



Substation Security Program

Electrical Association of Pennsylvania October 31, 2023





Agenda



Introduction
Corporate Security Programs
Enhancing Substation Security
Law Enforcement Engagement





Corporate Security Programs

Security Management

- Policy, Procedure, Guidelines, and Standards
- Risk and Vulnerability Assessments
- Training Active Threat, Situational Awareness, etc.
- Community Outreach



Investigations

- Threats, Harassment, and Attacks
- Motor Vehicle Accidents
- Theft of Services
- Physical Theft



Compliance

- Support CIP Activities
- ❖ Audit, Inspection, Program Maintenance

Electronic Security Systems

- ❖ Design & Development
- ❖ Administration & Management

Security Messaging

- Monthly Messages
- ❖ Electronic Billboards
- ❖ Security-centric Safety Messages





Security Command Center

- Single, Central Location for all Security Inquiries
- Actively monitor PACS, VMS, IDS, and Security Communication
- ❖ Liaise with Operations PSP Integrity & Visitor Management

Protective Services

- ❖ Full-time Security Force
- Critical Facility Management
- ❖ Roving Patrols and Security Response

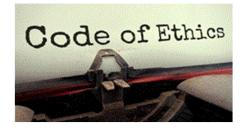


Investigations & Support

Internal Investigations

- ❖ Employee Ethics Violations
- ❖ Insider Threat Program
- ❖ Site Observations (Audits)





External Investigations

- Thefts
- Intrusions
- Vandalism
- Threat Management (Awareness Maps)
- ❖ Law Enforcement Partnerships/Outreach





Projects & Project Support

- ❖ Temporary Camera & Alarm Point Installation
- ❖ Personnel Protection Program
- ❖ Fit For Duty
- Guard Management
- ❖ Physical Badging & Visitor Management
- ❖ Security Training (RHF, Self-Awareness)





Infrastructure & Physical Security



Compliance/Assessments

- Department of Homeland Security (DHS) Chemical Facility Anti-Terrorism Standards (CFATS) - Inspections and Audits.
- Pennsylvania (PA) Public Utility Commission (PUC) Audits.
- Transportation Security Administration (TSA) - Corporate Security Reviews.
- Law Enforcement Liaison/Memorandum of Understanding (MOU) for select assets.
- Security Vulnerability Assessments (SVAs).
- Physical security Site Audits randomly conducted with results shared monthly to leadership, in an effort, to change poor behaviors and enforcing security measures.

Security Equipment CM/PM &

Life Cycle Planning

- Develop a business case to acquire the security equipment corrective maintenance budgets from various departments to align with Exelon OPCO counterparts.
- Corrective and Preventative Maintenance Program for all PECO security equipment.
- Security Equipment Life Cycle Program management.





Projects & Project Support

- Exelon Facility Enhancement Program (FEP).
- Exelon O&SF Physical Security Enhancement Program.
- ❖ Access control support (card readers, clearances, alarm testing etc.)
- Alarm reduction measures.
- ❖ PECO Security Drone Program
 - Utilized in both Investigations and Site Vulnerability Assessments.







Electronic Access Control

- PECO utilizes two primary means of Access Control:
 - Card Readers (CCure)
 - eKev
- Both systems provide electronic access control.







Enhancing Substation Security



Physical Security Hardening

- Solid and Bullet Resistive Fencing
- Attack Resistant Barriers at Critical Components
- Climb Resistant Fence Materials
- Fence Tension System Upgrades





Electronic Security Enhancements

- Two Factor Authentication
- Video Analytics
- Gunshot detection
- Ground Level Radar/LiDAR
- Drone Surveillance/Detection



Compliance Support

- Tailgate Detection
- Multi-point Door Monitoring
- Audible Local Alert w/Voice Commands

Security Beyond Compliance

- PACS/VMS
 - Non-CIP Transmission Substations
 - Distribution Substations
- Real-time Intelligence Gathering



Law Enforcement Outreach and Training

- Familiarization with Substations in their Jurisdiction
- Representative National and Local Security Incidents
- Function of a Substation How it Works
- Law Enforcement Response Regulation and Safety

Law Enforcement Engagement



Education

- **❖**Educate law enforcement about
 - PECO assets
 - Critical infrastructure
 - What to look for
 - Who to contact
 - Response



What to Look For – Site Observations









Parking Zoning

- Partner with City of Philadelphia Streets Deputy Commissioner
- Identify PECO assets that should have a non-tractor trailer parking zone
- Department of Homeland Security initiative as a National Security Risk.







Duquesne Light Training for Law Enforcement

Presentation Given to Local Police Departments





Objectives

Goals for this Training

- Introduce DLC Corporate Security personnel to the Western Pennsylvania Chiefs of Police Association
- Provide a summary of recent substation attacks, vandalism, and theft in the US
- Provide a summary of substation and powerline incidents at Duquesne Light Company
- Briefly explain the function of a Substation
- Ask for LE agency assistance with Substation Protection
- LE response to Substation Emergencies
- Public safety process for Entering a Substation
- Description of DLC intelligence and liaison activities







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DLC Corporate Security Team

Michael C. Nelson, CPP Senior Manager

Kevin R. Martincic Supervisor

William B. Johnson, CPP Security Specialist

Shannon P. Ringler, PSP Security Specialist

Andrew N. Ondich, CPP Security Specialist

James R. DeLuca Security Associate/Investigator





Recent Incidents - Nationwide

- February 6, 2023 Baltimore, MD
- January 17, 2023 Thomasville, North Carolina
- Christmas Day 2022 Pierce County, Washington
- December 7, 2022 Ridgeway, South Carolina
- December 4, 2022 Moore County, North Carolina
- 2013 San Jose, California
- Drones/Unmanned Aerial Vehicles



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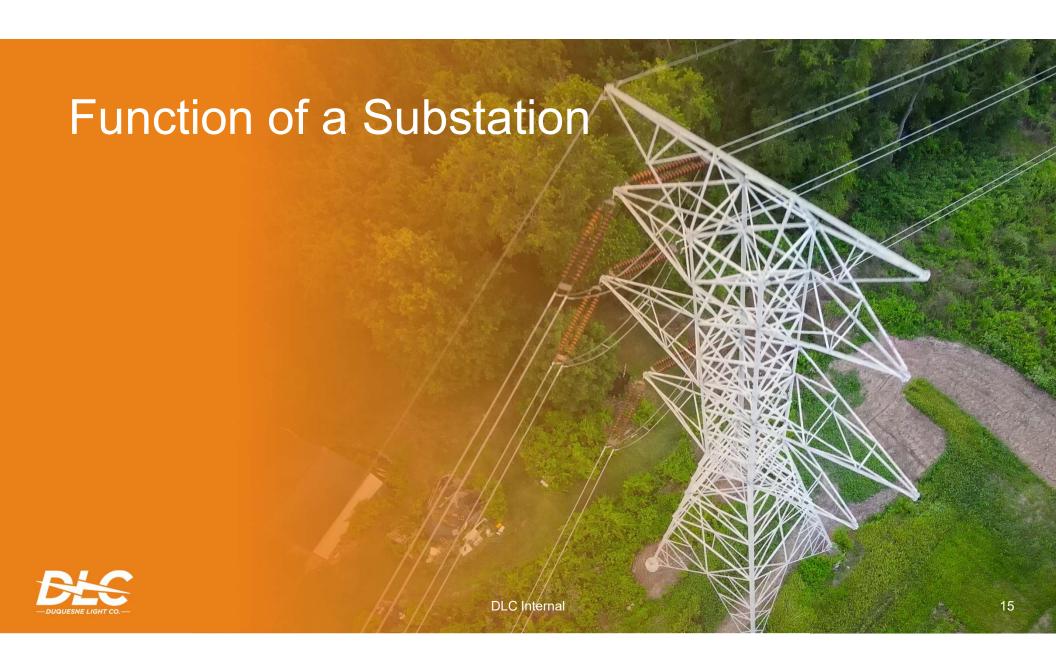


Recent Incidents – Duquesne Light

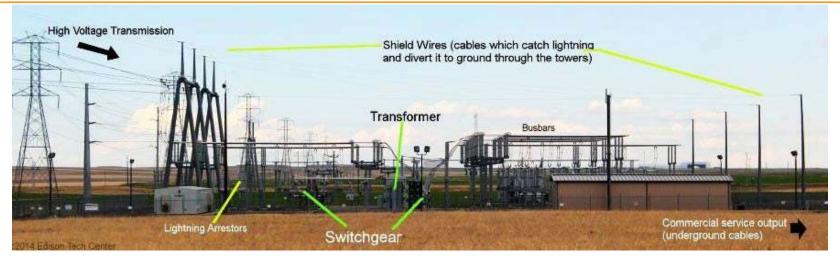
- Theft of Copper Grounds Verona
- Theft of Copper Grounds Oakmont
- Suspicious Activity Collier
- Theft of Copper Conductor West Mifflin
- Theft of Scrap Copper Conductor West Mifflin
- Theft of Scrap Copper Penn Hills
- Theft of Off-road Vehicle West Mifflin
- Vandalism of DLC Substation Wilkinsburg
- Bullet Hole in Transformer Casing Logans Ferry Substation
- Bullet in Aerial Cable Highland Park/Wilkinsburg Circuit







What is a Substation?



Electric Power Facility

- Transforms power from one voltage to another *or* from one system to another
- Uses Switches, Circuit Breakers, Buses, and Transformers to switch power circuits

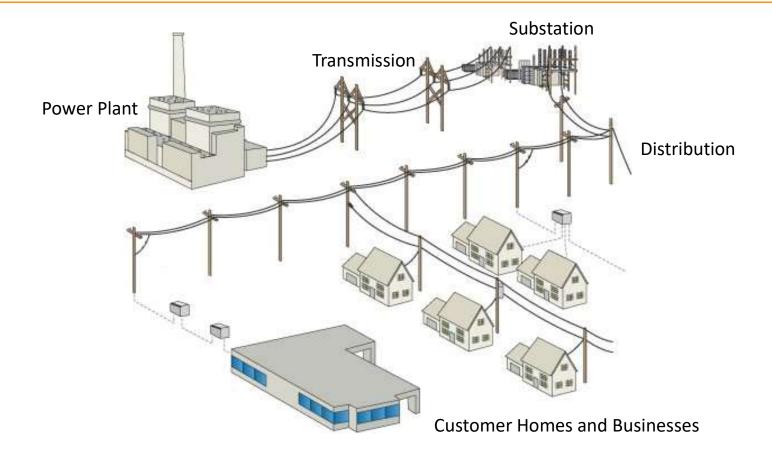
Primary Purpose

• "Step Down" electricity from High Voltage Transmission System to Lower Voltage Distribution Systems to easily supply homes and businesses



DLC Internal

Where does it fit?





DLC Internal

Law Enforcement Assistance





Law Enforcement Assistance to DLC

- Know the location of DLC substations and other critical facilities within your jurisdiction. Know access roads, terrain, and natural hazards.
- During patrol activities, be aware of persons, vehicles, or activities that seem suspicious.
 Look for cut fences, cut locks, open gates, pulled up ground wires, electrical arcing, or vandalism.
- Respond to DLC emergencies or other calls for assistance.
- Ensure all officers receive pass-on information regarding threats, suspicious activity reports, thefts, etc. related to DLC facilities and assets.
- Contact the DLC Operations Center emergency number or DLC Corporate Security with any questions, concerns, or suspicious activity reports.
- <u>Do not enter substation yards</u> without DLC escort. Be aware of the hazards associated with substation electrical energy.



DLC Internal

Response to Substation Emergencies

Understanding Where You Are



Substation names and locations are posted on gates.

Note:

Substation naming may not describe a geographic location

For example:

Dravosburg Substation is not in Dravosburg Carson Substation is not on Carson Street



Law Enforcement Response

Emergencies discovered by Law Enforcement, call the DLC Operations Center

- Emergency number is 412-393-8911, and is posted on all substation gates
- Describe the hazard, incident, or suspicious activity.
- DLC personnel will be dispatched to the scene as determined by the emergency
 - DLC contract security personnel in a marked security vehicle (St. Moritz Security)
 - DLC Corporate Security personnel
 - DLC Operations personnel

Officer safety is paramount – please follow all DLC Operations Center instructions

- Do not enter substation yards or allow other first responders to enter without DLC escort or specific permission from the DLC Operations Center
- Please document any incident using your standard report process
- DLC Corporate Security or contract security personnel will request the report number



DLC Internal

Safe Entry into Substations

- When possible, conduct all public safety activities from outside the substation fenceline, such as investigations, patrols, etc.
- Duquesne Light employees will serve as subject matter experts and escorts if entry inside the substation fence or control house is required
- FR-rated coveralls and EH-rated footwear are required to safely enter.
 - Apart from firefighter uniforms, most public safety uniforms and footwear do not meet the Fire Resistance (FR) and Electrical Hazard (EH) ratings necessary for personal protection while inside a substation









Safe Entry into Substations

- All substation equipment must be treated as energized or "live" until proven otherwise.
 - Electrical current does not have to be flowing through the equipment for voltage to exist, to be ENERGIZED.
- Individuals who are <u>Not Qualified</u> to work on energized conductors must maintain the following distances from all equipment that might be energized.

Voltage	Distance
Under 50kV	10 Feet
69kV	10'8"
138kV	13 Feet
345kV	20 Feet

A good rule of thumb is to walk or stand at least 20 feet away from any equipment inside a substation yard.



DLC Internal

Liaison & Intelligence Activities

- Local, city, and county police & emergency management agencies in Allegheny and Beaver Counties
- Western PA All Hazards Fusion Center
- PA Region 13 Utility Security Subcommittee
- PA State Police and PA Criminal Intelligence Center (PaCIC)
- FBI Pittsburgh Critical Infrastructure squad, DSAC, and FBI InfraGard
- US Department of Homeland Security and CISA
- US National Counterterrorism Center
- E-ISAC: Energy Information Sharing and Analysis Center
- NATF: North American Transmission Forum
- ASIS International Western PA Chapter
- ASIS International Utility Security Council



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Key Contact Numbers

- DLC Operations Center Emergency Number: 412-393-8911
- DLC Operations Center: 412-798-7411
- DLC Corporate Security Command Center: 412-393-8388





Questions, Comments, Discussion





DLC Internal

