

The VELCO logo is displayed in a bold, white, sans-serif font. It is positioned in the upper left corner of the slide, set against a background image of a Vermont landscape with rolling hills and power lines.

VERMONT'S TRANSMISSION RELIABILITY RESOURCE

Substation Security Upgrade Project

December 20, 2012

Operating Committee

Substation Security Upgrade Project

Scope:

Design and implement a comprehensive physical security network for maintaining system reliability as required by NERC Critical Infrastructure Protection (CIP) Versions #3 & #4 and soon to be adopted Version #5, in conjunction with reducing VELCO's business risks (theft/vandalism) at substations and facilities by December 31, 2014.

- 2010 - Installed Card Access System and Internal Cameras at five Critical Asset Substations. (Vernon 345, Yankee 345, Coolidge, Newfane & West Rutland).
Established the backend Systems to maintain and control the substation security systems.
- 2011 - Activated Card Access System and installed Yard Cameras at six Critical Asset Substations / Facilities. (Vernon 115, Yankee 115, Yankee 345, Coolidge, Newfane & Pinnacle Ridge).
- 2012 - Project scope expanded for installing Card Access, Infrared Yard Cameras, Internal Cameras and Motion Detectors in the control buildings and Remote Access to Relays for up to 10 Substations / Facilities.

Substation Security Upgrade Project

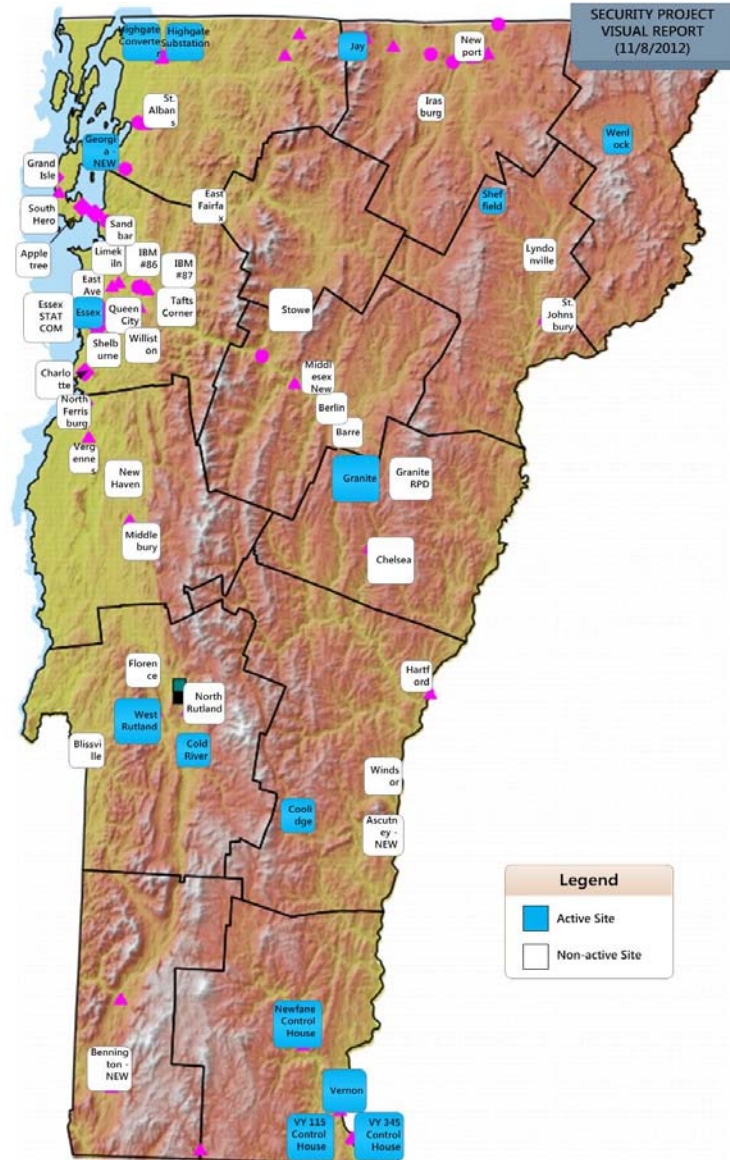
Critical Infrastructure Protection (CIP) Requirements:

- Version 3 - Compliance by October 10, 2010 to May 19, 2011.
- Version 4 - Compliance by April 30, 2014.
- Version 5 - Proposed compliance by July 1, 2015.

VELCO Business Requirements:

- Security - proactively monitor and protect assets from vandalism, sabotage, etc.
- Safety - proactively identify, prevent and repair material conditions to protect VELCO/DU associates, contractors and the general public.
- Operations - to maintain reliability and confirm conditions / operations of specific substation equipment.
- Thefts - deter and prevent illegal activities and document for prosecution.
- Reduce Legal Liabilities and Financial Costs.
- Continue Proactive Corporate Role to be a Trusted Partner.

Substation Security Upgrade Project



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Security Technologies:

- Card Access System
- Internal Control Building Cameras & Motion Detectors
- Remote Access to Relays
- Rugged.com / Circuits
- Infrared Yard Cameras
- Yard Lights Remote Control
- Perimeter Fence Detection

Substation Security Upgrade Project

- Reserved for Inserting Newfane Substation Video
- Sunday, September 16, 2012

Substation Security Upgrade Project

Typical Substation Site Installation Cost is \$160,000 for full security package.

- Assumes one double door and one single door to control building.
- Prices increase/decrease based on # of doors, size of yard, # yard cameras required, etc.
- Typical Security Package:
 - Fence Protection\$20k
 - Card Access (remote network connectivity)...\$50k
 - External Cameras\$40k
 - Door Hardware & Misc. Items\$10k
 - Labor\$40k

Substation Security Upgrade Project

Project Costs to Date: \$3.3 M - (15 sites)

2013 Planned Costs: \$4.4 M - (22 sites)

2014 Planned Costs: \$4.5 M - (20 sites)

Substation Security Upgrade Project

Current/Planned Project Activities:

- Finalize new RFP for Remaining Installations - January 2013.
- Full evaluation of NERC CIP - V#5 Requirements and Schedule.
- Determine Ongoing O & M Requirements for the Project.
- Secure Warehouse Facilities for Materials and Equipment.
- Secure Internal / External Resources for Full Deployment in 2013.