

State of New Hampshire
Public Utilities Commission
Docket DE-23-056

In the Matter of the RSA 365 Petition of Kris Pastoriza

Supplement to Motion

Petitioner Kris Pastoriza respectfully files this Supplement to her Motion heretofore submitted.

Questions That Must Be Adjudicated by the Public Utilities Commission in the Current Docket

Are the New Hampshire Eversource Energy “Asset Condition” Projects Subject to the Prudence/Cost Review Jurisdiction of the Federal Energy Regulatory Commission (FERC) or the New Hampshire Public Utilities Commission (NHPUC)?

The United States Supreme Court in Federal Energy Commission v. EnerNOC, Inc. et. al. 577 US 260 (2016) provided a comprehensive analysis of the jurisdictional boundaries of the federal (FERC) responsibility and the responsibilities of state responsibilities (NHPUC). The EnerNOC case arose from a jurisdictional dispute regarding demand response programs. The Court majority, speaking through Justice Kagan, found that demand response programs were within FERC jurisdiction but her analysis is critical to understanding the line between federal and state responsibilities.

Justice Kagan for the Court, at page 264 of EnerNOC:

“The Federal Power Act (FPA or Act), 41 Stat. 1063, as amended 16 USC Section 791 *et. seq.* authorizes the Federal Energy Regulatory Commission (FERC or Commission) to regulate ‘the sale of electric energy at wholesale to interstate commerce’ including both wholesale electricity rates and any rule or practice ‘affecting’ such rates. Sections 824(b), 824e(a). But the law places beyond FERC’s

power and leaves to the States alone, the regulation of ‘any other sale’ ---most notably, any retail sale---of electricity. Section 824(b). that standard division generates a steady flow of jurisdictional disputes because---in point of fact if not of law---the wholesale and retail markets are inextricably linked.”

At EnerNOC page 266-267, the Court states:

“Alongside those grants of power, however, the Act also limits FERC’s regulatory reach, and thereby maintains a zone of exclusive state jurisdiction. As pertinent here, Section 824(b)(1)---the same provision that gives FERC authority over wholesale sales---states that ‘this subchapter’, including its delegation to FERC, ‘shall not apply to any other sale of electric energy’. Accordingly, the Commission may not regulate either within-state wholesale sales or more pertinent here, retail sales of electricity (*i.e.* sales directly to users. *See* New York, 535 US at 17, 23, 122 S. Ct. 1012. State utility commissions continue to oversee those transactions.”

The History of X-178---A Transmission Line Serving Customers in Rural New Hampshire as a Public Necessity

X-178 Is Subject to the Exclusive Jurisdiction of the NHPUC

X-178 Is Not a FERC Regulated Transmission Line Delivering Electricity in Interstate Commerce in the Wholesale Market as Represented by Eversource Energy

The 115 kV transmission line designated X-178 was constructed by Public Company of New Hampshire to deliver electricity to customers in rural New Hampshire’s Grafton and Coos counties. The voltage is reduced at various substations for sale to retail customers.

The X-178 easements were acquired from private property owners over 50 years ago for \$20 an acre. The easements were necessary to bring electricity to rural New Hampshire. The easements were purchased from land owners anxious for electricity or were acquired, through eminent domain after an adjudication of public necessity by the New Hampshire Public Utilities Commission

The old easements were never intended to provide a utility transmission corridor subject to exclusive FERC jurisdiction. In the 1920's and late 1940's and early 1950's the old easements brought electricity south from hydro-power facilities on the Androscoggin River near Berlin, New Hampshire and north from steam generating facilities in southern New Hampshire.

In the late 1940's, PSNH had a 110 kV line stretching south from Berlin to the Woodstock, New Hampshire, substation and a 66 kV line stretching north from the Franklin, New Hampshire substation to Woodstock. (See D-E 3247, Public Service Company of New Hampshire v. Harold A. Webster, Petition for Condemnation, pages 285-303).

According to the PSNH pleadings in the Webster condemnation case, the 66 kV line was inadequate to meet the service requirements of rural PSNH customers. PSNH sought to acquire an additional 125-foot easement running parallel to the late 1920's 100-foot easement. As shown in the Webster case, PSNH had either to purchase the additional easement or condemn the land by filing an action with the New Hampshire Public Utilities Commission. PSNH, a regulated utility under Chapter 294 of the New Hampshire Revised Laws, had to establish that the condemnation was a public necessity.

PSNH filed the Webster case on April 13, 1953. Mr. Webster was a Holderness, New Hampshire landowner. PSNH argued that the existing 66 kV line across Mr. Webster's property was overloaded, lacked the capacity to meet customer demand and that the inadequacies of the line would become increasingly acute. PSNH argued that the 66 kV line was its only line leading from its steam generating facilities in southern New Hampshire to its customers in the northern part of the state. The PSNH argument concluded that the necessity for the construction of a new 110 kV line was inescapable.

The PSNH offer to Mr. Webster for his 5 ¾ acres of land, timber and cordwood was \$214.00.

The PSNH offer to Mr. Webster was computed:

5,000 feet of pine @ \$15.00	=	\$75.00
12 cords of wood @ \$2.00	=	\$24.00

5 ¾ acres of woodland @ \$ 20.00 = \$115.00

Total \$214.00

The New Hampshire Public Utilities Commission found that the taking of Mr. Webster's land was necessary and ordered it condemned. The Commission confirmed the \$214.00 but ordered that PSNH pay Mr. Webster an additional \$535.00 for work necessary to protect the water supply on his land.

See also DE-2756 Public Service Company of New Hampshire v. Simon L. Ruskin and Francis M. Ruskin: petition for condemnation, pages 367-373: "In order to meet the reasonable requirements of service to the public, it is necessary for the Company to construct one or more 115KV transmission lines from Groveton, New Hampshire to North Woodstock, New Hampshire."

The Purpose of X-178 Is to Bring Electricity to Rural New Hampshire for Sale to Customers

The Easements for the Line Were Purchased from Landowners or Taken by Eminent Domain as a Public Necessity All within the Jurisdiction of the NHPUC

The PSNH transmission line designated X-178 carries 115 kV of AC electricity and provides, through substations at Beebe River, North Woodstock, Whitefield and others, the reduced voltages necessary for distribution to Coos, Carroll and Grafton customers.

The easements for the line were purchased or taken by eminent domain as a public necessity through actions filed by Public Service Company of New Hampshire in the NHPUC. The easements by their terms were to provide electricity to the rural customers who signed them and their neighbors. The easements were not intended to provide a transmission corridor for the interstate sale of wholesale electricity.

The current "Asset Condition" projects are a violation of the terms of the easements. Easements must be examined for the intent of the parties at the time they were signed. Lussier v. New England Power Company, 133 NH 753 (1999). The "Asset Condition" projects must not impose an unreasonable burden on the properties subject to the easements. Lussier, supra; Sakansky v. Wein, 86 NH 337

(1933); Burcky v. Knowles, 120 NH 244 (1980); and, Flanagan v. Prudhomme, 138 NH 561 (1994).

The NHPUC must examine the “Asset Condition” projects to determine their public necessity.

Has Eversource Energy Complied with RSA 162-H for the Asset Condition Projects the Subject of This Docket?

N.H. Rev. Stat. § 162-H:5 states:

“**I.** No person shall commence to construct any energy facility within the state unless it has obtained a certificate pursuant to this chapter. Such facilities shall be constructed, operated and maintained in accordance with the terms of the certificate. Such certificates are required for **sizeable changes** or additions to existing facilities. Such a certificate shall not be transferred or assigned without approval of the committee. Whether a proposed addition or change to an energy facility is sizeable is a fact-driven determination. See Order Granting Motion for Declaratory Ruling, Docket No. 2014-01, at 9. In previous decisions, the Committee considered the following factors in determining whether a change or addition to an existing facility was sizeable: (i) the existing size of the energy facility and the size of the proposed change; (ii) whether the proposed change will require the acquisition of new land; **(iii) whether the proposed change will create a change in the capacity of the existing facility;** **(iv) whether the proposed change is merely a replacement of existing components of the facility as opposed to an expansion or increase in size of those components;** and **(v) whether the proposed addition or change to a facility will cause disruption in the existing environment.** Id. At 9-10; see Order Granting Motion for Declaratory Ruling, Docket No. 2012-02, at 4; see also Order Denying Motion for Declaratory Ruling, NHSEC Docket No. 2009-01, at 8 (vacated on jurisdictional grounds in *In re Campaign for Ratepayers’ Rights*, 162 N.H 245 (2011)). “The vast difference in size, type and capacity of existing energy facilities must govern the nature of the

consideration and the weight applied to various factors.” Order Granting Motion for Declaratory Ruling, Docket No. 2014-01, at 10.”

https://www.nhsec.nh.gov/projects/2018-02/orders_notices/2018-02_2018-08-02_order_grant_petition.pdf

The proposed X-178 complete replacement is a sizeable change: Eversource proposes to double and quadruple the present capacity (amperage) of the Lines, use heavy optical ground wire (OPGW) which can monitor acoustics and vibration, replace wood structures with steel structures 30%-50% wider, and 15’ taller on average, with some structures more than 25’ taller, create permanent 100’ x 100’ flat crane pads, build a permanent 16’ wide road along the whole ROW (except one small section in WMNF), and the permanent addition of massive amounts of gravel for the roads and crane pads.

The existing 1986 conductor (795 ASCR) can carry 907 amps.

The existing 1948 conductor (336 ASCR) can carry 528 amps

The proposed conductor (1272 ACSS) can carry 2,000 amps

Technical Questions for the “Asset Condition” Projects on X-178

What are the size, type, age and amperage of the Conductors on each section of the X-178?

2023: Eversource, says 336 and 795 Conductor (project documents)

2023: Eversource says all of X-178 is 795. (email via ISO; August 2023)

Which Structures or Poles have been replaced since 1948, and when?

What condition were They in (excluding the 1986 rebuild, most of which was dumped in the row)?

In 2018 eversource proposed to replace 56 of the 570 Structures on the X-178. Which Structures were these and what Condition were they in (A, B, C or D?)

Since this 2018 “asset condition” Proposal was withdrawn, that indicates the Structures were at worst; in condition B, ‘check at next inspection cycle’ which would be 2026-2028. Is this correct?

Can we assume that Structures (Poles) on which the Crossbars and Insulators were replaced in 2016 were sound at that time? (see below)



Can we assume the Poles on the structures on either side of the Structures on which the Crossbars and Insulators were replaced, were sound at that time?

Are there any Structures on the X-178 that are category D; in need of immediate replacement?

What evidence has Eversource supplied of the condition/classification (A, B, C, D) of each of the 570 Structures proposed to be replaced?

What proof has Eversource provided that the existing Structures are not safe to carry the existing Conductor and Ground-wire?

Penta treated Poles have a life of at least 70 years. This makes replacement of the 35 Miles of the 1986 X-178 line (from Beebe River to the Streeter Pond substation) not potentially needed until 2056.

Has Eversource provided any proof of any need for the replacement of the 336 and 795 Conductor, and proof of any need for replacement with 1272 ACSS (which would double and quadruple the capacity of the Line) ?

What is Eversource justification for not including the alternative of re-conductoring the 1986 H-frames with ACCC conductor?

Yellowstone, ACCC Conductor weighs: 630 lbs per 1,000' and can carry 1280-1350 amps.

The existing 1986 Conductor weighs: 1,100 lbs per 1,000' and can carry 907 amps.

The existing 1948 Conductor which weighs 463 lbs per 1000' and can carry 528 amps.

The proposed conductor weighs 1,432. or 1,633 lbs/1,000' and can carry 2,000 amps.

Has Eversource provided any Documentation supporting its Claim of an increase in reliability from the OPGW, and if this justifies its increased weight which it claims requires larger Structures, Roads, Crane Pads and massive alteration and degradation of Terrain?

Has Eversource provided a cost/benefit Analysis of using ACCC Conductor vs. an equivalent amperage ACSS Conductor?

If we assume that the majority of the Structures are sound, and the costs associated with the optical ground Wire are not justified, could any class D Poles on the X-178 Line be replaced with the 1986 height/size wood Poles and reconducted with ACCC Conductor, which would carry the same amperage as the proposed 1272 conductor, with less weight and sag?

What is the capacity of 336 ASCR, 795 ASCR, 1272 ACSS and 900 amp and 2000 amp ACCC for carrying **simultaneous** HVAC/HVDC?

<https://www.mdpi.com/2079-9292/11/1/108>

Given that the existing 795 section of the X-178 was done without the Crude Construction Methods now proposed by Eversource, please provide Eversource's Documentation showing that it's proposed 100' x 100' Crane Pads, construction of extensive and permanent Roads, Masses of imported Gravel, breaking up and bulldozing of Glacial Erratics and permanent alteration of Terrain, is necessary for any Structure, Conductor or OPGW replacement.

Eversource has completely replaced, or plans to completely replace (for example the X-178, Q-195 and U-199) its Wood H-Frame 115kV lines from MA to the Moore/Comerford, with steel Structures and 1272 conductor, using the asset condition category. Is it able to connect this line to Hydro-Quebec or other power sources at the Moore or Comerford, and to export this Power to Massachusetts, (or to Maine via the B-112?)

What cost/benefit analysis has Eversource supplied to the PAC for this north to south, 1272/1595 completely rebuilt transmission Line, and each section of it?

Has eversource supplied to the PAC the construction methods for it's so-called asset condition transmission Line rebuilds and replacements, for example Alteration of Terrain Plans or Photographs before, during and after, Construction?

Has Eversource informed the Public, at any of the public meetings or via "outreach" Mailers, of the existence and activities of the PAC?

Has Eversource provided a yearly Graph of power transmission on each section of the X-178?

How often has the X-178 line been unable to supply electricity to serve the reasonable needs of service to the public, or the unlimited consumption of electricity by the public, in the last ten years?

What are the Ambient Adjusted Ratings on the X-178 line since the FERC order 881 requiring these?

On what percentage of its rebuilt lines has Eversource removed the imported and dumped Gravel from the construction Crane pads and Roads, restored the 100' x 100' flat construction Pads to 30' x 60' as called for in alteration of terrain Plans, replaced the Topsoil, removed the Roads, replaced the Glacial Erratics to their original locations and regraded the Roads to the Land's original contours?

WORK PAD DIMENSIONS ARE SHOWN FOR PERMITTING PURPOSES. MINIMIZE WORK PAD AREAS, INCLUDING MATTING, TO THE GREATEST EXTENT POSSIBLE, ESPECIALLY IN WETLANDS AND OTHER SENSITIVE AREAS. RESTORE WORK PADS USING TOPSOIL STOCKPILED DURING INITIAL GRADING TO AN APPROXIMATELY 30-FOOT BY 60-FOOT OR SMALLER AREA AT THE BASE OF THE STRUCTURE TO ALLOW FOR FUTURE MAINTENANCE. STABILIZE EXPOSED SOILS WITH SEED AND MULCH AS NECESSARY. UTILIZE WILDLIFE FRIENDLY EROSION AND SEDIMENT CONTROLS.

Has Eversource hired its inspection/treatment contractor, Osmose, to do a loading Analysis of the Structures on the X-178?

Has Eversource done a cost- benefit Analysis of Structure Supports vs. Structure replacement?

Did Eversource, in an abundance of caution, notify the NH Site Evaluation Committee of any line replacements other than the A-111?

Has Eversource placed pole-top Protection on any of its transmission lines?

On the F-138 & V-182 lines; "The total land disturbance for the project was calculated to be approximately 61.1 acres. The disturbance area includes the work pads, access roads, and the estimated limits of necessary grading." This ROW is stated to be 14.3 miles long. Is 200 acres a reasonable estimate for "disturbance" that would be done to the undisturbed X-178 ROW?

What is the largest conductor; ACCC or ACSS; that the proposed steel structures

could carry?

Can the proposed steel Structures be made taller by replacing the upper Sections?
Where is Eversource's Documentation showing:

“Design Portion

- A. Age (Original Installation Date)
- B. Structure Type (Wood, Steel, Lattice)
- C. Conductor Type (Size, Material & Stranding)
- D. Static Wire Type (Size & Material)
- E. Foundation Type (Grillage, Direct Embed, Caisson, Guyed V, Drilled Pier etc.)
- F. Insulator Type (Material)
- G. Shielding and Grounding Design Criteria (Ground Rod, Counterpoise, “Butt Wrap” etc.)
- H. Electrical Configuration
 - a. Three Terminal Lines
 - b. Radial Facilities
- I. NESC Standards Compliance
 - a. Structural Strength (NESC 250B, 250C & 250D Compliance)
 - b. Clearances (TLES-047 Compliance)

Physical Condition

- A. Open Conditions (existing and unaddressed physical conditions associated with a Transmission Line component)
- B. Closed Conditions (previously addressed physical conditions associated with a Transmission Line component)
- C. Emergency Fixes (History of emergency fixes) quantifies how an asset or a group of assets has historically impacted the Transmission system's reliability and Transmission connected customers, helps identify the primary contributing factors to a facility's performance, and baselines the outage probability used in our Future Risk analysis. The metrics used as part of this historical performance assessment include:
- D. Accessibility (Identified areas of difficult access)

Historical Performance assessment

- A. Forced Outage Rates
- B. Manual Outage Rates
- C. Outage Durations (Forced Outage Duration in Hours)
- D. System Average Interruption Indices (T-SAIDI, T-SAIFI, T-SAIFI-S, T-MAIFI)
- E. Customer Minutes of Interruption (CMI)
- F. Customer Average Interruption Indices (IEEE SAIDI, CAIDI & SAIFI)
- G. Number of Customers Interrupted (CI)”

https://www.aep.com/assets/docs/requiredpostings/AEPTransmissionOwnerIdentifiedNeedsGuidelines_4.pdf

When was the last time rare Plant and Animal surveys were done on the X-178 ROW? When does Eversource plan to update this data?

Below: X-178 July, 2023; glacial Erratics above and below the surface of the land:



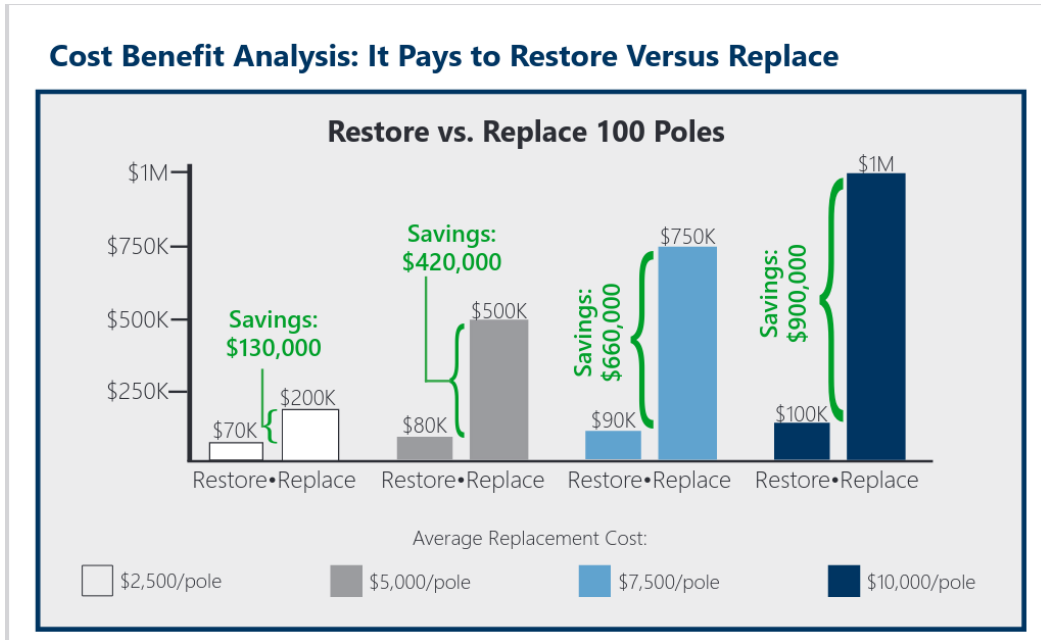
Below: Eversource 307 or 391 ROW after rebuilds:



Does Eversource plan to leave all felled “danger” Trees on the ROW, as it has done on other Line replacements; letting Firewood and millable Wood go to waste and avoiding the Timber tax?

What is the carbon footprint of the proposed rebuild of the X-178?

Did Eversource do a cost benefit analysis of restoration of the X178 poles (that might require restoration) vs. replacement of all poles?



<https://www.osmose.com/wood-pole-strength-upgrading>

Will Eversource disrupt the existing Environment by grinding the X-178 Plants, Animals Insects, Shrubs and saplings into the Soil, as has been done on lines down south?



Wherefore

Petitioner Kris Pastoriza respectfully requests that the New Hampshire Public Utilities open this docket for:

1. A full and comprehensive evidentiary examination of the Eversource Energy “Asset Condition” projects to determine which projects are within the jurisdiction of the Federal Energy Regulatory Commission and those that are within the jurisdiction of the New Hampshire Public Utilities Commission all as requested in Petitioners’ Motion heretofore filed; and,
2. Whatever the jurisdictional reach of Federal Energy Regulatory Commission and the New Hampshire Public Utilities Commission issue an Order that the New Hampshire Department of Energy and the Office of the Consumer Advocate ensure that each and every Eversource Energy “Asset Condition” or other project that has impacts on New Hampshire ratepayers be subjected to careful prudence and cost scrutiny.

Respectfully submitted,

September 16, 2023

/s/Kris Pastoriza

Kris Pastoriza, Petitioner

September 16, 2023

/s/Arthur B. Cunningham

Arthur B. Cunningham,
Attorney for Petitioner
PO Box 511, Hopkinton, NH 03229
603-219-6991 abcunninghamlaw@outlook.com
Bar No. 18301

Certificate

This filing was served pursuant to the NH PUC Rules.

September 16, 2023

/s/Arthur B. Cunningham

Arthur B. Cunningham