

VIA ELECTRONIC MAIL & CERTIFIED MAIL RETURN RECEIPT REQUESTED

September 29, 2023

Deborah Denfeld Team Lead – Transmission Siting Eversource Energy P.O. Box 270 Hartford, CT 06141 <u>deborah.denfeld@eversource.com</u>

RE: **PETITION NO. 1566** - The Connecticut Light and Power Company d/b/a Eversource Energy petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed Card Substation to Wawecus Junction Upgrade Project consisting of the replacement of electric transmission line structures along its existing 12.5-mile electric transmission right-of-way shared by its existing 115-kilovolt (kV) Nos. 1080/1490 and 1080/1070 Lines between Card Substation in Lebanon, Stockhouse Road Substation in Bozrah and Wawecus Junction in Norwich, Connecticut traversing the municipalities of Lebanon, Franklin, Bozrah and Norwich, and related electric transmission line and substation improvements.

Dear Deborah Denfeld:

At a public meeting held on September 28, 2023, the Connecticut Siting Council (Council) considered and ruled that the above-referenced proposal would not have a substantial adverse environmental effect, and pursuant to Connecticut General Statutes § 16-50k, would not require a Certificate of Environmental Compatibility and Public Need with the following conditions:

- 1. Approval of any project changes be delegated to Council staff;
- 2. Submit a copy of the DEEP Stormwater Permit prior to commencement of construction;
- 3. Submit a copy of any SHPO-recommended cultural resource protection measures, if applicable, prior to commencement of construction;
- 4. Implement the March 2023 Recommended Vernal Pool Protection Measures in the Vernal Pool Survey behind Attachment E to the Petition;
- 5. Implement the April 2023 Spaulding Parcel Restoration Plan in Attachment 1 and behind Tab Number 6 of the Appendix to Eversource's June 12, 2023 Response to Six Requests Filed by Spaulding on May 22, 2023;
- 6. Incorporate pollinator habitat in the restoration of disturbed areas consistent with CGS §16-50hh, where feasible;
- 7. An environmental monitor shall oversee construction activities in sensitive resource areas;

- 8. Coordinate with the Pomeroy State Park Scenic Reserve Manager prior to commencement of construction in the park;
- 9. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed within three years from the date of the mailing of the Council's decision, this decision shall be void, and the facility owner/operator shall dismantle the facility and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The facility owner/operator shall provide written notice to the Executive Director of any schedule changes as soon as is practicable;
- 10. The Council shall be notified in writing at least two weeks prior to the commencement of site construction activities;
- 11. Any request for extension of the time period to fully construct the facility shall be filed with the Council not later than 60 days prior to the expiration date of this decision and shall be served on all parties and intervenors, if applicable, and the Towns of Lebanon, Franklin, and Bozrah and the City of Norwich;
- 12. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed **along with a representative photograph of the project**;
- The facility owner/operator shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v; and
- 14. This Declaratory Ruling may be transferred or partially transferred, provided both the facility owner/operator/transferor and the transferee are current with payments to the Council for their respective annual assessments and invoices under Conn. Gen. Stat. §16-50v. The Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operator/transferor and the transferee shall provide the Council with a written agreement as to the entity responsible for any quarterly assessment charges under Conn. Gen. Stat. §16-50v(b)(2) that may be associated with this facility, including contact information for the individual acting on behalf of the transferee.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the petition dated April 11, 2023 and additional correspondence dated June 9, 2023; June 12, 2023; and August 2, 2023.

Enclosed for your information is a copy of the staff report on this project.

Sincerely,

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Melanie A. Bachman Executive Director

MAB/MP/dll

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Enclosure: Staff Report dated September 28, 2023

 c: The Honorable Glenn Pianko, First Selectperson, Town of Bozrah (<u>firstselectman@bozrahct.org</u>) The Honorable Charles Grant, First Selectperson, Town of Franklin (<u>firstselectman@franklinct.com</u>) The Honorable Kevin Cwilka, First Selectperson, Town of Lebanon (<u>firstselectman@lebanonct.gov</u>) John L. Salomone, City Manager, City of Norwich (<u>cmoffice@cityofnorwich.org</u>) Service List dated June 22, 2023 : ss. Southington, Connecticut September 29, 2023

COUNTY OF HARTFORD

I hereby certify that the foregoing is a true and correct copy of the Decision and Staff Report in Petition No. 1566 issued by the Connecticut Siting Council, State of Connecticut.

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ATTEST:

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Melanie A. Bachman Executive Director Connecticut Siting Council

STATE OF CONNECTICUT)	
	: ss. New Britain, Connecticut	September 29, 2023
COUNTY OF HARTFORD)	

I certify that a copy of the Connecticut Siting Council Decision and Staff Report in Petition No.1566 has been forwarded by Certified First Class Return Receipt Requested mail, on September 29, 2023, to each party and intervenor, or its authorized representative, as listed on the attached service list, dated June 22, 2023.

ATTEST:

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LIST OF PARTIES AND INTERVENORS <u>SERVICE LIST</u>

Status Granted	Document Service	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Petitioner	⊠ E- mail	The Connecticut Light and Power Company d/b/a Eversource Energy	Deborah Denfeld Team Lead – Transmission Siting Eversource Energy P.O. Box 270 Hartford, CT 06141 Phone: (860) 728-4654 <u>deborah.denfeld@eversource.com</u>
Party and CEPA Intervenor (granted 6/22/23)	⊠ E- mail	Cory R. Spaulding Leslie A. Yeisley 716 Beaumont Highway Lebanon, CT 06249 Phone: (352) 263-9226 coryspaulding@earthlink.net	



STATE OF CONNECTICUT

Ten Franklin Square, New Britain, CT 06051 Phone: (860) 827-2935 Fax: (860) 827-2950 E-Mail: <u>siting.council@ct.gov</u> Web Site: portal.ct.gov/csc

> Petition 1566 nd Power Company d/

The Connecticut Light and Power Company d/b/a Eversource Energy Card Substation to Wawecus Junction Upgrade Rebuild Project Lebanon, Franklin, Bozrah, and Norwich Staff Report September 28, 2023

Introduction

On April 12, 2023, the Connecticut Siting Council (Council) received a petition from The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource) for a declaratory ruling pursuant to Connecticut General Statutes (CGS) §4-176 and §16-50k, for the Card Substation to Wawecus Junction Upgrade Project (Petition or Project) within existing Eversource electric transmission line right-of-way (ROW) in the Towns of Lebanon, Franklin, Bozrah, and the City of Norwich (municipalities).

The Project consists of the replacement of electric transmission line structures on the 1080, 1490, and 1070 Lines, and the replacement of shield wire with optical ground wire (OPGW)¹ along approximately 12.5 miles of existing ROW between Card Substation in Lebanon, Stockhouse Road Substation in Franklin and Wawecus Junction in Norwich.

On April 11, 2023, in compliance with Regulations of Connecticut State Agencies (RCSA) §16-50j-40, Eversource provided notice of the proposed Project to the municipalities and abutting property owners.

On April 13, 2023, the Council developed a schedule for the Petition in accordance with CGS §4-176 and sent correspondence to the municipalities stating that the Council has received the Petition and invited the municipalities to contact the Council with any questions or comments by May 12, 2023.

Under RCSA §16-50j-40, neither Eversource nor the Council is required to provide notice to the state agencies listed in CGS §16-50j(g) or to the legislators listed in CGS §16-50*l* when a petition for a declaratory ruling for modifications to an *existing facility* is submitted to the Council. On April 27, 2023, the Council on Environmental Quality submitted comments on the Project.² On August 18, 2023, Senator Osten and Representative Ackert submitted comments on the Project.³

Under CGS §16-50x, the Council retains exclusive jurisdiction over the existing electric transmission line and substation facility sites. Under RCSA §16-50j-2a(29), "site" means a contiguous parcel of property with specified boundaries, including, but not limited to, the leased area, right-of-way, access and easements on which a facility and associated equipment is located, shall be located or is proposed to be located. The Council cannot delegate its statutory authority to any other entity and it is not required to abide by comments from state agencies.⁴

¹ OPGW contains a conductor for lightning protection and fiber optics for communications between substations. It would be installed overhead except for between the existing terminal structures to the control enclosures at Stockhouse Substation and Card Substation where underground all-dielectric self-supporting (ADSS) cable would be installed. ² <u>https://portal.ct.gov/-/media/CSC/3_Petitions-medialibrary/Petitions_MediaLibrary/MediaPetitionNos1501-</u>

^{1600/}PE1556/ProceduralCorrespondence/PE1566-SACRCDPI_CEQ.pdf

³ <u>https://portal.ct.gov/-/media/CSC/3_Petitions-medialibrary/Petitions_MediaLibrary/MediaPetitionNos1501-1600/PE1566/PE1566_Pubform_SenatorOsten_a.pdf</u>

⁴ Corcoran v. Conn. Siting Council, 284 Conn. 455 (2007).

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On May 5, 2023, Cory Spaulding and Leslie Yeisley (Spaulding), owners of a parcel traversed by the existing Eversource ROW as of August 2020, submitted a request for an extension of the comment period deadline. The Council granted a two-week extension of the comment period deadline. This extension was granted to Spaulding and all interested persons. No comments from any other interested person were received.

On May 11, 2023, in response to the Council's April 13, 2023 request, the Lebanon Inland Wetlands Commission (IWC) submitted comments related to low impact methods of vegetation removal and remediation of disturbed areas.

Pursuant to CGS §4-176(e) of the Uniform Administrative Procedure Act (UAPA), an administrative agency is required to take action on a petition within 60 days of receipt. On May 11, 2023, pursuant to CGS §4-176(e), the Council voted to set the date by which to render a decision in this matter as no later than October 9, 2023, which is the 180-day statutory deadline for a final decision under CGS §4-176(i).

On May 22, 2023, Spaulding submitted the following 6 requests:

- 1. Request for Party and Connecticut Environmental Protection Act (CEPA) Intervenor Status;
- 2. Request to Reject the Petition for Failure to Provide Best Management Practices;
- 3. Request to Reject the Petition for Failure to Comply with the National Electric Code and/or National Electric Safety Code;
- 4. Request to Separate OPGW Installation and Structure Replacement Work;
- 5. Request for Dismissal of the Petition for Incompleteness; and
- 6. Request for a Public Hearing.

Throughout the requests, Spaulding referred to "illegal work that was previously performed by Eversource" and claimed Eversource "grossly exceeded the rights granted by the easement." Specifically, in an April 19, 2023 Complaint and Demand to Eversource, Spaulding claims:

"Eversource has undertaken improvements within its 1800-foot-long easement that have grossly exceeded the rights granted by that easement and has encroached on areas in which it has no rights outside of the easement."

The illegal work that has been done in the easement and the land adjacent to it includes, but is not limited to, the:

- 1. unauthorized construction of a road and pads,
- 2. destruction of regulated inland wetlands,
- 3. unpermitted creation of a pond,
- 4. deposition of large amounts of rock and fill material,
- 5. destruction of an historic stone wall,
- 6. wholesale removal of indigenous plants,
- 7. introduction of invasive plant species to the area,
- 8. grading, excavation, and removal of trees in areas outside of the easement,
- 9. deposition of tree and construction debris throughout the easement and adjoining land,
- 10. alteration of the property's natural drainage patterns through extensive changes to the topography,
- 11. construction of an unpermitted multi-tiered terraced escarpment by excavating fill material from a steep hillside,
- 12. blocking access and use of the lower section of the easement through the creation of a terraced escarpment,
- 13. clear cutting of the easement with mechanical equipment destroying the natural condition of the property and creating ongoing erosion issues, and
- 14. destruction of agricultural land.

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The actions of Eversource constitute a burdening of the easement, trespass, inverse condemnation, violations of the Connecticut Environmental Protection Act, potential violation of the federal Clean Water Act, violation of Connecticut's statutory public trust, and violation of Connecticut public utilities law in that the activity conducted in the easement and adjacent to it was not authorized as required by state regulatory authorities."⁵ On May 24, 2023, the Council provided notice to the service list requesting comments or statements of position in writing with respect to whether each of the 6 requests should be granted or denied by June 12, 2023.

On June 12, 2023, Eversource submitted objections to each of Spaulding's 6 requests with the exception of the Request for Party Status. During a meeting held on June 22, 2023, the Council granted Spaulding's Request for Party and CEPA Intervenor Status *with the condition that participation shall be limited to in-ROW work proposed to be performed by Eversource in Petition 1566*. The Council denied the other requests on the basis that past work performed by Eversource is beyond the scope of Petition 1566.⁶

The Council issued interrogatories to Eversource on May 22, 2023. Eversource submitted responses to the Council's interrogatories on June 12, 2023.

On June 22, 2023, the Council developed a revised schedule with a July 6, 2023 deadline for the exchange of interrogatories between parties and intervenors.

On July 6, 2023, Spaulding issued 94 interrogatories to Eversource. Two requests for one-week extensions from Eversource for responses to Spaulding's interrogatories were granted by the Council on July 20 and July 27, 2023, respectively. Eversource submitted responses to Spaulding's interrogatories on August 2, 2023.

On July 31, 2023, Spaulding submitted Motions for Investigation of Illegal Work and False Statements by the Council's Executive Director (Motions). On August 7, 2023, Spaulding submitted Objections to Council Proceedings and Scheduling of Motions and a Request for Immediate Hearing (Objections). Throughout the Motions and Objections, Spaulding referred to "illegal work that was previously performed by Eversource" and claimed Eversource "grossly exceeded the rights granted by the easement."

On August 1 and August 8, 2023, the Council provided notice to the service list requesting comments or statements of position in writing with respect to whether the Motions and Objections should be granted or denied by August 22, 2023.

On August 22, 2023, Eversource requested wholesale denial of Spaulding's Motions and Objections with prejudice. During a meeting held on August 31, 2023, the Council granted Spaulding's request for an additional discovery period *if Spaulding and Eversource agree in writing to an extension of the Council's UAPA 180day final decision deadline in Petition 1566* for a period no longer than an additional 180 days beyond October 9, 2023.⁷ The Council denied the remaining portions of Spaulding's various requests in the Motions and Objections *with prejudice* on the basis that past work is beyond the scope of Petition 1566 and the compensation for alleged property damage requested by Spaulding is beyond the scope of its authority.⁸

On September 7, 2023, Eversource notified the Council that it did not agree to an extension of the final decision deadline on the basis that the Petition relates to asset condition structure replacements and other improvements that are necessary for electric transmission system reliability and the historic nature of Spaulding's submissions in the proceeding negates a productive additional discovery period. In the notice, Eversource also committed

⁷ Conn. Gen. Stat. §4-176(i) (2023).

⁵ Spaulding May 22, 2023 Request for Party and CEPA Intervenor Status, Exhibit 1.

⁶ On June 1, 2023, Spaulding submitted a Freedom of Information Act (FOIA) request for any and all documents related to Structures 7785 and 7786. The Council responded to Spaulding's FOIA request on June 9, 2023.

⁸ On August 23, 2023, Spaulding requested a copy of the draft staff report for its Motions and Objections. The Council responded to Spaulding's FOIA request on August 24, 2023.

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to working with Spaulding in connection with post-construction restoration of the ROW that traverses the Spaulding parcel.

Spaulding did not respond to the Council's request regarding an extension of the final decision deadline.

Notice and Community Outreach

Eversource initiated outreach to the municipalities in January 2023. None of the municipalities commented on the Project.

Also in January 2023, Eversource initiated outreach to property owners along the Project route. All abutting property owners were notified of the Project and provided information on how to obtain additional information, as well as how to submit comments to the Council. Several abutting property owners contacted Eversource with concerns about access, restoration, tree removal and advance notification of work to secure livestock. During the construction phase of the Project, Eversource would maintain contact with property owners, including Spaulding, to inform them of construction activities.

Spaulding expressed concerns about property damage from past work on its parcel including, but not limited to, drainage, tree removal, work pad construction, vegetation removal and invasive species. During the proceeding, both the Council and Spaulding submitted interrogatories to Eversource about these concerns, among others that are relevant to the in-ROW work proposed to be performed by Eversource for the Project. The record is clear that prior to submission of the Petition, Eversource met with Spaulding and developed a Restoration Plan for the Spaulding parcel. See Attachment 1.

Existing Facility Site

The existing facility site includes approximately 12.5 miles of Eversource ROW that extends through forest, agricultural land and rural residential areas. It also crosses several wetlands, small watercourses and the Yantic River, as well as an Algonquin Gas Transmission Company ROW. Approximately 6.7 miles of the existing Eversource ROW are within Lebanon; 3.4 miles are located in Franklin; 2.0 miles are located in Bozrah; and 0.4 mile is located in Norwich.

The ROW was established in the early 1930's. Eversource's easement grants "a perpetual easement, privilege and right of way for electric lines for the transmission of electric currents of any character necessary or convenient from time to time in the conduct of Eversource's business and the right at any time and from time to time to erect, inspect, operate, use patrol and permanently maintain the said electric lines, upon over and across the easement land. The electric lines may consist of poles, towers, other supporting structures (which may be substituted one for the other at any time), circuits, cables, wires, crossarms, guy wires, anchors, guys stubs and other overhead and underground appurtenances and fixtures, any or all of which constitute, parts of electric lines may be erected, relocated, replaced, repaired or changed in number, size or type from time to time. Together also with the right to enter upon, pass and transport materials, along and over said right of way to and from adjoining land of others or highways."

The easement also grants Eversource rights to "trim, cut, and remove at any and all times such trees, parts of tree, limbs, branches, underbrush within or projecting into the ROW as in the judgment of Eversource may interfere with or endanger any of said electric lines or their operation, wherever they are erected."

The ROW is approximately 125 feet wide, except for a small portion of the ROW that expands to approximately 300 feet wide immediately northwest of Stockhouse Substation and a small portion of the ROW

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that expands to approximately 250 feet wide at Wawecus Junction. The entire ROW is maintained.⁹ No expansion of the ROW is proposed for the Project.

Vegetation maintenance was last performed in the ROW between April and December 2021 to remove incompatible tree species and to trim trees along the edge of the maintained ROW. Herbicide application for select invasive and incompatible species was last performed in the ROW between June and November 2022.

Project Development

The purpose of the proposed Project is to improve system reliability on the 1080, 1490, and 1070 Lines by replacing electric transmission line structures that are deteriorated and not structurally adequate to support additional loading to meet National Electrical Safety Code (NESC) standards.

The purpose of the OPGW installation is to facilitate communications between substations for security and system operations, as well as provide lightning protection for the electric transmission lines.¹⁰ Installation of All Dielectric Self Supporting (ADSS) cable in lieu of OPGW would require taller structures and/or additional mid-span structures to maintain ADSS clearances to the ground and the conductors and would not resolve the need for replacement of the existing Copperweld shield wire that has reached the end of its useful life. Installation of OPGW would resolve the need for replacement of the existing Copperweld shield wire. Additionally, Norwich Public Utilities plans to use a portion of the OPGW capacity to maintain their substation communications.

A total of 38 out of 133 structures on the 1070, 1080 and 1490 Lines would be replaced. Thirty-two replacements are asset condition-related and six replacements are OPGW-related.

Prior to submitting this Petition, Eversource performed structure replacement work in Sub-Petitions 1293-LFBNM-01 and 1293-LFB-01 for the 1080, 1490, and 1070 Lines that were approved by the Council on August 16, 2017 and April 6, 2021, respectively. Such work was completed on May 17, 2019 and September 15, 2021, respectively.¹¹ Once the Project is complete, a total of 10 structures would remain on the Lines that weren't replaced as part of the Project or Sub-Petitions 1293-LFBNM-01 and 1293-LFB-01.¹²

The Project is identified in the 2023 Eversource Forecast of Loads and Resources Report and in the June 2023 Independent System Operator New England, Inc. (ISO-NE) Regional System Plan Asset Condition List.¹³ There are no generation facilities listed on the ISO-NE interconnection queue associated with the proposed Project.

Cost

⁹ According to the Federal Energy Regulatory Commission, "full right-of-way" means the portion of land for which a utility has documented legal rights to build and maintain transmission facilities. Managing a narrower maintained right-of-way, rather than the full right-of-way, is a relatively common industry practice, though not a best practice.

¹⁰ OPGW is part of a regional effort to install communications for security, reliability and lightning protection.

¹¹ Spaulding did not own the parcel traversed by the ROW in 2019. No work associated with Sub-petition 1293-LFB-01 occurred on the Spaulding parcel in 2021.

 ¹² Structure 7707 is a steel lattice structure that requires reinforcements for the Project. It will need replacement in approximately 10 years. The other 9 wood structures will need replacement in approximately 40 years.
¹³ Entry #376.

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The total estimated cost of the Project is approximately \$25.71M. The entire Project cost would be eligible for regional cost allocation as it is associated with Pool Transmission Facilities.¹⁴ Pending a final determination from ISO-NE, total costs are expected to be allocated¹⁵ as follows:

Eversource Connecticut ratepayers ¹⁶	19.2%	(\$4.94M)
Other Connecticut ratepayers ¹⁷	6.0%	(\$1.54M)
Other New England ratepayers ¹⁸	74.8%	(\$19.23M)
Cost Total	100%	(\$25.71M)

Proposed Project

The Project is proposed to address identified asset condition deficiencies by replacement of deteriorated structures that are approaching the end of their service life, and structures that cannot structurally support the new OPGW.¹⁹ It includes the replacement of 2 single-circuit wood H-frame structures, 34 double-circuit wood H-frame structures and 2 single-circuit wood three-pole structures with 38 weathering steel structures.

The Project requires taller structures to meet NESC standards, including, but not limited to, conductor clearance requirements. The NESC is the authoritative code for ensuring the continued practical safeguarding of persons and utility facilities during the installation, operation and maintenance of electric power and communications utility systems, including substations, overhead lines and underground lines.

NESC clearance requirements for conductor sway due to wind (blowout) are based on established horizontal clearance requirements during specific wind events to buildings (9.1 feet of clearance to the ROW edge for 115-kV conductors). Transmission lines are designed with the assumption that a building could be erected at any location along the ROW edge. To provide a buffer for construction tolerance, Eversource typically designs transmission corridors to have 11 feet of clearance to the ROW edge during specific wind events.²⁰

In addition to the structure replacements and OPGW installation, Project work includes installation of counterpoise and lightning arrestors, as needed.²¹

NESC clearance requirements for conductor uplift and insulator swing were factored into the transmission line design. Conductor uplift is a condition where wire on a structure pulls up on the hardware instead of hanging down vertically. It typically occurs in spans where structures are located at different ground levels or have different heights. The amount of insulator swing on a transmission line depends on conductor tension, temperature, wind velocity, insulator weight, ratio of weight span to wind span, and line angle. These issues can be mitigated by taller structures in certain locations to increase the load tension of the insulators and the span weight load of the conductors.

1080/1490 Lines - Card Substation to Stockhouse Road Substation

¹⁴ ISO-NE defines Pool Transmission Facilities as facilities rated 69-kV or above owned by the participating transmission owners over which ISO-NE has operating authority in accordance with the terms set forth in the Transmission Operating Agreements.

¹⁵ These allocations are estimates based on 2022 actual loads.

¹⁶ Electrical service customers of Eversource and located within Connecticut.

¹⁷ Electrical service customers located within Connecticut but outside of Eversource's service territory.

¹⁸ Electrical service customers located within New England but outside of Connecticut.

¹⁹ The proposed OPGW cable has a 0.646-inch outside diameter and consists of 96 strands of fiber.

²⁰ Petition 1527, response to Council interrogatory 19.

²¹ Counterpoise is typically installed at structure locations under the outside phase conductors at a depth of 18 inches.

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The 1080 and 1490 Lines are 115-kV lines supported by mostly double-circuit wood H-frame structures installed between 1950 and 1970. The 1080 Line consists of 1272-kcmil aluminum conductor steel reinforced (ACSR) conductor that was installed in 1972. The conductors have an approximate 20-year remaining useful life and are not proposed to be replaced as part of the Project. The 1490 Line consists of 556-kcmil ACSR conductor that was installed in 1962. The conductors have an approximate 10-year remaining useful life and are not proposed to be replaced as part of the Project.

Project work consists of the following:

- a) Replace 28 double-circuit wood H-frame structures with 28 double-circuit weathering steel H-frame structures due to asset condition issues;
- b) Replace 4 double-circuit wood H-frame structures with 4 double-circuit weathering steel H-frame structures due to structural loading issues associated with OPGW installation;
- c) Replace one single-circuit wood H-frame angle structure with one single-circuit weathering steel H-frame angle structure due to asset condition issues;
- d) Replace approximately 10 miles of existing 3/8-inch copperweld shield wire with OPGW; and
- e) Install underground ADSS fiber optic cable from the terminal structures to the control enclosures at Stockhouse Road and Card Substations.²²

Structure 7707, an existing lattice structure south of Stockhouse Road Substation and north of Route 2, requires reinforcement due to structural loading issues associated with the OPGW installation. Four steel members will be replaced in the cross-arm.

1080/1070 Lines - Stockhouse Road Substation to Wawecus Junction

The 1080 and 1070 Lines are 115-kV lines supported by mostly double-circuit wood H-frame structures installed between 1950 and 1970. The 1080 Line consists of 1272-kcmil ACSR conductor that was installed in 1972. The conductors have an approximate 20-year remaining useful life and are not proposed to be replaced as part of the Project. The 1070 Line consists of 556-kcmil ACSR conductor that was installed in 1962. The conductors have an approximate 10-year remaining useful life and are not proposed to be replaced as part of the Project.

Project work consists of the following:

- a) Replace 1 double-circuit wood H-frame structure with 1 double-circuit weathering steel H-frame structure due to asset condition issues;
- b) Replace 1 double-circuit wood H-frame structure with 1 double-circuit weathering steel H-frame structure due to structural loading issues associated with OPGW installation;
- c) Replace 1 single-circuit wood H-frame angle structure with 1 single-circuit weathering steel H-frame angle structure due to asset condition issues;
- d) Replace 1 single-circuit wood three-pole angle structure with 1 single-circuit weathering steel three-pole angle structure due to asset condition issues;
- e) Replace 1 single-circuit wood three-pole angle structure with 1 single-circuit weathering steel three pole angle structure due to structural loading issues associated with OPGW installation; and
- f) Replace approximately 1.8 miles of existing 3/8-inch copperweld shield wire with OPGW.

Project Construction

²² The underground ADSS is not subject to conductor clearance requirements under NESC. It facilitates communication between the substations at either end of the electric transmission line for fault protection and isolation.

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Eversource would utilize an existing staging area for the Project at 23 New Park Avenue in Franklin. This staging area is approximately 0.8 acre and currently being utilized by Eversource for general transmission system maintenance work. The staging area would contain Project equipment, storage containers, office trailers, and vehicles. It would not be located within the existing ROW.²³

Appropriate erosion and sedimentation (E&S) controls would be installed and maintained at the staging area until completion of construction in accordance with Project permitting and Eversource's April 2022 Best Management Practices Manual for Massachusetts and Connecticut (BMPs).²⁴

Eversource would utilize existing ROW access roads to the extent possible during construction. Where existing access roads are not present, new permanent gravel roads or temporary roads would be established. Multiple access roads are required so that equipment can access various construction zones along the ROW without relying on one point of access for long ROW segments. Construction matting would be utilized to install temporary access roads to protect sensitive areas (e.g. wetlands, lawn, meadow) to reach certain structure locations.

Eversource does not anticipate the need for any improvements to the existing in-ROW gravel access road located on the Spaulding parcel.²⁵

Eversource would obtain Department of Transportation Encroachment Permits to cross Routes 289, 207, 87, 2, and 608.

Construction areas would be isolated by establishing erosion and sedimentation (E&S) controls in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* and Eversource BMPs. Typical E&S control measures include, but are not limited to, straw blankets, silt fencing, gravel anti-tracking pads, soil and slope protection, water bars, check dams, berms, swales, plunge pools, and sediment basins.

A Project-specific Stormwater Pollution Control Plan (SWPCP) has been developed for registration under a DEEP General Permit for Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (General Permit). The General Permit requires the designing qualified professional to conduct the SWPCP Implementation Inspection that confirms compliance with the General Permit and the initial implementation of all SWPCP control measures for the initial phase of construction. The SWPCP also requires a qualified inspector to inspect the work areas at least once per week and within 24-hours after a rain event that meets certain permit criteria.

The Project is eligible for certification through the US Army Corps of Engineers (USACE)/DEEP Self-Verification Notification process in regard to wetland impact. The self-verification notification forms would be submitted to the USACE - New England District and DEEP prior to the start of Project construction, as required by the SWPCP.

At each transmission line structure location, a work pad would be utilized to stage material for final on-site assembly and/or removal of structures, to pull conductors and to provide a safe, level work base for construction equipment. Work pad dimensions would vary based on site specific conditions such as terrain, proximity to the existing and replacement structures, and the type of construction activities. All work pads will be installed within the boundaries of the existing ROW.

²³ Eversource would temporarily locate equipment and materials to support work on Spaulding's parcel; however, Eversource would not locate a staging area on Spaulding's parcel.

²⁴ 2022 Eversource Best Management Practices MA_CT

²⁵ Due to steep terrain, temporary matting is not a safe option for the access road and work pads on the Spaulding parcel. Gravel will remain in place for future emergency access and/or maintenance work at Structures 7784, 7785 and 7786.

Work pads for the Project would typically be 125 feet by 125 feet but could be up to 150 feet by 150 feet in certain areas due to terrain and spacing between existing and proposed structures. Pull pads, necessary to accommodate machinery needed for pulling OPGW through an angled structure, would be approximately 130 feet by 80 feet. Most of the work/pull pads would be composed of gravel. Temporary matting would be used in sensitive areas such as wetlands, agricultural lands, lawns, meadow, and identified cultural resources areas. Eversource would utilize 46 existing gravel work pad locations, previously installed for structure replacement work along its ROW, to support the OPGW installation, including, but not limited to, the existing work pads at Structures 7784, 7785 and 7786 on the Spaulding parcel. OPGW work at these structures requires an approximate 50 foot by 50-foot ground area. Structure 7785 would not require a pull pad on either side of the structure because it is not a splice location. Work proposed at Structure 7784 will not disturb the existing stone wall at the outer edge of the existing gravel pad. OPGW work proposed at Structures 7787 and 7788 on the Spaulding parcel require an approximate 125 foot by 125-foot ground area, which is generally the width of the ROW at these locations.

Eversource does not anticipate the existing gravel work pads would require improvement or extension. If additional gravel is installed, it would be left in place after construction to provide future emergency and/or maintenance work access.²⁶

The proposed structures would be either directly embedded into the ground or have drilled caisson foundations depending on location. Foundation installation work would require the use of equipment such as drill rigs, pneumatic hammers, augers, dump trucks, concrete trucks, grapple trucks, and light duty trucks. If groundwater is encountered, pumping trucks or other equipment would be utilized. The water would then be discharged in accordance with Eversource BMPs and in compliance with General Permit requirements. New structure sections, components and hardware would be delivered by flatbed truck to the structure locations for assembly using a crane, bucket trucks and an excavator.

After the new structures are installed, the existing conductors would be transferred from the old structures to the new structures, and the OPGW would be installed along the line using cable reels, pulling and tensioning rigs, and bucket trucks. The existing shield wire would be used as pulling lines for the OPGW where possible. Helicopters may also be used to install the initial pulling lines for OPGW installation. Eversource would unclip the existing shield wire from the structure, install a roller for installation of the OPGW and clip the OPGW onto the replacement structure. The existing structures would be removed after the OPGW is installed. To minimize disturbance to wetlands, existing wood structures located in wetlands will be cut above grade and left in place.

After the new structures/conductors/OPGW are installed and the existing structures are removed, ROW restoration activities would commence. Restoration work would include the removal of construction debris, signage, flagging, temporary fencing, and construction mats and work pads that are designated for removal or mitigation. Gravel work pads located in New England Cottontail (NEC) focus areas will be reduced, where feasible, and restored using a native seed mix in accordance with Eversource's 2020 NEC BMPs. Affected areas would be re-graded as practical and stabilized via revegetation or other measures before removing temporary E&S controls. ROW restoration would be performed in accordance with Eversource BMPs and in consultation with affected property owners, including, but not limited to, Spaulding.

Waste materials, such as wood and steel structures, shield wire and associated equipment, would be reclaimed by Eversource and/or recycled or disposed of in accordance with Eversource BMPs and applicable regulations.

²⁶ FERC Report on Transmission Facility Outages during the Northeast Snowstorm of October 29-30, 2011, at https://www.nerc.com/pa/rrm/ea/Octobert%202011%20Northeast%20Snow%20Storm%20Event/NE_Outage_Report-05-31-12.pdf (50% of transmission outages in the New England Region occurred in Connecticut. One damaged Connecticut electric transmission line was out of service for 8 days due to difficulty of access.)

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Upon completion of the Project, access roads and work pads located in uplands would be left in place to facilitate future transmission line maintenance. If a property owner requests their removal, Eversource would discuss mitigation options with the property owner, which could include, but are not limited to, covering the area with topsoil/seeding.

Except for concrete trucks, no construction equipment or vehicle washing would be allowed in the ROW. In accordance with Eversource's BMPs, concrete truck wash-out would occur only in upland areas of the ROW (a minimum of 50 feet from wetlands) to avoid or minimize the potential for impacts to water resources. All wash-out areas would include measures to control and contain wash-water and collect the cement wash-off for off-site disposal.

Project-related traffic would be expected to be temporary and highly localized in the vicinity of ROW access points along public roads and at the staging area. Due to the phasing of construction work, Project-related traffic is not expected to significantly affect transportation patterns or levels of service on public roads. Construction warning signs along public roads would be installed near work sites and flaggers or police personnel would be used to direct traffic, if necessary.

Environmental Effects and Mitigation Measures

Work would mostly occur within a maintained ROW. Approximately 0.2-acres of limited tree clearing will occur within and along the edge of the ROW to meet current NESC conductor clearance requirements. Approximately 0.4-acre of limited tree clearing will also occur outside the ROW at an existing off-ROW access road to allow for safe passage of construction vehicles and equipment. Additionally, tree trimming, minor vegetation removal and/or mowing within the ROW may be required to improve work site access, develop and/or restore off-ROW access roads and meet NESC conductor clearance requirements. Vegetation in the work areas would be cut to an above ground height of 6-8 inches to limit soil disturbance.

Vegetation removal/tree trimming would typically be accomplished using mechanical methods using flat-bed trucks, brush hogs or other types of mowing equipment, skidders, forwarders, bucket trucks for canopy trimming, and chippers. In resource sensitive areas, consistent with the Lebanon IWC recommendations, Eversource would utilize low-impact methods including, but not limited to, consideration of soil and weather conditions during vegetation removal; maximize use of uplands for clearing access routes; utilizing hand clearing methods for wetland and vernal pool areas; utilizing appropriately sized equipment to minimize impacts; and cut brush close to the ground (i.e. not perform grubbing) where practical to retain soil stability. Vegetation removal activities would be performed in accordance with Eversource BMPs.

A total of 42 wetland areas and 28 watercourses occur along the ROW or in adjacent off-ROW areas. The Project would result in 880 square feet (0.02 acre) of permanent wetland impacts associated with the replacement of 7 structures located within or immediately adjacent to wetlands, including the proposed three-pole H-frame replacement Structure 7739 where one pole of the replacement structure would be located proximate to a wetland resource. The replacement structures are proposed within the wetlands in accordance with the overall Project design and structure alignment. Relocating the structures out of the wetlands would affect conductor uplift, insulator swing, and NESC conductor clearance requirements.

Temporary wetland impacts related to project construction matting would total approximately 5.5 acres. The Project would require 16 temporary watercourse crossings, using wood matting, for work pads and access roads. Construction activities within wetlands and over watercourses would be conducted in accordance with Eversource BMPs.

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A total of 6 vernal pools (VP) were identified and delineated within the Project area during field surveys conducted in April 2017 and 2022. Project construction would not directly impact any VPs. Temporary matting is proposed within the vernal pool envelopes (VPE - within 100 feet of the VP edge) of three VPs located along the ROW in Pomeroy State Park, and north and south of Bender Road in Lebanon to establish access roads/work pads. Three existing access roads that are within VPEs will not be improved.

Eversource would conduct work in these areas in accordance with its BMPs, as well as Project-specific vernal pool protection measures, which include, but are not limited to, selective tree/shrub vegetation clearing with hand tools where necessary, avoidance of clearing (as practicable) during periods of peak vernal pool species breeding and migration, establishment of E&S controls, use of temporary matting, and avoidance of permanent disturbance that could cause permanent habitat alteration or changes in local drainage patterns.

The DEEP-approved SWPCP would contain details regarding the E&S control measures that would be implemented to protect wetlands and vernal pools. E&S controls would also be inspected weekly by a qualified inspector, as required by the SWPCP. The Project would comply with the SWPCP, USACE self-verification procedures, and Eversource BMPs. In addition, the qualified inspector would be on-site to monitor environmental resource protections as established in Eversource BMPs. An Environmental Monitor will conduct weekly inspections of sensitive resource areas for the duration of Project construction.

Invasive species mitigation measures would be conducted in accordance with Eversource BMPs. Measures include the cleaning of temporary mats to prevent the introduction of invasive species into wetlands, the cleaning of vehicles, equipment, materials, gear, footwear or clothing of all visible soil and plant material on site known to contain invasives or as near as practical to the invasive area, prior to leaving the Project site. Mugwort decontamination would occur within the infested areas, or as near as practical to the infested areas, including, but not limited to, the Spaulding parcel, after completion of Project construction.

The Project ROW extends across 100-year and 500-year Federal Emergency Management Agency-designated flood zones associated with the Susquetonscut Brook in Lebanon and Franklin, an unnamed water resource in Franklin, and the Yantic River in Bozrah. Replacement Structure 7719 would be located within a 100-year flood zone. Additionally, work activities and materials would be located within the 100-year flood zones for 8 structures. Replacement Structure 7710 and its associated temporary work pad would be located within a 500-year flood zone. Eversource would utilize temporary matting for work pads and access roads and utilize Eversource BMPs to avoid any adverse effects to flood storage capacity and hydrology.

The Project is not within a DEEP-designated Aquifer Protection Area or Public Water Supply Watershed. No private wells are in the general area of the ROW. Eversource would conduct work in accordance with its BMPs which include provisions for the proper storage, secondary containment, and handling of diesel fuel, motor oil, grease, and other lubricants, to protect subsurface water quality.

The Project site is not located within a DEEP Natural Diversity Database (NDDB) buffer area.

Eversource consulted with the U.S. Fish & Wildlife Service's (USFWS) Information, Planning and Consultation (IPaC) service regarding federally-listed species that may be present within the Project area. The IPaC report identified the northern long-eared bat (NLEB), a federally-listed and state-listed Endangered Species. There are no known NLEB maternity roost trees within 150 feet of the Project area, and the nearest known NLEB hibernaculum is located approximately 32 miles away in the Town of North Branford; thus, no Project-related impacts to NLEB are expected.

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The Project ROW traverses a NEC focus area, established by DEEP, USFWS and other conservation groups to preserve NEC habitat. Consistent with NEC BMPs, gravel work pads located in the NEC focus area would be reduced in size where feasible to minimize potential effects to NEC habitat. Clearing in the NEC focus area would not exceed 50% of total vegetation cover. Mowing in the NEC focus area would be limited to work pads and access roads. Post-construction, gravel pads would be covered or partially covered with soil and reseeded with a native wildflower mix. Shrubland would be maintained in the ROW to the extent feasible to provide habitat for NEC.

No properties/districts listed on the National Register of Historic Places (NRHP) would be affected by the Project. A Phase 1A Cultural Resources Assessment (Phase 1A) of the Project area determined that there are 15 previously identified archaeological sites located within 500 feet of the Project area. Of the 15 sites, 3 were identified within or proximate to the ROW. A Phase IB Cultural Resources Reconnaissance Survey was recommended if ground disturbance would occur in these areas. Eversource would develop a cultural resource protection strategy and implement any recommended cultural resource protection measures.

The Project ROW does not traverse any state or locally-designated scenic roads and does not traverse any known hiking trail systems. A portion of the Project ROW traverses Pomeroy State Park, a public recreational resource area. Work associated with the Project may temporarily affect public use of the park. Eversource would consult with DEEP to coordinate construction activities and implement measures to maintain public safety and access during Project construction, including, but not limited to, community outreach and advisory signage. Upon Project completion, restoration in the park would be in accordance with Eversource BMPs and any DEEP recommendations.

After construction, gravel work pad restoration measures would be implemented to mitigate construction related disturbance. Mitigation includes the application of stockpiled topsoil or fine process gravel followed by application of native seed mixes and habitat enhancements for NEC, pollinator species, shrubland birds, amphibians and reptiles. Upon restoration, the ROW would continue to be maintained as early successional habitat, which would benefit NEC, pollinator and other species that rely on shrub habitats.

Disturbed areas would be stabilized using temporary erosion and sediment controls such as straw mulch, compost filters, and biodegradable erosion control blankets until final stabilization has been achieved. In accordance with the SWPCP, monthly inspections would be conducted to monitor stabilization measures. A qualified soil erosion and sediment control professional or a qualified professional engineer would inspect the areas and confirm compliance with the post-construction stormwater management requirements.

The Project would require increasing the height of the replacement structures to meet NESC clearance requirements within the existing ROW. Existing structures to be replaced on the lines range from 52 to 74.5 feet above ground level (agl). The replacement structures on the lines would range from 52 feet to 97 feet agl, with increases in height ranging from 4.5 feet to 22.5 feet or an average height increase of 9 feet. Seven replacement structures would increase in height over 10 feet. All replacement structures would be located within 10 feet of the existing structure locations except for Structure 7734 which would be located approximately 20 feet to the south.

Due to the increase in structure heights to comply with NESC clearance requirements, there would be indirect visual impacts to the surrounding area. The weathering steel replacement structures would be similar in appearance to the existing wood structures and blend in with the surrounding landscape.

Public Safety

There would be no permanent changes to existing ROW sounds levels after completion of the Project. Noise associated with construction activities is exempt from DEEP Noise Control Regulations. Notwithstanding, any construction-related noise would be short-term and localized in the vicinity of work sites.

Eversource has received Determinations of No Hazard to Air Navigation from the Federal Aviation Administration (FAA) for all of the proposed structures. No marking or lighting would be required. Structures 7811, 7812 and 7815 require notice to FAA within 5 days after structures have been erected. Eversource would comply with this notification requirement.

Electric fields (EF) are produced whenever voltage is applied to electrical conductors and equipment. Electric fields are typically measured in units of kilovolts/meter (kV/m). As the weight of scientific evidence indicates that exposure to electric fields, beyond levels traditionally established for safety, does not cause adverse health effects, and as safety concerns for electric fields are sufficiently addressed by adherence to the NESC, as amended, health concerns regarding Electric and Magnetic Fields (EMF) focus on MF rather than EF. The International Commission on Non-Ionizing Radiation Protection (ICNIRP) has established a guideline of 4.2 kV/m.

The Project route contains an existing transmission line that emits magnetic fields (MF). In the United States, no state or federal exposure standards for 60-Hertz MF based on demonstrated health effects have been established, nor are there any such standards established worldwide. However, the ICNIRP has established a level of 2,000 milliGauss (mG), based on extrapolation from scientific experimentation, and the International Committee on Electromagnetic Safety (ICES) has calculated a guideline of 9,040 mG for exposure to workers and the general public, and recognized in the Council's *Electric and Magnetic Field Best Management Practices for the Construction of Electric Transmission Lines in Connecticut.*

The replacement of structures and shield wire would only affect the height of conductor attachments in the vicinity of the structure replacements, and the replacement structures would generally be taller than the existing structures. Additionally, the Project would generally not alter the configuration of the conductors. Thus, at the edges of the ROW, any changes to EMF would be negligible.

Construction Schedule

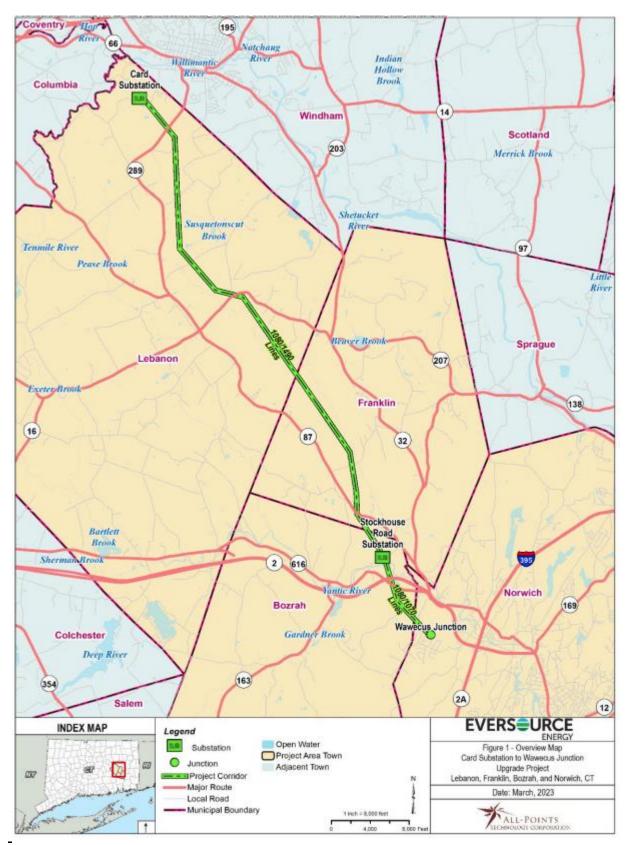
Construction is expected to begin in third quarter 2023 with an anticipated in-service date during second quarter 2024. Normal work hours would be Monday through Saturday from 7:00 a.m. to 7:00 p.m. Sunday work hours or evening work (i.e. after 7:00 p.m.) may be necessary due to unforeseen circumstances, delays caused by inclement weather and/or outage constraints.

Conclusion

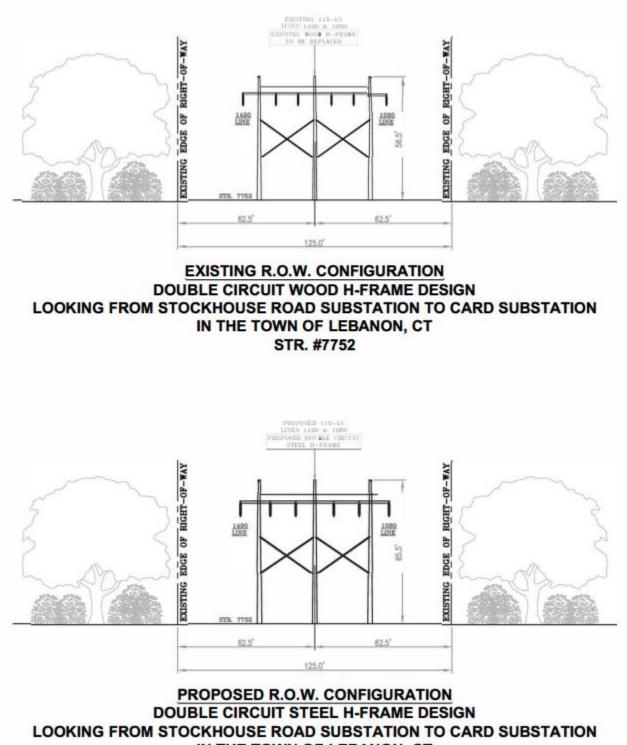
If approved, staff recommends the following conditions:

- 1) Approval of any project changes be delegated to Council staff;
- 2) Submit a copy of the DEEP Stormwater Permit prior to commencement of construction;
- 3) Submit a copy of any SHPO-recommended cultural resource protection measures, if applicable, prior to commencement of construction;
- 4) Implement the March 2023 Recommended Vernal Pool Protection Measures in the Vernal Pool Survey behind Attachment E to the Petition;
- Implement the April 2023 Spaulding Parcel Restoration Plan in Attachment 1 and behind Tab Number 6 of the Appendix to Eversource's June 12, 2023 Response to Six Requests Filed by Spaulding on May 22, 2023;
- 6) Incorporate pollinator habitat in the restoration of disturbed areas consistent with CGS §16-50hh, where feasible; and
- 7) An environmental monitor shall oversee construction activities in sensitive resource areas.

Project Location

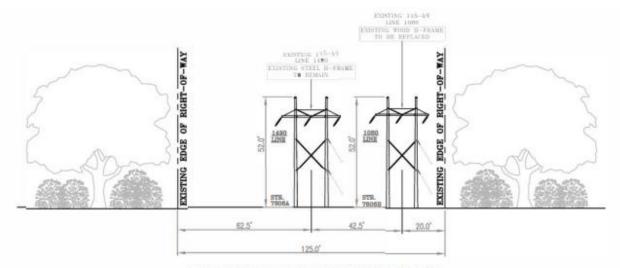


Project ROW Profiles

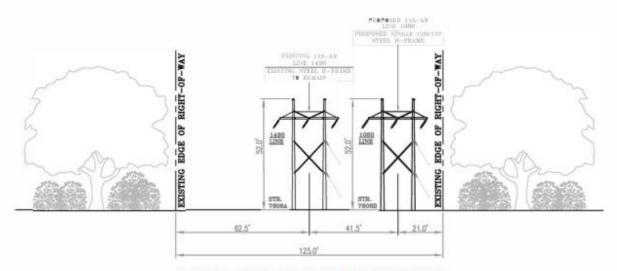


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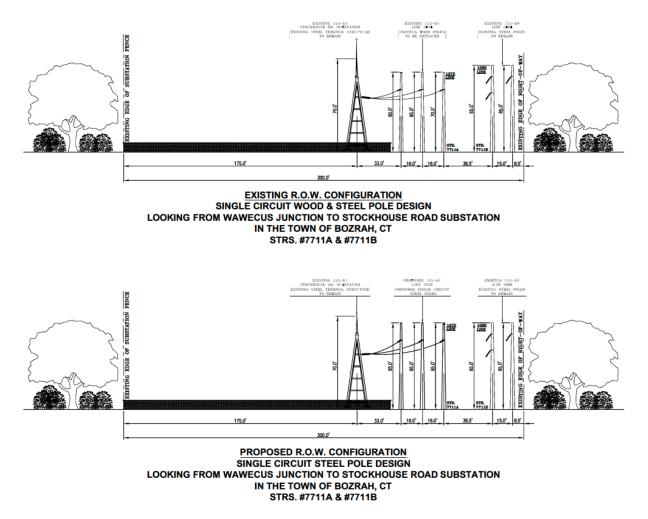


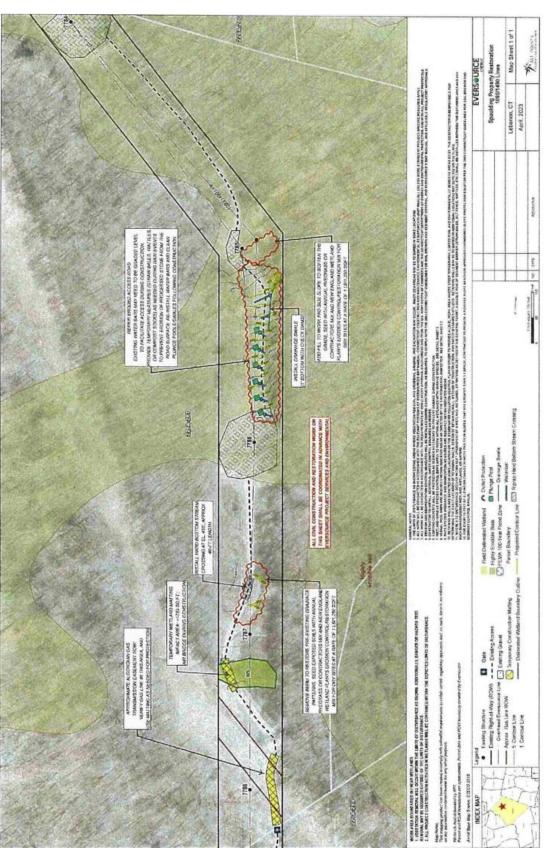
EXISTING R.O.W. CONFIGURATION SINGLE CIRCUIT WOOD H-FRAME DESIGN LOOKING FROM STOCKHOUSE ROAD SUBSTATION TO CARD SUBSTATION IN THE TOWN OF LEBANON, CT STRS. #7806A & #7806B



PROPOSED R.O.W. CONFIGURATION SINGLE CIRCUIT STEEL H-FRAME DESIGN LOOKING FROM STOCKHOUSE ROAD SUBSTATION TO CARD SUBSTATION IN THE TOWN OF LEBANON, CT STRS. #7806A & #7806B

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Attachment 1 – Spaulding Parcel Restoration Plan