



# CIP Substation Security Project Update

VELCO OPERATING COMMITTEE

MAY 15, 2014

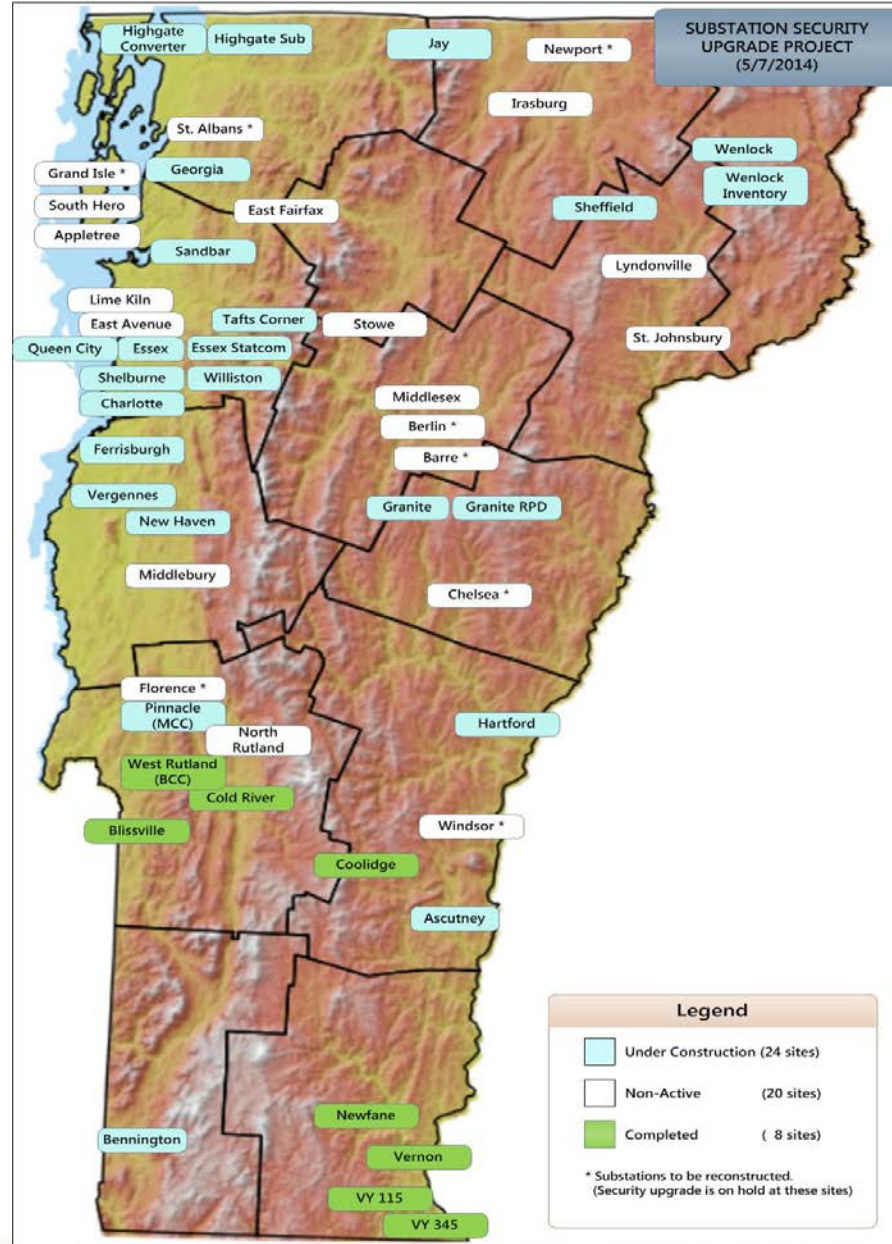
# CIP Substation Security Project Update

- 2013 Security Project Activities/Accomplishments
- NERC CIP - Version 5 Compliance Requirements
  - Approved in December 2013
  - VELCO Compliance Status
- Ongoing and Planned 2014 Project Activities

## 2013 Substation Security Project Activities

- Secured Howe Center warehouse for security equipment inventory
- Issued and awarded RFP for Phase I of Security Project (\$1.9 M)
- Successfully completed all initial fence detection installations (12 of 14 sites – Bennington and Jay Substation sites on hold pending changes to existing fences)
- Started and completed control building security installations at 17 sites
- Successfully tested and implemented Ciena fiber connectivity to sites
- Invested \$2.3 million in 2013 into VELCO Substation Security

# CIP Substation Security Project Map



# NERC CIP Version 5 Requirements

## CIP Version 5 Reliability Standards

- Approved by FERC Order 791 issued November 22, 2013
- Effective date of April 1, 2016

### Major Change:

- Previous versions' identification of “Critical Assets” is replaced with “BES Cyber Systems”
- BES Cyber Systems are categorized into impact categories of High, Medium, and Low. Categories are based on impact to the reliable operation of the BES.
- CIP-006 V5 – “Physical Security of BES Cyber Systems” requires additional authentication and controls from CIP-006 V3

# NERC CIP Version 5 Requirements

## Impact to VELCO:

- VELCO currently has 7 facilities identified as Critical Assets under CIP V3. Critical Assets containing Critical Cyber Assets require 1 form of authentication. Presently, only 2 Critical Assets contain Critical Cyber Assets.
- VELCO categorizes 2 HIGH impact and 7 MEDIUM impact BES Cyber Systems under CIP V5. HIGH impact requires 2 forms of authentication while MEDIUM requires 1.
- Procedures and Agreements must be in place with all parties who require access to HIGH and MEDIUM impact BES Cyber Systems. **Access can not be granted without these.** Parties include Vermont Distribution Utilities with assigned switchpersons.

# NERC CIP Version 5 Compliance (Required by April 1, 2016)

## VELCO CIP V5 Technical Compliance Expected by September 2014 - (18 months early)

Facility	Cat.	CIP-006-5 Compliant (1)	VELCO Business Requirements (2)	
			Yard Cameras	Fence Detection
Site 1	M	May 2014	Installed	Installed
Site 2	M	June 2014	Installed	Not Installed
Site 3	M	Complete	Complete	Complete
Site 4	M	Complete	Complete	Complete
Site 5	M	Complete	Not Complete	Installed
Site 6	M	Complete	Complete	Complete
<b>Site 7</b>	H	Complete	Complete	Complete
Site 8	M	Complete	Complete	Installed
Sites 9 & 10	M	Complete	N/A	N/A
Site 11	M	Complete	Complete	Complete
<b>Site 12</b>	H	Complete	Complete	Complete

(1) Access control and interior motion detection with monitoring and logging.

(2) Installation of interior and yard cameras and perimeter fence detection equipment. Remote lighting controls pending at all of these sites

# 2014 CIP Substation Security Project Activities

- Continue substation control building security installations at all sites
- Finish perimeter fence detection installations at the NRP substations: (Vergennes, Ferrisburgh, Charlotte, Shelburne and Queen City)
- Order additional Phase I equipment in May 2014 and Dec. 2014
- Continue implementation of Ciena fiber connectivity
- Continue monitoring and reporting on physical security results
- Proceed with full implementation of remote lighting controls
- Develop as-built drawings for all installations for future reference
- Continue to collect and track O&M data on equipment performance
- Closely monitor FERC and NERC developments on physical security issues
- Develop and initiate Security Awareness Program with local law enforcement



# CIP Substation Security Project Summary

- Total Installation costs are coming in at slightly under budget
- Current Project installations are ahead of schedule
- Existing Perimeter Fence Detection equipment performing well
- VELCO management approved to proceed with full security installations at remaining 27 sites with Perimeter Fence Detection equipment integrated with substation yard cameras.
- Total Security Project costs estimated to be \$13.1 M
- Security Project to be completed by 2nd quarter 2016