kris pastoriza comment on Counsel for the Public petition, SEC 2024-02 12/14/24

1. Your document cannot be copied and pasted. This makes comments cumbersome.

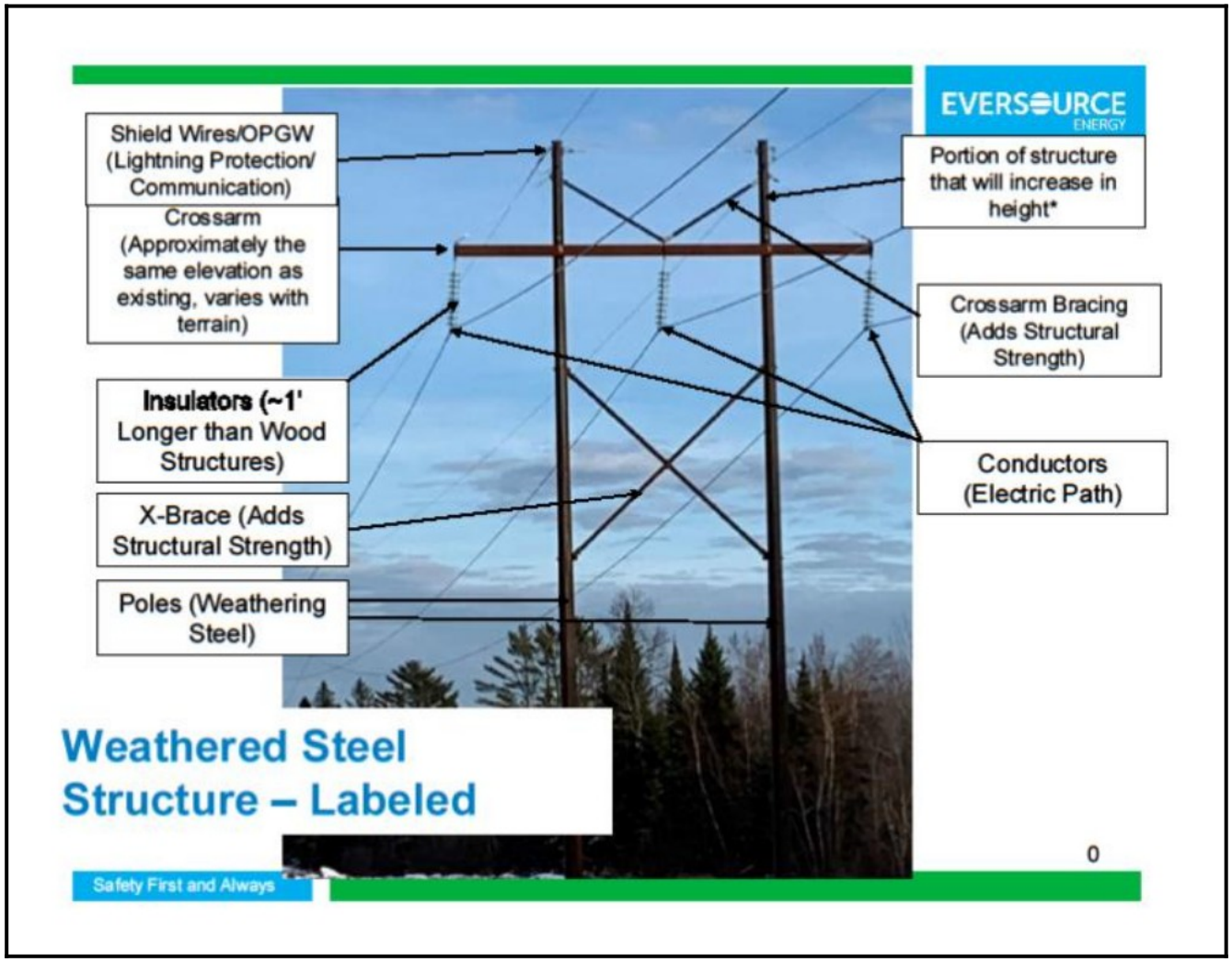
2. “...the voltage of the line will not increase.” Eversource’s 115kV lines are in sizes of 336 to 1590 with amperages of 529 to 2,606. Since the carrying capacity of the lines is volts x amps, saying the voltage will not increase is extremely misleading.

3. Eversource’s proposed replacement of ground wire with Optical Ground Wire (OPGW) is not permitted in the terms of the easements. OPGW transmits “”intelligence” not electricity, can monitor acoustics, and is a substantial change that cannot be assessed by appearance only.

4. The steel structures may be similar in size and design when seen at a distance or while traveling 60 mph on I-93 at a powerline crossing, but in the field they are quite different. The metal structures are not wood, they do not look like wood, they don’t evoke the associations of wood, they don’t sound, smell, taste or feel like wood and will alter the response of animals (including humans) who encounter them. The metal structures are ten-sided, 20” in diameter at the bottom and spaced 18’ apart. The existing wood structures have poles 12”-16” in diameter spaced 13.5’ apart. The metal poles have a black coating on the lower section, high-voltage warning signs and some of them have ladders and OPGW splice ‘boxes.’ The insulator strings are 1’ longer, the height of the structures above the cross-bars is taller, the structures have more guy wires. Many of the metal structures are on elevated or excavated bermed and flat construction pads, covered with rip-rap and gravel reached by 16’ wide rip-rap and gravel heavy equipment roads, all of which would industrialize the easements, making them more like the degraded vacant-lot non-places most people imagine them to be.

The replacement structures would meaningfully differ from the existing structures in more ways than increased height.

Eversource claimed that the height increases would be above the cross-bars and that the cross-arms would be at approximately the same elevation as the existing cross-arms:



The Project does not require the construction of new permanent access roads and work pads. The original line was build in 1948 without these and replaced in 1985 without these though the existing poles are heavier than the proposed metal poles (according to Eversource.) Eversource has not provided any proof it needs roads and construction pads, nor do the easements permit these. Eversource has not provided to the public maps, documentation or assessment of existing “roads” on the X-178.

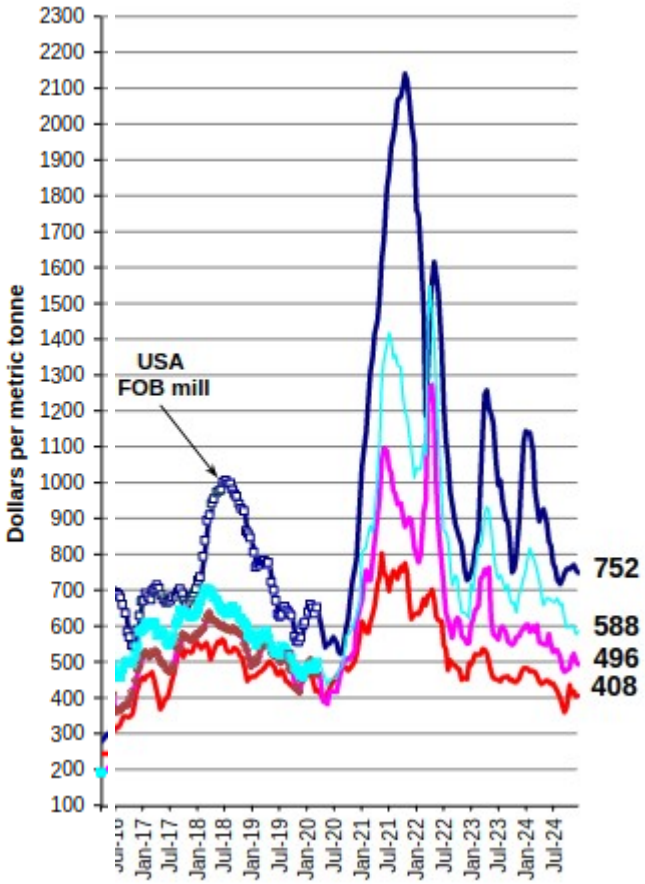
In 2017 Eversource showed similar lifetime costs for wood vs. steel poles.

Eversource Energy - Typical OH Transmission Types

Life-Cycle Cost Components - Estimated Overhead Construction Costs/ Typical Mile

Cost Category	115-kV H Frame - Wood or WPE Steel	115-kV Delta - Steel Monopole	345-kV H Frame - Wood or WPE Steel	345-kV Delta - Steel Monopole
Poles & Foundations	$1,098,718	$1,025,312	$1,314,095	$1,789,171
Conductor & Hardware	$374,464	$343,670	$663,053	$627,077
Site Work	$855,333	$796,971	$974,944	$904,084
Construction	$1,954,208	$1,563,719	$2,365,318	$2,405,711
Engineering	353,586	$330,756	$499,710	$505,960
Sales Tax	$0	$0	$0	$0
Project Management	$304,191	$274,071	$364,681	$384,697
Totals	**$4,940,500**	**$4,334,499**	**$6,181,801**	**$6,616,700**

https://portal.ct.gov/-/media/csc/1_dockets-medialibrary/lifecycle/2017lifecycle/procedural_hearing/lifecycleresponseintogseversource20170523pdf.pdf



steel prices (left) 2017-2024

http://steelbenchmarker.com/history.pdf

Line construction without roads:

https://www.youtube.com/watch?v=5ygUlCERrug

“The Project sponsor...appears to have been diligent in seeking local and State approvals.”

Eversource has been misleading in seeking local and State approvals. Eversource failed to send easement-encumbered landowners the DES Wetlands/Dredge and Fill and Alteration of Terrain (AoT) applications to obtain their signatures on them as required. Instead, Eversource sought and received from DES an opinion from the NH AG that it (Eversource) was the landowner of record. Because of this, easement encumbered landowners have not received copies of the Alteration of Terrain and Wetlands/Dredge and Fill applications and most are probably not aware that these exist. They have not had the opportunity to read, question and sign or refuse to sign these applications nor have they been informed of the waivers from various permitting requirements granted to Eversource by DES.

An Eversource representative stated, at a public meeting in Easton, that the digital files for these applications were too large to send to the Town though it had sent a link to one of these files to a Local Rivers Advisory Committee, was digitally sent these files by its contractors, sent these files to DES digitally and DES sent them to me digitally in response to a 91-a.

https://nhconservation.org/lib/exe/fetch.php?media=x178:final_aot_document.pdf

Eversource has routinely failed to provide important project information to individuals, towns and state agencies, in many cases despite repeated requests for this information, including but not limited to; proposed structure heights (withheld for months), visual impact maps (Eversource stated it would not produce these for this project), profile drawings of the existing, proposed and high-performance, low line-loss, low-sag ACCC type conductor, clearance requirements for the OPGW, structure information, post-construction grading maps, diameters of existing poles, inspection reports for the existing structures, the EPRI guidelines it claims were used for its inspections, the locations of the 43 structures it claims need replacement, the length of its maintenance cycle which it claims determines when category C structures need to be replaced, the history of outages (if any) on the X-178 and forensic pole inspection reports for other complete line rebuilds. It failed to state that the uplift/clearance issues it stated would require replacement of 244 more structures would be due to the replacement of the 43 structures with taller structures and that these taller structures were needed because of the larger conductor and Eversource’s desired conductor to ground clearance heights. Eversource told no one about the existence of the ISO PAC (Planning Advisory Committee) meetings though it claimed to agencies, including the SEC, that the PAC approved Asset Condition projects like the X-178, which it does not. In a letter to the SEC re. the A-111 line, Eversource stated: “An entire rebuild of the existing line within the existing corridor is required to maintain reliability of service.2”

“2. The project was presented to ISO New England at the December 2020 ISO Planning Advisory Committee (PAC) meeting where it was also approved by ISO at the same meeting.”

“Operating capacity will be unchanged. The line will continue to operate at 115 kV. The current functionality of the line will not change with the new conductor…”

This is Eversource describing its replacement of the existing 336 ASCR 529 amp conductor with 1272 ACSS 2,200 amp conductor which quadrupled the carrying capacity of the A-111.

https://nhconservation.org/lib/exe/fetch.php?media=a111_full_rebuild_.pdf

You state: “In terms of energy transmission, the Project may greatly benefit reliability and energy security in regions of the State including many parts of the ”North Country.”

ISO-NE has not identified any need for this project.

In its most recent filing with the SEC Eversource claims the capacity of the X-178 will not increase as a result of this project.

You have not defined energy security or listed other ways of achieving it and their costs/benefits (financial, environmental, social, aesthetic, psychological.)

You state: “The gravel roads and work pads will remain after completion of the project to facilitate future maintenance and emergency work, though the work pads will be reduced in size to approximately 30 feet by 60 feet.”

The AoT plans for the A-152, which are standard for Eversource, state:

“Work pad restoration should include reducing the work pad to a 30’ by 60’ area and reducing slopes to a maximum of 25%. Stockpiled material should be spread to reduce any unnecessary slopes. Gravel work pads and slopes should be scarified to a minimum of 3” before spreading top soil/loam.”

Restoration of uplands does not include anything other than perhaps seeding. Glacial erratics are left where they were bulldozed to or used to border the new roads.

Above, Ashland 2017, below Ashland 2023 after construction of the E-115.

Eversource has failed to address the environmental issues associated with steel structures.

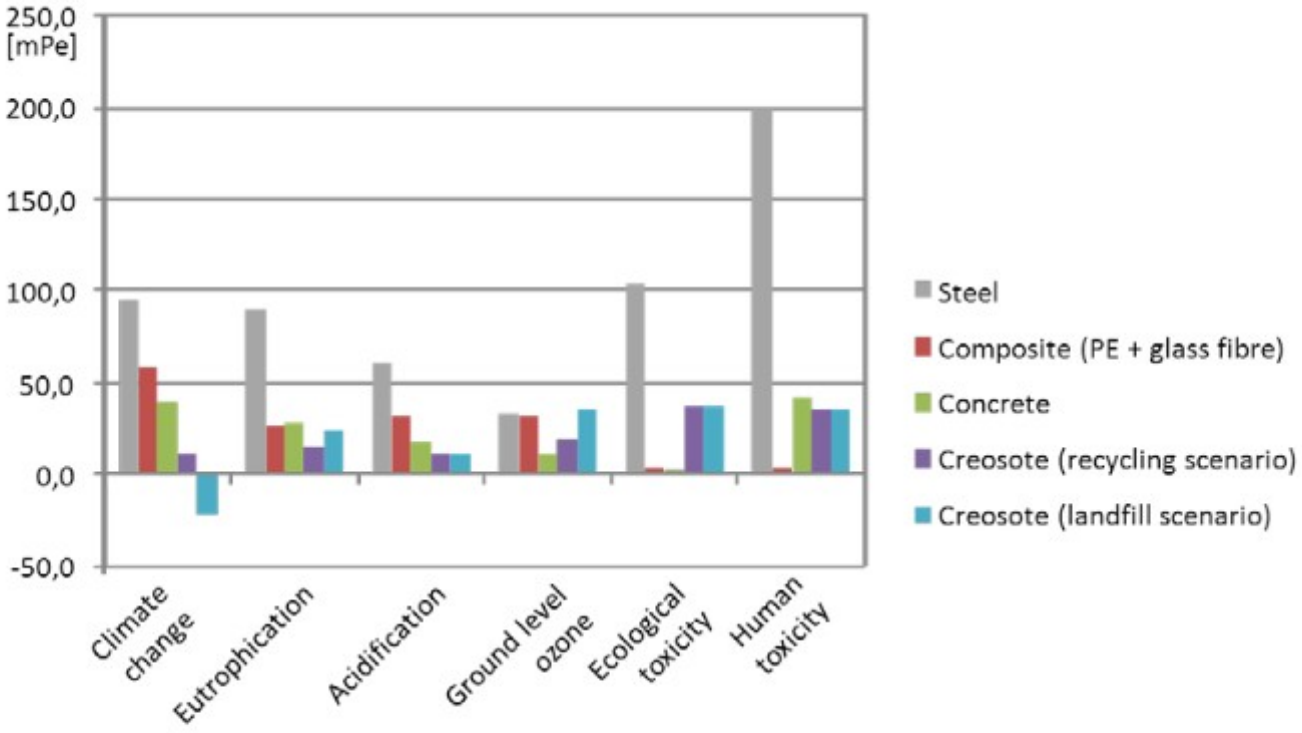


Figure 4 Environmental impact [mPe] for different pole alternatives per environmental impact category and assuming a service life of 50 years for all products.

https://www.ivl.se/download/18.34244ba71728fcb3f3f7d2/1668422823820/B2004.pdf

Public “outreach” documents have been grossly oversimplified and misleading and consistently implied that the project is a reliability project:

Beebe River to Whitefield (X178) Line Rebuild Project

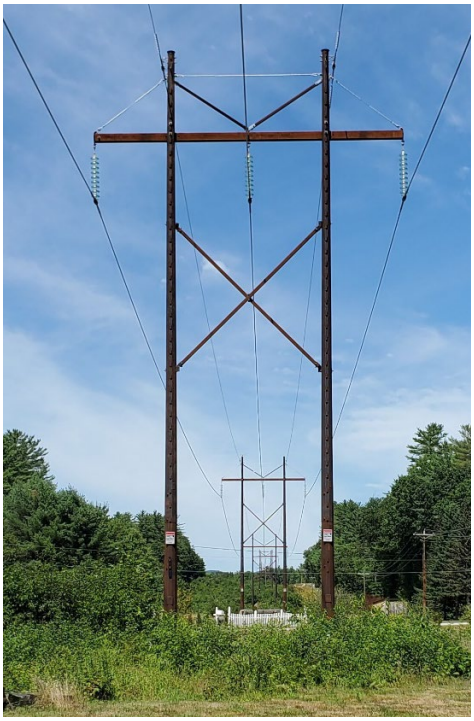
EVERSOURCE

Improving the Reliability of the Electric System across New Hampshire

Project Overview

As part of our ongoing investments to deliver reliable energy to our customers and communities, Eversource will be replacing existing wooden pole structures, in Campton, Thornton, Lincoln, Woodstock, Easton, Sugar Hill, Bethlehem, Dalton and Whitefield, N.H.

- This work will be taking place within the existing right-of-way (power line corridor) of the X178 Line, a 115-kV transmission line.
- The line is 49 miles long and is located between the Beebe River Substation in Campton, and the Whitefield Substation in Whitefield, N.H.
- In total, 570 wooden H-frame structures will be replaced, new conductor (power line) and fiber optic cable, known as Optical Ground Wire (OPGW) will be installed the length of the line.
- This project will be split into three segments (map on reverse of this sheet) with overlapping construction schedules in order to complete work in a safe and efficient manner.



Example of structure to be installed

Always Working to Serve You Better

Eversource is making a significant investment in electric infrastructure in order to provide enhanced system reliability for local communities. The new steel structures will be more resilient and less susceptible to woodpecker damage, insect damage and pole rot. The new structures will also have reliability enhancements to protect the system from damage due to severe weather, including floods.

The OPGW that is being installed on this line enables faster and more reliable communication between Eversource's substations (the communication is not related to any cellular or telecom service). This communication allows for increased visibility of our system, quicker response times for system issues, increased automation, reduces outages and their length, and, overall, improves reliability across the electric system.

What You Can Expect

We intend to rebuild the line in the same location it is today, with some variations. We attempted to minimize structure height increases wherever possible, while ensuring current electrical standards and safety clearances are met and while also balancing other important considerations, such as environmental impacts. Regional project information sessions will be scheduled in the coming months where you can learn more about this project from team members who will be available to provide information and answer your questions.

Anticipated Project Schedule

(schedule is subject to change due to weather or other unexpected circumstances

- Project Information Sessions: 3rd Quarter 2023
- Permitting: Beginning 2nd Quarter 2023
- Construction: 3rd Quarter 2024 through 4th Quarter 2026 (duration includes all three segments)
- Site Restoration: Ongoing through construction for stabilization and upon completion

Project Representatives are available to answer your questions.
Please contact us at your convenience.

EVERSOURCE

PO Box 330
Manchester, NH 03105-0330

April 24, 2023

Dear Neighbor,

As part of our everyday effort to deliver reliable energy to our customers and communities, we are preparing for an upcoming project in your community. This project is one of several that are designed to improve the reliability of the electric system serving New Hampshire and surrounding areas where we all work and live.

We're Always Working to Serve You Better

Eversource identified the need to replace the structures, conductor (wire), and install fiber optic cable, known as Optical Ground Wire (OPGW) along our existing X178 transmission line. This line, originally constructed in 1969 and 1985, crosses through the towns of Campton, Thornton, Lincoln, Woodstock, Easton, Sugar Hill, Bethlehem, Dalton, and Whitefield, NH. Recent physical inspections and engineering analysis of the line revealed many of the existing structures are in need of replacement from woodpecker damage, insect damage, and pole rot. Due to this, all of the wooden structures will be changed to steel, which are more resilient to pole rot as well as insect and woodpecker damage. Furthermore, the steel poles and can better withstand the heavier OPGW and storms that we experience here in New Hampshire.

What You Can Expect

This maintenance project, from our Beebe River Substation in Campton to the Whitefield Substation in Whitefield, includes replacing existing wooden structures with new steel structures as well as replacing the wire and hardware. Once the new structures are installed, we will remove the old structures from the power line corridor.

All towns along the X178 power line have been notified of this project. We are in the process of identifying all local, state, and federal permits necessary in support of this project, and will work to obtain those permits over the next several months. Also in the coming months, Eversource, through its contractors, will be performing field work within the power line corridor in your area. This work may include soil and other inspections, engineering and environmental surveying, data collection, drone surveys, and identification and/or maintenance of access roads. All personnel working on this project will carry identification.

After securing required permits, construction is expected to begin in the third quarter 2024 and is anticipated to be completed in the fourth quarter 2026. Please keep in mind that the schedule may change due to weather or other unexpected circumstances.

Health and Safety Is Our Top Priority

Please know that Eversource remains committed to prioritizing public health as well as the health of employees and contractors. All Eversource personnel follow applicable health and safety guidelines to help prevent the spread of COVID-19.

For More Information

Keeping the lines of communication open is important to us. We would like to connect with you to discuss the project, as well as obtain the best contact phone number and/or e-mail address to reach you moving forward. Please contact our project hotline at 1-888-926-5334 or send an email to NHProjectsInfo@eversource.com to provide that information or to discuss the project.

Eversource is committed to being a good neighbor and doing our work with respect for you and your property. We will continue to provide regular project notifications via mailings, phone calls, and/or emails. Thank you for your patience as this important project moves forward.

Sincerely,

Jennifer Codispoti
Eversource Project Services