



STATE OF CONNECTICUT  
CONNECTICUT SITING COUNCIL

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**VIA ELECTRONIC MAIL & CERTIFIED MAIL  
RETURN RECEIPT REQUESTED**

January 20, 2023

Kathleen M. Shanley  
Manager-Transmission Siting  
Eversource Energy  
P.O. Box 270  
Hartford, CT 06103  
[Kathleen.shanley@eversource.com](mailto:Kathleen.shanley@eversource.com)

RE: **PETITION NO. 1545** – 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 Wawecus Junction to Montville Junction Upgrade Project consisting of the replacement of electric transmission line structures along its existing 8-mile electric transmission line right-of-way shared by its existing 115-kilovolt (kV) Nos. 1000, 1070, 1080 and 1090 Lines between Wawecus Junction in Norwich and Montville Junction in Montville, Connecticut, and related electric transmission line and substation improvements.

Dear Kathleen Shanley:

At a public meeting held on January 19, 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. Incorporation of pollinator habitat in the restoration of disturbed areas consistent with CGS §16-50hh, where feasible;
3. An environmental monitor shall oversee construction activities in sensitive resource areas;
4. 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;
5. The Council shall be notified in writing at least two weeks prior to the commencement of site construction activities;
6. 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 City of Norwich and the Town of Montville;

7. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
8. 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;
9. This Declaratory Ruling may be transferred, provided the facility owner/operator/transferor is current with payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v and the transferee provides written confirmation that the transferee agrees to comply with the terms, limitations and conditions contained in the Declaratory Ruling, including timely payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v; and
10. If the facility owner/operator is a wholly owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or other entity, 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 operations of the facility within 30 days of the sale and/or transfer.

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 November 1, 2022 and additional information dated December 29, 2022.

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

Sincerely,



Melanie A. Bachman  
Executive Director

MAB/MP/lm

Enclosure: Staff Report dated January 19, 2023

- c: The Honorable Ronald K. McDaniel, Mayor, Town of Montville ([rmcdaniel@montville-ct.org](mailto:rmcdaniel@montville-ct.org))  
Peter A. Nystrom, Mayor, City of Norwich ([pnystrom@cityofnorwich.org](mailto:pnystrom@cityofnorwich.org))  
Deborah Denfeld, Team Lead – Transmission Siting, Eversource Energy  
([deborah.denfeld@eversource.com](mailto:deborah.denfeld@eversource.com))



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**Petition No. 1545**  
**The Connecticut Light and Power Company d/b/a Eversource Energy**  
**Wawecus Junction to Montville Junction Upgrade Project**  
**Norwich and Stonington, Connecticut**

**Staff Report**  
**January 19, 2023**

**Introduction**

On November 2, 2022, the Connecticut Siting Council (Council) received a petition (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 Wawecus Junction to Montville Junction Upgrade Project (Project) within existing Eversource electric transmission line right-of-way (ROW) in the City of Norwich and Town of Montville (municipalities).

The Project consists of replacement of electric transmission line structures on the #1080, #1000/#1070 and #1000/#1090 115-kilovolt (kV) Lines along approximately 8 miles of existing ROW from Wawecus Junction in Norwich through Fort Hills Farms Substation in Montville to Montville Junction in Montville, and related transmission line and substation improvements.

On November 1, 2022, 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 November 3, 2022, the Council 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 December 2, 2022. No comments were received.

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) when a petition for a declaratory ruling for modifications to an *existing facility* is submitted to the Council. On November 16, 2022, the Council on Environmental Quality submitted comments on the Project regarding Eversource's Best Management Practices, the Department of Energy and Environmental Protection (DEEP) Natural Diversity Database (NDDDB), soils, water resources, invasive species, and inspections associated with the DEEP stormwater permit.<sup>1</sup>

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 over any site to any other entity and it is not required to abide by comments from state agencies.<sup>2</sup>

The Council submitted interrogatories to Eversource on December 9, 2022. Eversource submitted responses to the interrogatories on December 29, 2022, one of which included photographic documentation representative of the asset conditions associated with the structures to be replaced.

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<sup>1</sup> [https://portal.ct.gov/-/media/CSC/3\\_Petitions-medialibrary/Petitions\\_MediaLibrary/MediaPetitionNos1501-1600/PE1545/ProceduralCorrespondence/PE1545-SACRCDPI\\_CEQ.pdf](https://portal.ct.gov/-/media/CSC/3_Petitions-medialibrary/Petitions_MediaLibrary/MediaPetitionNos1501-1600/PE1545/ProceduralCorrespondence/PE1545-SACRCDPI_CEQ.pdf)

<sup>2</sup> *Corcoran v. Connecticut Siting Council*, 284 Conn. 455 (2007)

Pursuant to CGS §4-176(e) of the Uniform Administrative Procedure Act, an administrative agency is required to take action on a petition within 60 days of receipt. On December 22, 2022, pursuant to CGS §4-176(e), the Council voted to set the date by which to render a decision on the Petition as no later than May 1, 2023, which is the 180-day statutory deadline for a final decision under CGS §4-176(i).

The purpose of the proposed Project is to improve system reliability on the #1080, #1000/#1070 and #1000/#1090 Lines by replacing electric transmission line structures due to asset condition issues and to meet National Electrical Safety Code (NESC) standards, including, but not limited to, conductor clearance requirements.

### **Municipal and Abutter Notice**

In September 2022, 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. One abutter contacted Eversource with two concerns. The first concern is the planned side-trimming of an oak tree within the ROW, and the second concern is potentially shifting the transmission structures to limit future vegetation maintenance within the ROW. Eversource provided the abutter with information regarding typical vegetation maintenance zone widths and clearance requirements within a transmission line ROW for system reliability and safety.

In September 2022, Eversource consulted with representatives of the municipalities to brief them on the proposed Project. The municipalities did not express any concerns.

### **Existing Project Area**

The existing Project area includes approximately 8 miles of existing Eversource ROW that extends through undeveloped, agricultural and low-density residential and commercial areas between Wawecus Junction in Norwich and Montville Junction in Montville. The ROW from Wawecus Junction to Montville Junction was established in 1931.

Eversource's easement for the existing ROW grants Eversource rights to, *“construct maintain, rebuild and relocate, at all times, forever, on, over, or/and under any parts of a strip of land any number and all kinds and sizes of poles, towers, wires, guy wires and all fixtures and things, except buildings, useful at the time or hereafter for the transmission of electricity of every voltage and for telephone, telegraph, and signal purposes and the right to transmit by the same, for any and every purpose, electricity of every voltage and use the same for telephone, telegraph and signal purposes.”*

The ROW is approximately 250 feet wide. No expansion of the ROW is proposed.

### **Proposed Project**

The Project is proposed to address identified asset condition deficiencies through replacement of deteriorated structures on the #1080, #1000/#1070 and #1000/#1090 Lines. Certain existing structures require replacement due to age-related degradation; limited structural capacity to support new optical ground wire (OPGW); and compliance with clearance requirements.

The Project entails replacement of 28 single-circuit wood H-frame structures, 40 double-circuit wood H-frame structures, 6 single-circuit wood three-pole structures, and two single-circuit wood two-pole structures with weathering steel structures. Of the 76 structures to be replaced, 59 are due to age-related asset condition issues; 13 are due to the proposed structural loading associated with upgrading the OPGW; and 4 are due to conductor uplift, swing and/or clearance violations resulting from replacing adjacent structures. In addition to the replacement structures, 1 new structure is proposed to support modifications to the connections at Fort Hills Farms Substation in Montville.

The Project requires taller structures to comply with 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 uplift 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 Project is identified in the 2022 Eversource Forecast of Loads and Resources Report and in the October 2022 ISO-NE Regional System Plan Asset Condition List.<sup>3</sup>

*Structure Replacements and OPGW Upgrade of the 115-kV #1080 Line from Wawecus Junction to Montville Junction*

The #1080 Line consists of 1272 kcmil aluminum conductor steel reinforced (ACSR) conductors supported by structures from Wawecus Junction to Montville Junction. The conductors are approximately 50 years old. No upgrades/replacements are proposed at this time because the existing conductors have approximately 20 years of useful life remaining.

Project work consists of the following:

- a) Replace 23 single-circuit wood H-frame structures with 23 single-circuit weathering steel H-frame structures due to asset condition issues; and
- b) Replace 3 single-circuit wood three-pole structures with 3 single-circuit weathering steel three-pole structures due to asset condition issues.

*Structure Replacements and OPGW Upgrade of the 115-kV #1000/#1070 Lines from Wawecus Junction to Fort Hills Farms Substation*

The #1000/#1070 Lines consist of 556 kcmil ACSR conductors supported by the structures from Wawecus Junction to Fort Hills Farms Substation. The conductors are approximately 60 years old. No upgrades/replacements are proposed at this time because the existing conductors have approximately 10 years of useful life remaining.

Project work consists of the following:

- a) Replace 15 double-circuit wood H-frame structures with 15 double-circuit weathering steel H-frame structures due to asset condition issues;
- b) Replace 7 double-circuit wood H-frame structures with 7 double-circuit weathering steel H-frame structures due to structural loading associated with proposed OPGW;
- c) Replace 1 single-circuit wood H-frame structure with 1 single-circuit weathering steel H-frame structure due to structural loading associated with proposed OPGW;
- d) Replace 2 single-circuit wood H-frame structures with 2 single-circuit weathering steel H-frame structures due to conductor uplift issues; and
- e) Replace 1 single-circuit wood three-pole structure with 1 single-circuit weathering steel three-pole structure due to structural loading associated with proposed OPGW.

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<sup>3</sup> <https://portal.ct.gov/CSC/Forecast/Forecast2022>

*Structure Replacements and OPGW Upgrade of the 115-kV #1000/#1090 Lines from Fort Hills Farms Substation to Montville Junction*

The #1000/#1090 Lines consist of 556 kmil ACSR conductors supported by the structures from Fort Hills Farms Substation to Montville Junction. The conductors are approximately 60 years old. No upgrades/replacements are proposed at this time because the existing conductors have approximately 10 years of useful life remaining.

Project work consists of the following:

- a) Replace 17 double-circuit wood H-frame structures with 17 double-circuit weathering steel H-frame structures due to asset condition issues;
- b) Replace 1 double-circuit wood H-frame structures with 1 double-circuit weathering steel H-frame structures due to structural loading associated with proposed OPGW;
- c) Replace 1 single-circuit wood three-pole structure with 1 single-circuit weathering steel three-pole structure due to structural loading associated with proposed OPGW;
- d) Replace 2 single-circuit wood H-frame structures with 2 single-circuit weathering steel three-pole structures due to conductor uplift and/or clearance issues; and
- e) Replace 2 single-circuit wood two-pole structures with 2 single-circuit weathering steel two-pole structure due to structural loading associated with proposed OPGW.

*Substation and Junction Modifications*

Additional modifications necessary to facilitate this Project include:

- a) Install a short segment of underground All dielectric self-supporting cable (ADSS) at Wawecus Junction to facilitate the fiber connection for the Project;
- b) Install ADSS/fiber connections in front of Fort Hills Farms Substation;
- c) Install one single-circuit weathering steel three-pole structure to reconfigure the #1090 Line outside Fort Hills Farms Substation associated with removing the tap connections;
- d) Replace one single-circuit wood three-pole structure with a single-circuit weathering steel three-pole structure due to asset condition issues and to reconfigure the Fort Hills Farms Substation tap;
- e) Remove one existing tap structure (Structure No. 7635C) to eliminate the tap connection outside Fort Hills Farms Substation;
- f) Remove one existing tap structure (Structure No. 7635D) to eliminate the tap connection outside Fort Hills Farms Substation; and
- g) Install a short segment of overhead ADSS at Montville Substation to facilitate the fiber connection for the Project.

*Cost*

The total estimated cost of the Project is approximately \$35.9M. The entire Project cost would be eligible for regional cost allocation as it is associated with Pool Transmission Facilities<sup>4</sup>. Pending a final determination from ISO-NE, total costs are expected to be allocated<sup>5</sup> as follows:

Eversource Connecticut ratepayers <sup>6</sup>	19.1%	(\$6.86M)
Other Connecticut ratepayers <sup>7</sup>	5.9%	(\$2.12M)
<u>Other New England ratepayers<sup>8</sup></u>	<u>75.0%</u>	<u>(\$26.93M)</u>
 Cost Total	 100%	 (\$35.9M)

<sup>4</sup> 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.

<sup>5</sup> These allocations are estimates based on 2021 actual loads.

<sup>6</sup> Electrical service customers of Eversource and located within Connecticut.

<sup>7</sup> Electrical service customers located within Connecticut but outside of Eversource's service territory.

<sup>8</sup> Electrical service customers located within New England but outside of Connecticut.

While no conductors are proposed to be replaced or upgraded for the Project, such an upgrade would increase the total cost by approximately \$23.5M due to the increased conductor costs and additional structure replacement work to accommodate the additional structural loading.

### **Project Construction and Work Procedures**

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.

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).<sup>9</sup>

Eversource would utilize existing ROW access roads to the extent possible during construction. Where existing access roads are not present, new permanent gravel roads would be established. Construction matting would be utilized to install temporary access roads through wetland areas.

Eversource would obtain a Department of Transportation Encroachment Permit for ROW entry from three state-maintained roadways (Rt. 32, Rt. 82, and I-395).

Construction areas would be isolated by establishing E&S controls in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* and Eversource's BMPs. Typical E&S control measures include, but are not limited to, straw blankets, hay bales, 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) would be developed for registration under a DEEP 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.

At each transmission line structure location, a work pad would be constructed to stage material for final on-site assembly and/or removal of structures, to transfer conductors and to provide a safe, level work base for construction equipment. Work pads for the project would typically be 125 feet by 125 feet and up to 150 feet by 150 feet depending on specific site conditions. For areas where machinery is needed for pulling OPGW through an angled structure, approximately 130-foot by 80-foot work/pull pads would be established. Most of the work pads would be composed of gravel. Temporary work pads would be used in sensitive areas such as wetlands, lawns/meadow and identified cultural resource locations.

The proposed structures would have either drilled (caisson) foundations or direct embed foundations.

Foundation installation work would require the use of equipment such as drill rigs, pneumatic hammers, augers, and dump trucks. If groundwater is encountered, pumping trucks or other equipment would be utilized. The water would then be discharged in accordance with local, state and federal requirements.

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<sup>9</sup> [Eversource Best Management Practices MA CT](#)

New structure sections, components and hardware would be delivered by flatbed truck to the structure locations for assembly by crane and bucket trucks. After assembly, the area around the direct embed structures would be backfilled with processed gravel. Counterpoise would also be installed after structures are constructed.

After structure installation is complete, the transfer of conductor from the existing structures to the new structures would occur utilizing equipment such as cranes, bucket trucks and tensioning rings. The removal of existing Copperweld shield wire and replacement with OPGW would require equipment such as reels, pulling and tensioning rigs, and bucket trucks. The removal of the existing shield wire would take place during the active installation of the OPGW because the existing shield wire would be used as pulling lines, if possible. Helicopters may also be used to install initial pulling lines for OPGW installation. The existing structures would be removed after the conductor transfer and OPGW installation are performed.

After the new and replacement structures are installed, the conductors are transferred to the new structures and the existing shield wire is replaced with OPGW, the existing structures would be removed, and ROW restoration activities would commence. Restoration work includes the removal of construction debris, signage, flagging, temporary fencing, and construction mats and work pads that are designated for removal. 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.

Upon completion of the Project, some 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 work with such property owner regarding mitigation options.

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. Traffic management procedures would be developed, if necessary.

### **Environmental Effects and Mitigation Measures**

Work would occur within a maintained ROW (250 feet wide). Tree trimming/vegetation management within the ROW, including removal of incompatible vegetative species, would be required in select areas to accommodate work site access, work pad installation and improvements, and conductor clearances to meet current standards. Outside of the ROW, some tree trimming/vegetation management would be required to facilitate improvements to existing off-ROW access roads.

Vegetation removal/tree trimming would 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. Vegetation removal activities would be performed in accordance with Eversource BMPs.

A total of 34 wetland areas and 19 watercourses occur along the ROW or in off-ROW. Six structures that are within wetlands would be replaced with weathering steel structures with similar configurations to the existing structures.

The Project would result in 720 square feet (sf) of permanent wetland/watercourse impacts associated with the replacement of 6 structures. Temporary wetland impacts related to construction matting for work pads and/or temporary access total approximately 2.94 acres. Per Eversource's BMPs, temporary mats would be cleaned to prevent the introduction of invasive species into wetlands.

Construction activities within wetlands and over watercourses would be conducted in accordance with Eversource's BMPs.



10 vernal pools were identified along the Project ROW. No new structures or construction matting would be located within a vernal pool. One replacement structure (Structure No. 7645) would be located within the 100-foot vernal pool envelope (VPE) of VP15, and temporary matting would be located within the VPEs of VP7, VP9, VP10, and VP15. Vernal pool survey results recommended protection measures to reduce the potential for impacts to vernal pools and vernal pool species using E&S controls, matting, and minimizing vegetation clearing proximate to vernal pools. Eversource plans to implement the recommended protection measures for vernal pools.

The Project ROW extends across the 100-year Federal Emergency Management Agency-designated flood zone in the vicinity of Gold Mine Brook; Trading Cove Brook; and Stony Brook. 500-year flood zones are located in the Project ROW in the vicinity of Wetlands 57 and 58. Seven replacement structures remain within flood zones and are of a similar design; thus, the Project would have a de minimis effect on floodplains and would not be expected to impact flood storage.

There are no DEEP-designated Aquifer Protection Areas within or proximate to the Project ROW. There are no public water supply wells within the Project area. Eversource would conduct work in accordance with its BMPs. Provisions are included for proper storage, secondary containment, and handling of diesel fuel, motor oil, grease and other lubricants, to protect water quality.

A portion of the Project is within DEEP NDDDB areas. Eversource would implement DEEP recommended species-specific protection measures during construction. Protective measures include, but are not limited to, contractor training, time-of-year-specific BMPs; monitoring; and exclusion fencing.

Eversource also 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 one federally-listed and state-listed Endangered Species: the northern long-eared bat (NLEB). There are no known NLEB maternity roost trees within 150 feet of the Project area, and the nearest known NLEB hibernaculum is located approximately 33 miles away in the Town of North Branford. Thus, no impacts to the NLEB are expected to result from the Project.

The Project ROW does not traverse a New England Cottontail focus area.

No properties listed on the National Register of Historic Places are located within 500 feet of the Project area. A Phase 1A Cultural Resources Assessment (Phase 1A) of the Project area determined that one previously identified archaeological site is located within 500 feet of the Project area, but the Project would not directly affect this site. The Phase 1A Assessment indicated that various portions of the ROW have a moderate to high archaeological sensitivity.

A Phase 1B Cultural Resources Reconnaissance Survey (Phase 1B Survey) was conducted in November 2022 and provided to SHPO and the Tribal Historic Preservation Offices for review. Eversource would develop a cultural resource protection strategy, as applicable, and incorporate recommended protection measures into Eversource's BMPs for Project construction based on the Phase 1B Survey results.

The Project ROW does not traverse any locally-designated or state-designated scenic roads.

The Project abuts Horton Cove along the Thames River. No impacts to boating, fishing or other water-based recreational activities are expected. The Project area is not located proximate to any Blue Blazed hiking trails maintained by the Connecticut Forest and Parks Association.

The replacement structures would require height increases to meet NESC clearance requirements<sup>10</sup> within the existing ROW. Existing structures on the lines range from 43 to 93 feet above ground level. The replacement structures on the lines would range from 43 feet to 93 feet above ground level, with an average height increase of approximately 6 feet.

Due to the increase in structure heights to comply with NESC clearance criteria, there would be some changes to the visual character of the line. The use of weathering steel replacement structures would resemble the appearance of existing wood structures within the ROW and would match the surrounding landscape. Thus, the extent of the changes in visual character are not expected to be significant.

### **Public Safety**

There would be no permanent changes to existing ROW sound 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.

Notice to the Federal Aviation Administration (FAA) would not be required for any of the proposed structures, and none of the proposed structures require FAA marking and/or lighting.

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 wires 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 the first quarter of 2023. Construction 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 inclement weather and/or outage constraints.

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<sup>10</sup> A safety buffer is included in the structure heights (above the minimum NESC clearance requirements) to ensure that NESC clearances are met at all times and under a variety of conditions.

## **Conclusion**

If approved, staff recommends the following conditions:

- 1) Approval of any project changes be delegated to Council staff;
- 2) Incorporation of pollinator habitat in the restoration of disturbed areas consistent with CGS §16-50hh, where feasible; and
- 3) An environmental monitor shall oversee construction activities in sensitive resource areas.

### Project Location

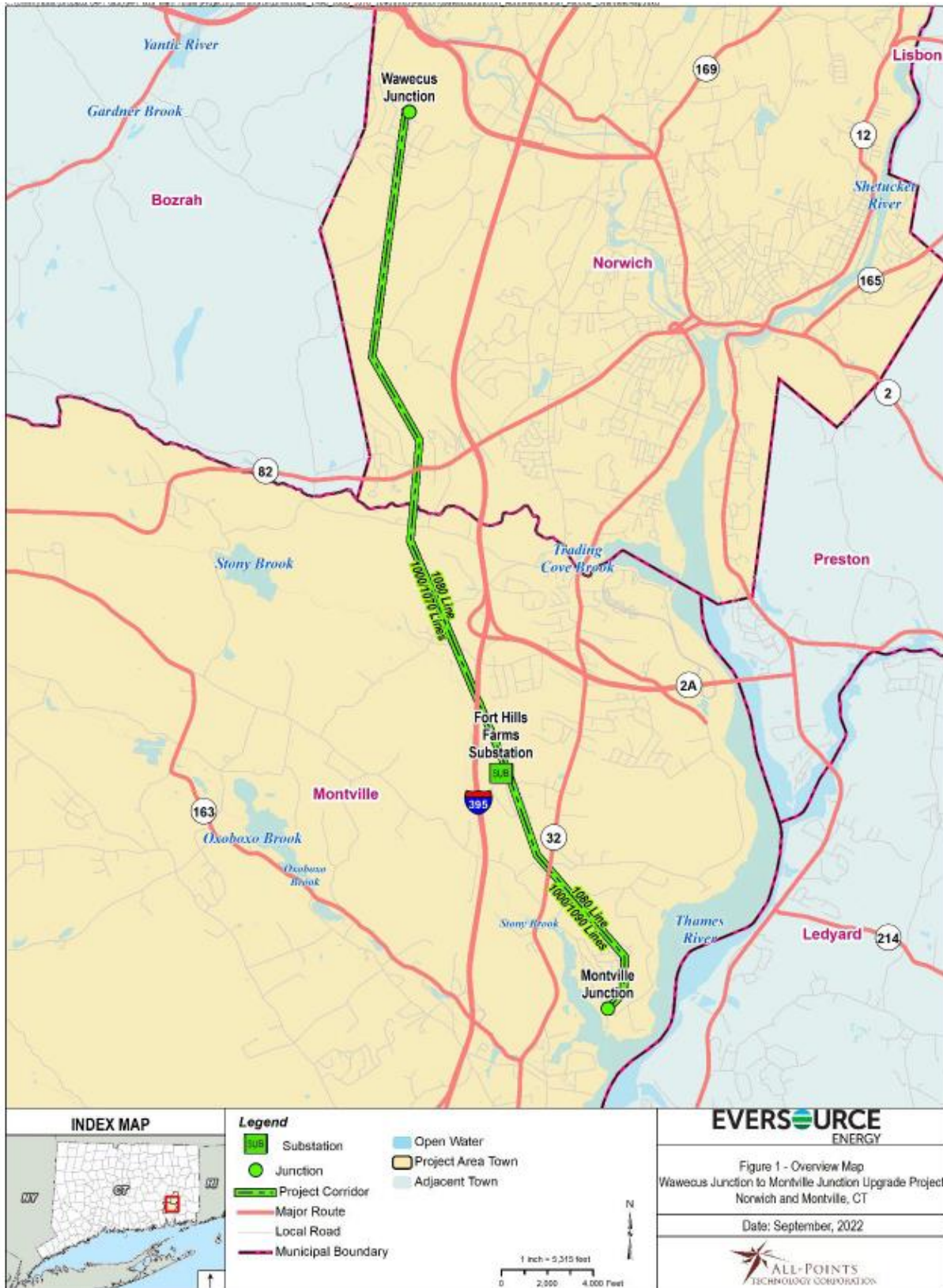
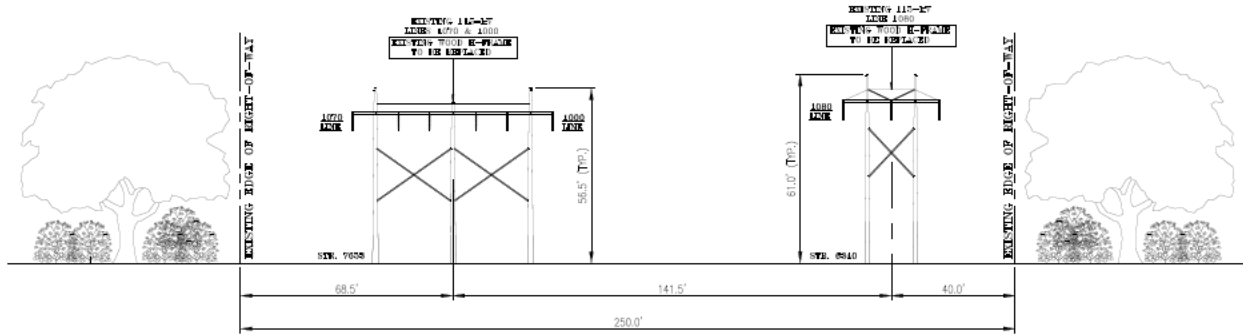


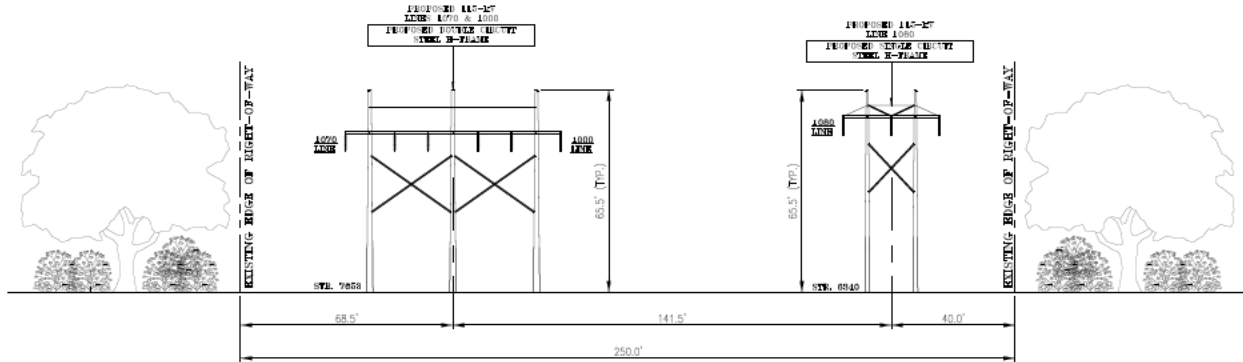
Figure 1 - Overview Map  
Wawecus Junction to Montville Junction Upgrade Project  
Norwich and Montville, CT

Date: September, 2022

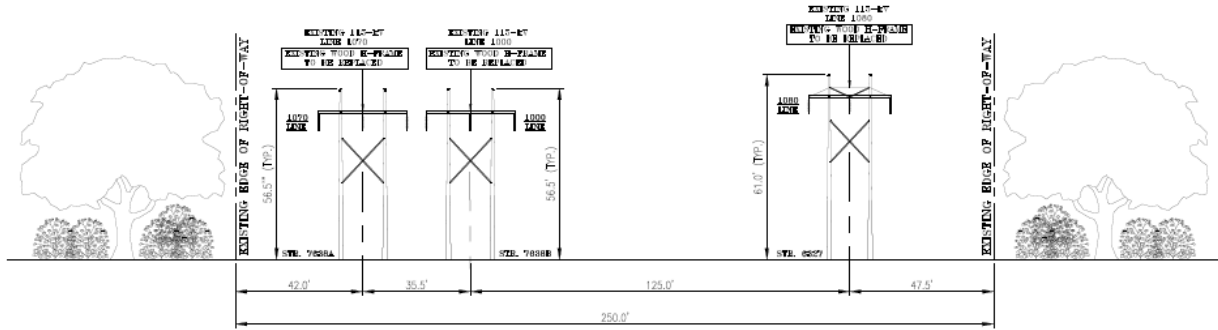
### Project ROW Profiles



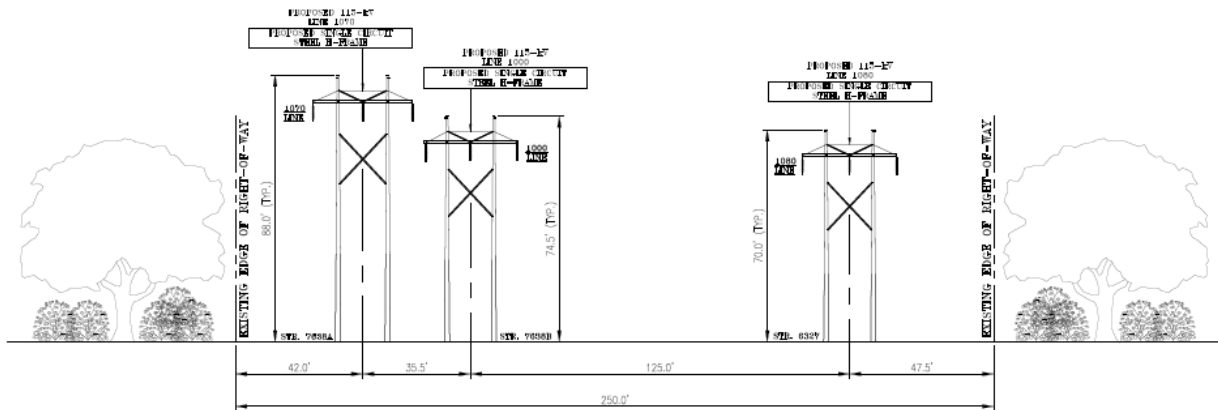
**EXISTING R.O.W. CONFIGURATION  
DOUBLE & SINGLE CIRCUIT WOOD H-FRAME DESIGN  
LOOKING FROM FORT HILLS FARMS SUBSTATION TO WAWECUS JUNCTION  
IN THE TOWN OF MONTVILLE, CT  
STRS. #7653 & #6340**



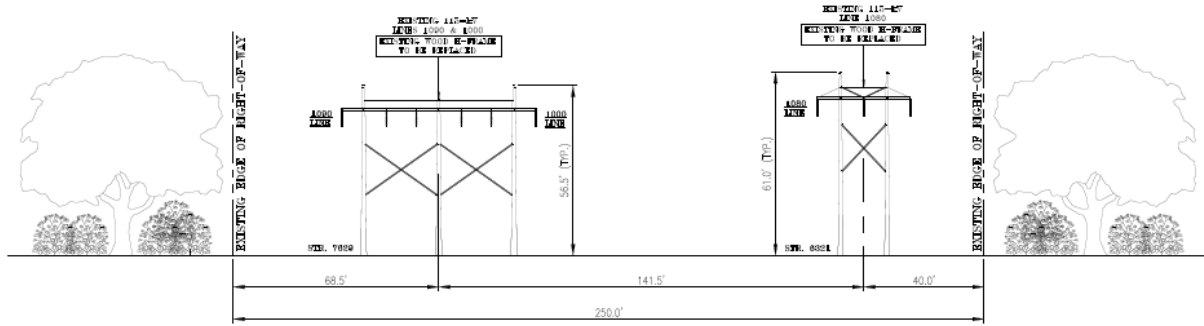
**PROPOSED R.O.W. CONFIGURATION  
NO ADDITIONAL RIGHT-OF-WAY REQUIRED  
DOUBLE & SINGLE CIRCUIT STEEL H-FRAME DESIGN  
LOOKING FROM FORT HILLS FARMS SUBSTATION TO WAWECUS JUNCTION  
IN THE TOWN OF MONTVILLE, CT  
STRS. #7653 & #6340**



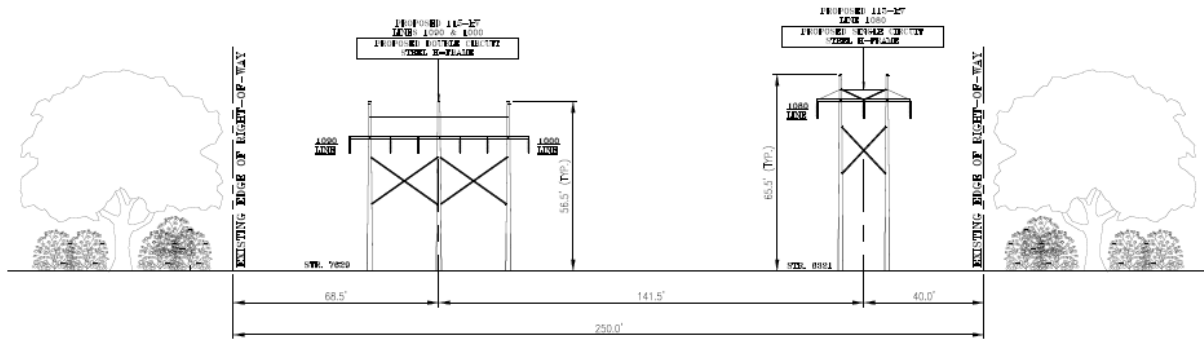
**EXISTING R.O.W. CONFIGURATION  
SINGLE CIRCUIT WOOD H-FRAME DESIGN  
LOOKING FROM FORT HILLS FARMS SUBSTATION TO WAWECUS JUNCTION  
IN THE TOWN OF MONTVILLE, CT  
STRS. #7638A & #7638B & #6327**



**PROPOSED R.O.W. CONFIGURATION  
NO ADDITIONAL RIGHT-OF-WAY REQUIRED  
SINGLE CIRCUIT STEEL H-FRAME DESIGN  
LOOKING FROM FORT HILLS FARMS SUBSTATION TO WAWECUS JUNCTION  
IN THE TOWN OF MONTVILLE, CT  
STRS. #7638A & #7638B & #6327**



**EXISTING R.O.W. CONFIGURATION  
DOUBLE & SINGLE CIRCUIT WOOD H-FRAME DESIGN  
LOOKING FROM MONTVILLE JUNCTION TO FORT HILLS FARMS SUBSTATION  
IN THE TOWN OF MONTVILLE, CT  
STRS. #7629 & #6321**



**PROPOSED R.O.W. CONFIGURATION  
NO ADDITIONAL RIGHT-OF-WAY REQUIRED  
DOUBLE & SINGLE CIRCUIT STEEL H-FRAME DESIGN  
LOOKING FROM MONTVILLE JUNCTION TO FORT HILLS FARMS SUBSTATION  
IN THE TOWN OF MONTVILLE, CT  
STRS. #7629 & #6321**

STATE OF CONNECTICUT )

: ss. Southington, Connecticut January 20, 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. 1545 issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:



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Melanie A. Bachman  
Executive Director  
Connecticut Siting Council

STATE OF CONNECTICUT )

: ss. New Britain, Connecticut January 20, 2023

COUNTY OF HARTFORD )

I certify that a copy of the Connecticut Siting Council Decision and Staff Report in Petition No. 1545 has been forwarded by Certified First Class Return Receipt Requested mail, on January 20, 2023, to all parties and intervenors of record as listed on the attached service list, dated November 3, 2022.

ATTEST:



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Lisa A. Mathews  
Office Assistant  
Connecticut Siting Council



**LIST OF PARTIES AND INTERVENORS**  
**SERVICE LIST**

<b>Status Granted</b>	<b>Document Service</b>	<b>Status Holder (name, address &amp; phone number)</b>	<b>Representative (name, address &amp; phone number)</b>
<b>Petitioner</b>	<input checked="" type="checkbox"/> E-mail	The Connecticut Light and Power Company d/b/a Eversource Energy	Kathleen M. Shanley Manager-Transmission Siting Eversource Energy P.O. Box 270 Hartford, CT 06103 Phone: (860) 728-4527 <a href="mailto:Kathleen.shanley@eversource.com">Kathleen.shanley@eversource.com</a>