



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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VIA ELECTRONIC MAIL & CERTIFIED MAIL RETURN RECEIPT REQUESTED

August 18, 2023

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

RE: **PETITION NO. 1574** - 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 Southington Substation to Cook Hill Junction Rebuild Project consisting of the replacement and reconductoring of electric transmission line structures along approximately 11.2 miles of its existing electric transmission line right-of-way shared by its existing 115-kilovolt (kV) 1690, 1208, 1355 and 1610 Lines between Southington Substation in Southington and Cook Hill Junction in Wallingford including the installation of approximately 650 feet of the 1690 Line underground at Lucchini Junction in Meriden, traversing the municipalities of Southington, Cheshire, Wallingford, and Meriden, Connecticut, and related electric transmission line and substation improvements.

Dear Deborah Denfeld:

At a public meeting held on August 17, 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. Identification of staging areas and provisions for erosion and sedimentation (E&S) controls, if necessary, at the staging area locations prior to the commencement of construction;
3. Submit a copy of the DEEP Stormwater Permit prior to commencement of construction;
4. Submit a copy of any SHPO-recommended cultural resource protection measures, if applicable, prior to commencement of construction;
5. Submit a copy of FAA obstruction evaluations for Structures 3663-1, 3666-1, 4066-1, and 4069-1 and any required marking/lighting plans;
6. Incorporate pollinator habitat in the restoration of disturbed areas consistent with CGS §16-50hh, where feasible;
7. Submit a wetland and vernal pool protection plan prior to commencement of construction;

8. 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;
9. The Council shall be notified in writing at least two weeks prior to the commencement of site construction activities;
10. 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 Southington, Cheshire, Wallingford, and the City of Meriden.
11. 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.**
12. 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
13. 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 operations of the facility within 30 days of the sale and/or transfer. Both the facility owner/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 May 17, 2023, and additional information dated July 13, 2023.

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

Sincerely,



Melanie A. Bachman
Executive Director

MAB/MP/dll



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Petition No. 1574

**The Connecticut Light and Power Company d/b/a Eversource Energy
Southington Substation to Cook Hill Junction Rebuild Project
Southington, Cheshire, Wallingford, and Meriden**

**Staff Report
August 17, 2023**

Introduction

On May 17, 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 Southington Substation to Cook Hill Junction Rebuild Project (Petition or Project) within existing Eversource electric transmission line right-of-way (ROW) in the Towns of Southington, Cheshire, and Wallingford and the City of Meriden (municipalities).

The Project consists of the replacement of electric transmission line structures and conductors, and the installation of optical ground wire (OPGW) on the 1355, 1610, 1690, and 1208 Lines along approximately 11.2 miles of existing ROW between Southington Substation in Southington and Lucchini Junction in Meriden; between Lucchini Junction and Hanover Substation in Meriden; and between Lucchini Junction and Schwab Junction in Wallingford and Cook Hill Junction in Wallingford, and related electric transmission line and substation improvements.

On May 15, 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 May 18, 2023, 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 June 16, 2023. No comments were received from any of the municipalities.

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 May 26, 2023, the Council on Environmental Quality submitted comments on the Project.¹

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.²

The Council submitted interrogatories to Eversource on June 22, 2023. Eversource submitted responses to the interrogatories on July 13, 2023.

¹ https://portal.ct.gov/-/media/CSC/3_Petitions-medialibrary/Petitions_MediaLibrary/MediaPetitionNos1501-1600/PE1574/ProceduralCorrespondence/PE_1574-CEQcommentsrecd_a.pdf

² *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 June 22, 2023, 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 November 13, 2023, which is the 180-day statutory deadline for a final decision under CGS §4-176(i).

Notice and Community Outreach

Eversource initiated outreach to the municipalities in June 2022. None of the municipalities commented on the Project.

Eversource initiated outreach to property owners along the Project route in June 2022. 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. During the construction phase of the Project, Eversource would maintain contact with the municipalities and abutting property owners to inform them of construction activities. Some property owners requested advance notification prior to work occurring on or near their property and expressed concern regarding site restoration. One property owner expressed concern regarding visual mitigation.

Existing Facility Site

The existing facility site includes approximately 11.2 miles of Eversource ROW that extends through rural residential, industrial, agricultural and undeveloped lands. It also crosses several wetlands, Misery Brook, Sodom Brook, Harbor Brook, the Quinnipiac River, and the Mill River. Approximately 4.6 miles of the ROW is between Southington Substation and Lucchini Junction; 0.5 mile of the ROW is between Lucchini Junction and Hanover Substation; 1.7 miles of the ROW is between Lucchini Junction and Schwab Junction; and 4.4 miles of ROW is between Schwab Junction and Cook Hill Junction.

The Project ROW was established in 1923.

Eversource's easement for the existing ROW grants Eversource rights to enter and travel upon and transport materials over and across the right of way and to erect, construct, repair, maintain, replace, relocate, inspect, operate and remove upon, infrastructure related to the conduction of electricity. The easements also grant rights to trim, cut, and remove vegetation within the ROW.

The Project ROW is approximately 175 to 230 feet wide between Southington Substation and Lucchini Junction and is maintained to an approximate width of 175 feet. Between Lucchini Junction and Hanover Substation, the ROW is approximately 160 feet wide and cleared to its full width. Between Lucchini Junction and Schwab Junction, the ROW is approximately 160 feet to 175 feet wide and is cleared to an approximate width of 160 feet. Between Schwab Junction and Cook Hill Junction, the ROW is approximately 165 feet wide and is clear to its full width. No expansion of any ROW segment is proposed.

A 13.8-kV electric distribution line is collocated within the Project ROW between Lucchini Junction and Hanover Substation and from Allen Avenue in Meriden to Lucchini Junction. The distribution line would be transferred to the replacement structures. Telecommunications antennas are collocated on Structure 783 of the 1690 Line. Equipment would be relocated to the replacement structure by the telecommunications carriers.

Vegetation maintenance was last performed in the Project ROW in November 2021.

Project Development

The purpose of the proposed Project is to improve system reliability on the 1355, 1610, 1690, and 1208 Lines by replacing electric transmission line structures that are deteriorated as well as aged copper conductors and obsolete copper shield wire and to meet National Electrical Safety Code (NESC) standards. Additionally, the Project entails the installation of 9 new mid-span structures to reduce span widths.

Prior to submitting this Petition, Eversource performed limited work on the subject transmission line segments in Sub-Petition No. 1293-CW-01 in the Towns of Cheshire and Wallingford, approved by the Council on July 31, 2017 to replace 16 structures on the 1610 Line. Eversource also performed limited work on the subject transmission line segments in Sub-Petition No. 1293-SCMW-01 in the Towns of Southington, Cheshire, Wallingford, and the City of Meriden, approved by the Council on September 24, 2020 to replace 9 structures on the 1208 Line. Once the Project is complete, all of the double-circuit lattice structures on the 1355/1690 Lines and the 1355/1610 Lines will have been replaced. 25 existing wood structures would not be replaced because it is neither required for asset condition issues nor structural loading issues.

The Project is identified in the 2023 Eversource Forecast of Loads and Resources and in the June 2023 Independent System Operator – New England (ISO-NE) Regional System Plan Asset Condition List.³ There are no generation facilities listed on the ISO-NE interconnection queue associated with the proposed Project.

Cost

The total estimated cost of the Project is approximately \$80.9M. Approximately \$56.2M of the total Project cost would be eligible for regional cost allocation as it is associated with Pool Transmission Facilities.⁴ Pending a final determination from ISO-NE, total costs are expected to be allocated⁵ as follows:

Eversource Connecticut ratepayers ⁶	42.8%	(\$34.6M)
Other Connecticut ratepayers ⁷	5.3%	(\$4.3M)
<u>Other New England ratepayers⁸</u>	<u>51.9%</u>	<u>(\$42.0M)</u>
Cost Total	100%	(\$80.9M)

Proposed Project

The Project is proposed to address identified asset condition deficiencies by replacement of deteriorated structures and to replace aged copper conductor and obsolete copper shield wire. It includes the replacement of 90 double-circuit structures with 90 double-circuit transmission structures; replacement of 11 double-circuit structures with 22 single-circuit structures; installation of 9 mid-span structures; installation of two single-circuit structures to support line tensions on substation terminal structures; installation of one single-circuit riser structure to support an underground section of the 1690 Line; and relocation of a section of the 1690 Line underground for approximately 650 feet.

³ Entries #362 and #363.

⁴ 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.

⁵ These allocations are estimates based on 2022 actual loads.

⁶ Electrical service customers of Eversource and located within Connecticut.

⁷ Electrical service customers located within Connecticut but outside of Eversource's service territory.

⁸ Electrical service customers located within New England but outside of Connecticut.

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. Eversource proposes to install new mid-span structures along the ROW to restrain the conductors from blowout caused by wind conditions. Typical conductor span lengths on Eversource 115-kV lines are 800 feet or less⁹.

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. The number of new mid-span structures cannot be reduced using anti-galloping devices or other design options as they would not be sufficient in meeting the required conductor span lengths.

1355/1610, 1208, and 1690 Lines Southington Substation to Lucchini Junction

The 1355/1610, 1208 and 1690 Lines are 115-kV lines that extend approximately 4.6 miles between Southington Substation and Lucchini Junction. The lines are supported by mostly double-circuit lattice structures installed beginning in 1929. The 1355 and 1610 Lines consist of 556 aluminum conductor steel reinforced (ACSR) and the 1690 Line consists of 4/0 copper conductor.

Project work consists of the following:

- a) Replace one double-circuit steel lattice structure with two single-circuit weathering steel monopole structures for line separation of the 1355 and 1610 Lines into Southington Substation;
- b) Replace 24 double-circuit lattice structures with 24 double-circuit weathering steel monopole structures on the 1355/1610 Lines;
- c) Replace 7 double-circuit steel lattice structures with 14 single-circuit weathering steel monopole structures on the 1355/1610 Lines;
- d) Install three new mid-span structures to meet current NESC clearance requirements on the 1355/1610 Lines;
- e) Replace 2 double-circuit lattice structures with four single-circuit weathering steel monopoles on the 1355/1610 Lines to improve tensioning and sag control over Interstate 691;
- f) Replace 1 double-circuit lattice structure (1355/1610 Line) with one single-circuit monopole on the 1610 Line and one single-circuit weathering steel monopole on the 1355 Line;
- g) Replace 33 double-circuit steel lattice structures with 33 single-circuit weathering steel monopoles on the 1690 Line;
- h) Replace 1 double-circuit steel pole structure with a single-circuit weathering steel monopole on the 1690 Line;
- i) Install one new mid-span single-circuit weathering steel monopole on the 1280 Line to meet NESC clearance requirements;

⁹ Petition 1527, response to Council interrogatory 19.

- j) Replace three single-circuit wood H-frame structures with one weathering steel single-circuit monopole and two weathering steel single-circuit H-frames on the 1208 Line;
- k) Install one single-circuit weathering steel monopole on the 1690 Line as a riser structure to transition the 1690 Line from overhead to underground;
- l) Replace one double-circuit wood H-frame structure with two weathering steel single-circuit monopoles as a transition structure from underground to overhead for the 1690 Line;
- m) Install approximately 650 feet of underground cross link polyethylene (XLPE) conductor and OPGW enclosed in a concrete-encased duct bank on the 1690 Line at Lucchini Junction;
- n) Replace existing 4/0 copper conductors with aluminum conductor steel supported (ACSS) conductors on the 1690 Line;
- o) Replace existing shield wires on the 1690 Line with OPGW;
- p) Replace 556-kcmil aluminum conductor steel reinforced (ACSR) conductors with 1272 ACSS conductor on each of the 1355 and 1610 Lines;
- q) Transfer OPGW from existing structures for the 1610 Line to the replacement and new structures;
- r) Replace the copper shield wire on the 1355 Line with OPGW;
- s) Transfer conductor and OPGW from existing structures for the 1208 Line to the replacement structures;
- t) Install new hardware, insulators and counterpoise as necessary;
- u) Install new lighting arrestors as necessary; and
- v) Transfer a portion of the electric distribution line to replacement structures.

1355/1690 Lines Lucchini Junction to Hanover Substation

The 1355/1690 Lines are 115-kV lines that extend approximately 0.5 mile between Lucchini Junction and Hanover Substation. The lines are supported by mostly double-circuit lattice structures installed in 1929. The 1355/1690 Lines consist of 4/0 copper conductor. No work is proposed at Hanover Substation.

Project work consists of the following:

- a) Replace 3 double-circuit lattice structures with three double-circuit steel monopole structures on the 1355/1690 Lines;
- b) Install 2 single-circuit weathering steel monopoles (Structures 2519-R and 2519-L) because Hanover Substation terminal structures cannot support full tension from the combined 1355/1690 Lines;
- c) Replace the copper conductors with ACSS on the 1355 and 1690 Lines;
- d) Replace OPGW on the 1690 Line from Structure 4077-L to Hanover Substation;
- e) Install OPGW on the 1355 Line from Structure 4077-L to Structure 2515-L and relocate existing OPGW from Structure 2515 to Hanover Substation;
- f) Install hardware, insulators and counterpoise as necessary; and
- g) Install lightning arrestors as necessary.

1355/1610 and 1208 Lines Lucchini Junction to Schwab Junction

The 1355/1610 and 1208 Lines are 115-kV lines that extend approximately 1.7 miles between Lucchini Junction and Schwab Junction. The 1355/1610 Lines are supported by mostly double-circuit steel lattice structures and the 1208 Line is supported by mostly wood H-frame structures installed in 1954. The 1355/1610 Lines consist of 556-kcmil ACSR conductors.

Project work consists of the following:

- a) Replace 12 double-circuit lattice structures with 12 double-circuit weathering steel monopoles on the 1355/1610 Lines;
- b) Replace three single-circuit wood H-frame structures with three single-circuit weathering steel H-frame structures on the 1280 Line;

- c) Install two double-circuit weathering steel midspan monopoles (Structures 4069-1 and 4066-1) on the 1355/1610 Line to meet clearance requirements by reducing span lengths;
- d) Install two single-circuit weathering steel H-frame midspan structures (Structures 3666-1 and 3663-1) on the 1208 Line to meet clearance requirements by reducing span lengths;
- e) Replace one wood 3-pole angle structure with one weathering steel 3-pole angle structure on the 1208 Line;
- f) Replace 556-kcmil ACSR conductor with 1272 ACSS conductors on the 1355 and 1610 Lines;
- g) Replace shield wire on the 1355 Line with OPGW;
- h) Transfer OPGW to replacement structures on the 1610 Line;
- i) Transfer conductor and OPGW to replacement structures on the 1208 Line;
- j) Install hardware, insulators and counterpoise as necessary; and
- k) Install lightning arrestors as necessary.

1208 and 1610 Lines Schwab Junction to Cook Hill Junction

The 1208 and 1610 Lines are 115-kV lines that extend for 4.4 miles between Schwab Junction and Cook Hill Junction. The lines are supported by mostly wood H-frame structures installed beginning in 1952.

Project work consists of the following:

- a) Replace three single-circuit wood H-frame structures on the 1610 Line with three single-circuit weathering steel H-frame structures;
- b) Replace five single-circuit wood H-frame structures on the 1208 Line with five single-circuit weathering steel H-frame structures;
- c) Install one new single-circuit wood H-frame midspan structure (Structure 4058-2) on the 1208 Line to meet the clearance requirements by reducing mid-spans;
- d) Replace the existing copperweld shield wire on the 1610 Line with OPGW;
- e) Transfer conductors on the 1208 and 1610 Lines to replacement structures;
- f) Install new hardware, insulators and counterpoise as necessary; and
- g) Install new lightning arresters as necessary.

1208 Line Wallingford Resident Disposal Center

The 1208 Line is a 115-kV line that extends between Southington Substation to Wallingford Resident Disposal Center. It is supported by mostly wood structures installed in 1989.

Project work consists of the following:

- a) Replace one guyed three-pole wood dead-end structure on the 1208 Line with one guyed three-pole weathering steel dead-end structure (Structure 4679A).

Project Construction

Eversource would establish temporary equipment staging areas near the Project site prior to construction. These area(s) have not yet been identified but would contain Project equipment and vehicles.

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. 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 and cultural resources areas) to reach certain structure locations.

Eversource would obtain a Department of Transportation Encroachment Permits to cross Routes 68, 70, 120, and 322 and Interstate 691 within the Project area.

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's April 2022 Best Management Practices Manual for Massachusetts and Connecticut (BMPs).¹⁰ Typical E&S control measures include, but are not limited to, straw blankets, straw 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 Stormwater Permit. The Stormwater Permit requires the designing qualified professional to conduct the SWPCP Implementation Inspection that confirms compliance with the Stormwater 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 U.S. 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 constructed, if necessary, 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.

Work pads for structure replacements would typically be 150 feet by 150 feet along the segment between Southington Substation and Lucchini Junction; and 150 feet by 75 feet along the segment between Lucchini Junction and Schwab Junction; and 100 feet by 100 feet between Schwab Junction and Cook Hill Junction. Work pads for OPGW installation work along the 1610 Line will be approximately 50 feet by 50 feet. Most of the work pads would be composed of gravel. Temporary work pads would be used in sensitive areas such as wetlands and cultural resource areas.

The proposed structure foundations would be either direct embed or drilled concrete pier type foundation. 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. New structure sections, components and hardware would be delivered by flatbed truck to the structure locations for assembly using a crane and bucket trucks.

After the new structures are installed, existing conductor to remain would be transferred from the old structures to the new structures, OPGW and new conductor would be installed using conductor reels, pulling and tensioning rigs, and bucket trucks. During crossings of water bodies, new conductor and OPGW would be installed by maintaining appropriate tension and utilizing construction means and methods such as a series of pulleys and ropes to avoid contact with water beneath the span. The existing structures would be removed after the conductors and OPGW are installed.

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. Affected areas would be stabilized before removing temporary E&S controls. ROW restoration would be performed in accordance with Eversource BMPs and in consultation with affected property owners.

¹⁰ [2022 Eversource Best Management Practices MA_CT](#)

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 landowner.

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 occur within a maintained ROW and thus, no tree clearing is required. Tree trimming, minor vegetation removal and/or mowing within the managed transmission line ROW corridor may be required to improve work site access, and to develop and/or restore off-ROW access roads and to meet NESC and Eversource conductor clearance standards. 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 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 80 wetland areas and 45 watercourses occur along the ROW or in adjacent off-ROW areas. The Project would result in 1,300 square feet (0.03 acre) of permanent wetland impacts associated with the replacement of 18 structures where the new structures would be located within wetlands. The replacement structures are proposed within the wetlands in accordance with the overall Project design and structure alignment.

Temporary wetland impacts related to Project construction matting would total approximately 7 acres. The Project would require approximately 11 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's BMPs.

A total of 9 vernal pools (VP) were identified in the Project ROW, but none of the pools would be directly affected by construction activities. Work would occur within the VP envelope (100 feet from the VP edge) for 6 of the VPs to facilitate access to the structures and/or to establish work areas.

Eversource would conduct work in this area in accordance with Eversource's BMPs as well as Project specific vernal pool protective measures, if necessary, 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's BMPs. In addition, the qualified inspector would be on-site to monitor environmental resource protections as established in Eversource's BMP's and within the DEEP Natural Diversity Database (NDDDB) Determination letters. An Environmental Monitor will conduct weekly inspections of resource areas for the duration of Project construction.

Invasive species mitigation measures would be conducted in accordance with Eversource's 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.

The Project ROW extends across 100-year Federal Emergency Management Agency-designated flood zones associated with Misery Brook (two crossings), Sodom Brook (one crossing) and Harbor Brook (one crossing). One replacement structure, Structure 4110, would be located within a 100-year flood zone¹¹. No adverse impacts to flood storage capacity or flooding conditions would be expected to result from the structure replacement work.

Six DEEP-designated Aquifer Protection Areas are located within or proximate to the Project ROW, and two Department of Public Health Drinking Water Watersheds are located within the Project area. Private wells are also in the general area of the ROW, and 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.

Four DEEP NDDDB Determinations were issued for the Project. Eversource would implement DEEP recommended species-specific protection measures during construction, which include, but are not limited to, performing land disturbance activities outside of sensitive habitat areas; time of year best management practices; consulting with a herpetologist; providing contractor training; installation of exclusionary fencing; and performing botanical surveys.

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 the northern long-eared bat (NLEB), a federally-listed and state-listed Endangered Species. A preliminary USFWS determination of "may affect, but not likely to adversely affect..." the NLEB has been received by Eversource. There are no known NLEB maternity roost trees within 150 feet of the Project area, and no known NLEB hibernaculum is located within the municipalities. Notwithstanding, Eversource would perform additional consultation with USFWS as part of its federal regulatory permitting process and would employ NLEB protective measures recommended by USFWS.

A Phase 1A Cultural Resources Assessment (Phase 1A) of the Project area determined that two historic properties listed on the National Register of Historic Places (NRHP) are located within 500 feet of the Project. These NRHP properties are the Dr. J. Porter House and Red Bridge in Meriden. Additionally, one historic standing structure at 380 Main Street, Meriden and one previously identified archaeological site are both located within 500 feet of the Project. The Phase 1A determined that that the Project would not adversely impact the NHRP properties or historic standing structure. A Phase 1B Cultural Resources Reconnaissance Survey (Phase 1B) was completed and determined that the previously identified archaeological site is not likely to be impacted by the Project, and the use of timber matting would avoid impacts to other areas of moderate/high archaeological sensitivity. No comments have been received from the State Historic Preservation Office or any Tribal Historic Preservation Offices.

¹¹ Existing Structure 4110, to be removed, is also located within the 100-year flood zone.

Three trails cross the Project corridor: Quinnipiac River Trail; Meriden Linear Trail; and a Cheshire Land Trust Trail. The Project is also located adjacent to Legion Field in Meriden. There is an aerial crossing above the Quinnipiac River Trail/Park near River Road and Oregon Road in Meriden. This aerial crossing would remain; however, Project access via the Quinnipiac River Trail/Park would be avoided. Farther to the north, Project access would use the Meriden Linear Trail for access to avoid adjacent water resources. Eversource would coordinate with the City of Meriden regarding the partial use of the Meriden Linear Trail. Existing access to the ROW partially overlaps the Cheshire Land Trust Ives Farm Trail System. Eversource would coordinate with the Cheshire Land Trust and close this portion of the trail during construction.

Several open space properties intersect the Project area in Southington: 381 Bellview Avenue; 65 Meriden Avenue; 143 Stewart Drive; 186 Steeple Chase Drive; 1090 Meriden Avenue; and 434 Meriden Waterbury Turnpike. Open space properties that intersect the Project area in Meriden are the Quinnipiac River Trail/Park and Dana Lane parcel. In Wallingford, the open space properties within the Project area are 950 and 989 Church Street. In Cheshire, the Yalesville Road parcel is located adjacent to the Brood Brook Reservoir, and there are Boulder Road parcels and Cook Hill Road parcels. Eversource would coordinate construction and restoration activities with the property owners of these open space parcels, and Eversource BMPs would be employed during construction. Thus, the Project is not expected to result in permanent adverse impacts to existing recreational resources.

Disturbed areas would be stabilized using E&S controls such as straw mulch, compost filters, and biodegradable erosion control blankets until final stabilization has been achieved. Appropriate seed mixes would be applied in uplands to revegetate disturbed areas promote shrub land and other low-growth habitat along the ROW to benefit pollinators and other species.

In accordance with the SWPCP, monthly inspections would be conducted to monitor stabilization measures. A qualified soil E&S 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 many replacement structures to meet NESC clearance requirements within the existing ROW. Existing structures to be replaced on the lines range from 43 to 111 feet above ground level. The new and replacement structures on the lines would range from 25 feet to 137 feet above ground level, with an average height increase of 14.3 feet to meet NESC clearance requirements. Six structures would decrease in height by 2 to 23 feet. Ten replacement structures would increase in height by 30 feet or more, and of those, three are adjacent to Shweky Lane in Southington (increases of 30 to 36 feet each); two are adjacent to Old Gate Lane in Meriden (increases of 30 to 36 feet each); one is adjacent to Allen Avenue in Cheshire (increase of 56 feet); one is adjacent to Allen Avenue in Meriden (increase of 46 feet); one is adjacent to Edgemark Acres in Meriden (increase of 36 feet); one is adjacent to Riverside Drive in Meriden (increase of 30 feet); and one is adjacent to Oregon Road in Meriden (increase of 32 feet).

Due to the increase in structure heights to comply with NESC clearance criteria, there would be indirect visual impacts to the surrounding area. The use of weathering steel replacement structures would blend in with the surrounding vegetation.

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.

Federal Aviation Administration (FAA) obstruction evaluation is required and is pending for Structures 3663-1, 3666-1, 4066-1, and 4069-1. Eversource anticipates that marking of the structures may be required, subject to final FAA determinations. Existing structures that are currently marked/lit and to be replaced are Structures 4078, 4079 and 2516.

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*.

MF at and beyond the edges of ROW are expected to decrease for most of the Project but would increase by 0.3 to 0.7 mG for the Lucchini Junction to Hanover Substation segment. The highest calculated MF level is 23.9 mG at the edge of the ROW, well below the ICNIRP and ICES recommended exposure standards.

Construction Schedule

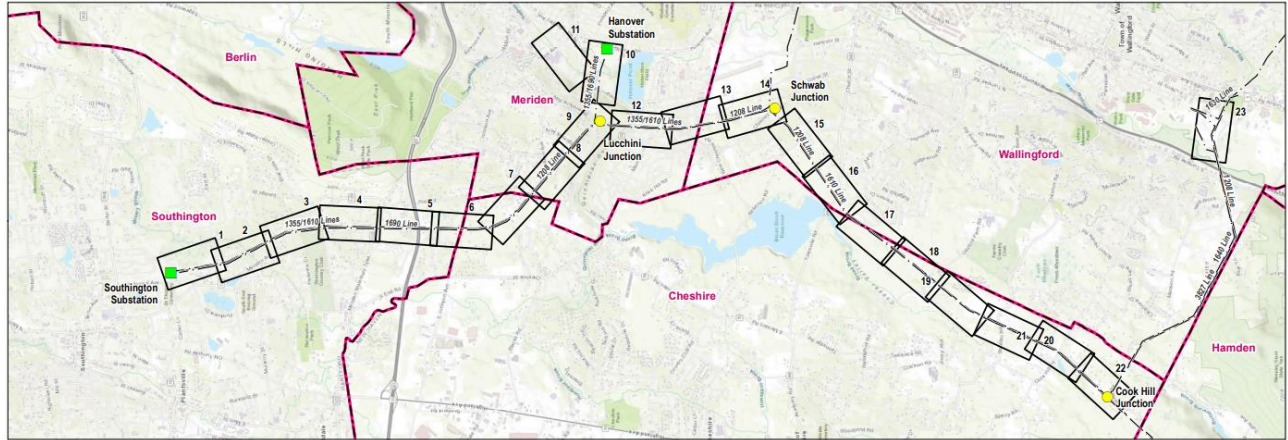
Construction is expected to begin in third quarter 2023 with an anticipated in-service date in fourth quarter of 2024. Site restoration would be completed by fall 2024. Normal work hours would be Monday through Saturday from 7:00 a.m. to 7:00 p.m. Sunday work hours may be necessary due to delays caused 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) Identification of staging areas and provisions for erosion and sedimentation (E&S) controls, if necessary, at the staging area locations prior to the commencement of construction; and
- 3) Submit a copy of the DEEP Stormwater Permit prior to commencement of construction;
- 4) Submit a copy of any SHPO-recommended cultural resource protection measures, if applicable, prior to commencement of construction;
- 5) Submit a copy of FAA obstruction evaluations for Structures 3663-1, 3666-1, 4066-1, and 4069-1 and any required marking/lighting plans; and
- 6) Incorporate pollinator habitat in the restoration of disturbed areas consistent with CGS §16-50hh, where feasible.

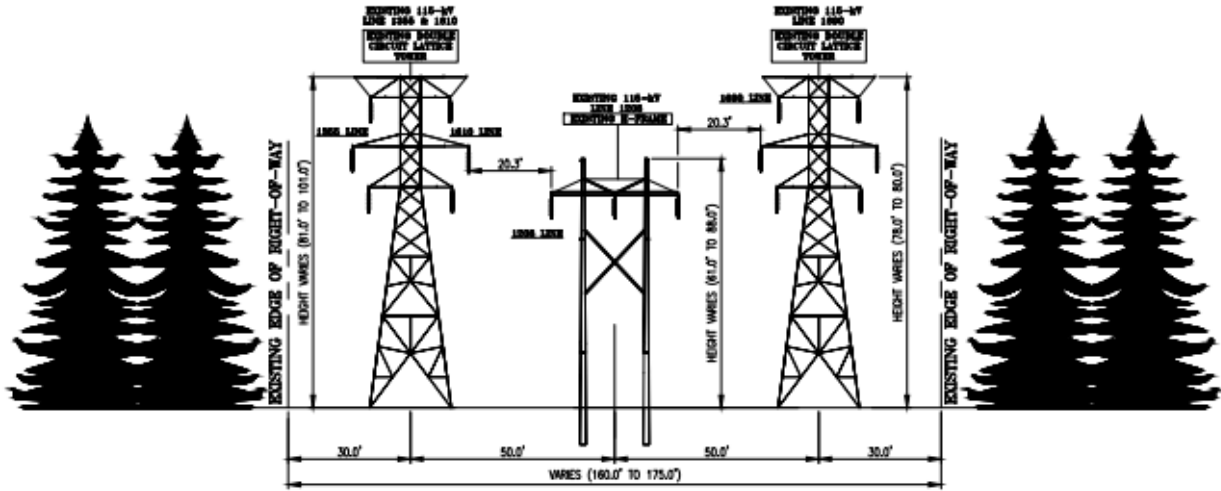
Project Location



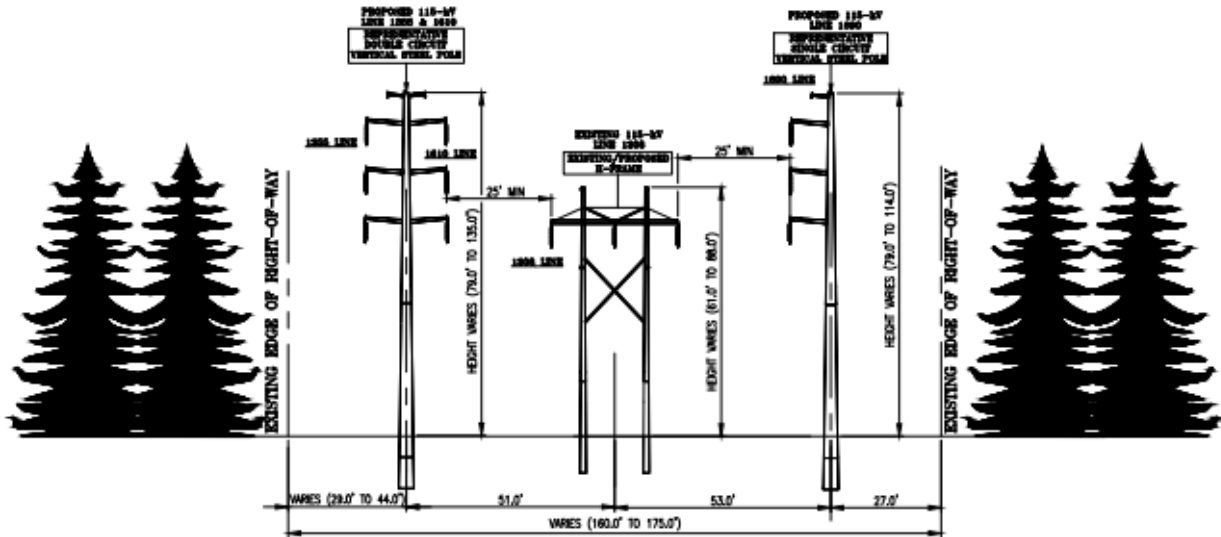
Legend

-  Junction
-  Substation
-  Map Sheet
-  Municipal Boundary

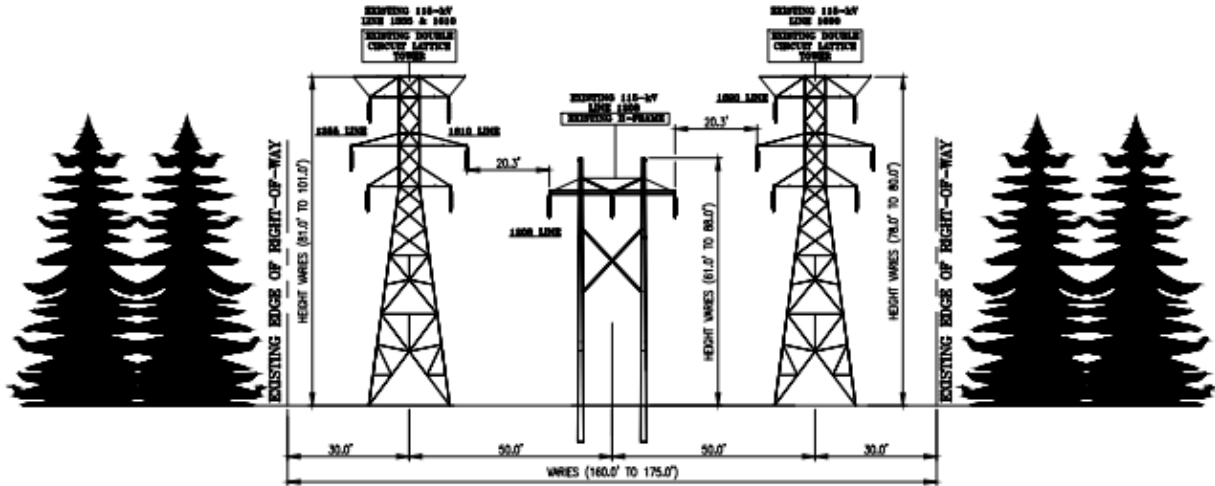
Project ROW Profiles



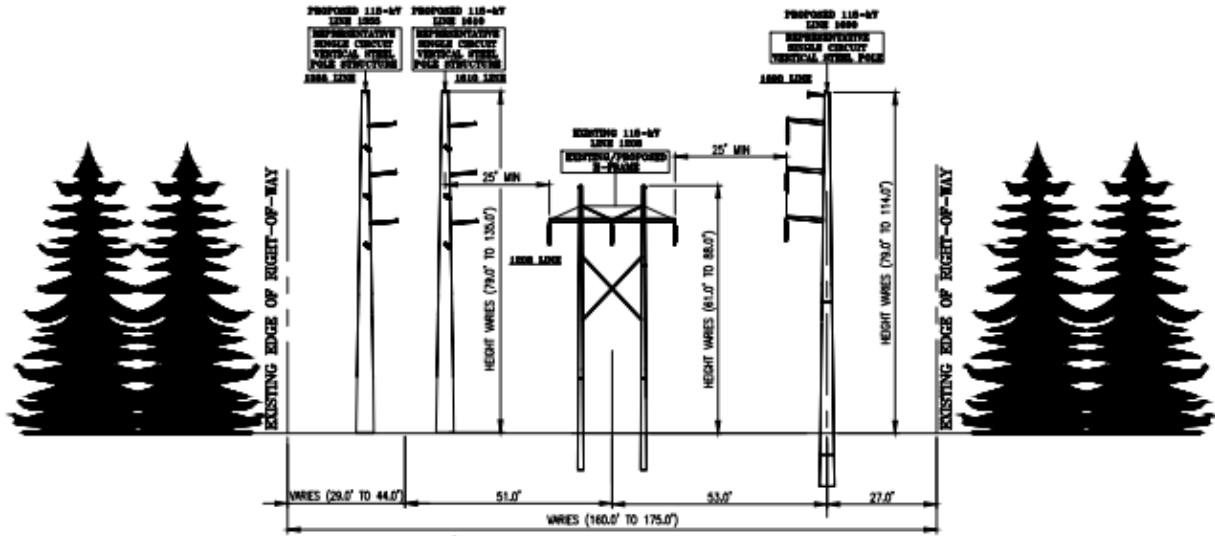
EXISTING R.O.W. CONFIGURATION
 LINES 1355, 1610, & 1690 REBUILDS
 LOOKING FROM SOUTHTON SUBSTATION TO LUCCHINI JUNCTION
 IN THE TOWNS OF SOUTHTON & MERIDEN, CONNECTICUT
 4.6 MILES BETWEEN STR. #751 AND STR. #784 ON LINE 1690
 & STR. #4111 AND STR. #4077 ON LINES 1355 & 1610



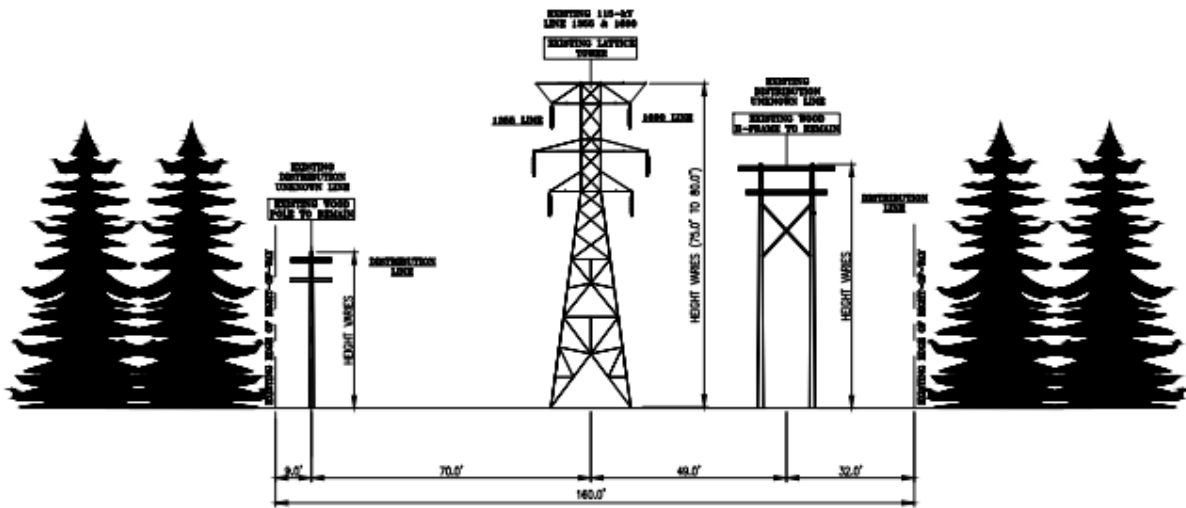
PROPOSED R.O.W. CONFIGURATION
 LINES 1355, 1610, & 1690 REBUILDS
 LOOKING FROM SOUTHTON SUBSTATION TO LUCCHINI JUNCTION
 IN THE TOWNS OF SOUTHTON & MERIDEN, CONNECTICUT
 4.6 MILES BETWEEN STR. #751 AND STR. #785 ON LINE 1690 & STR. #4111 AND STR. #4077 ON LINES 1355 & 1610



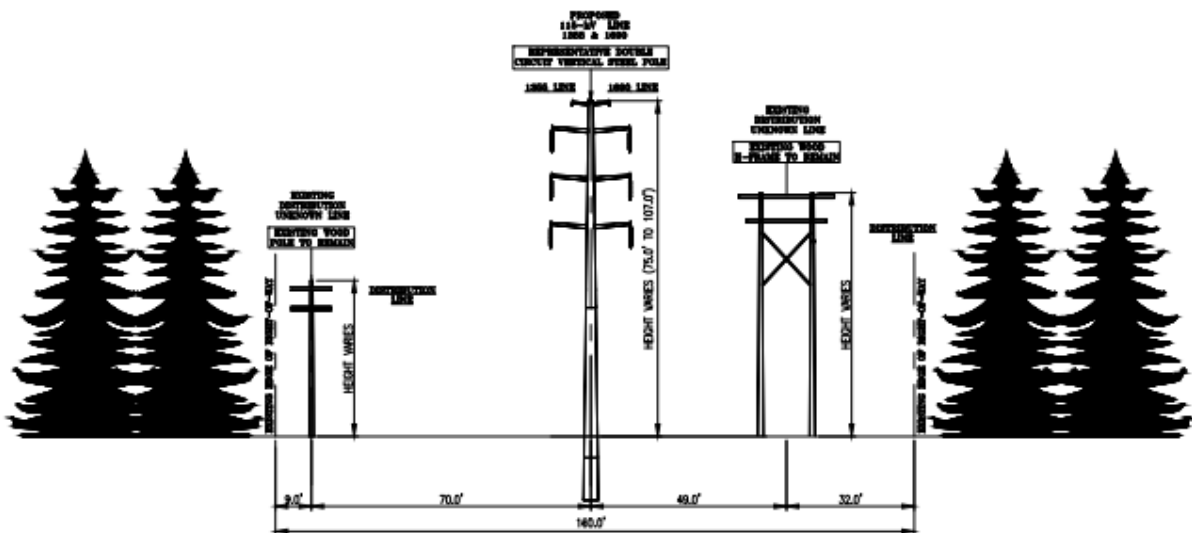
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 LINES 1355, 1610, & 1690 REBUILDS
 LOOKING FROM SOUTHLINGTON SUBSTATION TO LUCCHINI JUNCTION
 IN THE TOWNS OF SOUTHLINGTON & MERIDEN, CONNECTICUT
 4.6 MILES BETWEEN STR. #751 AND STR. #784 ON LINE 1690
 & STR. #4111 AND STR. #4077 ON LINES 1355 & 1610



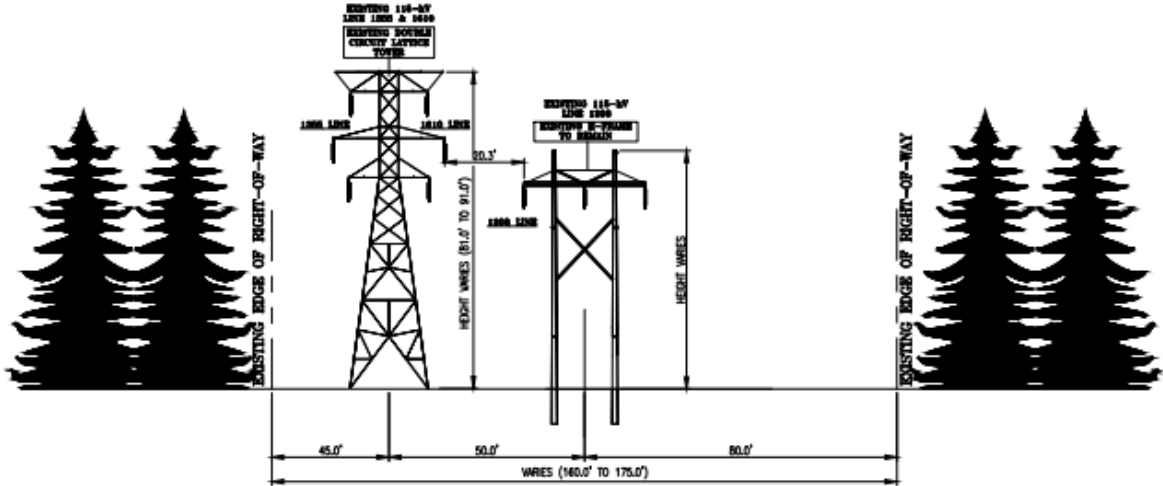
PROPOSED R.O.W. CONFIGURATION
 LINES 1355, 1610, & 1690 REBUILDS
 LOOKING FROM SOUTHLINGTON SUBSTATION TO LUCCHINI JUNCTION
 IN THE TOWNS OF SOUTHLINGTON & MERIDEN, CONNECTICUT
 4.6 MILES BETWEEN STR. #751 AND STR. #785 ON LINE 1690 & STR. #4111 AND STR. #4077 ON LINES 1355 & 1610



EXISTING R.O.W. CONFIGURATION
 LINES 1355 & 1690 REBUILD
 LOOKING FROM LUCCHINI JUNCTION TO HANOVER SUBSTATION
 IN THE TOWN OF MERIDEN, CONNECTICUT
 0.5 MILES BETWEEN STR. #2515 AND STR. #2518 ON LINES 1355 & 1690



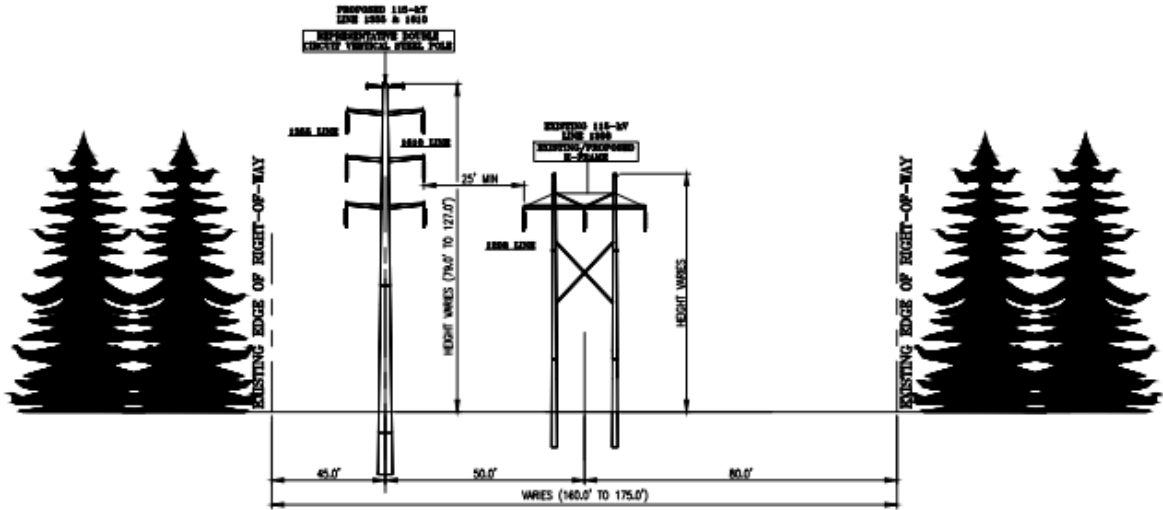
PROPOSED R.O.W. CONFIGURATION
 LINES 1355 & 1690 REBUILD
 LOOKING FROM LUCCHINI JUNCTION TO HANOVER SUBSTATION
 IN THE TOWN OF MERIDEN, CONNECTICUT
 0.5 MILES BETWEEN STR. #2515-L/R AND STR. #2519-L/R ON LINES 1355 & 1690



EXISTING R.O.W. CONFIGURATION

LINES 1355 & 1610 REBUILD

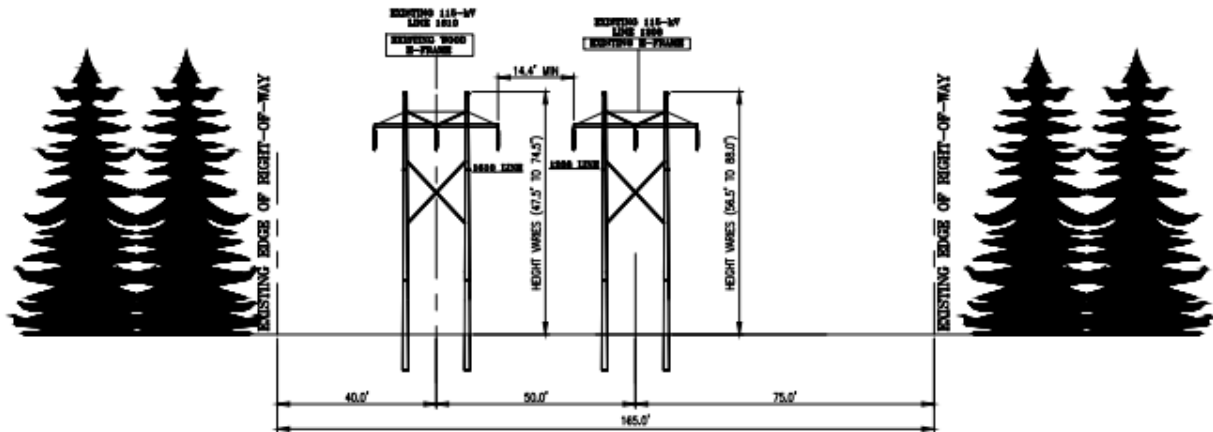
LOOKING FROM LUCCHINI JUNCTION TO SCHWAB JUNCTION
IN THE TOWNS OF MERIDEN & WALLINGFORD, CONNECTICUT
1.7 MILES BETWEEN STR. #4076 AND STR. #4065 ON LINE 1610



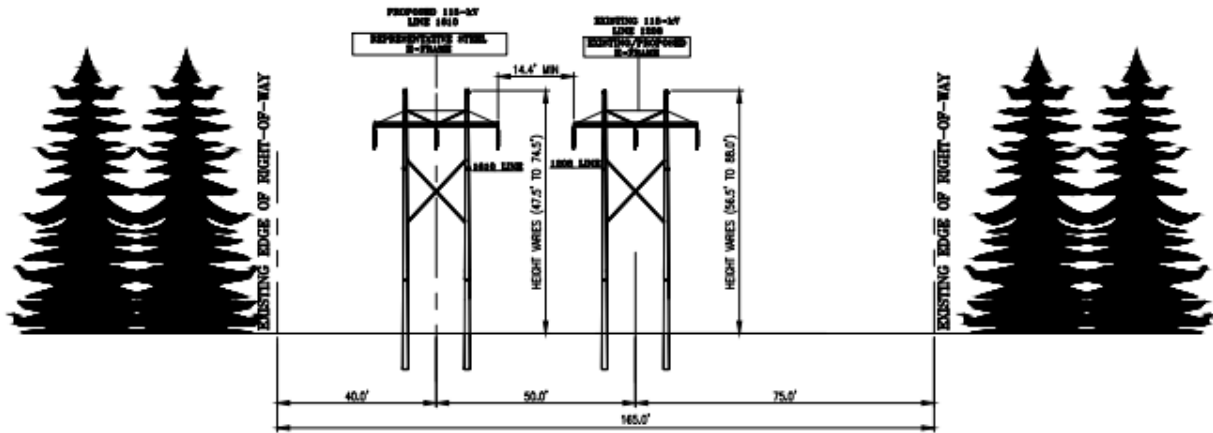
PROPOSED R.O.W. CONFIGURATION

LINES 1355 & 1610 REBUILD

LOOKING FROM LUCCHINI JUNCTION TO SCHWAB JUNCTION
IN THE TOWNS OF MERIDEN & WALLINGFORD, CONNECTICUT
1.7 MILES BETWEEN STR. #4076 AND STR. #4065 ON LINE 1610



EXISTING R.O.W. CONFIGURATION
LINES 1610 AND 1208 STRUCTURE REPLACEMENT
LOOKING FROM SCHWAB JUNCTION TO COOK HILL JUNCTION
IN THE TOWNS OF CHESHIRE & WALLINGFORD, CONNECTICUT
4.4 MILES BETWEEN STR. #5270 AND STR. #5226 ON THE 1610 LINE;
AND STR #4060 TO STR #4026 ON THE 1208 LINE



PROPOSED R.O.W. CONFIGURATION
LINES 1610 AND 1208 STRUCTURE REPLACEMENT
LOOKING FROM SCHWAB JUNCTION TO COOK HILL JUNCTION
IN THE TOWNS OF CHESHIRE & WALLINGFORD, CONNECTICUT
4.4 MILES BETWEEN STR. #5270 AND STR. #5226 ON THE 1610 LINE;
AND STR #4060 TO STR #4026 ON THE 1208 LINE

Enclosure: Staff Report dated August 17, 2023

- c: The Honorable Victoria Triano, Chairperson, Town of Southington (vtriano@southington.org)
- Mark J. Sciota, Town Manager, Town of Southington (sciotam@southington.org)
- The Honorable Kevin M. Scarpati, Mayor, City of Meriden (kscarpati@meridenct.gov)
- Timothy Coon, City Manager, City of Meriden (tcoon@meridenct.gov)
- The Honorable Tim Slocum, Chairperson, Town of Cheshire (timslocum5@gmail.com)
- Sean M. Kimball, Town Manager, Town of Cheshire (skimball@cheshirect.org)
- The Honorable William W. Dickinson, Jr., Mayor, Town of Wallingford (towngov@wallingfordct.gov)
- Kathleen Shanley, Eversource Energy (Kathleen.shanley@eversource.com)

STATE OF CONNECTICUT)

: ss. Southington, Connecticut August 18, 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. 1574 issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:



Melanie A. Bachman
Executive Director
Connecticut Siting Council

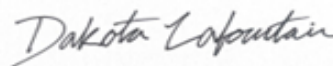
STATE OF CONNECTICUT)

: ss. New Britain, Connecticut August 18, 2023

COUNTY OF HARTFORD)

I certify that a copy of the Connecticut Siting Council Decision and Staff Report in Petition No. 1574 has been forwarded by Certified First Class Return Receipt Requested mail, on August 18, 2023, to each party and intervenor, or its authorized representative, as listed on the attached service list, dated May 18, 2023.

ATTEST:



Dakota LaFountain
Clerk Typist
Connecticut Siting Council

**LIST OF PARTIES AND INTERVENORS
SERVICE LIST**

Status Granted	Document Service	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Petitioner	<input checked="" type="checkbox"/> 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 deborah.denfeld@eversource.com