

# Lincoln Briefing

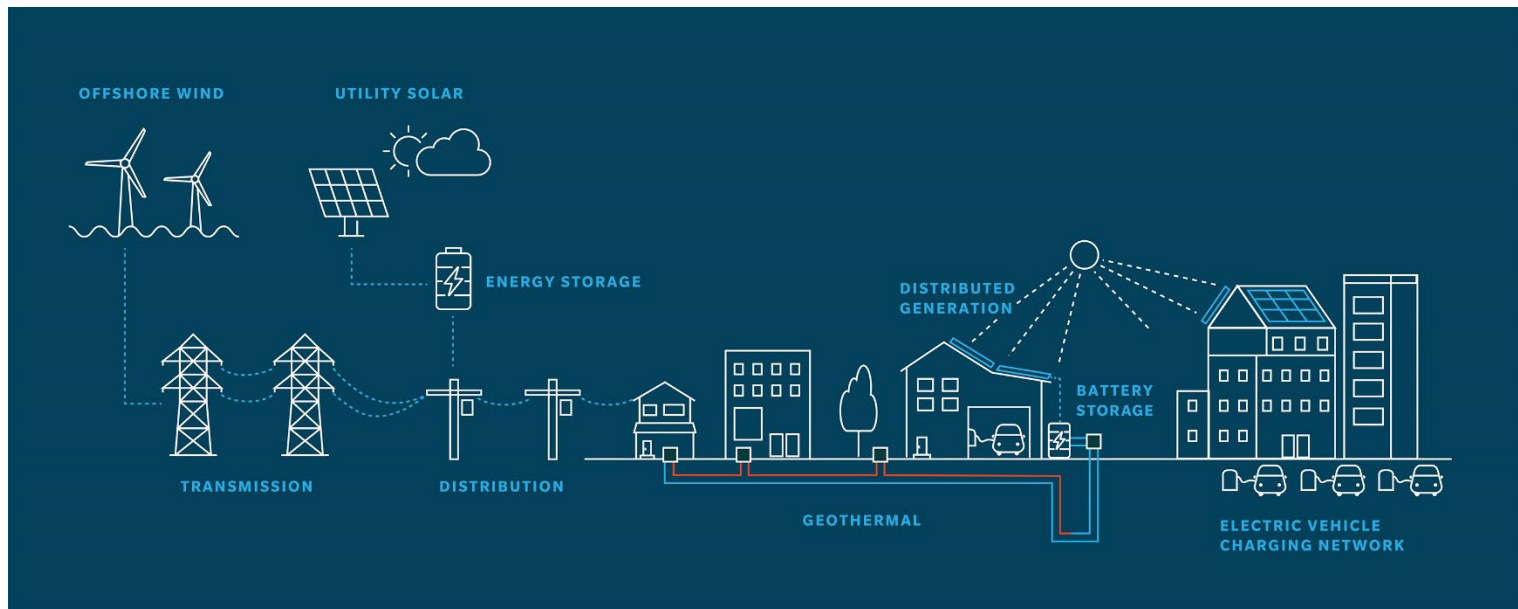
**April 2023**

## **Beebe River to Whitefield (X178) Line Rebuild Project**

# The Transmission System

## *Getting Electricity to Where It Is Needed*

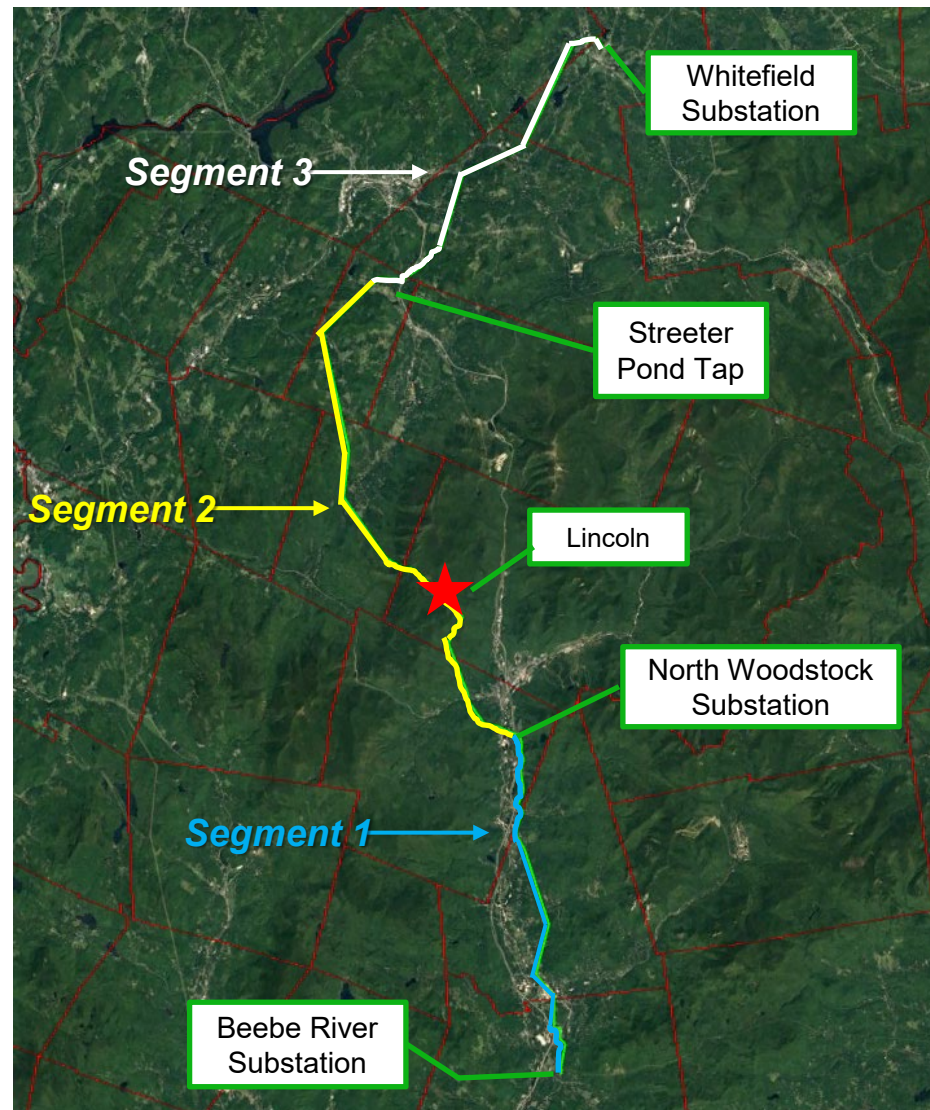
A strong electrical transmission system is vital to the safety, security, and economic prosperity of the region. The transmission system serves a critical role to ensure that electricity flows with a high degree of reliability from where the power is generated to where it is needed.



# Beebe River to Whitefield Overview

## *A safer, more resilient, more reliable system*

- **Power Line Name:** X178 line
- **Age:** Originally built in 1969, 1985
- **Voltage:** 115 kilovolt (kV) transmission line
- **Structures (approx.):** 594 Existing (570 will be replaced)
- **Length:** 49 miles long
- **Towns:** Campton, Thornton, Woodstock, Lincoln, Easton, Sugar Hill, Bethlehem, Dalton, Whitefield
- **ROW Width:** Varies in width from 150' – 300'
- **Lines in Corridor:** Varies from 1 transmission line to 2 transmission lines and 1 distribution line
- This line consists of mostly wooden H-frame (two-pole) structures, with some three-pole structures.



# What Do We Need to Do?

## *Replace the existing transmission line for improved system reliability*

- Replace the older, degraded wooden pole structures with new weathering steel structures.
- Install new transmission wire (conductor) and add new communication wire (OPGW).
- The new steel structures will be able to support the weight of the new wires and will better withstand the storms we experience here in New Hampshire.
- The line must be built to present-day electrical safety standards and codes, which require more robust structures.



# Why is this Work Necessary?

## *Degraded structures and outdated communications wire threaten reliability*

- Degraded Structures
  - Recent physical inspections and engineering analysis of this line revealed that many of the existing wooden structures are in poor condition due to their age, woodpecker and insect damage, and pole rot.
- Outdated Communications
  - Existing communication between substations relies on older technology which results in slower communication.
  - Replacing old communication wires with optical ground wire (OPGW), makes our communications more reliable and secure.
  - This communication fiber is being installed throughout the Eversource transmission system and is not for third-party use.

## **Without this Project...**

- Aging infrastructure could fail if stressed by severe storms or other weather, which could result in safety issues or power outages.
- Less reliable communication wire between substations could make it more difficult to identify abnormalities and isolate failures on the line, which could lead to power outages.

# Samples of Structure Degradation

## Pole Rot



## Woodpecker Damage



## Cracked Pole



# What will it look like?

Examples of existing structures to be removed



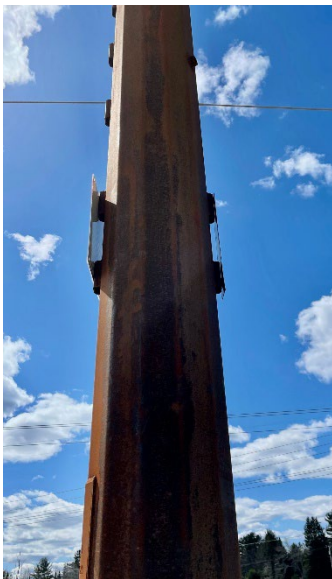
Example of a typical structure to be installed



# Weathered Steel



- Mimics a rust look, darkens and blends in more over time.
- Weathered steel poles last longer than wood.



Close up of an installed weathered steel structure



Weathered steel structure representative of what will be installed on this line.



# Lincoln Scope

## Segment 2 Information

- 20.8 miles
- 232 Structures (231 will be replaced)
  - 40 structures in Woodstock
  - **53 structures in Lincoln**
  - 76 structures in Easton
  - 63 structures in Sugar Hill



# Vegetation Management & Access

**Vegetation Management:** Standard cyclical vegetation management is being completed on this line over the next 6 months.

- This includes mowing the floor of the existing right of way and removing incompatible vegetation to the edge of the maintained corridor.
- Incompatible vegetation includes any species that has a maximum mature height of greater than 15 feet.
- Side trimming and hazard tree identification are also included in this activity.

**Access:** In order to facilitate safe and efficient construction activities, access within the corridors will need to be created or improved.

- Existing access roads within the ROW will be used where available. If new access roads need to be created, they will be designed to minimize impacts to the greatest extent practical.
- The application of gravel may be used to improve existing access roads.
- In wetlands or other identified sensitive areas (such as agricultural fields), timber mats (temporary wooden mats) are used to minimize soil disturbance. Areas will be restored after construction, if necessary.
- We will likely request off-right of way access from multiple property owners along the project

# Permitting

Based on preliminary assessment, Eversource expects that permit review from the following agencies

## Federal

- United State Army Corps of Engineers
- United States Forest Service
- United States Fish & Wildlife Service
- Federal Aviation Administration

## State

- NHDES Wetlands, Shoreland and Alteration of Terrain programs
- NH Fish & Game Department
- NH Natural Heritage Bureau
- NH Department of Energy

## Local

- Permitting pursuant to local land use ordinances as required.



# Beebe River to Whitefield Line Rebuild Project – Segment 2

*\*Projected Timeline, pending necessary permits and approvals*

Anticipated Schedule <sup>1</sup>	Q1 2023	Q2 2023	Q3 2023	Q4 2023	Q1 2024	Q2 2024	Q3 2024	Q4 2024	Q1 2025	Q2 2025	Q3 2025	Q4 2025	Q1 2026	Q2 2026	Q3 2026	Q4 2026
Field Work		Field Work	Field Work	Field Work	Field Work	Field Work	Field Work									
Stakeholder Outreach	Outreach	Outreach	Outreach	Outreach	Outreach	Outreach	Outreach	Outreach	Outreach	Outreach	Outreach	Outreach	Outreach	Outreach	Outreach	Outreach
Permitting		Permitting	Permitting	Permitting	Permitting	Permitting	Permitting	Permitting	Permitting	Permitting						
X178-1 Construction							Construction	Construction	Construction	Construction	Construction	Construction	Construction	ISD <sup>2</sup>		
X178-2 Construction											Construction	Construction	Construction	Construction	Construction	ISD <sup>2</sup>
X178-3 Construction							Construction	Construction	Construction	Construction	Construction	Construction	Construction	ISD <sup>2</sup>		
Restoration <sup>3</sup>											Restoration	Restoration	Restoration	Restoration	Restoration	Restoration

Key

Field Work

Outreach

Permitting

Construction

Restoration

<sup>1</sup> This schedule is weather dependent, subject to change. Overlap of activities including permitting, construction and restoration is anticipated.

<sup>2</sup> ISD means “In-Service Date”, which indicates when construction is complete.

<sup>3</sup> To the extent possible, restoration will be ongoing during construction for stabilization.

- Our goal is to work with our community partners and neighbors as we move forward with this important maintenance project.
- We will work with property owners and the community to provide information and answer questions regarding structure locations, structure height or any other considerations.
- We recognize the importance of the visual landscape and want to get your feedback on what else is important to your community.
- We are committed to keeping the community updated as the design is advanced; we will come back and share any information with you as available. Regional information sessions will be scheduled once the engineering evaluation is complete in the coming months.

# Stay Connected / Contact Information

**We want to hear from you. Share your questions, feedback, or other considerations by:**

Project Services (Project Outreach)

**Jennifer Codispoti**

Email: [Jennifer.Codispoti@eversource.com](mailto:Jennifer.Codispoti@eversource.com)

Phone: 603-634-2007

Community Relations

**Connor Jennings**

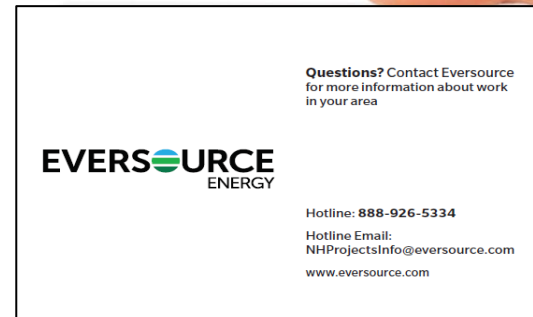
Email: [Connor.Jennings@eversource.com](mailto:Connor.Jennings@eversource.com)

Phone: 603-738-5008

Eversource Project Hotline: **1-888-926-5334**

Project Website: **In Progress**

Project E-mail: [NHProjectsInfo@eversource.com](mailto:NHProjectsInfo@eversource.com)



# Thank you

*We look forward to working with you throughout this important maintenance project.*

