

### Transmission Line Refurbishment Projects

K43 Line

Planning Advisory Committee Meeting April 20, 2023

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## TLR Strategies

- Traditional inspections to establish initial replacement plans:
  - Comprehensive Aerial Patrol (8 year cycle)
  - o Osmose (8 year cycle)
  - Aerial Patrols (4 times per year)
  - Ground Patrol (prior to finalizing work plan)
- Final replacement plans include the identified deficient structures and adjacent structures nearing their end of life.
- Project plan is developed a year in advance
- Create efficiencies to minimize costs and negative impacts



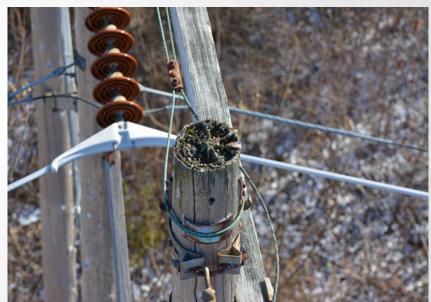
## K43 Line

115 kV line from Williston to New Haven

20.9 mile line built in 1954, and originally operated at 69kV

## Example Inspection Results Pole Rot



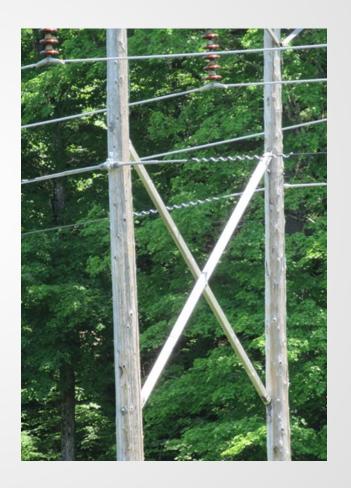


### **Example Inspection Results**

#### Weathered Poles and Woodpecker holes







**6** 

# Example Inspection Results Cracked poles





## K43 Line Structure Replacement Summary

- Located primarily in low land terrain consisting of agricultural fields and vast wetlands that produce substantial pole foundation challenges.
- Major issues being addressed include severely weathered and cracked poles, woodpecker holes, and rotten pole tops
- Additional assessment findings include rotted crossarms and woodpecker damage
- Replace 105 out of 245 wood H-frame structures.
   Majority of replacements will be steel H-frames,
   especially in areas seeing woodpecker
   damage. Minimal wood H-frames will be
   installed to reduce current wood pole inventory.
- Total Estimate: \$16.9 million (+/-10%) PTF
- Completion of work projected in 2026

