

The X-178

and Eversource's treatments of the A-126, H-123, H-141, K-174, L-163 and A-152

To Eversource, ISO and the PAC,

April 26, 2024

Eversource's revised X-178 plan must be fundamentally different to eliminate the problems inherent in its first plan. A temporary retreat to Eversource's first method of building asset condition projects is not acceptable. A plan with steel structures will inevitably become an Eversource generic 1272 ACSS w/ OPGW rebuild, and preclude real improvements in Eversource's planning, spending, infrastructure, siting methods, and use of the easements

In its October 17, 2018 presentation to the PAC which included the X-178, Eversource "proposed" six other structure replacement projects in New Hampshire:

Line	Proposed Replace (2018-2019)	Est. Replace Cost (\$M)
A126	49	\$8.3
H123	29	\$6.0
H141	44	\$7.7
K174	43	\$8.7
L163	64	\$14.0
A152	29	\$6.1
X178	56	\$11.2
NH Total	314	\$62.0

https://nhconservation.org/lib/exe/fetch.php?media=oct_17_2018_seven_115kv_asset_conditions_lines_partial.pdf

Eversource's claim that these structure needed to be replaced did not include any documentation of the condition of the poles, only broad and vague statements of damage.

- Wood poles are showing significant signs of age-related degradation and a program is underway to address those structures on our transmission system

These claims were followed by a description of Eversource’s inspection methods and list of types of damage without any information on the effectiveness of each of method in detecting problems, documentation of how particular damages affected structure strength (if at all) or how often each type of damage was detected (fire, vandalism?)

Insulator damage, for example, is fixed by replacing the insulators.

Structure Inspections

- Foot Patrol –
 - Line crews walk/drive line to observe general condition of structures (ground level up) and general condition of ROW (access, vegetation, encroachments)
- Structure Ground Line –
 - Specialized crews excavate at each structure (~18”) to determine subsurface integrity of pole and apply treatment as necessary
- High Resolution Aerial –
 - Entire system flown, and with detail hover review at most structures, accompanied by high-resolution photos
- Thermography -
 - Infra-red camera (typically on helicopter) observes line for hot-spots
- Comprehensive Drone - Started in 2017
 - Combines foot and High Res Aerial. Plan to inspect whole system in 3 years
- Items Reviewed - Wood Structures
 - Significant Woodpecker Damage
 - Severe Checking/Splits/Cracking
 - Insect Damage
 - Structure with Rot or Decay
 - Severe Fracturing, Buckling, Leaning
 - Compression Breaks
 - Fire Damage
 - Damage / Vandalism
 - Hardware / Insulator damage

Aging equipment: “utility-speak for equipment that is fully depreciated, and thus earning no return.”

Paul Alvarez, president of Wired Group.

Eversource described EPRI grading without listing the numbers of poles in each category:

Structure Inspections

EVERSOURCE
ENERGY

- Structures are Graded in Accordance with EPRI Guidelines
 - A: Nominal Defect - No action required.
 - B: Minimal Defect - Monitor degradation
 - C: Moderate Defect - Repair or replace under next maintenance.
 - D: Severe Defect - Repair, reinforce, or replace immediately
- Replace C and D structures in one mobilization
 - Other structures (A/B) may be replaced during scope in order to minimize costs and impacts to environment.
 - For example, where significant effort associated with access road construction is required for C/D structures, other adjacent structures of similar age may be replaced during the same construction effort
- Engineering provides training to inspectors on appropriate grading criteria - Field Inspectors provide structure grade while in field, and observe entire structure. Results reviewed by team
- New Structures are typically Light-Duty Steel (wood pole equivalent std) /Direct Embed poles, and comply with most recent strength and clearance requirements

In this and successive PAC presentations, Eversource proceeded to execute its apparent plan to spend millions of rate-payers dollars replacing hundreds of structures that didn't need to be replaced:

1. Abandon the former efficient method of replacing structures/poles only when necessary.
2. When an H-frame pole is graded, apply that grading to the whole structure.
3. Begin to subvert the purpose of the structure inspections by applying EPRI recommendations for Category D poles/structures to Category C poles/structures; Identify Category C; Moderate Defect poles and rather than wait until each one becomes Category D, replace these structures ASAP and all at once, using the military term "mobilization" to imply efficiency, necessity and orders from a higher authority.

4. Include an undefined number of Category A and B structures be replaced at the same time as Category C structures “to minimize costs and impacts to the environment.” Provide no proof of this claim and introduce the invalid idea that age is an accurate and meaningful measure of structure condition.

5. Replace wood structures with taller and wider metal structures that can carry 1272 ACSS 2,200 amp low-performance high-sag conductor and OPGW (optical ground wire) and which can be extended in height. Ignore its own data showing the same lifetime cost for wood vs. steel H-frame structures:

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

(Eversource’s response to the LIFE-CYCLE 2022 – Connecticut Siting Council Investigation into Life-Cycle Costs of Electric Transmission Lines.)

6. Drastically alter the easements by replacing topsoil and native growth with permanent gravel roads and construction “pads” constructed with rip-rap, gravel and glacial erratics. Call this infrastructure and collect a guaranteed 11.6% on construction and maintenance of these terrain degradations. Landowner restoration of the easements will be impossible to afford, then unknown, then forbidden.

7. If this passes without objections from the PAC and is given TCA by ISO, move on to full-rebuilds, especially in the North Country where incomes and population density are lower.

The **X-178** is the only one of these projects that was canceled. Perhaps Eversource realized that testing out its “Asset Condition” taller towers plan on a 49 mile line running through White Mountain National Forest and eight towns that had spent the past eight years fighting off its Northern Pass project might expose its Asset Condition plan.

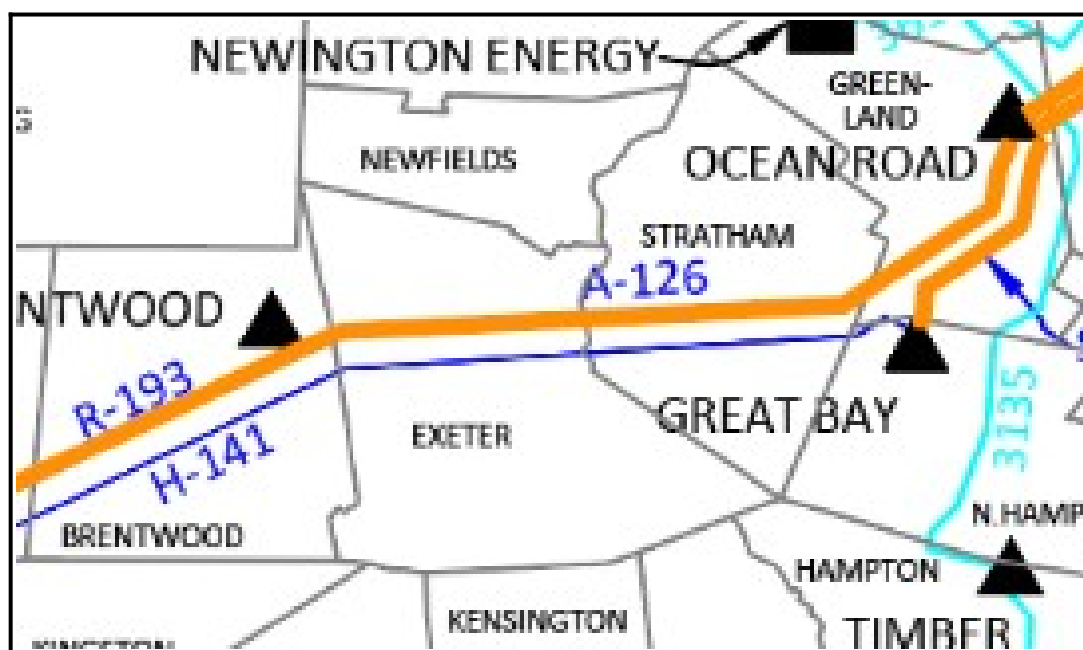
Six years after Eversource’s presentation, none of the structures on the X-178 are in need of immediate replacement, repair or restoration.

The fates of the other lines...

The A-126 runs for 15.2 miles from Brentwood through Exeter and Stratham and ends in Greenland. It shares an easement with the H-141 and/or S-153. It has 477 ASCR (14.9 m.), 1272 ASCR (.2 m.) and 795 ASCR (.1 m). It is on the 1950 map, built (probably increased to 115kV) in 1975. According to the NETO database it has 186 structures.

As it proposed to the PAC on 10/17/2018, Eversource replaced 49 structures on the A-126. The project was given TCA approval by ISO in February 2020 and was listed as in-service on the 10/2020 Asset Condition list.

In its 1/7//2019 petition to the PUC to cross Dudley Brook Eversource stated: “The existing A126 Line and H141 Line structures are approximately **50 years old** and **require replacement** for these transmission lines to continue to function safely and **reliably**. This structure replacement and **repair** project is part of a **maintenance** project **necessary** for the A126 and H141 Transmission Lines to continue **to meet current as well as future projected electricity demands.**” Neither project was a reliability project and there is no evidence that Eversource repaired anything.



Since Eversource did not list the condition of the poles/structures that were replaced, we don't know whether category B structures were replaced in either project. Since Eversource has not provided pole inspection reports that would presumably show with much greater accuracy the condition of each pole, we have no idea how many structures really needed to be replaced.

Since the 2018 PAC proposal to replace 49 structures was in-service on 10/2020, Eversource's 6/15/2021 petition to the PUC for an A-126 crossing of state land in Brentwood, appears to be another Asset Condition project. It states "As part of its ongoing asset condition inspection program, Eversource determined that original wood structures 205 through 212 need to be replaced to continue to function safely and reliably."

On May 18, 2023 Eversource presented to the PAC a proposal for eleven projects that included replacing 35 more structures on the A-126 at a cost of \$8.4 m. The conductor remained 477 ASCR (obsolete, according to Eversource.)

In its presentation Eversource stated:

"Grade C round wood structures showed one or more of the following age-related degradations...leading to [unstated] decreased load carrying capability. Additional Grade B structures were identified and prioritized for replacement based on identified efficiencies in required acquiring permits and other approvals for replacing Grade C structures, as well as minimizing environmental impacts

Of the structures being replaced, 27% are Grade C and the remaining are Grade B

If not addressed, [by when?] these issues jeopardize the long-term integrity of the transmission system and its continued reliability."

Again, Eversource's strategy; Don't provide the number of Category C poles, apply the recommendations for Category C poles to Category C (8.45) and B (25.55) structures. Claim, without documentation, that this will minimize 'environmental impacts', the industry and regulatory agency euphemism for damage.

The PAC minutes on this presentation:

"Item 5.0 – New Hampshire Wood Structure Replacements & OPGW Installations

Mr. Chris Soderman (Eversource Energy) presented New Hampshire's wood structure replacements and OPGW installations. Recent inspections identified structural wood degradation on the 391, 373, R193, S153, A126, E194, U181, D121, 307, B143, and J114 lines. In addition the alumoweld shield wire will be replaced with OPGW on lines 307, B143 & J114. Eversource proposes to replace 309 existing wood structures, with similar light duty weathering steel structures and 49.04 circuit miles of existing shield wire with OPGW. The project's estimated total PTF costs is \$102.31M (-25% / +50%).

In response to Stakeholder questions, the following statements were issued:

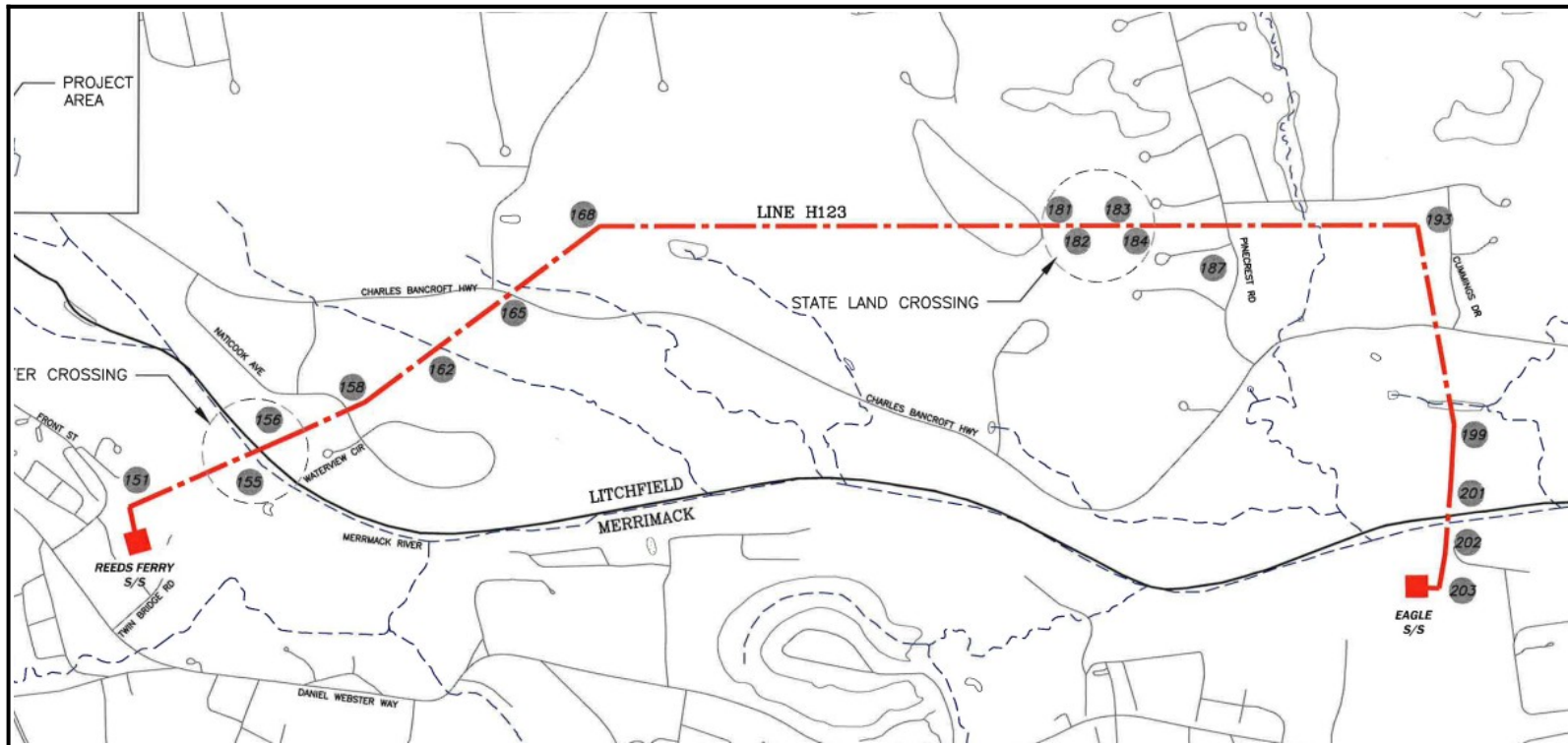
- Civil work will start around the end of Q2 on some lines.

- Much of the work will be done live line. There will be short duration outages when angle structures are replaced”

The March 2024 Asset Condition list shows the A-126 projects as in-service on 10/23 for \$8.292 m. and in-construction for \$8.369 m.

Should we expect another batch of structure replacements on the A-126 in 2028? Is the line, as it stands now, capable of carrying OPGW and 1272 ACSS high-sag conductor? Why Eversource’s War against Wood? Will Eversource begin claiming that the fact that structures are wood is a legitimate reason for replacing them?

The H-123 line is 3.8 miles long and runs between Eagle Substation and Reed’s Ferry Substation, both in Merrimack. .8 mile was re-built in 2011 with 1590 ACSR 45/7 conductor, so this section was already able to carry more power than Eversource’s usual 1272 ACSS replacement conductor. Three miles, built in 1966, remain at 795 ACSR.



Above: Reed’s Ferry SS, Merrimack River, State Land crossing, Merrimack River, Eagle SS.

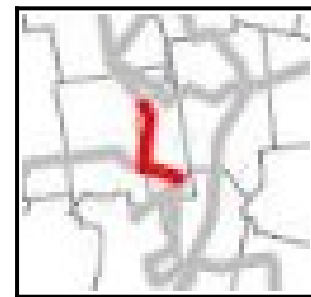
(2018 crossing exhibit)

Eversource's 10/17/2018 presentation to the PAC proposed to replace 29 (out of 56) structures on the H-123 at a cost of \$6 m.

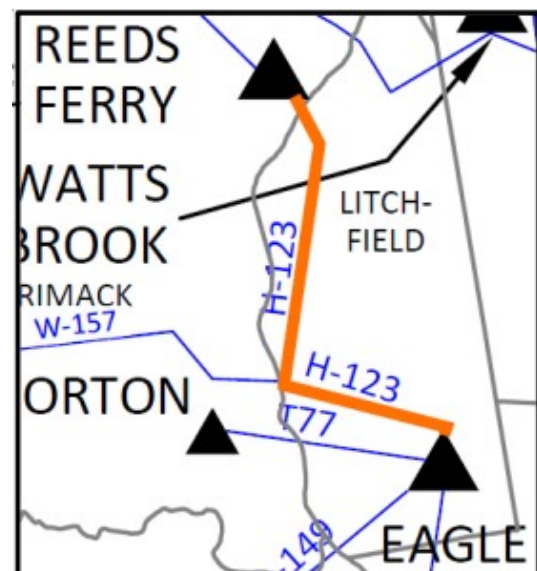
This project is listed on the June 2019 Asset Condition list as under-construction. ISO approved it for TCA on February 10, 2020.

Eversource's 3/16/2023: presentation to PAC proposed replacing the 7 remaining structures and replacing 2 runs of Alumoweld with 2 runs of OPGW, 6.9 miles total at a cost of \$5.8 m. When the other twenty structures were replaced is not clear. Since the line is listed as 3.8 miles, it appears that two OPGW lines were planned, with ADSS for small sections connecting the OPGW to the substations.

Eversource's presentation states that "additional Grade B structures were identified and prioritized for replacement based on identified efficiencies in required acquiring permits and other approvals for replacing Grade C structures, as well as minimizing environmental impacts. Of the structures being replaced, 27% are Grade C and the remaining are Grade B. If not addressed, these issues jeopardize the long-term integrity of the transmission system and its continued reliability."



The map (lower right) for this project and the 2018 PAC map (right) both differ from Eversource's transmission maps: It looks like Thorton is mislabeled and is actually Eagle. What is the SS labeled Eagle? The W-157 is shown as connecting to the H-123, which it does, but the H-123 does not, at that point, make a 90 degree turn and head east, according to the Eversource line map below. Watts Brook is a switching station, yet appears to be labeled as a substation.



There are two crossing applications that appear to be for this project, one for the structures (5/2/2022) and one for the OPGW (1/18/2023.) Fortunately, both have maps consistent with the Eversource grid map.

Again, we see Eversource's current strategy of not providing pole inspection reports, its hopefully past-strategy of not providing numbers of poles in each category, and its current strategy of replacing Category B structures whenever Category C structures are (prematurely) replaced, using undefined, emotive words like 'proactive', 'holistic', 'reliability', 'efficiency' and 'minimizing environmental impacts' to obscure the lack of evidence supporting its structure replacements.

Again we see Eversource's position that gross inaccuracies in a map showing the location of a project in a presentation to the PAC are unimportant and accurate maps are not needed to assess a project for prudence or environmental damages.

The minutes for the PAC presentation of this project indicate that the N.H. OCA did not have adequate funds or political power to adequately represent the rate-payers:

"Item 4.0 – NH Line Asset Condition Projects

Mr. Chris Soderman (Eversource Energy) presented New Hampshire asset condition projects on lines F-139, M-183, and H-123.

In response to Stakeholder questions, Eversource Energy responded with the following:

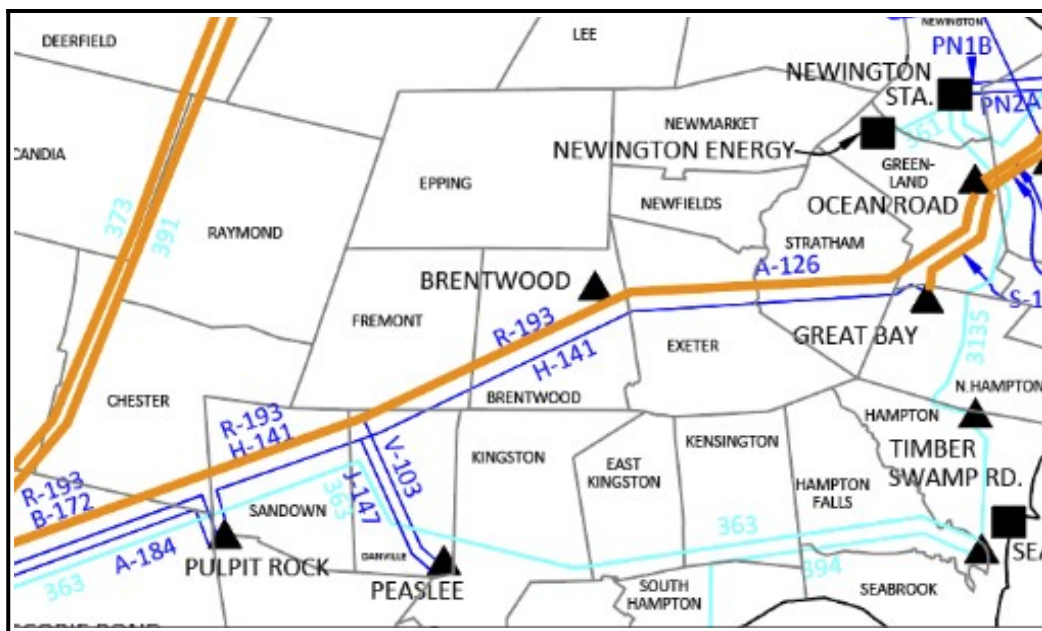
- "ADSS" stands for All-Dielectric Self-Supporting fiber-optic cable.
- The three New Hampshire asset condition projects were grouped together because the projects' comparable timeframes to one another."

Now add Eversource's failure to include previous upgrades, including reliability projects, to the already overwhelming deficiencies of its "asset condition" project presentations. On October 5, 2015, Eversource filed for Pool-Supported Pool Transmission Facility cost allocation treatment for the Southern New Hampshire Area Upgrade Project which included "rebuilding the 115-kV line K165, W157 tap (H123 renamed) – Eagle-Power St. It is part of the Southern New Hampshire Solution project. The estimated cost is \$5.4 million."

<https://www.power-grid.com/executive-insight/iso-new-england-lists-210-transmission-projects-across-new-england-states/>

This appears to be the southern east-west .8 mile of the H-123 which was rebuilt, along with the K-165. Did ratepayers pay for new structures on this section between 2020 and 2023, after it had been rebuilt in 2015? Were the PAC, NEPOOL and ISO aware of this when they approved the TCA?

The H-141 line runs for 19.2 miles through Sandown, Danville, Fremont, Brentwood, Exeter, Stratham and North Hampton. The conductor is 336 ASCR 26/7 (19 m), 1272 ASCR (.1 m), 1590 ACSS (.2 m). The NETO database lists it as built in 1950 and divides it into H-141 #1, Pulpit Rock to Peaslee Tap, 14.27 miles with 160 wood structures and H-141 #2, Peaslee Tap to Great Bay, 4.95 miles with 56 structures.



Eversource's 10/17/2018: presentation to the PAC proposed to replace 44 structures (out of 216) for \$7.4 m. The March 2020 Asset Condition list shows this project as in-service \$9.4 m. On 2/20/2020 ISO gave it TCA approval for \$9.4 m.

River crossing petitions and orders range from 2019 to 2021, apparently for this project.

Three years later, on 5/18/2023 Eversource presented to the PAC its proposal to replace 57 wood and 26 laminated wood structures at a cost of \$18.75 m.

The 4/2/2024 final Asset Condition list show the H-141 as under-construction Laminated Phase III and OPGW, at a cost of \$18.75 m.

On 10/2014 the Seacoast New Hampshire Solution reliability upgrade of the H-141 line from Chester to Great Bay (the whole line) was under-construction at a cost of \$3.4 m., yet four years later, Eversource's 10/17/2018 presentation to the PAC claimed "Inspections have indicated significant degradation and decreased load carrying capacity of wood 115-kV structures. Replacing the structures resolves multiple structural/hardware issues and supports safe and reliable operation...Hardware, insulators, and guys to be replaced with structures."

https://nhconservation.org/lib/exe/fetch.php?media=oct_17_2018_seven_115kv_asset_conditions_lines_partial.pdf

The laminated structures were part of Eversources Laminated phase III replacement of these structures which appear to have degraded exceptionally quickly. Did Eversource attempt to require the manufacturer of the structures to cover the costs of replacement? Is Eversource responsible for buying assets that fail to meet specs? I see no evidence that Eversource, the PAC, NEPOOL or ISO discussed whether rate-payers should be held responsible for the Phase 1, 2, and 3 (and any future) asset condition laminated structure replacement projects.

Eversourced needs to provide the 2018 and 2023 pole inspection reports for the H-141 so we can know the condition of the poles after the 2014 reliability upgrade, and before the 2018 and 2023 pole replacement projects. A couple of photos of felled laminated poles is not adequate documentation. There appear to be real issues with the integrity of the laminated structures, but the degree to which these have justified replacement has not been documented by Eversource, and never assessed by the PAC, NEPOOL or ISO.

The K-174 line was built in 1966, from Claremont NH to Weathersfield VT; 16.1 miles with 477 26/7 ASCR conductor. The NETO database lists it as having 795 ASCR conductor.



Eversource's 10/17/2018 presentation to the PAC proposed to replace 43 (of 204) structures at a cost of \$8.7 m. This project was in-service by March 2020 and was given TCA approval by ISO on 2/20/2020 for \$8.665 m. Replacing the conductor is not mentioned in this presentation, or in the 7/2/2020 crossing exhibits which show 795 ASCR conductor.

In 2020 Eversource presented a revision of its 10/19/2019 presentation to the PAC and proposed to replace another 55 structures and add one OPGW line, at a cost of \$14.74 m.

The 3/2022 AC list shows this as under-construction. ISO gave this asset condition project TCA approval on 2/2/2021, for \$16.24 m.

The 2/8/2021 K-174 crossing petition for the North Branch of the Sugar River in Croydon, State owned land in Croydon and Newport, and state owned land in Claremont showed an average structure height increase of 13', consistent with the 12.5' average increase Eversource claims for its proposed the X-178 rebuild and the majority of Eversource's batch-rebuilds and complete rebuilds of its 115kV lines for 1272 ACSS conductor and OPGW.

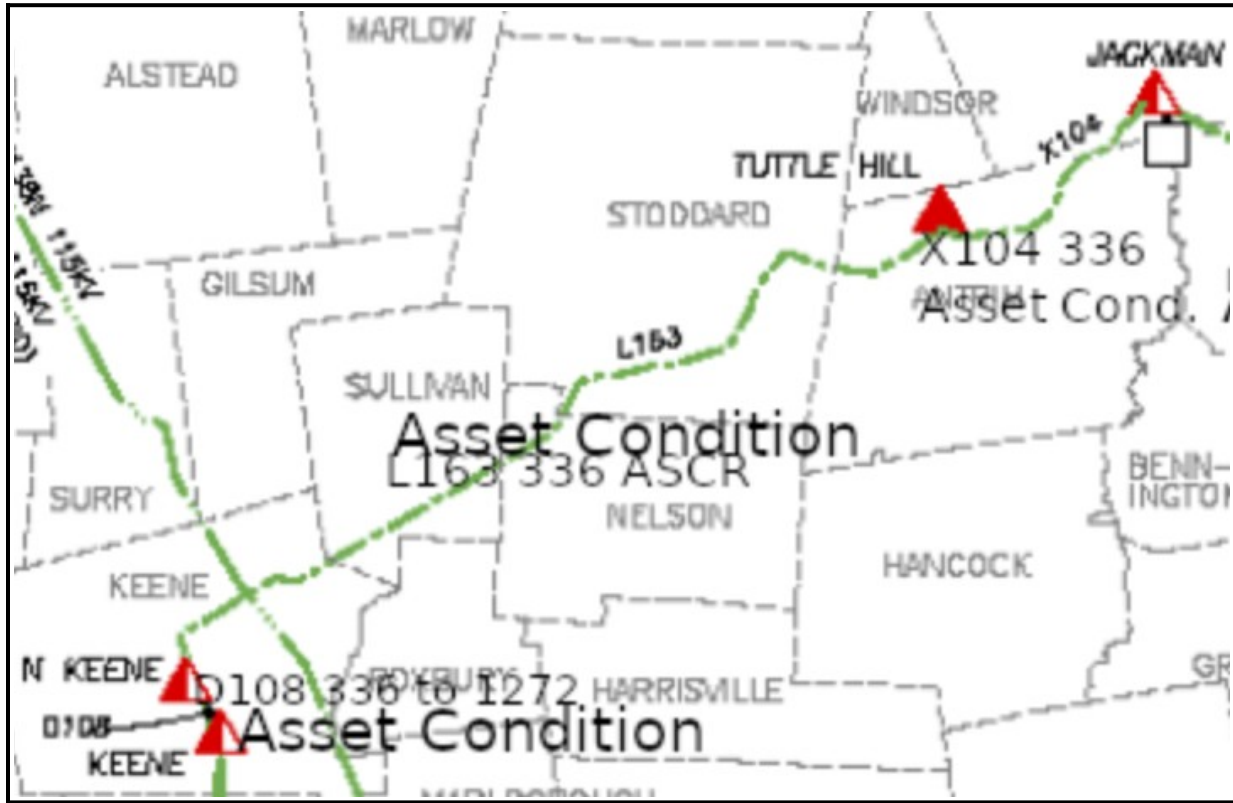
By 2021 98/204 structures had been replaced. These structures are able to carry the added weight of the OPGW. If some or all of the remaining structures are replaced with Eversource's standard taller steel structures, the line will be capable of being re-sagged with another OPGW line and Eversource's standard high-sag 1272 ACSS conductor.

The L-163 line runs for 19.3 miles from Antrim (Tuttle Hill), through Stoddard, Nelson, Sullivan and Keene. It carries 336.4 ASCR 26/7 conductor (482 lbs per 1,000') and has 217 structures. The NETO database lists it as built in 1954. It is on the 1950 PSNH map.

Eversource's 10/17/2018 presentation to PAC proposed to replace 64 structures on this line at a cost of \$14 m. The 3/2021 asset condition list showed this project as in-service at \$16.992 m., and ISO gave it TCA approval on 2/20/2020 for \$16.992 m. It appears that no structures in the center of the line were in need of replacement (does Eversource ever repair structures?)

L163 TRANSMISSION LINE
2020 STRUCTURE REPLACEMENT PROJECT
KEENE, STODDARD, AND ANTRIM
NEW HAMPSHIRE
4/3/2020





D-108

L-163

X-104

One year after construction was underway, on 1/21/2021, Eversource presented its confusingly titled “Eversource Copper Conductor and Shield Wire Replacement Projects” to the PAC. This included replacing 62 structures on the L-163. The summary shows it and the other lines/projects listed in the 4/2/2024 Final Asset condition list (right) as not including Copper Conductor replacement:

Copper Conductor and Shield Wire Replacement Projects - X104
Copper Conductor and Shield Wire Replacement Projects - L163 Line
Copper Conductor and Shield Wire Replacement Projects - G128 Line
Copper Conductor and Shield Wire Replacement Projects - D108 Line
Copper Conductor and Shield Wire Replacement Projects - C129 Line

State	Line	Copper Conductor Length (Miles)	Copperweld Shield Wire Length (Miles)	Structures	Cost Estimate (\$M)*
NH	C129	-	7.1*	61	18.5
	D108	-	1.4	19	6.7
	G128	-	3.8	22	7.6
	L163	-	19.3	62	23.3
	X104	-	5.3	16	7.0

https://nhconservation.org/lib/exe/fetch.php?media=a5_eversource_copper_conductor_and_shield_wire_replacement_project.pdf

The separate project descriptions show only the D-108 having its (336 ASCR copper-clad steel core) conductor replaced (with 1272 ACSS.)

It appears that the Asset Condition listings contain more errors, and again, can not be relied upon for information as the PAC, Eversource, NEPOOL and ISO have done.

If these 62 structures were actually in need of replacement, at a cost of \$23.3 m., why were they not identified sooner? If they were not in need of replacement, why was their replacement allowed without question? Was that prudent?

The **A-152** line runs for 16.9 miles, 1590 ASCR (4.9 miles), 795 ASCR (12 miles), NETO database says there are 243 structures and was built in 1968. It was formerly called the N-186.

The NETO asset database divides the A-152 line into three sections, A-152 (Swanzey Tap,) 16.98 miles with 477 ASCR; A-152 2A, (Westport) 4.78 miles with 1590 ASCR; and A-152 2-B (Chestnut Hill), 5.21 miles of 1590 ASCR.

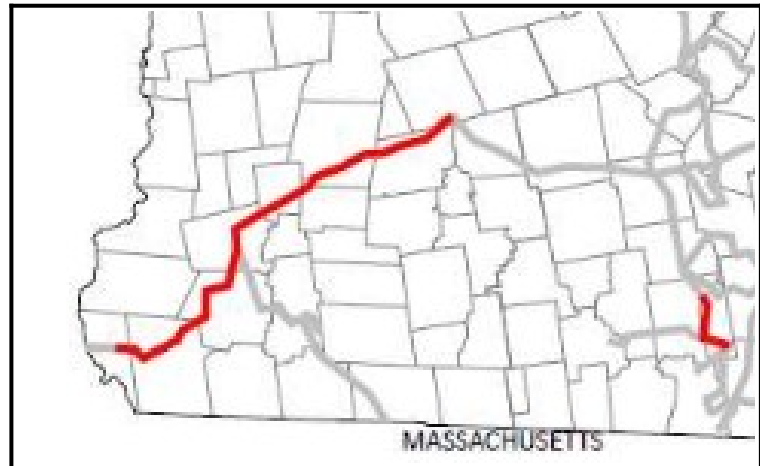
In a 2008 reliability project, the A-152 from Emerald Street SS in Keene to the Swanzey SS was upgraded from 477 ASCR to 1590 ASCR, and structures 1-72 (wood) replaced with steel structures.

Eversource's 10/17/2018 presentation to the PAC proposed to replace 44 structures at a cost of \$7.7 m. The 10/2019 asset condition list showed it as under-construction and ISO gave it TCA on 2/2/2020, for \$6.884 m. Crossing exhibits indicate that some of the replaced structures were on the Swanzey SS to Chestnut Hill SS section of the line.

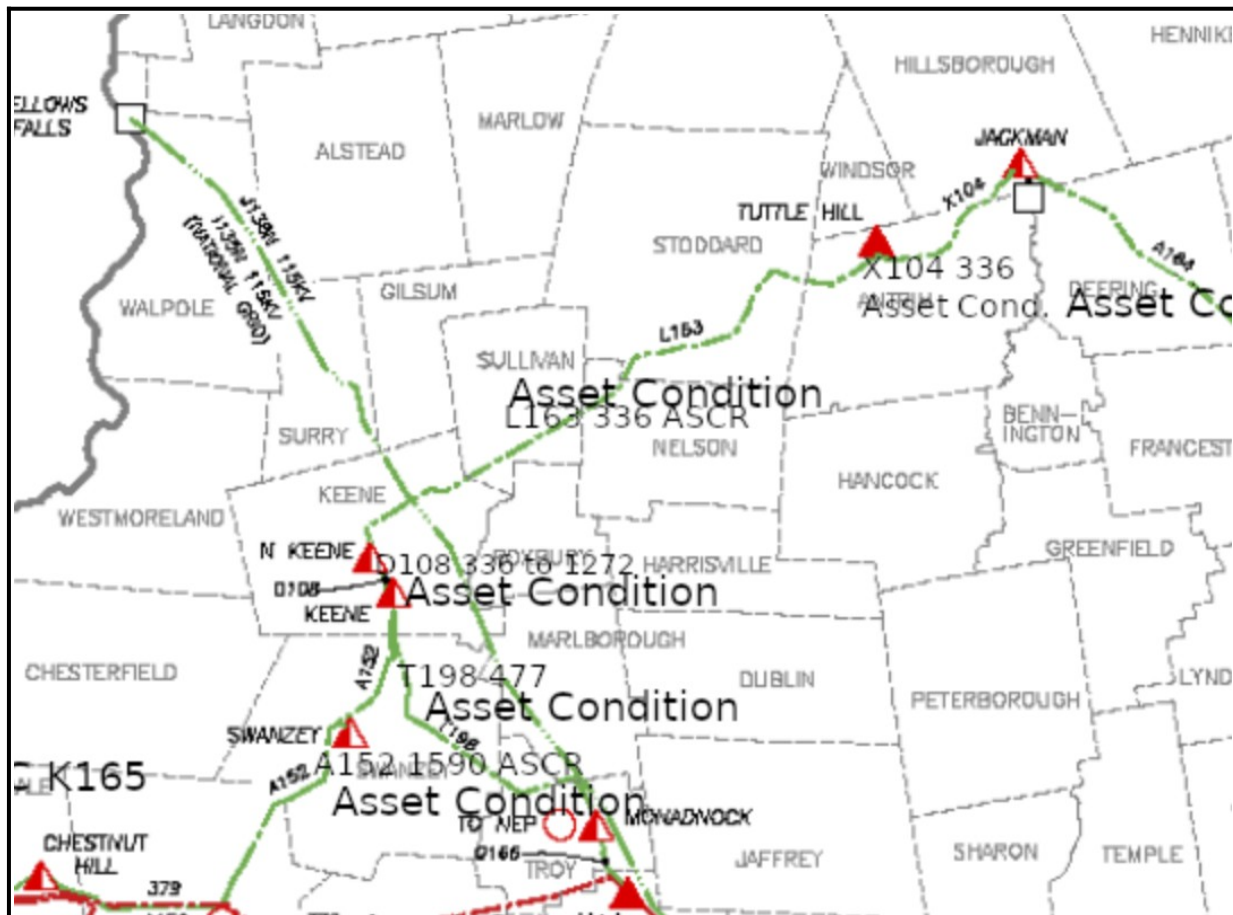


The map in this presentation includes the X-104 and D-108 lines, which were not among the proposed projects. (below right)

At the 10/20/2021 PAC meeting Eversource presented its plan to replace 72 structures (the ones replaced in 2008) as part of the Laminated Phase II, at a cost of \$15.264 m. On 6/1/2023 ISO granted this project TCA, for \$17.476 m. Again, ISO approved rate-payers as responsible for the replacement of defective structures. (Another laminated: The J-125, built in 2004, complete rebuild in 2024.)



The Laminated Problem is part of the Asset Condition problem.



Eversource's 2021 petition for crossing in Keene states: "The current maintenance project which is the subject of this petition will replace wood structures 1 through 72 that were installed in 2008 with steel structures." The PUC did not question the replacement of thirteen year old structures.

Eversource proposed 21 more structure replacements at the 3/24/2023 PAC meeting, at a cost of \$5.9 m. On the 3/24/2023 RSP list this project is shown as in-service.

The 4/2024 RSP list showed a planned uprate (undefined) for the A-152, with an in-service date of 2027, presumably for the A-152 (Swanzy Tap) section of 16.98 miles, now conductored with 477 ASCR.

"A voltage uprating of the existing OHL [overhead line] is an efficient way to increase the capacity. In particular, the use of existing towers and conductors minimises investment costs. Although the larger required air clearances can be solved by some technical adaptations, the increase of electro-magnetic fields and noise emissions is a much more challenging issue. For this reason, this option is particularly suitable up to 220kV and in areas with low population density."

<https://www.entsoe.eu/Technopedia/techsheets/voltage-uprating>

Eversource's treatment of these lines makes it clear that any plan for the X-178 that includes the replacement of wood structures with steel structures is not a real alternative to its proposed complete rebuild. Steel structures mean the same Eversource standard 1272 ACSS plan that serves itself and its shareholders and dismisses input from the real stakeholders that would require innovation, environmental, cultural and scenic preservation, true efficiency and prudence.

Does everyone plan to wait for FERC's glacial (in the pre-global-warming meaning of the term) response to the Maine Office of the Public Advocate's challenge to the Asset Condition process and problem?

Will Eversource's unprofessionally vague project presentations and refusal to answer questions continue to be followed by NEPOOL recommendations to ISO that these projects be approved for TCA, ISO's approvals, and the complete rebuilds of the X-178, U-199, Q-195 and S-136 lines, uprate of the A-152, more structure replacements on the M-127, rebuild of the J-125, and so on...?

**UNITED STATES OF AMERICA
BEFORE THE
FEDERAL ENERGY REGULATORY COMMISSION**

New England Power Co., et al.)

Docket No. ER20-2054-000

**FORMAL CHALLENGE OF THE MAINE OFFICE OF PUBLIC ADVOCATE TO
VIOLATIONS OF ISO NEW ENGLAND'S INFORMATION EXCHANGE PROTOCOLS
BY THE IDENTIFIED NEW ENGLAND TRANSMISSION OWNERS**

april 2024

kris pastoriza