

PSEG LONG ISLAND LLC
on Behalf of and as Agent for the
LONG ISLAND LIGHTING COMPANY d/b/a LIPA

Southampton to Deerfield Transmission Project

ENVIRONMENTAL MANAGEMENT AND CONSTRUCTION PLAN

Appendix Q
Long-Range ROW Management Plan

1 LONG-RANGE ROW MANAGEMENT PLAN

The Certificate Holder has developed a long-range ROW management plan, called the “Right-of-Way (ROW) and Grounds Maintenance Procedures,” to be used as a standard vegetation management plan during maintenance and operation of their facilities as stated in Certificate Condition 10. The current version is attached to this appendix to be used as a reference, however, The long range ROW management plan used for the Project will be the most recent version of the Certificate Holder’s plan will be used during the construction, restoration, and operation and maintenance of the Project.

Right-of-Way (ROW) and Grounds Maintenance Procedures

This document shall be revised every 5 years or incrementally as significant changes occur.

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ACCESS RESTRICTIONS: GENERAL

Controlled electronic copies of all revisions will be retained with the PSEG Long Island Operations Manual

Is LIPA Approver sign-off required for this document?

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YES

X

NO

[illegible]

Approved by **Msrk Cerqueira**

Date 12/9/2021

Approved by _____

Date _____

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1. OPERATIONS MANUAL DOCUMENT HIERARCHY

The PSEG Long Island Operations Manual is composed of 5 levels of documents:

- **Core Functions.** Core Functions define the functional areas of the Operations Manual that are critical to the operation of the Utility. They list and briefly describe the major processes contained in their portion of the Operations Manual.
- **Processes / Sub-Processes.** Processes and Sub-Processes define the way we work within or across functions. They describe a series of steps performed in bringing about an end result. Processes document “what” must be completed to ensure the end result is achieved.
- **Procedures.** Procedures describe a way of performing or affecting a process step, or a series of process steps taken to accomplish an end. Procedures document “how” tasks are completed to ensure the step in a Process or an end result is achieved.
- **Technical Manuals.** Technical Manuals document specific instructions and required parts for the installation, operation, and maintenance of a piece of equipment, machine, process, or system.
- **Job Hazard Analyses (JHA).** Job Hazard Analyses (JHAs) document the identified risks or hazards of a specific job in the workplace, and the measures to eliminate or control those hazards. The JHA document is used in the workplace or at the job site to guide workers in safe job performance.

2. PURPOSE

The Right-of-Way (ROW) and Grounds Management Program at PSEG Long Island includes ROW Grass Mowing, ROW Brush Mowing, ROW Integrated Vegetation Management (IVM), Substation Grounds Maintenance, and Substation Spraying. One (1) or more T&M crews are also available daily for emerging grounds maintenance work. This work is performed by contractors to PSEG Long Island, under the supervision of the Senior Forester.

3. APPLICABILITY

Vegetation Management (VM) administrative personnel including Manager, Supervisors, and Contract Foresters

4. RESPONSIBILITIES

4.1 Vice President, Transmission and Distribution (T&D) Operations

The Vice President, T&D Operations provides governance over this procedure.

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4.2 Director of Training, Support, and Contractor Services

The Director of Training, Support, and Contractor Services provides oversight of this procedure. Establish department budget and priorities.

4.3 Vegetation Management (VM) Manager

Establish VM budget and program priorities.

4.4 VM Senior Forester

Administration of ROW Maintenance Program, prioritize work, approve payments, track and report progress.

4.5 Consulting Foresters

Assist Senior Forester in administration of ROW Maintenance work. See TD-VM-001-0006 - Forestry Inspection Services PSEG Long Island Scope of Work for Forestry Inspection Services for more information.

4.6 ROW Crews

Perform work on Rights-of-Way and substations.

5. PROCEDURE

5.1 Process: Work Plan Scheduling — Maintaining the ROW Database

The ROW Database is maintained as a summary of ROW treatments completed, and as a tool to schedule future treatments. It includes sections for ROW Regular Mowing, ROW IVM (Herbicides), ROW Brush Hogging, and ROW Infrequent Mowing. It also contains ROW acreages for use in developing work packages and maps, and particular ROW properties such as wetlands and other concerns.

Starting in 2019, this information will be transferred to, and will reside on the ROW Management ArcGIS application.

- See TD-VM-001-0023-01 Attachment R-A — ROW Management ArcGIS Overview

5.1.1 Procedure: Maintaining the ROW Database

As projects are completed, the year and season of completion should be entered in the “last treatment” field. At the same time, the recommended next treatment is entered in the “next treatment” field, based on the treatment cycle shown.

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5.2 Process: Work Plan Scheduling — ROW and Grounds Maintenance Work Plan

ROW Grass Mowing, Substation Grounds Maintenance, Substation Spraying programs are, for the most part, performed every year on the same sites. Except for new sites, which may be added, the scope of work is essentially the same from year to year. Contracts for this work are therefore awarded for multi-year terms. The incumbent contractors, with consent of VM and within the specified time frames, perform any planning and scheduling which is required for them to accomplish the work scope during the contract period. VM will intervene when such planning is deficient with respect to the specifications.

See TD-VM-001-0023-02 Attachment R-B — Grounds Maintenance LIPA Service Territory contains the specifications ROW Grass Mowing, Substation Grounds Maintenance, ROW Brush Mowing, and T&M Grounds Maintenance.

- See TD-VM-001-0023-02 Attachment R-B — Grounds Maintenance LIPA Service Territory

5.2.1 Procedure: Review Grounds Maintenance Specification

Each procurement cycle, this document should be reviewed and updated as necessary.

The work scope typically changes due to changes in the PSEG Long Island Substation System. The list of substation maintenance work sites may need to be changed as new substations are built.

ROW Management should consult with Substation Operations in advance of the procurement process to make sure all new and proposed substations have been added to the list. Unless LIPA sells the property, abandoned substations should continue to be maintained.

Listed right-of-way mowing locations tend not to change except where VM management has decided to add or delete rights of way from the list.

The actual work standards will generally not change much, but should be changed as needed to address:

- New initiatives for improving outcomes of the various programs.
- Strengthening the specification language to address any deficiencies which need correction

5.3 Process: ROW Brush Mowing Work Plan

ROW Brush Mowing is scheduled by the VM Senior Forester, based on predicted return cycles and inspections of the rights of way, which are nearing their predicted return. Work on rights of way, which are nearing their predicted return, may be accelerated, delayed, or performed as predicted based on the conditions found. The work scope is packaged and awarded to the incumbent Grounds Maintenance contractor.

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- 5.3.1** Procedure: Determining the ROW Brush Mowing annual work plan:
- Consult the ROW Management ArcGIS application to determine rights of way which are next to be mowed, based on predicted return year. Filter the data to generate a list of rights of way to inspect.
- Inspect the listed rights of way to determine whether the work is due or can be deferred.
- Use the ROW database to sum the total acreage which is desired to be mowed, and use the current “per acre” unit price to calculate the total cost.
- 5.3.2** Procedure: Assembling the ROW Brush Mowing work package
- Using the ROW Management ArcGIS application, create a list of rights of way to be mowed, including acreage for each ROW segment to be treated.
- See TD-VM-001-0023-03 Attachment R-C — Filtered Brush Mowing List
- Using PSEG ROW Management ArcGIS application, produce maps highlighting the areas to be mowed. Number and annotate the maps as needed.
- See TD-VM-001-0023-04 Attachment R-D — Filtered Brush Mowing Map
- Forward the list and maps to the Brush Mowing contractor.
- 5.4** Process: ROW IVM (ROW Spraying) Work Plan
- ROW IVM is scheduled by the VM Senior Forester, based on predicted return cycles and inspections of the rights of way, which are nearing their predicted return. Work on rights of way, which are nearing their predicted return may be accelerated, delayed, or performed as predicted based on the conditions found. The work scope is packaged and awarded to contractors based on fixed price or unit price bidding.
- 5.4.1** Procedure: Review the ROW IVM Specification
- Each procurement cycle, this document should be reviewed and updated as necessary.
- The actual work standards will generally not change much, but should be changed as needed to address:
- New initiatives for improving outcomes of the various programs.
 - New developments in approved chemicals
 - Changes in regulations

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5.4.2 Procedure: Determining the ROW IVM Annual Work Plan:

Consult the ROW Management ArcGIS application to determine rights of way, which are next to be treated, based on predicted return year. Filter the data to generate a list of rights of way to inspect.

- See TD-VM-001-0023-05 Attachment R-E — Filtered ROW IVM Map

Inspect the listed rights of way to determine whether the work is due or can be deferred.

Use the ROW Management ArcGIS application to sum the total acreage which is desired to be treated, and use the current “per acre” unit price to calculate the total cost.

5.4.3 Procedure: Assembling the ROW IVM Work Package:

Using the ROW Management ArcGIS application, create a list of rights of way to be treated, including acreage for each ROW segment to be treated.

Using the ROW Management ArcGIS application, produce maps highlighting the areas to be treated. Number and annotate the maps as needed.

Forward the list and maps to Procurement. Include the current ROW IVM specification. Right-of-Way treatment locations are added as an addendum to the specification, based on the rights of way chosen to be treated in the current program.

Work with PSEG Long Island Procurement group to assign a contractor to the work.

5.5 Process: Substation Spraying Work Plan

The Substation Spraying contract is awarded on a multi-year basis and includes two “rounds” of spraying annually. Round one (1) addresses weeds growing on the ground surface of the substations in Spring/Early Summer. Round two (2) addresses weeds and ROWs affecting the substation fences in Mid/Late Summer. Chemicals and methods are different in each round.

The attachment listed below contains scheduling, technical, safety, environmental, logistical, and regulatory requirements for substation spraying operations.

- See TD-VM-001-0023-06 Attachment R-F — ROW Specs for Lump Sum Bid Work: Weed Control

5.5.1 Procedure: Review Substation Spraying Specification

Each procurement cycle, this document should be reviewed and updated as necessary.

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The work scope typically changes due to changes in the PSEG Long Island Substation System. The list of substation spraying sites may need to be changed as new substations are built.

ROW Management should consult with Substation Operations in advance of the procurement process to make sure all new and proposed substations have been added to the list.

ROW Management should review the chemicals, which contractors propose to use for spraying. These must all be approved by NYSDEC for use on Long Island, which takes into account groundwater considerations in addition to other safety and environmental effects.

The actual work standards will generally not change much, but should be changed as needed to address:

- New initiatives for improving program results
- Strengthening the specification language to address any deficiencies which need correction

5.5.2 Procedure: Assembling the Substation Spraying Work Package

The Document “PSEG Substation Areas and Fence Lengths” lists substations by division. This list should be checked and updated.

- See TD-VM-001-0023-07 Attachment R-G — PSEG Long Island Substation Areas and Fence Lengths

Work with PSEG Long Island Procurement group to assign a contractor to the work.

5.6 Process: Procurement — Grounds Maintenance Procurement

ROW Grass Mowing, Substation Grounds Maintenance, ROW Brush Mowing, and T&M Grounds Maintenance are all included in an overarching “Grounds Maintenance” contract, which is typically awarded to one contractor, although it may also be split among two or more contractors. Substation Spraying and ROW IVM are standalone contracts. All ROW and Grounds contracts are typically available for multi-year terms. The PSEG Long Island Procurement group is responsible for driving the procurement process, distributing the Requests for Proposals, and assuring the various qualifications required of our contractors.

VM's role in the procurement process is to establish the need and timeframe for ROW and grounds work, describe the work scope and specifications, and work alongside the procurement group to present Pre-Bid instructions and evaluate the contractor proposals. After bids have been received, VM participates in the selection process by providing the Technical Review for each bidder, which Procurement then incorporates into the final contractor selection process.

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5.6.1 Procedure: Provide grounds maintenance technical documents to Procurement

- See TD-VM-001-0023-10 Attachment R-J — Specification: ROW Selective Vegetation Management
- See TD-VM-001-0023-11 Attachment R-K — Vegetation Common to LIPA ROWs
- See TD-VM-001-0023-12 Attachment R-L — Port Jefferson to Holbrook Map 1
- ROW IVM treatment lists and maps from work package

5.7 Process: Procurement — Substation Spraying Procurement

Substation Spraying is a stand-alone annual contract, which is typically awarded to one contractor on a multi-year basis. The following updated documents, are needed to support the Grounds Maintenance Request for Proposals:

- Specification document: TD-VM-001-0023-02 Attachment R-B — Grounds Maintenance LIPA Service Territory
- See TD-VM-001-0023-08 Attachment R-H — ROW Regular Mowing Program List
- See TD-VM-001-0023-09 Attachment R-I — PSEG Long Island Substation GM List

5.8 Procurement — Process: ROW IVM Procurement

ROW IVM is a stand-alone annual contract, which is typically awarded to one (1) contractor on a one (1) year basis. The PSEG Long Island Procurement group is responsible for driving the procurement process and assuring the various qualifications required of our contractors.

VM's role in the procurement process is to establish the need and timeframe for ROW IVM, describe the work scope and specifications, and work alongside the procurement group to present Pre-Bid instructions and evaluate the contractor proposals. After bids have been received, VM participates in the selection process by providing the Technical Review for each bidder, which Procurement then incorporates into the final contractor selection process.

5.8.1 Procedure: Provide ROW IVM Technical Documents to Procurement

The following updated documents, are needed to support the ROW IVM Request for Proposals:

See the following attachments and documents:

The PSEG Long Island Procurement group is responsible for driving the procurement process and assuring the various qualifications required of our contractors.

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VM's role in the procurement process is to establish the need and timeframe for Substation Spraying, describe the work scope and specifications, and work alongside the procurement group to present Pre-Bid instructions and evaluate the contractor proposals. After bids have been received, VM participates in the selection process by providing the Technical Reviews as instructed by Procurement.

5.8.2 Procedure: Provide Substation Spraying Technical Documents to Procurement

The following updated documents, are needed to support the Substation Spraying Request for Proposals:

- See TD-VM-001-0023-06 Attachment R-F — ROW Specs for Lump Sum Bid Work: Weed Control
- See TD-VM-001-0023-07 Attachment R-G — PSEG Long Island Substation Areas and Fence Lengths

5.9 Process: Crew Deployment ROW and Grounds Maintenance Crew Deployment

T&M Grounds Maintenance and ROW Brush Mowing are bid hourly. Grounds Maintenance crews are made available year round to address emerging work. ROW Brush Mowing crews are made available as needed for specific clearing projects.

Typically, one (1) three (3) Person T&M Grounds Maintenance crew will report daily. The VM Senior Forester assigns work to them as needed to address customer concerns and/or in-house requests. In the event that there are no outstanding requests, the crew is assigned to needed maintenance work.

The T&M crew is equipped to perform a variety of tasks, using tools required by the grounds maintenance specification. The work includes vegetation removal, general cleanup of LIPA properties, poison ivy spraying, tree and shrub planting, light landscape construction, and associated tasks.

T&M Grounds Maintenance work is requested by the PSEG Long Island Call Center and organizations in T&D Operations such as Substation Operations and Electric Service.

5.9.1 Procedure: T&M Grounds Maintenance Crew Work Assignment

Upon receipt of a work request, decide if the work must be pre-inspected (some routine tasks do not require pre-inspection). Inspect the work personally or assign the inspection to determine crew and equipment needs. Speak with the requesting party if the request or situation is not clear, and to let them know when you will be able to complete the work.

Assign the work to a crew, being sure that the crew is properly staffed and equipped for the job. Discuss the outcome with the crew when it is completed.

Check on the work within one (1) week to make sure it is properly completed.

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5.10 Process: Crew Deployment — ROW IVM Crew Deployment

ROW IVM is typically conducted in late Summer/early Fall to take advantage of increased uptake of the treatment and to reduce the “brownout” effect which may be of concern.

The VM Senior Forester works with the IVM contractor to agree on a treatment schedule, and meets with the contractor to review the work plan and PSEG Long Island requirements, and to provide keys if necessary.

The contractor communicates with the VM Senior Forester as agreed upon to report work locations. This may be daily or as work locations change.

5.11 Process: Crew Deployment — Substation Spraying Crew Deployment

The Substation Spraying contract is awarded on a multi-year basis and includes two “rounds” of spraying annually. The VM Senior Forester works with the IVM contractor to agree on a treatment schedule and to satisfy background check requirements.

The Substation Spraying crew will be escorted to most substations. The crewmembers must have completed PSEG Long Island’s “Substation Awareness” training before they can work in substations.

The escort reports his arrival at each substation to PSEG Long Island Security via cell phone. The contractor communicates with the VM Senior Forester as agreed upon to report work locations and to discuss the weekly schedule.

As needed, PSEG Long Island escorts are arranged through Substation Operations or Substation Maintenance to enter substations.

5.12 Process: Quality Control — Substation Grounds Maintenance Quality Control

Substations should be inspected to insure that mowing is performed at least every 14 days, that trash and debris is not left behind, and that substation fences are clear of vegetation originating from outside of the fence. Since there are so many substations being visited by the contractors every two weeks, it is not possible to inspect all of the work as it is done.

5.12.1 Procedure: Substation Grounds Maintenance Inspections

The VM Senior Forester or designated Consulting Forester should spot check on a routine basis, to evaluate general work quality throughout the season, and report deficiencies to the contractor. The spot checks should utilize the current weekly “PSEG Substation Report” to assess if the results found are consistent with what was reported, and to confirm accuracy of the reported mowing dates.

- See TD-VM-001-0023-13 Attachment R-M — PSEG Long island Substation Report for an

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example.

It is important to pay attention to the substation visit dates. Substations should be visited every 14 days or less.

Towards the end of the work season, the VM Senior Forester or designated Consulting Forester should check every substation to insure that in addition to mowing, annual fence line vegetation and pruning needs have been satisfied. Any deficiencies should be reported to the contractor.

5.13 Process: Quality Control — ROW Mowing Quality Control

Regularly mowed ROWs should be inspected to insure that mowing has been performed as reported and on-schedule, that trash and debris is not left behind, that street crossings are neatly trimmed and gate locks are not obscured by vegetation.

5.13.1 Procedure: ROW Mowing Inspections

As the mowing crew proceeds on their planned route, the VM Senior Forester or designated Consulting Forester or designee should follow up behind them to assess that work is being done according to specifications. Any chronic deficiencies should be reported to the contractor.

5.14 Process: Quality Control — T&M ROW and Grounds Maintenance Quality Control

Work done by T&M ROW and Grounds Maintenance crews varies greatly in scope. In general, it is expected that work done satisfies the needs of the requesting party and is performed safely and efficiently.

5.14.1 Procedure: T&M ROW and Grounds Maintenance Inspections

The VM Senior Forester should pre-inspect requested work sites to assess the work, see if it is PSEG Long Island's responsibility, and to estimate crew and equipment needs (this step may be skipped for routine requests). This information is conveyed to the crew, which is assigned to the job.

The VM Senior Forester discusses the work the next morning to determine if the job is complete, and if additional work is needed. The VM Senior Forester or designated Consulting Forester visits the completed job within one week to insure that the work is done as requested. (This step may be skipped for routine requests)

5.15 Process: Quality Control — ROW IVM Quality Control

ROW IVM work may take a considerable time for results to show, depending on the chemicals used and season of treatment. Since most ROW IVM treatments are done in late

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Summer/early Fall, inspections may need to be done the following Spring. Effectiveness of treatment, control of targeted species, and minimal damage to non-targeted species are considered.

5.15.1 Procedure: ROW IVM Inspections

During the treatment period, the VM Senior Forester or designated Consulting Forester should visit the spray crew as needed to make sure proper application techniques are being used.

In late Spring/early Summer of the following season, the VM Senior Forester or designated Consulting Forester inspects the work to insure that the targeted species have been controlled and damage to non-targeted species is minimal. Per contract terms, if there are missed trees, the contractor shall re-treat as needed, at no additional cost.

5.16 Process: Quality Control — Substation Spraying Quality Control

Substation spraying results should be expected to be visible about two weeks after the treatment is done. Any weeds on grounds and fences in the equipment area should be dead or dying. It is also important to check that there are no excessive “off-target” effects, especially to adjacent non-LIPA properties.

5.16.1 Procedure: Substation Spraying Inspections

During the treatment period, the VM Senior Forester or designated Consulting Forester should visit the spray crew as needed to make sure proper application techniques are being used.

The contractor updates the VM Senior Forester weekly to report which substations have been sprayed.

At least two (2) weeks after treatment, the VM Senior Forester or designated Consulting Forester inspects the work to insure that the targeted species have been controlled. Per contract terms, if there are missed areas, the contractor shall re-treat as needed, at no additional cost.

5.17 Process: Reports — ROW and Grounds Maintenance Contractor Reports

Depending on the nature of the work, various forms are used by our contractors to report work progress and completion. These forms are used by PSEG Long Island VM to assist in work inspections and for approving payments. The forms and procedures for contractor submittal are outlined below.

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5.17.1 Procedure: Substation Grounds Maintenance Contractor Reporting

The contractor reports weekly on the Substation Report. The report notes the date upon which each substation was mowed and maintained, and also note the dates upon which fence clearing and shrub pruning were performed.

- See TD-VM-001-0023-13 Attachment R-M — PSEG Long island Substation Report for an example.

5.17.2 Procedure: ROW Mowing Contractor Reporting

The contractor reports weekly on the “ROW Regular Mowing Program list”. The report notes the date upon which each ROW section was mowed and maintained.

- See TD-VM-001-0023-08 Attachment R-H — ROW Regular Mowing Program List

5.17.3 Procedure: T&M ROW and Grounds Maintenance Contractor Reporting

The ROW and grounds maintenance crew fills out the “T&M Crew Hours and Locations form” including all work they completed that day. When they enter substations, they also fill out a job briefing report on the back of the form, since entry into substations is considered “qualified” work. These forms are used to fill out the ROW Weekly Time Sheet, which the VM office uses to process payments. (see appendix for details)

- See TD-VM-001-0023-14 Attachment R-N — T&M Crew Hours and Locations Form
- See TD-VM-001-0023-15 Attachment R-O — ROW Weekly Time Sheet

5.17.4 Procedure: ROW IVM Contractor Reporting

Since ROW IVM is typically a short-term project, the contractor reports dates of treatment by ROW and town/zip code at the end of the project.

- See TD-VM-001-0023-16 Attachment R-P — VCS IVM Spray Record for an example.

5.17.5 Procedure: Substation Spraying Contractor Reporting

The contractor reports substations sprayed weekly to the PSEG Senior Forester. The Forester tracks the substations as they are completed on the “PSEG Long Island Substations Sprayed Tracker”.

- See TD-VM-001-0023-17 Attachment R-Q — PSEG Long island Substations Sprayed Tracker

5.18 Process: Reports — Maintaining the ROW Tracking Report

The ROW Tracker is maintained as a summary of the annual budget, and to track ROW expenses against that budget. It includes weekly tracking of T&M Grounds Maintenance, ROW Mowing, ROW IVM, ROW Brush Hogging, Substation Ground Maintenance, and

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Substation Spraying. The same tracker also includes ROW Program and Wire Friendly Tree expenses. It resides on the VM Shared Drive.

- See TD-VM-001-0023-18 Attachment R-R — Grounds Maintenance Tracker 2019

5.18.1 Procedure: Updating the ROW Tracker

The tracker is updated as contractor invoices are received. When an invoice is received, the amount should be entered into the “EXPENSES - DETAILS” tab of the tracker, on the date when the work was completed, AND on the line, which corresponds to the work.

6. DOCUMENTATION

- 1) None

7. REFERENCES

- 1) ANSI A300 Part 7
- 2) TD-VM-001-0006 - Forestry Inspection Services PSEG Long Island Scope of Work for Forestry Inspection Services

8. TERMS AND DEFINITIONS

8.1 Acronyms

- 1) ANSI - American National Standards Institute
- 2) CAIDI - Customer Average Interruption Duration IndexES - Electric Service
- 3) IVM - Integrated Vegetation Management, See ANSI A300 Part 7.
- 4) LCS - Line Clearance Supervisor
- 5) LIPA – Long Island Power Authority
- 6) MUTCD - US Department of Transportation's Manual on Uniform Traffic Control Devices.
- 7) OHL - Overhead Lines
- 8) OMS - The Outage Management System maintained by the Distribution team.
- 9) SAIDI - System Average Interruption Duration Index
- 10) SAIFI - System Average Interruption Frequency Index
- 11) T&D - Transmission and Distribution
- 12) VM - Vegetation Management

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8.2 Terms

- 1) **ANSI A-300** — American National Standard Institute for Tree Care Operations (Part 1) Tree, shrub, and other woody plant maintenance (pruning), ANSI 2001.
- 2) **Best Management Practices** — Best Management Practices - Utility Pruning of Trees - International Society of Arboriculture 2004.
- 3) **Customer Average Interruption Duration Index (CAIDI)** - gives the average outage duration that any given customer would experience. CAIDI can also be viewed as the average restoration time. CAIDI is measured in units of time, often minutes or hours. It is usually measured over the course of a year, and according to IEEE Standard 1366-1998 the median value for North American utilities is approximately 1.36 hours. $CAIDI = SAIDI / SAIFI$
- 4) **Customer** — A customer of LIPA or resident located in the LIPA Service Territory.
- 5) **DBH** — A standard method of expressing the diameter of the trunk or bole of a standing tree. DBH is one of the most common dendrometric measurements.
- 6) **Directional Pruning** — Pruning a leader back to a lateral that will direct future growth away from the conductors (formerly drop crotch pruning).
- 7) **Guy Wire** — For purposes of this specification, includes any and all guy wires, braces, and associated shielding attached to a utility pole.
- 8) **Hardware** — For purposes of this specification, includes guy wires, neutral and static wires, lattice towers, support poles, and other non-conducting electric facilities.
- 9) **Herbicide** — A chemical applied to control unwanted plants.
- 10) **Integrated Vegetation Management (IVM)** — for purposes of this specification, a system which employs identification, monitoring, mechanical, and chemical treatments in the control of vines on utility poles and related facilities.
- 11) **Laser Hypsometer** — A device to measure the distance to, and height of, trees (or anything else).
- 12) **Line Clearance Supervisor** - Administers Distribution programs, Storm Hardening and Customer Service work.
- 13) **Main Stem** — The main trunk and stem of a central leader tree, or one of the larger vertically oriented leaders attached directly to the trunk of a multiple leader tree. This includes large vertically oriented leaders that have developed over time as a response to prior pruning.
- 14) **Mid-span vines** — For purposes of this specification, includes any and all vines growing into low voltage, covered conductors between utility poles, which do not originate from adjacent utility poles or guy wires.
- 15) **NYSDEC Regulations** — N.Y. State Dept. of Environmental Conservation, Title 6, Part 325 (Application of Pesticides)
- 16) **Open Wire Secondary** — Three (3) conductors with 120/240 volts that run pole to pole below the primary conductors (primary conductors are on top of the pole in an overhead distribution system). It is called “open wire” because the three wires are clearly visible as opposed to a design in which the three conductors are bundled together.
- 17) **Primary Conductor** — High voltage (13.2 kV) wires at the top of utility poles.
- 18) **Resistograph** — An electronic high-resolution needle drill resistance measurement device.

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- 19) **SAIDI - System Average Interruption Duration Index** – a system index of average duration of interruption in the power supply indicated in minutes per customer.
- 20) **SAIFI - System Average Interruption Frequency Index** – a system index of average frequency of interruptions in power supply.
- 21) **Secondary** – The conductor, either triplex or open wire that extends from the transformer to the Service Drop. Secondary spans may run along under primary spans or separately.
- 22) **Service Drop or Service Line** — The last span of triplex or open three wires extending to the building or meter pole.
- 23) **Specified Clearance Zones** — The specific distances above, below, and to the sides within which pruning shall be performed.
- 24) **Transformer Bushings** — Attachments where high voltage (13.2 kV) or low voltage (120/240) wires connect to a pole-mounted transformer.
- 25) **Treatment** — For purposes of this specification, is primarily treatment of the cut surface of vines with an herbicide after cutting. It may less frequently include foliar spraying of smaller re-sprouting vine plants.
- 26) **Under Wire Trees** — Trees and saplings that have naturally seeded or sprouted beneath the electric lines, that should be removed in order to reduce future tree line conflicts.
- 27) **Utility pole** — Wood poles, which support secondary, primary, or transmission conductors.
- 28) **Vine** — For purposes of this specification, a vine is a plant whose stem requires support, and which climbs by tendrils or twining.
- 29) **Volunteer Trees** — Naturally seeded trees.
- 30) **Wire Friendly Tree** — Smaller, slower growing tree that greatly reduces the probability of developing hazardous conditions.

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9. ATTACHMENTS

- 1) TD-VM-001-0023-01 Attachment R-A — ROW Management ArcGIS Overview
- 2) TD-VM-001-0023-02 Attachment R-B — Grounds Maintenance LIPA Service Territory
- 3) TD-VM-001-0023-03 Attachment R-C — Filtered Brush Mowing List
- 4) TD-VM-001-0023-04 Attachment R-D — Filtered Brush Mowing Map
- 5) TD-VM-001-0023-05 Attachment R-E — Filtered ROW IVM Map
- 6) TD-VM-001-0023-06 Attachment R-F — ROW Specs for Lump Sum Bid Work: Weed Control
- 7) TD-VM-001-0023-07 Attachment R-G — PSEG Long island Substation Areas and Fence Lengths
- 8) TD-VM-001-0023-08 Attachment R-H — ROW Regular Mowing Program List
- 9) TD-VM-001-0023-09 Attachment R-I — PSEG Long island Substation GM List
- 10) TD-VM-001-0023-10 Attachment R-J — Specification: ROW Selective Vegetation Management
- 11) TD-VM-001-0023-11 Attachment R-K — Vegetation Common to LIPA ROWs
- 12) TD-VM-001-0023-12 Attachment R-L — Port Jefferson to Holbrook Map 1
- 13) TD-VM-001-0023-13 Attachment R-M — PSEG Long island Substation Report
- 14) TD-VM-001-0023-14 Attachment R-N — T&M Crew Hours and Locations Form
- 15) TD-VM-001-0023-15 Attachment R-O — ROW Weekly Time Sheet
- 16) TD-VM-001-0023-16 Attachment R-P — VCS IVM Spray Record
- 17) TD-VM-001-0023-17 Attachment R-Q — PSEG Long island Substations Sprayed Tracker
- 18) TD-VM-001-0023-18 Attachment R-R — Grounds Maintenance Tracker 2019

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