings resulted from 3395 sources of contact voltage. A total of 8558, approximately 98% of these findings, were detected by the Mobile Contact Voltage Testing Program. There were 201 findings (2%) 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 33 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 2014 causes of contact voltage findings that were Con Edison's responsibility:

**2014 Sources of Contact Voltage Finding
Con Edison Responsibility**

Source of Contact Voltage	Con Ed
UG Service	405
UG Streetlight Service	576
UG Streetlight Con Edison Neutral	50
UG Main	286
Secondary Burnout	184
UG Service Con Edison Neutral	98
Crab	73
UG Main Con Edison Neutral	158
Abandoned Service	50
Sump Pump	87
Abandoned SL Service	28
Overhead Streetlight Service Neutral	1
Loose UG SL Service Connection at CE Structure	7
Overhead Service	10
Overhead Service Neutral	11
Overhead Streetlight Service	4
Con Ed S/L Reversed Polarity	0
Damaged/Missing Ground Rod	1
Defective Riser/Insulator	7
Con Ed non-S/L Reversed Polarity	0
Temporary Service	14
Overhead Secondary	2
Overhead Primary	0
Defective Pigtail/ISO	1
Defective Transformer Equipment	3
Total	2056

The following table contains a breakdown of the 2014 causes of contact voltage findings that were the responsibility of entities other than Con Edison (“Non Con Edison Responsibility”):

**2014 Sources of Contact Voltage
Non Con Edison Responsibility**

Source of Contact Voltage	Non Con Edison
Defective Customer Equipment	417
Defective Contractor Equipment	13
Defective Pigtail/Internal City Streetlight Wiring/Loose Connection at Lamp Base/Open Ended Control Wiring	613
Dept. of Transportation (DOT)/City Streetlight Neutral	269
Defective Neon Sign	6
DOT Temp Service	0
DOT Reverse Polarity	1
Contractor or Customer Damage	20
Total	1,339

Mitigation through Detection

Five factors affect the likelihood that a member of the public or an 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 2014 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.

The ESRs associated with Con Edison’s equipment appear on Chart 1. As mentioned above, weather also plays a role in ESR generation. Higher precipitation in 2014 increased the generation rate of ESRs associated with Con Edison’s equipment. This weather variable is accounted for in the underlying models and in both the 2014 and long term predictions. The duration between scans ranges from approximately 30 to 35 days per scan. If Con Edison continues with a comparable ENE repair rate and scan interval in 2015 and experiences similar weather patterns, the Company can expect ESRs to be approximately 2 per

scan. In 2014 there were 46 shocks associated with the Company's equipment. This result is above the projection but well below pre-safety program performance and more consistent with weather related influences.

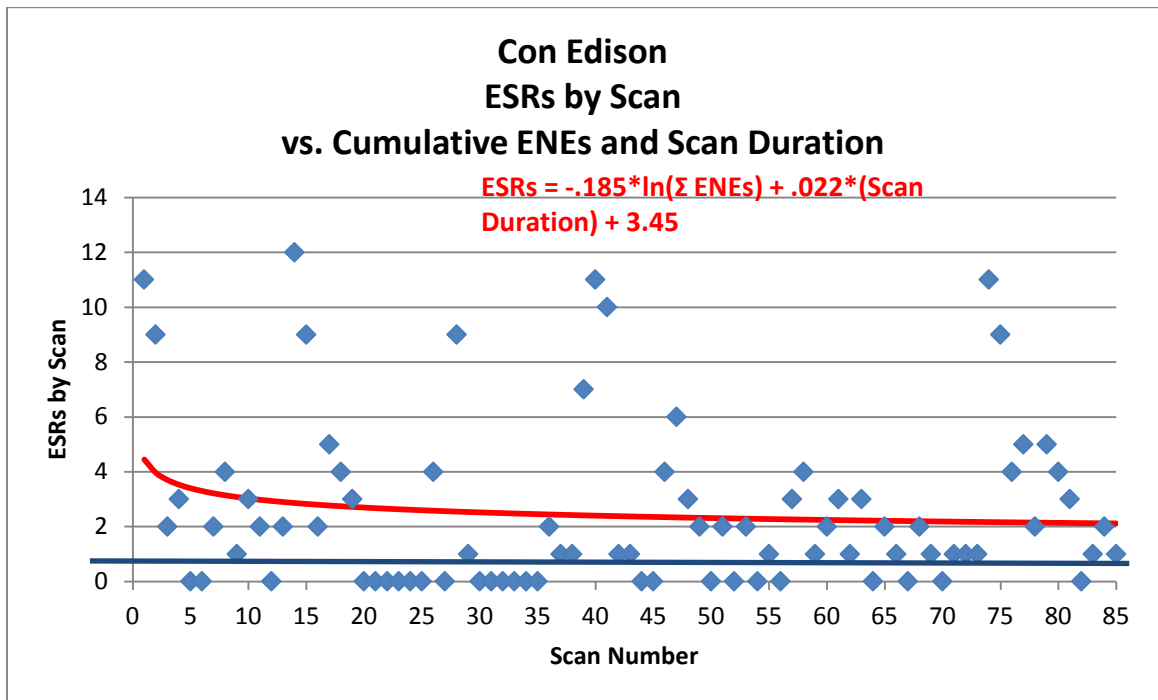


Chart 1

The ESRs associated with DOT equipment appear on Chart 2. The duration of scans is 30 to 35 days per scan. If the Company continues a comparable ENE repair rate and scan duration in 2015, the Company 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 2014 there were 4 shocks associated with DOT equipment failures. This result is below the company's projections and shows performance continues to improve from the various programs implemented by both DOT and Con Edison to mitigate shocks.

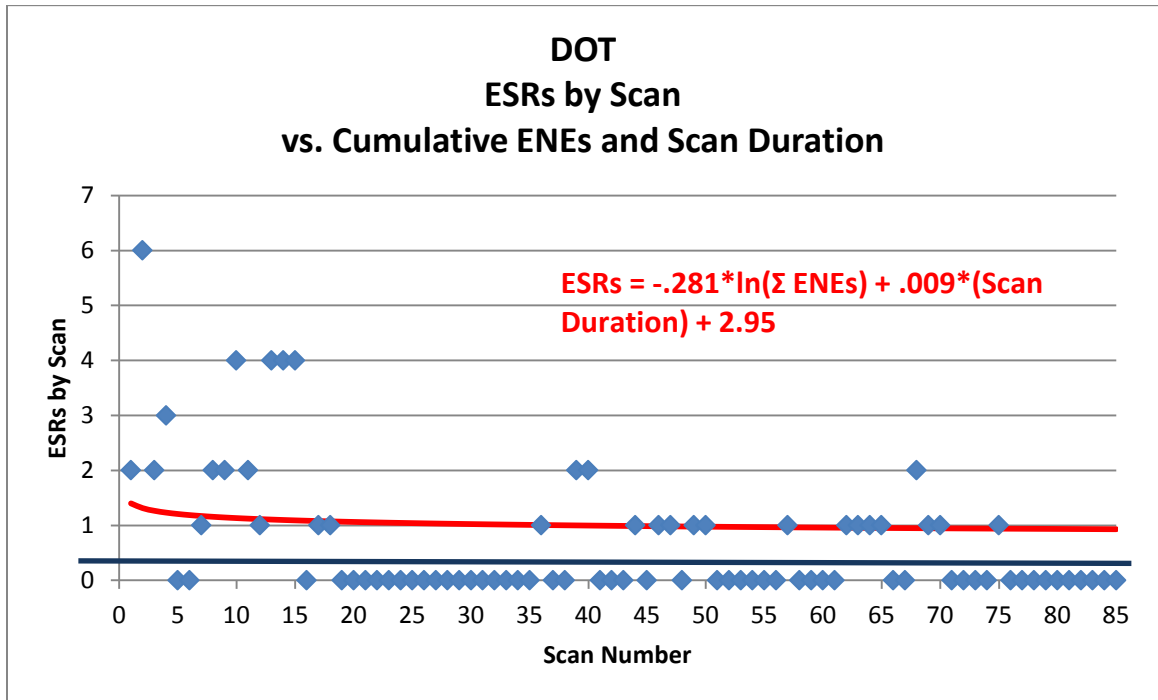


Chart 2

The ESRs associated with Customer’s equipment appear on Chart 3. The duration of scans is 30 to 35 days per scan. If the Company continues a comparable ENE repair rate and scan duration in 2015, the Company 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 2014, the Company responded to 34 validated shock reports on publicly accessible customer equipment.

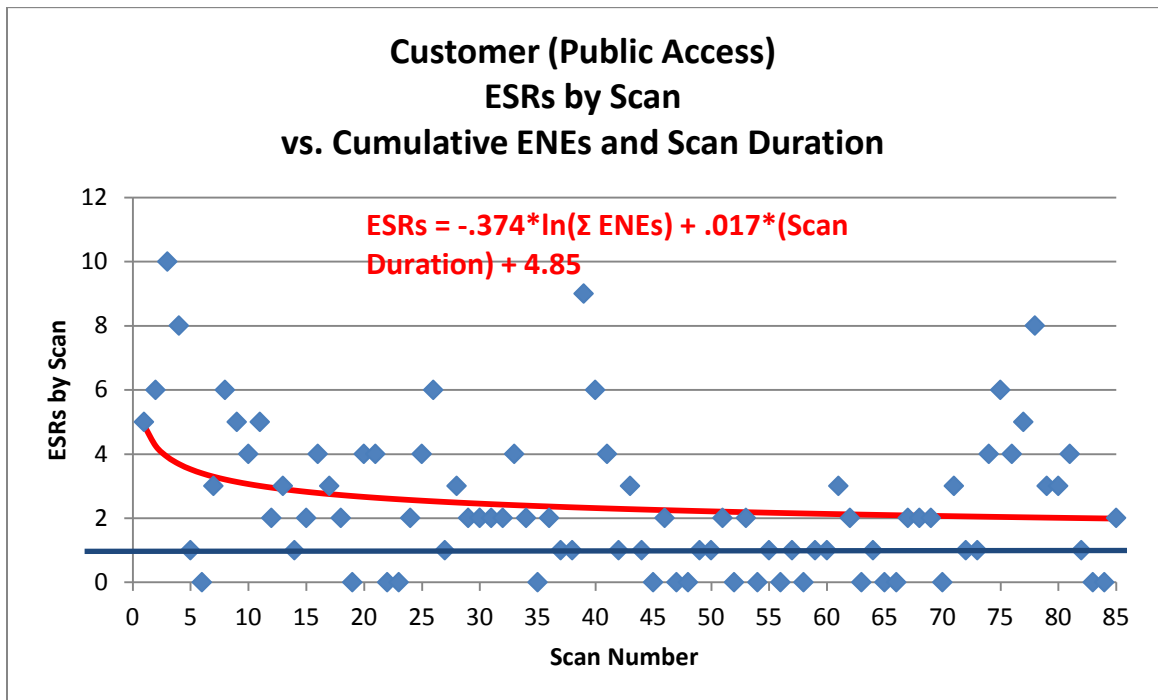


Chart 3

As has been discussed in the Company’s prior annual reports, the Company continues to observe a strong correlation between weather and shocks during 2014.

In evaluating snow and rainfall in successive years (chart 4), the system response to ground conditions, such as the level of precipitation, changes from 2009 to 2014. As snowfall and rainfall increase from 2009 to 2014, ESRs also increase, and as snow and rainfall increased there is an increase in number of ENE/ESR in 2014. The Company will continue to monitor this correlation in 2015.

In 2014 energized objects (ENEs) detected and electric shock reports (ESRs) increased from 2013. This increase is primarily due to a harsh winter in 2014 - including approximately 149k tons more salt and 20 inches more snow than 2013, and a five year high of days when the temperature did not exceed the freezing point. ESRs remain well below their pre-program historical values, e.g., in 2004 there were 285 ESRs.. These weather-driven fluctuations demonstrate that the Con Edison Public Safety Programs continue to control risk. In addition, the ESR generation rate per scan appears to be stable.

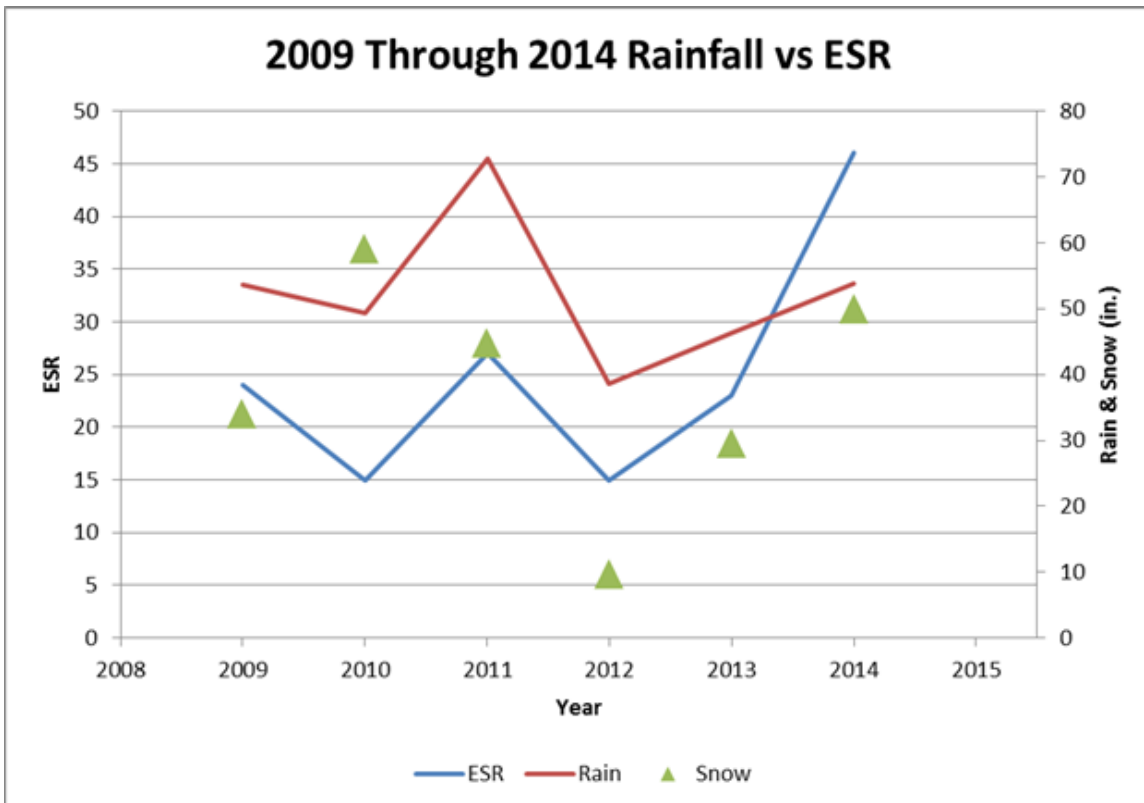


Chart 4

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	83,659	277,122	99.74%
Distribution Overhead	85,124	86,548	80,610	35,885	2,076	290,243	100%
Transmission Underground	542	615	641	360	0	2,158	100%
Transmission Overhead	1,212	1,212	1,212	1,220	1,220	1,220	100%
Substations	23	23	21	20	17	104	100%
PURS Facilities	3	2	2	2	2	11	100%
Unit Substations	243	243	243	243	243	243	100%
Total	130,330	116,227	131,449	111,706	87,217	571,101	99.88%

Overhead Distribution Structures

Breakdown of Locations with Deficiencies**

Priority Rating	Number of Deficiencies	% Deficiencies Found
1	0	0.00%
2	0	0.00%
3	1	7.14%
4	13	92.86%
Total:	14	100.00%

** Locations may have multiple deficiencies

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%

** Locations may have multiple deficiencies

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 within the Company's service area are owned by the City of New York and municipalities located in Westchester County.

Repair of Deficiencies

During 2014, the Company repaired 98.6% of the Level I defects found, 84.3% of the Level II defects found, 13.1% of the Level III defects found, and 3.3% of the level IV defects found. Thus, 67.8% of the Level I, II & III defects found in 2014 were repaired in 2014. The total number of open and overdue Level 1 repairs from the 2014 Underground, Overhead, and URD programs is 259.

As of February 10, 2015, 218 Level I defects from 2014 are reported as open and overdue in the Underground and URD programs. These include 134 repairs associated with the URD Program and 84 repairs associated with the Underground Program. A majority of the residual open defects are associated

with equipment that has been identified for replacement, defective URD grating bolts and/or unsealed URD service ducts.

Temporary Repairs

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

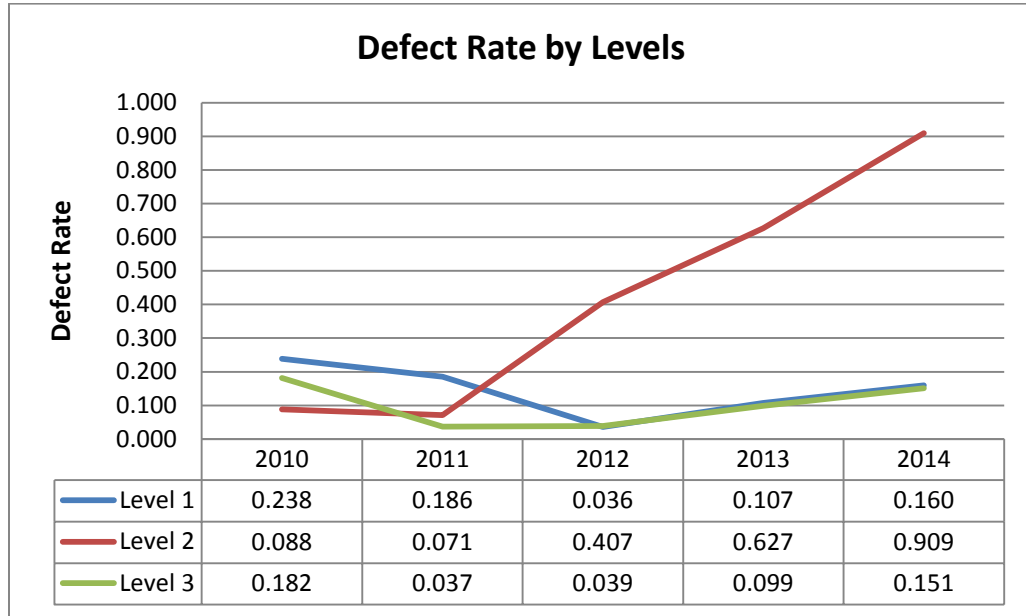
	Level I	Level II	Level III
Underground Distribution	157	751	487
Overhead Distribution	1	7	22
URD	125	84	16

The Level I temporary repairs are currently being reviewed. The majority has been permanently repaired and is 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.

Analysis of Defects Found

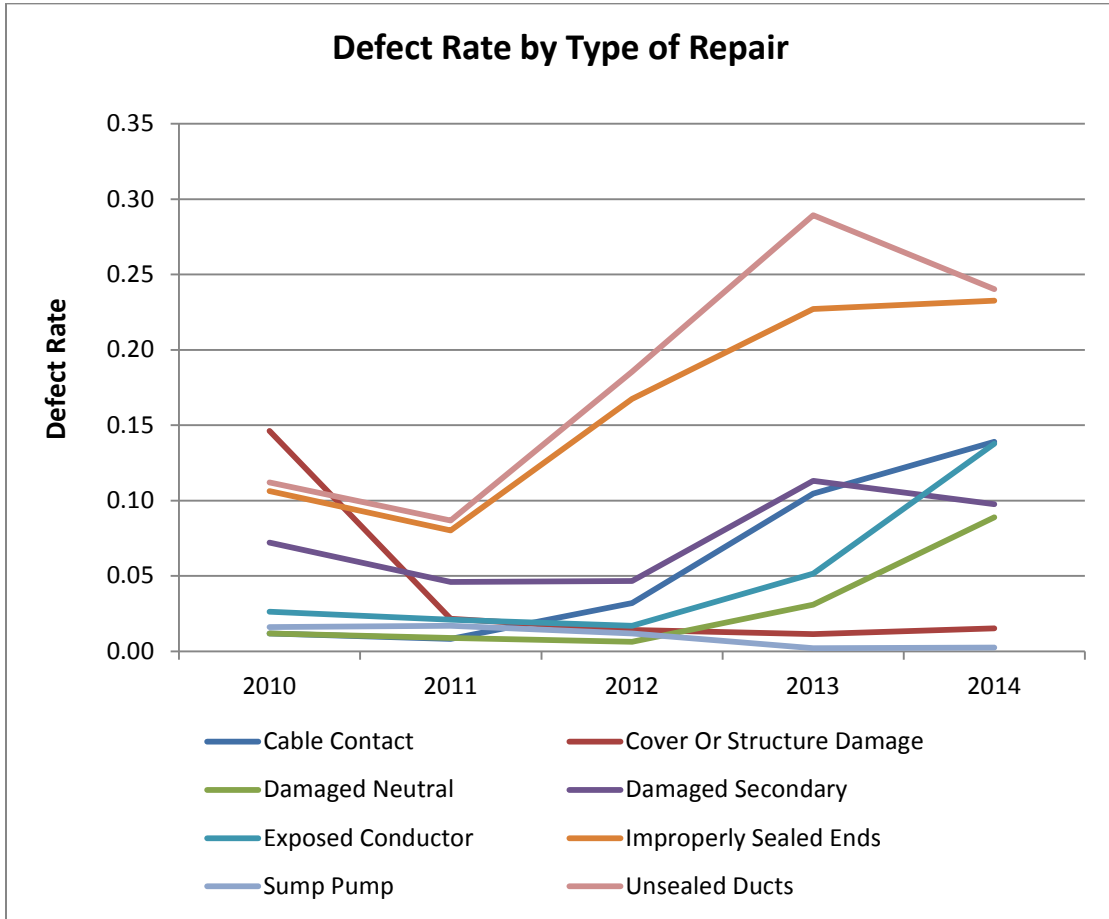
The chart below shows the number of defects found per inspection:



*Note:

Beginning 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.

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



In most categories, there are increases in the defect rate from 2013 to 2014; however, there has been a decrease in the level of unsealed ducts and damaged secondary, along with a leveling in the rate of improperly sealed ends. Years 2013 and 2014 were challenging years in terms of weather with 30 inches and 50 inches of snow and 232 k tons and 382 k tons of salt distributed, respectively. The weather contributed to a significant increase in the number of manhole events from the prior years; 196 and 257 manhole events, respectively. Manhole events represent stresses to the system and associated components that contribute to increasing inspection program defect rates in some categories.

The weather directly contributed to the increase in damaged secondary, exposed conductor and damaged neutrals. Additionally, 2014 saw an increase in reported cable contact by contractors due to a misinterpretation of the required cable clearance, which has been addressed through training.

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.
- Field inspections crews and field engineers have received enhanced training in structural evaluations.

The defect and repair status data provided in Appendix 4 relates to equipment defects and includes only level 4 structure conditions. At year-end 2014, 2,278 unrepaired structures currently classified as Level 3 are pending more than three years. These structures are due for inspection in the next inspection cycle and may be reclassified at that time to reflect inspection specification modifications made since the initial inspection. At year-end 2014, there are 1,183 unrepaired structures identified upon the initial field inspection as containing a Level 1 repair condition. These 1,183 structures will receive a follow-up field assessment by a field engineer during the next inspection cycle to establish the repair classification.

With the full implementation of the new Work Management System (WMS), Con Edison has enhanced its ability to track defects. The Company has also corrected some of the data recorded in past reports; in particular, Level 4 structural defects are included in Appendix 4. As such, the Company has restated its Underground Level 4 report to include 11,461 structural defects for 2010; 57,283 for 2011; 63,445 for 2012; 90,522 for 2013 and 96,379 for 2014. This enhanced data capture and reporting will assist the Company's Structural and Civil groups in incorporating those defects into work plans.

The WMS tracks the defects related to the PSC inspection program as "Conditions". Currently, there is no mechanism to prevent the WMS application from generating a duplicate defect identified during multiple inspections. In order to correct the over-reporting of defects, Con Edison ran a script⁴ to reduce the number of duplicate defects. The script looks for multiple conditions of the same type and reclassifies them as "Duplicates". We are planning to set up the WMS application to run this script periodically to more accurately capture and report data concerning defects.

⁴ A computer script is a list of commands that are executed to perform a function.

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 above-referenced 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.

518 quality assurance checks are required on all tested structures 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 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 include a field test for contact voltage. Con Edison performed 215 quality assurance checks of the underground distribution structures including underground residential distribution (URD), 54 quality assurance checks of overhead distribution structures and 279 quality assurance checks of municipality owned streetlights. Contact voltage was not found during any of these quality assurance reviews. In addition to the 548 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.

254 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 215 underground and 54 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 also performed. In addition, all inspection and follow-up work order documentation was reviewed. Work orders are entered into the Company's 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 2014, the Secondary Analysis Engineering team led research into thermal imaging of secondary assets; arcing detection; and public safety program optimization.

Appendix 1 : Summary of Contact Voltage 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	279,503	100%	0	0.000%	398
Quarterly Update		0	0%	0	#DIV/0!	0
Underground Facilities*	148,159	148,417	100%	0	0.000%	1,730
Quarterly Update		4,718	3%	0	0.000%	0
Street Lights / Traffic Signals*	113,089	113,185	100%	228	0.201%	437
Quarterly Update		264	0%	0	0.000%	0
Substation Fences**	304	304	100%	0	0.000%	0
Quarterly Update		236	78%	0	0.000%	0
Transmission (69kV and Above)**	1,220	1,220	100%	0	0.000%	0
Quarterly Update		0	0%	0	0.000%	0
TOTAL	540,199	542,629	100%	228	0.201%	2,565
Quarterly Update		5,218	1%	0	0.000%	0

*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

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



	2014 Year						
	Jan 1, 2014 - Dec 31, 2014						
	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	18	6	1	25	25	0	0
Pole	18	6	1	25	25	0	0
Ground	0	0	0	0	0	0	0
Guy	0	0	0	0	0	0	0
Riser	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
Underground Facilities	516	199	32	747	747	0	0
Service Box	515	199	32	746	746	0	0
Manhole	0	0	0	0	0	0	0
Padmount Switchgear	0	0	0	0	0	0	0
Padmount Transformer	0	0	0	0	0	0	0
Vault - Cover / Door	0	0	0	0	0	0	0
Pedestal	0	0	0	0	0	0	0
Other	1	0	0	1	1	0	0
Street Lights / Traffic Signals	853	446	309	1608	1608	0	0
Metal Sreet Light Pole	429	255	249	933	933	0	0
Traffic Signal Pole	368	150	41	559	559	0	0
Traffic Control Box	1	0	1	2	2	0	0
Pedestrian Crossing Pole	41	25	7	73	73	0	0
Other	14	16	11	41	41	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
Groudn	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	4133	1671	374	6178	6178	0	0
Sidewalk	84	78	14	176	176	0	0
Gate/Fence/Awning	949	401	99	1449	1449	0	0
Traffic Sign	291	98	26	415	415	0	0
Scaffolding	67	17	13	97	97	0	0
Bus Shelter	11	9	3	23	23	0	0
Fire Hydrant	105	23	1	129	129	0	0
Phone Booth	0	0	0	0	0	0	0
Control Box	0	0	0	0	0	0	0
Water Pipe	0	0	0	0	0	0	0
Riser	0	0	0	0	0	0	0
Other	2626	1045	218	3889	3889	0	0

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

	2014 Year Jan 1, 2014 - Dec 31, 2014						
	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	1	15	2	18	18	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	0	0	0	0	0	0	0
Other	0	6	2	8	8	0	0
Underground Facilities	7	8	6	21	21	0	0
Service Box	5	3	3	11	11	0	0
Manhole	1	2	1	4	4	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	67	139	58	264	264	0	0
Metal Sreet Light Pole	66	138	57	261	261	0	0
Traffic Signal Pole	1	1	1	3	3	0	0
Traffic Control Box	0	0	0	0	0	0	0
Pedestrian Crossing Pole	0	0	0	0	0	0	0
Other	0	0	0	0	0	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
Groudn	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	32	20	7	59	59	0	0
Sidewalk	10	5	3	18	18	0	0
Gate/Fence/Awning	7	4	0	11	11	0	0
Traffic Sign	0	1	0	1	1	0	0
Scaffolding	0	0	0	0	0	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	10	6	2	18	18	0	0

Appendix 3 : Summary of Shock Reports from the Public

2014 Year-End Jan 1, 2014 - Dec 31, 2014	Quarterly Update	Yearly Update
I. Total Shock Calls Received:	28	239
Unsubstantiated	17	138
Normally Energized Equipment	0	0
Stray Voltage	11	101
Person	6	66
Animal	5	35
II. Injuries Sustained	0	1
Utility Responsibility		
Person	0	0
Animal	0	0
Non Utility Responsibility		
Person	0	0
Animal	0	0
Unsubstantiated		
Person	0	1
Animal	0	0
III. Medical Attention Received	0	0
Utility Responsibility		
Person	0	0
Animal	0	0
Non Utility Responsibility		
Person	0	0
Animal	0	0
Unsubstantiated		
Person	0	0
Animal	0	0
IV. Voltage Source	10	100
Utility Responsibility		
Issue with primary, joint, or transformer	0	0
Secondary Joint (Crab)	2	9
SL Service Line	0	4
Abandoned SL Service Line	0	0
Abandoned Service Line	0	2
Defective Service Line	2	27
OH Secondary	0	1
OH Service	0	3
OH Service Neutral	1	1
OH SL Service	0	0
OH SL Service Neutral	0	0
Pole	0	0
Riser	0	0
Other	0	2
Customer Responsibility		
Contractor Damage	1	13
Customer Equipment/Wiring	2	22
Other Utility / Gov't Agency Responsibility		
SL Base Connection	1	5
SL Internal Wiring or Light Fixture	0	4
Overhead Equipment	0	0
Other	1	7
V. Voltage Range	10	100
1.0V to 4.4V	1	8
4.5V to 24.9V	2	28
25V and above	6	59
No Reading	1	5

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															
Detail of Deficiencies by Facilities	2010			2011			2012			2013			2014		
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
Overhead Facilities															
Repaired in Time Frame	31	1,359	6,502	12	436	2,110	13	328	1,970	11	1,001	1,453	0	5	2
Repaired - Overdue	37	736	1,081	13	228	89	18	40	0	16	1	0	1	0	0
Not Repaired - Not Due	0	0	0	0	0	0	0	0	7,034	0	0	1,540	0	37	28
Not Repaired - Overdue	0	181	5,063	0	266	5,502	0	243	0	3	109	0	2	0	0
Total Overhead Facilities	68	2,276	12,646	25	930	7,701	31	611	9,004	30	1,111	2,993	3	42	30
Underground Facilities															
Repaired in Time Frame	1,264	23,493	3,328	958	18,080	1,932	3,467	38,076	1,807	13,119	67,015	1,929	16,193	74,284	2,235
Repaired - Overdue	102	1,464	124	101	799	18	73	296	0	85	240	0	105	0	0
Not Repaired - Not Due	0	0	0	0	0	0	0	0	2,023	0	0	10,522	0	28,309	14,718
Not Repaired - Overdue	0	103	1,349	0	498	1,131	0	1,395	0	32	11,165	0	120	0	0
Total Underground Facilities	1,366	25,060	4,801	1,059	19,377	3,081	3,540	39,767	3,830	13,236	78,420	12,451	16,418	102,593	16,953
Pad Mount Facilities															
Repaired in Time Frame	174	569	68	407	806	77	743	511	47	1,674	471	48	1,781	522	51
Repaired - Overdue	0	6	9	2	20	2	2	47	0	41	31	0	38	0	0
Not Repaired - Not Due	0	0	0	0	0	0	0	0	122	0	0	334	0	1,558	370
Not Repaired - Overdue	0	30	126	9	81	61	14	249	0	108	540	0	137	0	0
Total Pad Mount Facilities	174	605	203	418	907	140	759	807	169	1,823	1,042	382	1,956	2,080	421
Streetlight Facilities															
Repaired in Time Frame															
Repaired - Overdue															
Not Repaired - Not Due															
Not Repaired - Overdue															
Total Streetlight Facilities	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Transmission Facilities															
Repaired in Time Frame	1		60			133			8			3			0
Repaired - Overdue			23												0
Not Repaired - Not Due						13			29			7			1
Not Repaired - Overdue			0												0
Total Transmission Facilities	1	0	83	0	0	146	0	0	37	0	0	10	0	0	1

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
2010	I	Within 1 week	1,609	1,470	139	0	0
	II	Within 1 year	27,941	25,421	2,206	0	314
	III	Within 3 years	17,733	9,958	1,237	0	6,538
	IV	N/A	64,798	13,920	N/A	50,878	N/A
2011	I	Within 1 week	1,502	1,377	116	0	9
	II	Within 1 year	21,214	19,322	1,047	0	845
	III	Within 3 years	10,948	4,252	109	13	6,694
	IV	N/A	90,885	7,994	N/A	82,891	N/A
2012	I	Within 1 week	4,330	4,223	93	0	14
	II	Within 1 year	41,185	38,915	383	0	1,887
	III	Within 3 years	13,040	3,832	0	9,208	0
	IV	N/A	105,661	5,027	N/A	100,634	N/A
2013	I	Within 1 week	15,089	14,804	142	0	143
	II	Within 1 year	80,573	68,487	272	0	11,814
	III	Within 3 years	15,836	3,433	0	12,403	0
	IV	N/A	167,685	6,021	N/A	161,664	N/A
2014	I	Within 1 week	18,377	17,974	144	0	259
	II	Within 1 year	104,715	74,811	0	29,904	0
	III	Within 3 years	17,405	2,288	0	15,117	0
	IV	N/A	189,258	6,161	N/A	183,097	N/A

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

	2010		2011		2012		2013		2014	
	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										
Overhead Facilities Total	12,769	3,414	2,078	421	1,887	337	1,329	839	22	2
Underground Facilities										
Underground Facilities Total	51,406	10,026	87,387	6,535	102,207	3,808	165,153	4,606	186,681	5,461
Pad Mount Transformers										
Pad Mount Transformers Total	600	476	1,238	969	1,351	878	1,115	554	2,542	697
Streetlight Facilities										
Streetlight Facilities Total										
Transmission Facilities										
Transmission Facilities Total	23	4	182	69	216	4	88	22	13	1
Overall Level IV Deficiencies										
Level IV Deficiencies Total	64,798	13,920	90,885	7,994	105,661	5,027	167,685	6,021	189,258	6,161

Exhibit 1

Certification of Contact Voltage Testing

Patrick McHugh, on this 17th day of February 2015, 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, 2014 ("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.



Patrick McHugh

Certification of Inspections

To be filed following the completion of the 2010-2014 inspection cycle as extended through March 31, 2015 pursuant to the Public Service Commission's Order issued May 22, 2013 in Case 04-M-0159.

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