

Comment on Eversource's request for a waiver from Easton's structure height limitation

This is relevant to the Q-195 line which has the same construction plan and has been presented by Eversource as an "asset condition" project though it would double the capacity of the line.

As a threshold matter, the Easton ZBA needs to deny Eversource's permit for a variance because the X-178 project, which would double the capacity of the line, fails to meet FERC's definition of an asset condition project and is thus illegitimate as proposed and presented.

"[Asset Management](#) refers to projects and activities that 'encompass the maintenance, repair, and replacement work done on existing transmission facilities' which 'may result in an incidental increase in transmission capacity that is not reasonably severable from the asset management project or activity...'"

"...if a TO's [Transmission Operator's] asset management project results in an increase in transmission capacity that is not incidental, it would fall under [transmission planning](#)."

If the Easton ZBA decides to accept the application for a variance despite this, I request it deny Eversource's permit for a variance because:

1. Eversource failed to show need or provide the data necessary for the Town to determine need, for the [structure heights](#).
2. Eversource failed to show that the project as proposed would not damage the character and environment of Easton.
3. By denying a permit and handing this decision to whichever state or federal agencies may have authority to make it, the Easton ZBA would avoid what may be an illegitimate action, causing bad feeling in the town and costs to the Town of attempting to defending itself from appeals.

Eversource introduction:

"In 2022 and 2024, Eversource performed drone inspections of the X-178 Line. Based on those inspections, Eversource determined that 158 transmission support structures (herein, the "Facilities") across the entire 49-mile line, were in critical need of replacement. [The 2022 drone inspections indicated that 41 structures (or poles) were, [according to Eversource](#), Category C, "repair or replace at next maintenance." When Eversource met with resistance from ISO's PAC (Planning Advisory Committee) to its plan to build a new \$589 m. X-178 line in response to 41 Category C structures, Eversource waited until it presented the project to the PAC for the third time, in October, then claimed it had found 115 more Category C structures in its 2024 drone inspections. Category C structures are not "in critical need of replacement"; those are labeled Category D. Eversource has not provided the inspection reports, only notes.] In addition, even if not flagged as critically in need of replacement at this time, many of the

other existing wooden Facilities along this line are over 40 years [“fully depreciated, and thus earning no return”] and will soon require replacement.

Eversource completely rebuilt the lines below without providing any ratings of the structures. The age of these lines indicates that the 40 year young X-178 (2) has at least 28-30 years of service left. The X-178 (2) structures also have larger diameter poles, on average, than the lines below and the X-178 (3).

B-112: 1956-2024 68 years

O-154: 1946-2024 78 years

D-142: 1948-2023 76 years

W-179: 1948-2024 77 years

E-115: 1953-2023 70 years

A-111: 1953-2023 70 years

Z-180: 1953-2023 70 years

“The X-178 Line is Eversource’s only [except for the U-199 and Q-195] 115 kV transmission line between central and northern New Hampshire. [National Grid’s W-149 runs from Wilder to Bellows Falls in NH and Vermont also has transmission lines] Therefore, it is essential that Eversource maintain [replace?] the line to ensure reliable and continuous electric service to its customers in New Hampshire.[Eversource provides no data in support of these claims.] Eversource is proposing [to whom? Proposing indicates an agency which can effectively reject one’s plan, which is not the case here] to replace the existing, older [older than what?] wooden Facilities along the entire X-178 Line with new weathering steel Facilities, install new transmission conductors, and add new optical ground wire (OPGW) in place of the existing shield wire.”

In its request for a variance Eversource states:

“In addition, Article 7, Section 704 of the Easton Zoning Ordinance states, that “no structure shall exceed 35 feet in height from the average finished grade.” Accordingly, in the spirit of cooperation with the Town Eversource is also seeking a variance from the 35-foot height limitation even though the current structures along the X-178 Line exceed this height limitation and were constructed prior to the adoption of Easton’s adoption of any zoning regulations. “

If Eversource was acting in the “spirit of cooperation” with Easton it would have made changes in its plan for replacing the X-178 in response to significant detailed criticism of its plan by the New Hampshire OCA, the Consumer Advocates of New England, NESCOE and PAC members. It would not be planning to construct [permanent roads](#) and construction pads in

violation of the terms of residents' easements. It would have altered its plan in response to Easton's zoning, master plan and information and comments provided by Easton residents.

"1. Granting the variance would not be contrary to the public interest.

The proposed Project will not alter the essential character of the surrounding area or threaten the health, safety, or general welfare of the public. The historic and current use of the lots affected by the Project support electric utility infrastructure. The repair and replacement of certain transmission Facilities within this existing utility right-of-way ("ROW") is wholly in keeping with the historic and contemporary use of the relevant properties.

Moreover, the Project serves the public interest by improving the reliability of the existing transmission system in Easton and northern New Hampshire. The replacement of wooden Facilities with weathering steel will improve resiliency and will reduce maintenance activities required within the ROW in the future. In addition, weathering steel is better equipped to handle the type of weather experienced in northern New Hampshire and to better handle the heavier OPGW, which will improve connectivity between substations in the northern portion of the State to facilitate system performance and outage restoration."

Eversource provides no data in support of its claims above.

The proposed project would alter the essential character of the easements and surrounding areas.



Above, Eversource's D-142 line rebuild, identical in plan to its "proposed" X-178 rebuild. Below, the A-111 "asset condition" complete rebuild which quadrupled the capacity of that line:

A-111: 2019 and 2023



"The rebuild of the [A-111] line...encompasses modest changes in the course of replacing the existing transmission facility that will have limited effects on aesthetics...and will only temporary disrupt the natural environment. "

Erik Newman, Eversource

Eversource would replace the existing wood structures with octagonal metal structures which are not evocative of the early days of rural electrification but are industrial in character and appearance. The use of the easements for transmission began in 1948 and was not in keeping with the historic use of those lands before this time, whether one considers the white history of the valley which began in the late 1700s or the native american history which began, according to the latest theories, 11,000 years ago.

The original X-178 was constructed to meet the reasonable needs of service to the public of New Hampshire and the easements were sold or condemned for this use. The 1985 line was [built](#) as part of the Hydro-Quebec Phase1 project and was not consistent with the existing use of the lines for local power transmission.

Eversource fails to address its construction of permanent 9” deep, graveled heavy equipment roads and level 100’ x 100’ crane pads, which would be completely new and drastically degrade the character and environmental integrity of the easements.

Eversource has provided no proof that steel structures last longer than wood structures or that the existing wood structures have proved inadequate in any way. To the contrary, since the X-178 (2) was replaced in 1985 only one structure has been [replaced](#). Perhaps because the line was strung at higher tension to reduce visual impacts, the poles on the X-178 (2) are on average larger in circumference than Eversource’s 1948 and 1969 poles, which would presumably increase their “lifespans.”

Eversource has not provided documentation supporting its claim that a new line would increase the reliability of the X-178. Eversource’s claim of increased reliability is also contradicted by its claim that it needs to build new and permanent roads for emergency access for repairs.

Eversource has not provided documentation of its claims that the heavier OPGW (Optical Ground Wire) would increase reliability nor did it describe its existing fiber networks. Eversource fails to mention that OPGW’s transmission of “intelligence” is not permitted in the terms of the easements and that OPGW can be used to detect acoustics and vibration within the easements.

Eversource fails to mention the larger conductor it would place on the new structures, which weighs 500 lbs more per 1,000’, compared to the 100’ lbs. increase per 1,000’ (of the OPGW (Optical Ground Wire) over the existing ground wire) and which is the main reason for Eversource’s line rebuild. This conductor would increase the carrying capacity of the line from 908 amps to 2,200 amps. disqualifying the rebuild as an “asset condition” project according to FERC’s definition.

Eversource's application for variance is predicated on ISO's invalid acceptance of Eversource's classification of this project as an "asset condition" project. The Easton ZBA needs to direct Eversource to return to ISO which can properly identify the X-178 project as an Elective Upgrade, making Eversource rather than the rate-payers responsible for its costs, or a Reliability Project, which would subject it to scrutiny by ISO for need, planning and costs.

"2. If the variance were granted, the spirit of the ordinance would be observed.

The proposed Project would not alter the essential character of the locality nor threaten the public health and safety or welfare. [Harborside Associates, L.P. v. Parade Residence Hotel, LLC](#), 162 N.H. 508, 514-15 (2011). In fact, to the contrary. The proposed Project provides a critical public benefit by ensuring safe, reliable transmission of power to the residents of Easton and northern New Hampshire."

I am not certain what relevance this suit has to this application. It appears to say that changes in zoning require changes in applications for land use. In any case it is hard to see the relevance of a decision about a five story apartment building to this application.

"The purpose of the Easton Steep Slope Overlay District is "to reduce damage to streams, rivers and other surface waters from the consequences of excessive and improper construction, [erosion, stormwater runoff" Why did Eversource leave those word out?] ...and to preserve the natural topography, drainage patterns, vegetative cover, scenic views, wildlife habitats, and to protect unique natural areas and ecological balance." Section 903(A). As previously described, the X-178 Line was first constructed in 1969. [The X-178 was constructed in 1948. The X-178 (3) was rebuilt/replaced in 1969. The X-178 (1 & 2) were replaced in 1985.] As a result, the topography, drainage, vegetative cover, scenic views, and wildlife have all coexisted with utility structures [but not with roads and construction pads] in place for over 50 years. The proposed Project does not constitute "excessive...construction," [see photos of D-142, U-199 and A-111] but necessary maintenance of existing facilities [Eversource provides no documentation supporting this claim] . While there is no express purpose provided in the Easton Zoning Ordinance for restricting heights to no more than 35-feet, the proposed Project will not materially change the nature of the utility infrastructure that already exists on the Project lots today [see photos of D-142, U-199 and A-111]. The existing Facilities along the X-178 line are, generally, between 40 and 60 feet – in excess of the 35-foot heigh restriction. The Project will result in changes to structure heights, on average in Easton of 10.94 feet. [averaging is a false measure of impacts] This level of increase will not alter the essential character of the land associated with the Project or in the surrounding area. [Eversource provides no documentation supporting this claim and fails to address its construction of permanent roads and construction pads.] In addition, the Zoning Ordinance contemplates exceptions to this restriction by

Conditional Use Permit for telecommunication facilities. See Section 704. Therefore, this provision contemplates certain uses that would warrant waiver of the height limitation. [So what?] The heights of the proposed replacement transmission Facilities are largely [but not completely] driven by federal safety clearance standards [for Eversource’s proposed larger, high sag conductor on structures taller than 60’ thus subject to NESC ice loading standards] with which Eversource is obligated to comply. Therefore, granting the variance in this case is protective of public health, safety, and welfare” [unless one considers premature line replacement at a cost of \$586 m. and permanent road and crane pad construction on the easement detrimental to the welfare of the public and easement encumbered landowners].

Profile drawings show that Eversource’s proposed structure heights also routinely cause the conductor to exceed the necessary clearances by 10’-50’. Eversource fails to mention advanced conductors, recommended by the Federal DOE, that are lighter and have far less sag than Eversource’s standard ACSS conductor and could possibly be used on the existing structures. Eversource has refused to provide profile drawings for any advanced conductors or for the existing line.

The existing X-178 meets all required Federal and Code standards.

The proposed X-178 rebuild is not maintenance but an elective upgrade, as indicated by the chart below which shows [structure replacements](#) on the X-178, by year.

Year	X-178	Segment 1	Segment 2	Segment 3
1953 ³	28	28	0	0
1958	2	0	0	2
1969	175	0	0	175
1971	22	21	1	0
1983	83	1	79	3
1985	266	112	151	3
2002	2	0	0	2
2012	2	0	1	1
2015	1	1	0	0
2020	11	11	0	0
2023	2	1	0	1
Total	594	175	232	187

Eversource has [failed](#) to show that the proposed replacement of the line is “necessary maintenance of existing facilities.” To maintain is to repair/restore, not replace.

“3. Granting the variance would do substantial justice

*There is no individual loss that would result from granting this variance that is not outweighed by a gain to the general public. **In fact, there is no individual loss, at all.** [see photos of D-142, A-111 and below.] Moreover, the gain to the general public is significant. [Eversource provides no data in support of this claim] The proposed Project seeks to use property in a similar manner [see photos of D-142, A-111 and below] to which it has been used for over 50 years. In addition, the proposed Projects furthers the public interest by strengthening the regional transmission system for the benefit of all local and regional consumers.”*

Eversource fails to explain how a complete lack of federal or state oversight of the X-178 for planning, need or costs is a benefit to consumers or non-consumers.



Photo 14: View northeast of the ROW in Stark west of Christine Lake Road.

O-154 before and after “asset condition” rebuild.



The use may be similar but the infrastructure is not and the construction of roads and construction pads is a radical and negative alteration of the land.

“4. Granting the variance would not diminish the values of surrounding properties. {Eversource provides no definition of “values” or documentation of this claim} The properties surrounding the X-178 Line have long been acclimated to the presence of the line. [Eversource provides no documentation supporting this claim or explanation of what it means by “properties.” Has the terrain “acclimated” to pentachlorophenol, creosote, Agent White, 2,4-D or 2,4,5-T?] The X-178 Line was first constructed in 1953. [The X-178 was built around 1949 and rebuilt in 1985] Any development that has taken place since that time, took place with the X-178 Line as part of its backdrop”[so what?]

The X-178 has been a negative “backdrop” for many years. Eversource fails to explain why this makes its plan to increase the degradation by building a new line with roads acceptable. Since Northern Pass the “backdrop” has been knowing that Eversource will violate the easement terms because it knows most easement encumbered landowners haven’t read them or can’t afford to sue it. “Because we can” is Eversources’ motto. Or, disingenuously: “We believe we have that right.”

“The proposed Project involves the reconstruction of this same line within the same ROW and which pre-dates any such zoning maintains the historic alignment within that ROW. In addition, the Project will benefit all properties within the region by eliminating aging infrastructure [all infrastructure is aging] to ensure access to reliable power. Moreover, the proposed Project will be implemented in a professional, safe manner, employing modern construction methods [undefined with no explanation of why these “modern” methods are more destructive], and current best management practices. [a low bar that Eversource has difficulty meeting.] These construction methods and safeguards will ensure that the proposed Project will not diminish the value of the surrounding properties [Eversource provides no definition of “value” or documentation in support of this claim.]

5. Owing to the following special conditions of the property that distinguish it from other properties in the area, the property cannot be reasonably used in strict conformance with the ordinance, [Eversource provides no documentation in support of this claim.] and a variance is therefore necessary to enable a reasonable use of it . [No definition of ‘reasonable’ or evidence showing that the project is ‘reasonable.’] The property[ies] on which the Facilities are located to which this variance application applies have been encumbered by Facilities which exceed the height limitation since they were originally constructed in 1953 [1948] [there was no height limit in 1948 so how could the structures exceed a limit?]- which pre-dates any such zoning limitation. Electric transmission infrastructure requires unique physical conditions on the ground and a right-of-way cleared of vegetation and free of other improvements due to the engineering and safety design constraints of the facilities. As such, the existing ROW that supports the Facilities for which this variance is needed has numerous special attributes which distinguish it from other properties in the area that are not similarly encumbered by electric transmission ROW. Eversource provides no description of these “special attributes” or explanation of why this is relevant. No one is challenging Eversource’s right to mow the easements, make real emergency repairs and replace crossbars and/or insulators.]

Moreover, strict adherence to the town’s height limit would prevent the X-178 Project from proceeding, since the Facilities’ replacements cannot both meet the Easton zoning ordinance’s height limit while also satisfying federal safety standards and regulatory requirements for transmission line clearances. [Eversource failed to provide evidence (complete inspection reports) that any structures need to be replaced or profiles showing conductor clearances. OPGW is not permitted in the easements. As long as Eversource insists on doubling the capacity of the line with its heavy high-sag conductor, Eversource’s reason for the taller structures, the project fails to qualify as an “asset condition” project]. Application of that height limitation puts system safety and reliability at risk [Eversource provides no evidence to support this claim] and could cause Eversource to experience unnecessary hardship in failing its obligations to the NH Department of Energy, the Federal Energy

Regulatory Commission and the Independent System Operator of New England [Eversource does not state what these obligations might be. Eversource's only obligation to ISO and FERC re the X-178 is to admit that the X-178 is not an asset condition project]. The public will benefit from enhanced system reliability and storm resilience as a result of the Project. [Eversource provides no evidence of inadequate reliability and/or storm resistance of the existing line] Strict conformance with the height limitation and prohibition on construction of Facilities within extremely steep slope would not only preclude the X-178 Project but would prohibit the structures in Easton as they currently exist. [Eversource provides no proof of this claim.] This illogical result [this is not illogical but an example of a grandfathered use] demonstrates that the changes to existing structures encompassed by the Project do not represent a major deviation from requirements of the Zoning Ordinance [Eversource provides no support for this claim]. Safety, reliability, and regulatory obligations require electric utilities to perform maintenance, which periodically, as in the case of the Project, requires structure replacement and a variance is necessary to enable that essential system maintenance to proceed. [A complete line replacement with new roads and construction pads is not "maintenance." Eversource provides no evidence that its proposed complete rebuild with larger conductor, OPGW and taller metal structures is necessary.]

a) No fair and substantial relationship exists between the general public purposes of the ordinance provision and the specific application of that provision to the property. As noted above, the current Facilities along the X-178 Line exceed the height limit prescribed in the ordinance. Yet these Facilities have not had an adverse effect on surrounding properties or property values. [Eversource provides no proof of this claim.] In fact to the contrary [this is not "contrary"], the existence of the X-178 Line ensures the reliable delivery of power to Easton residents, which is a public benefit [that would also be provided if the line were sited somewhere else. Residents are also dependent on Eversource to pump their water, flush their toilets, power their internet, charge their phones, grind their coffee beans, power their televisions, light their houses, run their oil burners, and in some cases, charge their cars. This dependence has disadvantages.] The proposed Project ensures the continued reliability of the existing X-178 Line [as would simply replacing, with wood structures of the same height, any structures that need replacement, as PSNH did in the past.] Any effect from the visual presence of utility structures in this location has either already been accounted for in terms of the value of properties within this area or there has been no effect from visible presence of utility structures in this area. [Eversource provides no proof of this claim] Following completion of the Project, the replacement Facilities will be visible from 1.57% of the town of Easton within a 3-mile radius of the existing Facilities. [Averaging is an invalid method of assessing visual or most other impacts.] Further, this percentage does not take into consideration the fact that only a small fraction of the existing or proposed structures may be visible from locations with a 3- mile radius. [Eversource fails to mention the cleared

easement, quite visible especially in winter] In addition to this minimal change in overall visibility, there are no scenic resources within the Project area that will have visibility once the project is constructed that do not have visibility of existing structures currently. [Eversource provides no support for its claim that it is acceptable to increase the damages of a project in locations where damage is currently occurring] Therefore, to the extent the height limitation is intended to minimize such effects, such effects either have already been a part of development in this area or these types of Facilities do not result in such an effect) [This makes no sense. Maintaining or lowering the height of the structures would minimize the impact of the line. Removing the line and abandoning the easement would remove the impact of the line. It is possible to find the line less tolerable, not more, with the passage of time.] The proposed use is a reasonable use.[Eversource fails to define “reasonable or provide proof for this claim.] Ensuring safe and reliable delivery of electricity is an exceedingly reasonable use enjoyed broadly by the general public. [“Ensuring safe and reliable delivery of electricity” is an action not a use] The Project will replace aging and degraded infrastructure to ensure that the reliability needs of Eversource’s customers continue to be met in this era of climate change induced storm intensification and electrification of the economy. [All infrastructure is aging. Eversource provides no proof that the condition of the structures warrants a complete rebuild. ISO has not identified the X-178 as a reliability project needed for “the electrification of the economy.”] While the height limitation expressed in the ordinance must be exceeded {Eversource provides no proof of this claim} by the replacement Facilities [as proposed by Eversource, with larger conductor which disqualifies the project as an “asset condition” project] to meet clearance requirements, any increases in height necessitated by those requirements have been minimized to the extent practical [Eversource provides no documentation in support of this claim.] In addition, with respect to areas classified as extremely steep slope, the Project will be undertaken within the existing transmission ROW and therefore the overall land use of the transmission line will remain unchanged. [Eversource provides no documentation in support of this claim. The roads and 100’ x 100’ construction “pad” are a large and permanent change in land use.]

IV. Conclusion

In summary, the Project is a reasonable use of the property and would not alter the essential character of the surrounding area. [Eversource provides no documentation in support of this claim.]

Literal [as opposed to figurative?] enforcement of the ordinance would impose an undue hardship because Eversource would be unable to service its own critical infrastructure in order to provide reliable service to its customers. [Eversource provides no documentation in support

of this claim.] Further, the literal application of the ordinance would disallow the Facilities as they currently exist, [Easton has not applied, or indicated any intent to apply the ordinance to the existing line] never mind any proposed modifications of these structures. [this depends on what the modifications are. Eversource could lower structure heights by using advanced conductors and not exceeding the clearances required by Code] In approving the application, substantial justice is done. The Project will have a positive impact on the community. [Eversource provides no documentation in support of this claim.] The requested relief can be granted for this Project without frustrating the purpose of the ordinance. [Eversource provides no documentation in support of this claim.] The proposal represents a reasonable use considering the history of the Project parcels.” [Eversource provides no documentation in support of this claim.]

Structure 299/303, existing height 56.6', proposed new structure height 74.5'
Eversource to landowner: “In fact, there is no individual loss, at all.”



O-154, Eversource refuses to finish boulder placement to block illegal OHRV access.

Eversource to landowner: "In fact, there is no individual loss, at all."



Closest structure: increase from 53.3' to 75'. The structure behind it from 47.2' to 70.3'
Structure 63; increase from 60.2' to 80.3'.

Eversource to landowner: “In fact, there is no individual loss, at all.”



Eversource to landowner: “In fact, there is no individual loss, at all.”

