

K41 Structure Replacements



VELCO Operating Committee
July 21, 2011

NERC Alert

- ▶ In October 2010 NERC issued a recommendation that all TOs confirm that the field conditions of the transmission lines (i.e., line to line/line to ground clearances) were consistent with line designs as determined by each TO's Facilities Rating Methodology.
- ▶ VELCO performed a comprehensive system analysis (LIDAR) to develop detailed models of our system in PLS CAD for all of our transmission lines. VELCO identified locations where potential clearance issues existed.
- ▶ After completing this work and conducting field verifications it was determined that the K41 line (Highgate to Irasburg) had multiple National Electric Safety Code (NESC) clearance violations.

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- ▶ K41 line was acquired by VELCO from Citizens utilities in 2003. The portion of the line where the clearance issues were identified was constructed in the early 1960s.
- ▶ It was determined that 15 structures needed to be installed:
 - 12 were replacement of existing structures (10–20' height increases)
 - 3 new mid-span structures in long spans (e.g., ~1,200').
- ▶ Due to public safety concerns (i.e., insufficient line to ground clearances in several spans), the line was then taken out on June 16, 2011.
- ▶ An emergency filing (248 (k)) was submitted in mid June and, after a hearing on June 24th, the PSB approved our request.

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- ▶ **VELCO crews along with contract crews began marshalling materials and construction started on June 27th.**
 - ▶ **VELCO also contracted excavation and ledge removal crews as well as environmental crews to complete this project.**
 - ▶ **The line was restored to service with the new 103 MVA rating on July 8, 2011.**
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