



Lines 1132 & 1505

Asset Condition Structure Replacements

TCA Submittal Presentation
ES-23-TCA-11 (ACL 379)

NEPOOL Reliability Committee Meeting

May 13, 2025

Outline

- Project Background
- Project Location
- Project Needs and Drivers
- Project Summary
- Questions

Background

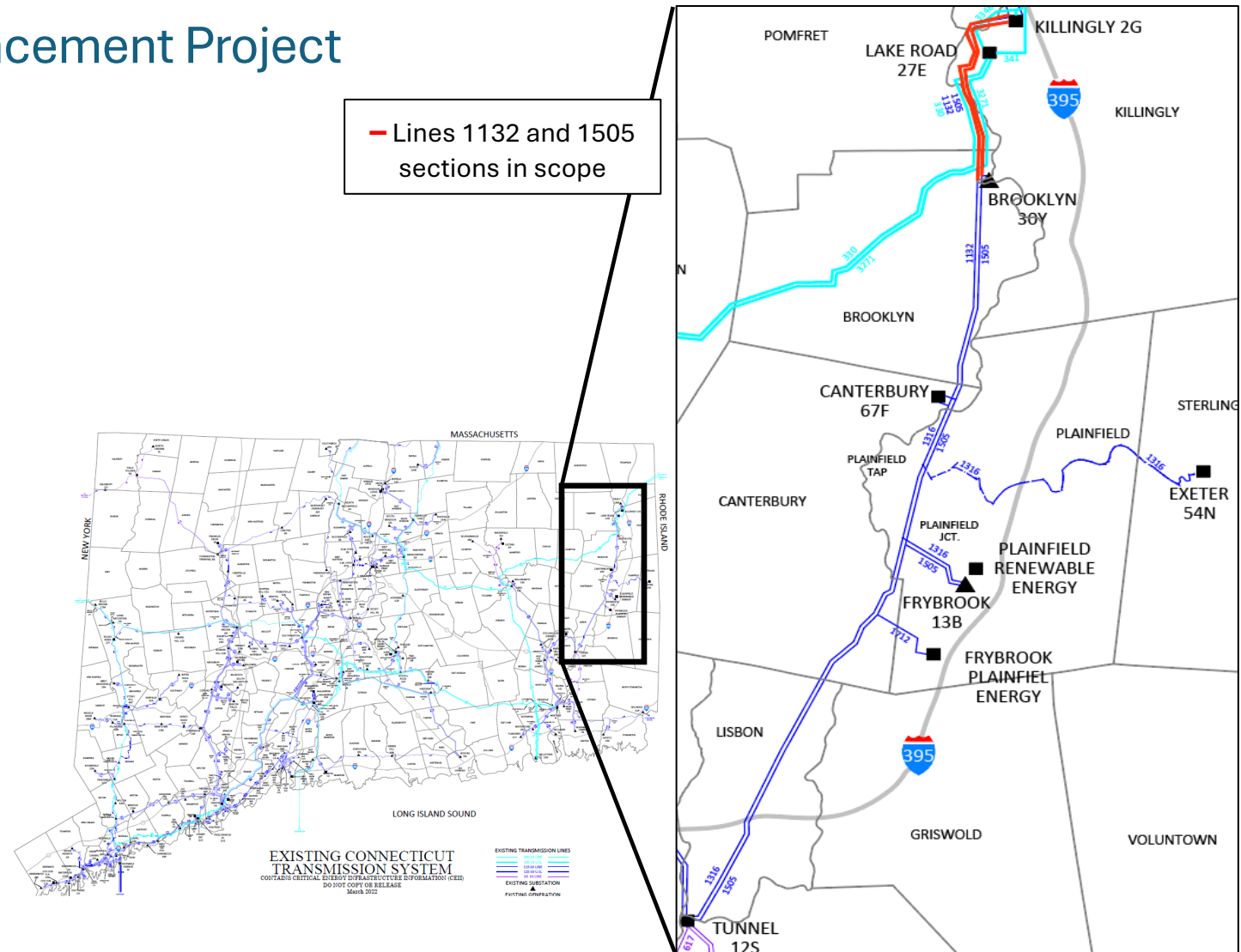
- This presentation covers the Transmission Cost Allocation (TCA) application for the Eversource 1132 & 1505 asset condition structure replacement project
- The project was presented at the [April 20, 2023](#), PAC meeting

Background Information

Line 1505 & 1132 Structure Replacement Project

Key Details

Location	<u>Line 1132</u> From: Killingly Substation (<i>Killingly, CT</i>) To: Canterbury Substation (<i>Canterbury, CT</i>)
	<u>Line 1505</u> From: Killingly Substation (<i>Killingly, CT</i>) To: Brooklyn Substation (<i>Brooklyn, CT</i>) Fry Brook Substation (<i>Plainfield, CT</i>), Tunnel Substation (<i>Preston, CT</i>)
Line Length	<ul style="list-style-type: none"> Line 1132 – 11.4 miles Line 1505 – 25.7 miles
Operating Voltage	<ul style="list-style-type: none"> 115 kV
Age and Upgrade History	<ul style="list-style-type: none"> 1976 vintage original wood structures (47 years old) No significant upgrades or rebuilds
Prior PAC Presentations	<ul style="list-style-type: none"> April 20, 2023, ACL #379



Project Summary – *As presented to PAC, 4/20/23*

Project Drivers

- Inspections indicated significant degradation of wood structures on the 1132 and 1505 Lines in Eversource's Eastern Connecticut transmission system.
- Structures targeted for replacement are natural wood H-frame structures vintage 1976

Alternatives Considered

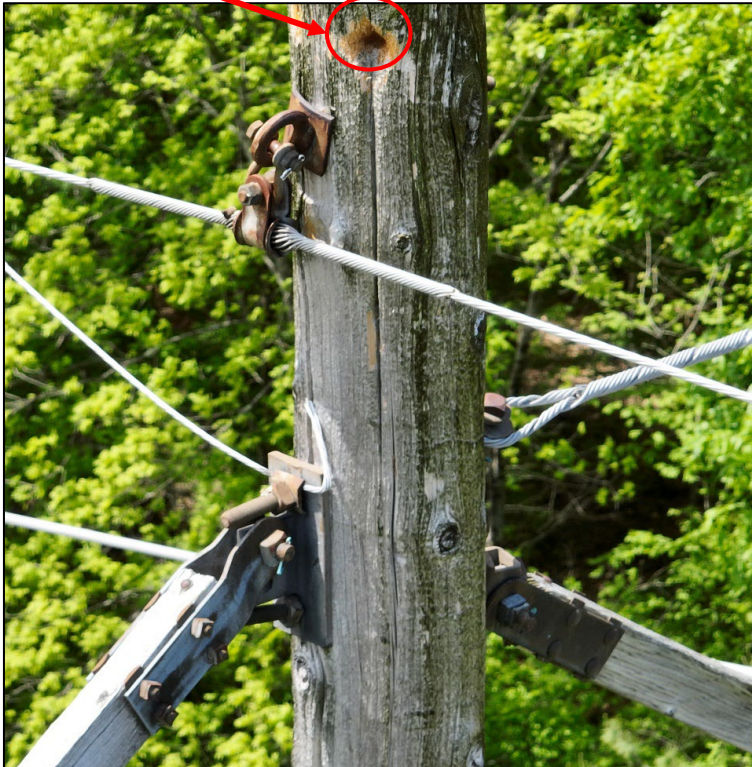
Alternative	Description	Cost Estimate
Alternative 1	Replace all 40 remaining wood structures with new weathering steel structures on Lines 1132 and 1505 between the Brooklyn Tap and Killingly Substation	\$13.380 M (-25%, +50%)
Alternative 2	No other alternatives were identified for consideration	

Preferred Alternative

Alternative	Reason for Recommendation	Cost Estimate
Alternative 1	<ul style="list-style-type: none"> • This project addresses all of the identified asset condition concerns on the wood structures on Lines 1132 and 1505 between the Brooklyn Tap and Killingly Substation 	\$13.380 M (-25%, +50%)

Project Needs and Drivers

Woodpecker damage



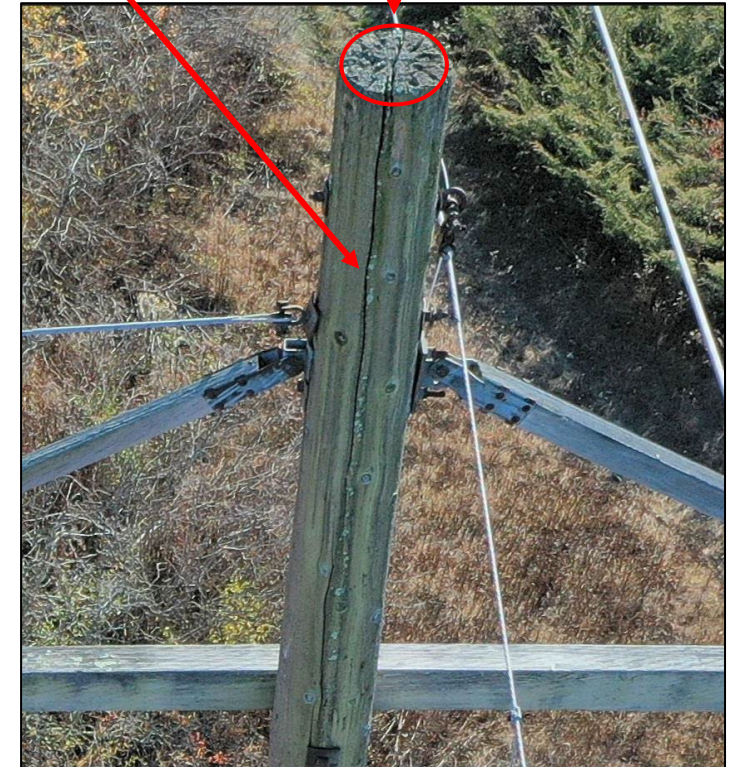
Structure 7347A

Loose hardware



Structure 7318A

Pole crack

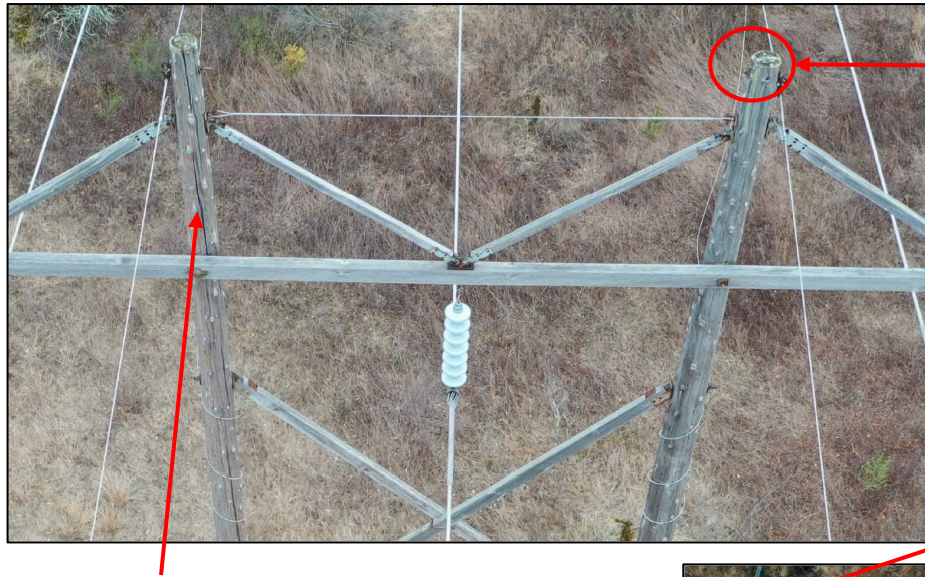


Split pole top

Structure 7358

Split Pole Tops, Cracks, Woodpecker Damage, & Loose Hardware

Project Needs (Cont.)



Woodpecker damage &
split pole top

Structure 7348A

Pole crack

Split pole top

Structure 7319

Pole crack



Split Pole Tops, Cracks, Woodpecker Damage, & Missing Grounds

TCA Summary

Lines 1132/1505 Asset Condition Structure Replacements					
ACL #	TCA #	Description	PAC Estimate	TCA Estimate	ISD
340	ES-23-TCA-11	<ul style="list-style-type: none">Replace 41 existing wood structures with new weathering steel structures and modified three existing structures on the 1505/1132 115 kV LinesWork to remove all remaining wood structures within the Brooklyn Tap to Killingly Substation portion of the linesProject Update: Relative to the PAC presentation the final scope of the project resulted in the replacement of one additional structure as well as three structure modifications, which were identified during detailed engineering.	\$13.380 M (PTF) (-25%, +50%)	\$16.051 M (PTF) (-10%,+10%)	Apr-2024

Questions

