

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

# Growing Threat of Theft & Vandalism to Vermont Utilities

Operating Committee  
December 20, 2012

# National Background

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- Nationwide, over the last several years, there have been 54 copper theft related injuries and 35 deaths.
  - “There are ways that a very few number of actors with very rudimentary equipment could take down large portions of our grid. I don’t think we have the level of physical security we need.”

-Jon Wellinghoff, FERC Chairman
- Electrical Safety Foundation International published a report on copper thefts in 2009.
  - More than 95% of the utilities surveyed reported incidences of copper theft during the previous 12 months.
  - More than 86% said they had a process in place to track incidences of copper theft.
  - The report estimated that the annual value of the copper stolen from utilities nationwide was just over \$20 million.
- October 2012 — DOE’s Office of Electricity Delivery and Energy Reliability reported several million dollars of copper thefts annually.

Source: Atkinson, William. “Preventing Copper Thievery” Public Power Nov-Dec 2012:14-19.

## Vermont — Crimes against utility assets on the rise

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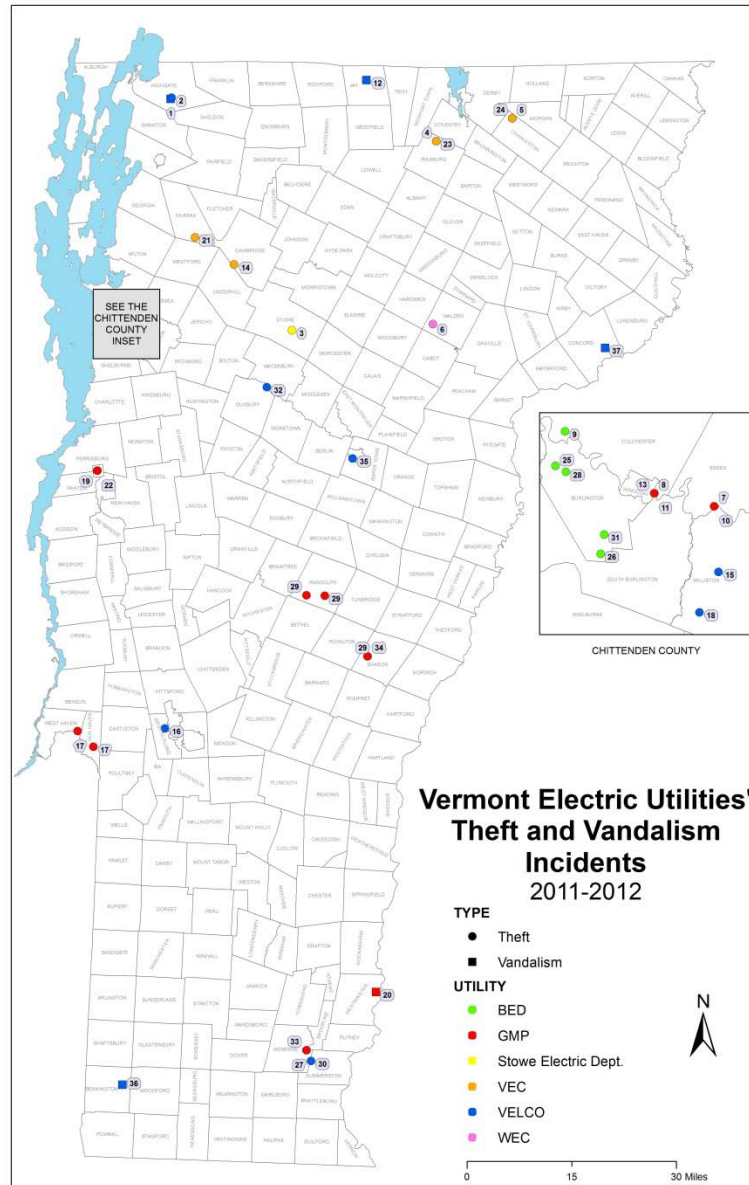
- Statewide 38 copper theft and vandalism incidents reported in 2011 & 2012:
  - Substation entry gained through cutting locks and fencing.
  - Stolen copper undergrounding, piping and electrical equipment
  - Firearm-caused structure damage
- Upcoming Legislative Session:
  - VT House Commerce and Economic Development Committee chairman has identified work on metal (copper) theft issue as a priority

# Direct/Indirect Impacts

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- Utility/Customer Costs
- Decreased reliability
- Safety Hazards
- Fatalities & injuries (perpetrator, utility worker and local community)

# VT Electric Utility Theft and Vandalism Incident Map



# VELCO actions underway

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- Employee training to heighten awareness about theft/vandalism as it pertains to safety
- Incident tracking system
- System Assessment Program
- Security camera installation
- Fencing (barbed wire, trial substation sensor program)
- Additional signage (“Area Under Surveillance” with Emergency Number)
- Substation entry alarm systems
- Copper moved to indoor/locked storage areas and contractors required to take all equipment to secured facilities at the end of the work day
- Improved lighting/Installation of remote light switching
- Copper grounds replaced with tinned copper (camouflage)
- VT Fish and Wildlife collaboration
- Off-hour security for substation construction projects
- Law enforcement collaboration

## Additional strategies and approaches

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- Copper ground wire substitution
- Marking copper/ painted copper grounds
- “Branding” property ([www.datadotdna.com](http://www.datadotdna.com))
- Clearing nearby trees/brush to improve visibility
- Reduce copper inventory
- Public outreach
- Partner with law enforcement, scrap metal dealers, construction and telecommunication companies
- Hotline/ Report suspicious activity on website
- Sting operation
- Reward Policy

# Reaction and Discussion

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- Additional information needs
- Joint utility strategy
- Next steps?