



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

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

August 4, 2023

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

RE: **PETITION NO. 1573** - 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 Brookfield Junction to Bates Rock Substation Upgrade Project consisting of the replacement and reconductoring of electric transmission line structures along approximately 6.7 miles of its existing electric transmission line right-of-way shared by its existing 115-kilovolt (kV) Nos. 1887, 1268, and 1485 Lines between Brookfield Junction in Brookfield and Shepaug Substation in Newtown, and along approximately 0.5 mile of its existing electric transmission line right-of-way shared by its existing 115-kV Nos. 1622 and 1485 Lines between Shepaug Substation and Bates Rock Substation in Southbury, Connecticut traversing the municipalities of Brookfield, Newtown and Southbury, and related electric transmission line and substation improvements.

Dear Deborah Denfeld:

At a public meeting held on August 3, 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 the DEEP NDDB determination letter prior to commencement of construction;
5. Incorporate pollinator habitat in the restoration of disturbed areas consistent with CGS §16-50hh, where feasible;
6. 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;

7. The Council shall be notified in writing at least two weeks prior to the commencement of site construction activities;
8. 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 Brookfield, Newtown and Southbury;
9. 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**;
10. 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
11. 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 9, 2023 and additional correspondence dated July 7, 2023.

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

Sincerely,



Melanie A. Bachman
Executive Director

MAB/RDM/laf

Enclosure: Staff Report dated August 3, 2023

- c: The Honorable Tara Carr, First Selectperson, Town of Brookfield (tcarr@brookfieldct.gov)
The Honorable Daniel C. Rosenthal, First Selectperson, Town of Newtown
(first.selectman@newtown-ct.gov)
The Honorable Jeff Manville, First Selectperson, Town of Southbury (selectman@southbury-ct.gov)
Kathleen Shanley, Eversource Energy (Kathleen.Shanley@eversource.com)



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Petition No. 1573

**The Connecticut Light and Power Company d/b/a Eversource Energy
Brookfield Junction to Bates Rock Substation Upgrade Project
Brookfield, Newtown and Southbury**

**Staff Report
August 3, 2023**

Introduction

On May 9, 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 Brookfield Junction to Bates Rock Substation Upgrade Project (Petition or Project) within existing Eversource electric transmission line right-of-way (ROW) in the Towns of Brookfield, Newtown and Southbury (municipalities).

The Project consists of the replacement of electric transmission line structures and conductors, and the replacement of shield wire with optical ground wire (OPGW) on the 1887, 1268, 1485 and 1622 Lines along approximately 6.7 miles of existing ROW between Brookfield Junction in Brookfield and Shepaug Substation in Newtown and approximately 0.46-mile of existing ROW between Shepaug Substation and Bates Rock Substation in Southbury, and related electric transmission line and substation improvements.

On May 9, 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 10, 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 8, 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 16, 2023. Eversource submitted responses to the interrogatories on July 7, 2023.

¹ https://portal.ct.gov/-/media/CSC/3_Petitions-medialibrary/Petitions_MediaLibrary/MediaPetitionNos1501-1600/PE1573/ProceduralCorrespondence/PE_1573-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 5, 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 early April 2023. None of the municipalities commented on the Project.

Eversource initiated outreach to property owners along the Project route from September through December of 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. Five property owners requested advance notification prior to work occurring on or near their property, including a request from a neighborhood association. Some property owners expressed concern regarding site restoration.

Existing Facility Site

The existing facility site includes approximately 6.7 miles of Eversource ROW that extends through residential and commercial properties, forest and agricultural lands. It also crosses the Housatonic Railroad, Housatonic River, and Route 25. Approximately 6.24 miles of the Project ROW extends from Brookfield Junction to Shepaug Substation. The remaining portion of the Project ROW is a 0.46 mile portion of the 12-mile long 1622/1485 Line between Shepaug Substation and Bates Rock Substation in Southbury.

The ROW from Brookfield Junction to Shepaug Substation was established in the early to mid-1950's. The ROW from Shepaug Substation to Bates Rock Substation was established in the late 1960's with additional easements acquired in the late 1970's that increased the width of the ROW from 100 feet to 210 feet. No expansion of the existing ROW is proposed as part of this Project.

Eversource's easements for the existing ROW grant 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 65 to 210 feet wide. In areas where the ROW is less than 100 feet wide, the full width is managed. In all other areas, the ROW is managed to a width of 100 to 115 feet. No expansion of any ROW segment is proposed.

Vegetation management was last performed from August 2020 to October 2020 to remove incompatible tree species within the ROW. Additional management was performed in October 2021 that included control of incompatible species, side trimming, and hazard tree removal.

Project Development

The purpose of the proposed Project is to improve system reliability on the 1887, 1268, 1485 and 1622 Lines by replacing and/or reconductoring electric transmission line structures that are at the end of their service life and to meet National Electrical Safety Code (NESC) standards, including, but not limited to, conductor clearance requirements. Additionally, the Project entails the installation of six new mid-span structures to reduce span widths and installation of OPGW along sections of the Project ROW.

Prior to submitting this Petition, Eversource performed limited work on the subject transmission line segment in Sub-Petition No. 1293-BS-02 in the Towns of Brookfield and Southbury, approved by the Council on May 12, 2021 to replace 9 structures on the 1268/1887/1485/1622 Lines, among others. Once the Project is complete, a total of 96 structures would remain on the 1268/1887/1485/1622 Lines that were not replaced as part of the Project or Sub-Petition No. 1293-BS-02.

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.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 \$46.6M. The entire 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	19.2%	(\$8.9M)
Other Connecticut ratepayers ⁷	6.0%	(\$2.8M)
<u>Other New England ratepayers⁸</u>	<u>74.8%</u>	<u>(\$34.9M)</u>
Cost Total	100%	(\$46.6M)

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. It includes the replacement of 37 steel lattice structures, two wood H-frame structures, one wood pole structure, three steel H-frame structures and 6 steel monopole structures with 52 weathering steel monopoles and three weathering steel H-frame structures. In addition, three monopoles and three H-frame mid-span structures would be installed to meet conductor clearance requirements without the need for the expansion of the ROW.

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.

³ Entry #258.

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.

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.

To eliminate the need for mid-span structures, and remain compliant with NESC clearance requirements, Eversource would be required to obtain 0.5 acre easements from 9 abutting property owners at an estimated cost of \$94,000.

1887 and 1268 Lines - Brookfield Junction to Stony Hill Substation

The 1887/1268 Lines are 115-kV lines that extend for 0.9 miles between Brookfield Junction and Stony Hill Substation in Brookfield. The 1268 Line terminates at Stony Hill Substation. The lines are supported by six double circuit lattice structures installed in 1955. The 1887 Line consists of 4/0 copper conductor, installed in 1955. The 1268 Line consists of 795-kcmil aluminum steel supported (ACSS) conductor installed in 1991.

Project work consists of the following:

- a) Replace 5 double-circuit steel lattice structures with 5 double-circuit weathering steel monopoles;
- b) Replace one double-circuit steel lattice structure with two single-circuit weathering steel monopoles;
- c) Replace one single-circuit steel monopole with one single-circuit weathering steel monopole;
- d) Install one new mid-span single-circuit weathering steel monopole;
- e) Replace conductors on both lines with 1272-kcmil ACSS conductor; and
- f) Replace copperweld shield wire with OPGW.

1887 and 1485 Lines - Stony Hill Substation to Shepaug Substation

The 1887/1485 Lines are 115-kV lines that extend for 5.7 miles between Stony Hill Substation in Brookfield and Shepaug Substation in Southbury. The lines are supported by a mix of double circuit lattice structures, and double and single circuit H-frame structures installed in 1955. Both lines consist of 4/0 copper conductor, installed in 1955, except for a 264-foot section of the 1485 Line that consist of 795-kcmil ACSS conductor, installed in 1980.

Project work consists of the following:

- a) Replace 25 double-circuit steel lattice structures with 25 double-circuit weathering steel monopoles;
- b) Replace 5 double-circuit steel lattice structures with 9 single-circuit weathering steel monopoles;
- c) Replace one single-circuit wood H-frames with one single-circuit weathering steel monopole;
- d) Replace two single-circuit steel H-frames with two single-circuit weathering steel H-frames;

⁹ Petition 1527, response to Council interrogatory 19.

- e) Replace one double-circuit steel H-frame with one double-circuit weathering steel H-frame;
- f) Install 5 new mid-span double or single circuit weathering steel monopoles or H-frames depending on location;
- g) Replace conductors on both lines with 1272-kcmil ACSS conductor; and
- h) Replace copperweld shield wire with OPGW.

1622 and 1485 Lines - Shepaug Substation to Bates Rock Substation

The 1622/1485 Lines are 115-kV lines that extend for 12.0 miles between Shepaug Substation and Bates Rock Substation. Project work would only occur on a 0.46-mile segment of the ROW beginning east of East Hill Road and ending east of Hilltop Road in Southbury. The lines in this segment are primarily supported by single circuit wood H-frames and single circuit wood poles installed in 1971 and 1980 (with some subsequent replacements), and 5 double circuit steel monopole structures installed in 1980. Both lines consist of 795-kcmil aluminum conductor steel reinforced (ACSR). The conductors on the entire line were installed in 1980 and have a service life of 60-70 years.

Project work consists of the following:

- a) Replace 5 double-circuit steel monopole structures with four double-circuit weathering steel monopoles and two new single circuit weathering steel monopole structures;
- b) Replace one single-circuit wood pole structure with one single-circuit weathering steel monopole;
- c) Replace one single-circuit steel H-frame with one single-circuit weathering monopole; and,
- d) Transfer conductor, Alumoweld and OPGW shield wire to the replacement structures.

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, vehicles and office trailers.

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, lawn, meadow) to reach certain structure locations.

New vehicle bridges, constructed by Housatonic Railroad, would be installed across Currituck Road and Georges Hill Road, adjacent to existing railroad bridges. The railroad would also construct a new bridge that spans a watercourse between Structures 4639 and 4638. These bridges are on railroad property outside of the ROW and would be used by Eversource for ROW access.

Eversource would obtain a Department of Transportation Encroachment Permit to access the ROW from, and to pull wire across, State Route 25.

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, hay bales, silt fencing, gravel anti-tracking pads, soil and slope protection, water bars, check dams, berms, swales, plunge pools, and sediment basins.

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

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. Where practical, Eversource would combine work pads if structure replacement work is in close proximity to another structure replacement.

Work pads for the project would typically be 100 feet by 100 feet for a single structure but could be up to 225 feet by 175 feet in areas where work pads are combined for multiple structure replacement. Pull pads, necessary to accommodate machinery needed for pulling conductors and OPGW, would range from 200 feet by 80 feet to approximately 265 feet by 125 feet. Most of the work/pull pads would be composed of gravel. Temporary work pads would be used in sensitive areas such as wetlands, habitat areas, lawns and agricultural land.

A two-tiered work pad is required at Structure 4650A. Sheet piles would be used to stabilize the work pad to avoid the extension of rip-rap down the slope and closer to the wetland. Installation of Structures 4649 and 4650A require gravel work pads due to steep terrain and location.

The proposed structures would be supported by concrete foundations or direct-embed 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 local, state and federal requirements. New structure sections, components and hardware would be delivered by flatbed truck to the structure locations for assembly by 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 along the line using cable reels, pulling and tensioning rigs, and bucket trucks. During crossings of waterbodies such as the Housatonic River, 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/OPGW are installed. Concrete foundations for the steel lattice structures would remain in place. Wood poles within wetlands would be cut at grade, leaving the pole butt in place to prevent wetland disturbance.

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 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.

Tree waste including logs and branches would be removed from the ROW. If there are areas where wood waste removal is not possible, slash would not be piled greater than three feet in height, within 50 feet of any road, or within 25 feet of any property boundary. If a property owner requests that the wood be left on the Site, wood would be left as logs not to exceed 25 feet in length.

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. Eversource would restore stone walls that were affected by the Project if requested by the property owner.

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 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.

The ROW crosses several wetlands, small watercourses and the Housatonic River. A total of 35 wetland areas, 28 watercourses, and 5 waterbodies occur along the ROW or in adjacent off-ROW areas. The Project would result in 1,041 square feet (0.023 acre) of permanent wetland impacts associated with the replacement of 9 structures and the installation of permanent work pads. 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. Permanent work pads within wetlands are required to provide a safe work environment in areas with steep terrain. Sheet piles would be used, as necessary to avoid the use of extensive riprap stabilization measures in wetlands.

Temporary wetland impacts related to Project construction matting would total approximately 2.5 acres. The Project would require 9 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. Approximately 0.43 acre of forested wetland would be converted to a scrub-shrub wetland a result of the Project.

Two vernal pools (VP) were identified in the Project ROW during a field survey conducted on May 2, 2022. Neither of the VPs would be directly affected by construction activities. Work would occur within the VP Envelope (VPE-within 100 feet from the VP edge) of one VP located adjacent to the Housatonic Railroad in Newtown. Construction matting would be used within the VPE to facilitate the installation of a replacement structure and removal of an existing structure.

Eversource would conduct work in this area in accordance with Eversource's BMPs as well as Project specific vernal pool protective 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 air bridge 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, ACOE 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 letter. 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 Pond Brook, a tributary to Pond Brook, and Cavanaugh Brook/Lake Lillinonah in Newtown, and the Housatonic River in Newtown and Southbury. Eversource would utilize temporary matting for work pads and access roads within the flood zones except for one permanent gravel pad which will have the same volume as excavated material, resulting in no net increase of permanent fill.

The Project is not within a Department of Public Health Drinking Water Watershed. There are two DEEP-designated Aquifer Protection Areas within or proximate to the Project ROW. To protect subsurface water quality, 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.

A DEEP NDDDB Determination is a requirement of the DEEP Stormwater Permit application, and once received, Eversource would implement DEEP recommended species-specific protection measures during construction, which could include, but are not limited to, providing contractor training, time of year best management practices, monitoring, and installation of exclusionary 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 the northern long-eared bat (NLEB) and the Bog turtle, both federally-listed and state-listed Endangered Species.

Per USFWS NLEB guidance, Eversource performed an analysis using the USFWS NLEB planning tool which determined the Project would not likely have an adverse effect on NLEB. 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; thus, no Project-related impacts to NLEB are expected.

Eversource performed a habitat survey for the bog turtle within portions of the ROW in the Towns of Brookfield and Newtown on March 20, 2023. No suitable habitat was found and the USFWS, after review of the survey report, determined the Project would have no effect on the bog turtle.

The Project ROW traverses a New England Cottontail (NEC) focus area, established by DEEP, USFWS and other conservation groups to preserve NEC habitat. Gravel work pads located in the NEC focus area would be reduced in size where feasible to minimize potential effects to NEC habitat. Post-construction, gravel pads would be covered with soil or processed stone and reseeded with a native grass mix. In NEC areas, a portion of the wood waste would be left in the ROW for habitat enhancement. Inspections of the restored areas would be conducted to ensure the seeded grasses have been established.

A Phase 1A Cultural Resources Assessment (Phase 1A) of the Project area determined that no properties listed, or eligible for listing, on the National Register of Historic Places are located within 500 feet of the Project. The SHPO issued a letter dated February 22, 2023 that confirmed no historic properties would be affected by the Project.

Two previously identified archaeological sites are within the Project ROW, but no subsurface work is proposed in these locations. The Phase 1A identified 36 work areas possessing a potential for moderate to high archaeological sensitivity. Subsequent field evaluations of these areas found no evidence of archaeological significance and no further action was recommended.

The ROW does not traverse any DOT-designated scenic roads, recreational trails, or state parks or forests.

Disturbed areas would be stabilized using temporary 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 inspector 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 on the lines range from 52 to 102 feet above ground level. The replacement structures on the lines would range from approximately 62 feet to 104 feet above ground level, with an average height increase of approximately 8.7 feet to meet NESC clearance requirements. Thirteen structures would decrease in height by 3.1 to 11.5 feet. Four replacement structures would increase in height by 25 feet or more, and of those, two are adjacent to the Housatonic Railroad in Newtown (increase of 30 and 32 feet), one is adjacent to Stony Hill Road in Brookfield (increase of 37.6 feet), and one is adjacent to the Shepaug Substation and the Housatonic River in Newtown (increase of 36.5 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 wooded landscape. Additionally, the replacement of lattice towers with monopoles would reduce the footprint of the structure.

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.

Eversource consulted with the Federal Aviation Administration (FAA) regarding structure height increases. The FAA determined that lighting/markings of any replacement structure is not required. There are no existing structures with FAA marking/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*.

In general, the heights of the replacement structures would be taller than the existing structures; therefore, MF at and beyond the edges of ROW are expected to increase by 1.7 to 3.8 mG. The highest calculated MF level is 17.1 mG at the edge of the ROW, well below the ICNIRP and ICES recommended exposure standards.

Construction Schedule

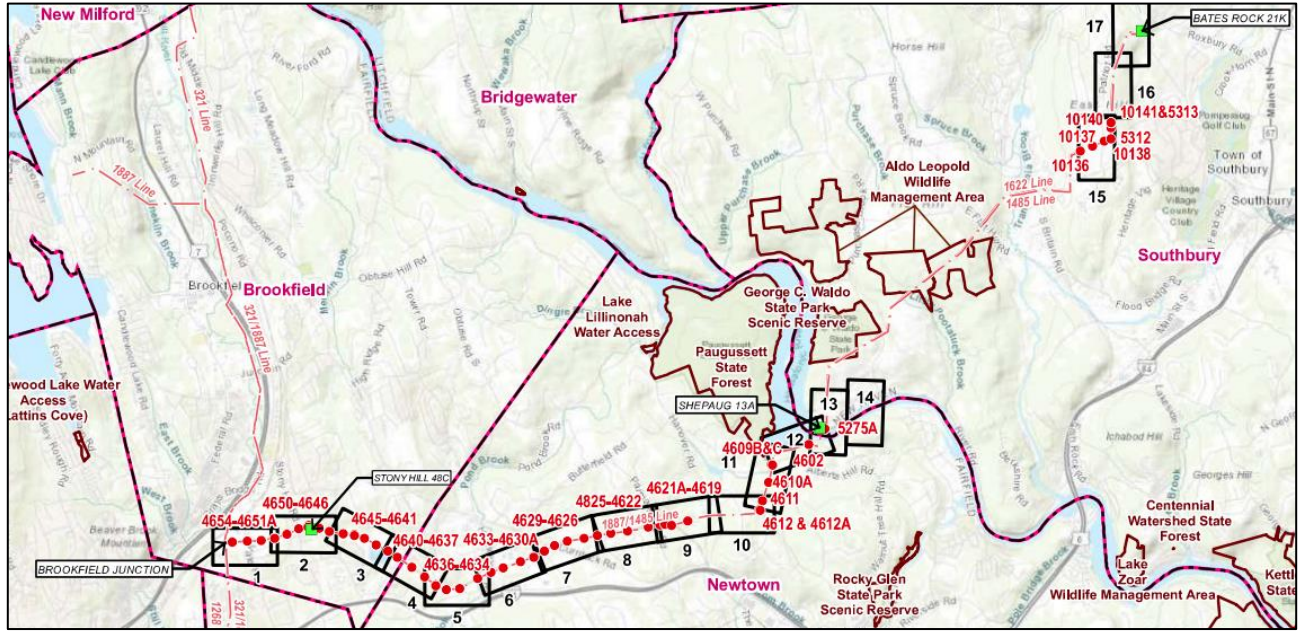
Construction is expected to begin in the third quarter of 2023 with an anticipated completion by the end of 2024. Site restoration would be completed by mid-2025. Normal work hours would be Monday through Saturday from 7:00 a.m. to 7:00 p.m. Sunday work hours or evening work (i.e. after 7:00 p.m.) may 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. 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 the DEEP NDDDB determination letter prior to commencement of construction; and
5. Incorporate pollinator habitat in the restoration of disturbed areas consistent with CGS §16-50hh, where feasible.

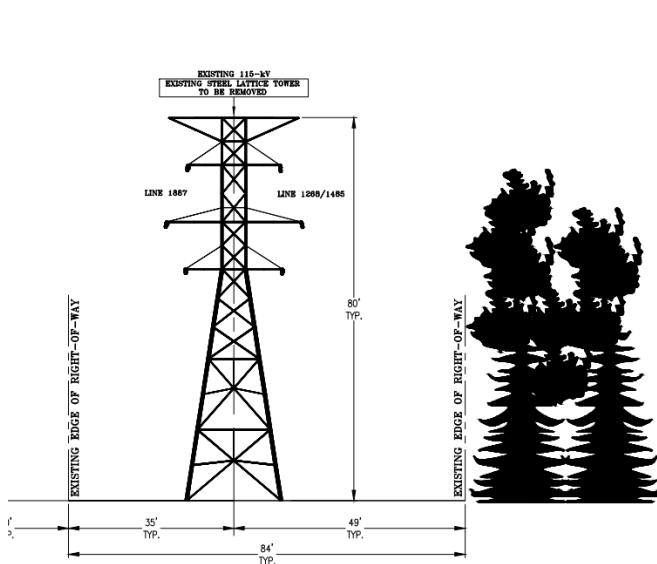
Project Location



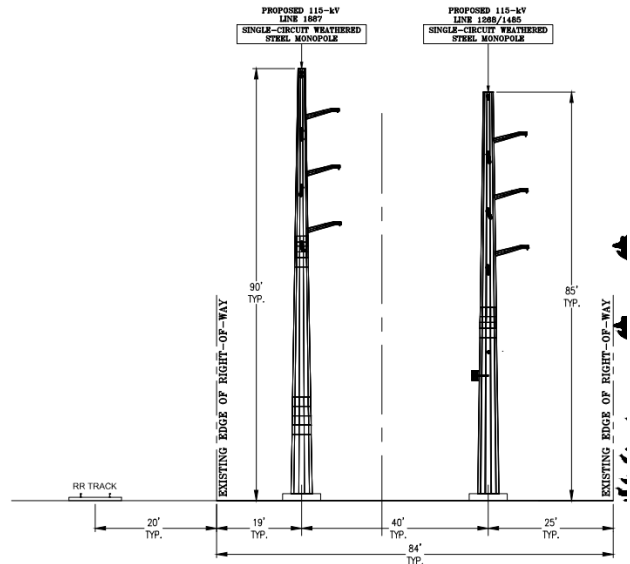
Legend

- Proposed Structure
- Substation
- - - Overhead Eversource Line
- State-Owned Property
- Map Sheet
- Municipal Boundary

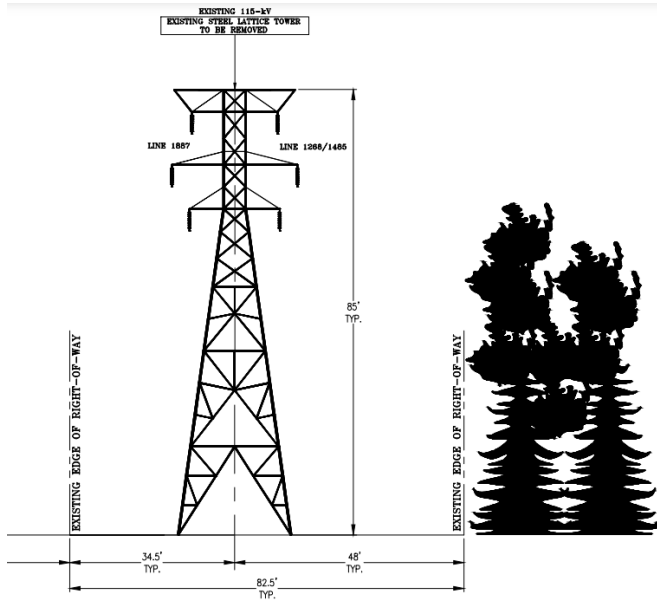
Project ROW Profiles



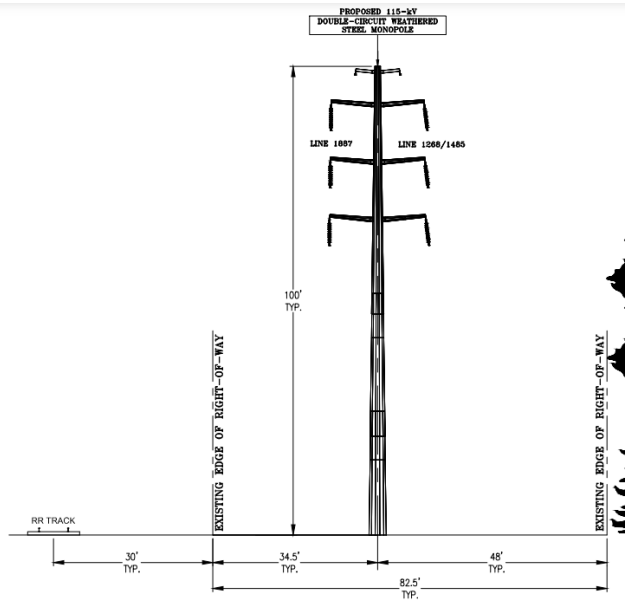
**EXISTING R.O.W. CONFIGURATION
 DOUBLE-CIRCUIT LATTICE TOWER
 LOOKING EAST
 IN THE TOWNS OF BROOKFIELD AND NEWTOWN, CT.**



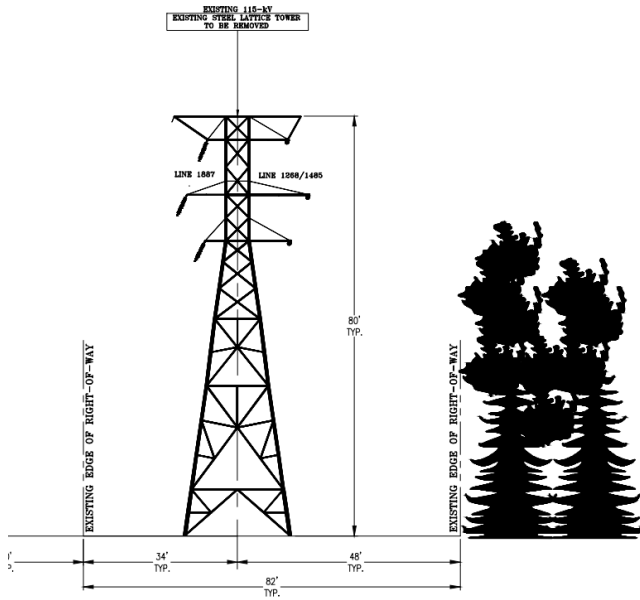
**PROPOSED R.O.W. CONFIGURATION
 TWO SINGLE-CIRCUIT STEEL MONOPOLES
 LOOKING EAST
 IN THE TOWNS OF BROOKFIELD AND NEWTOWN,**



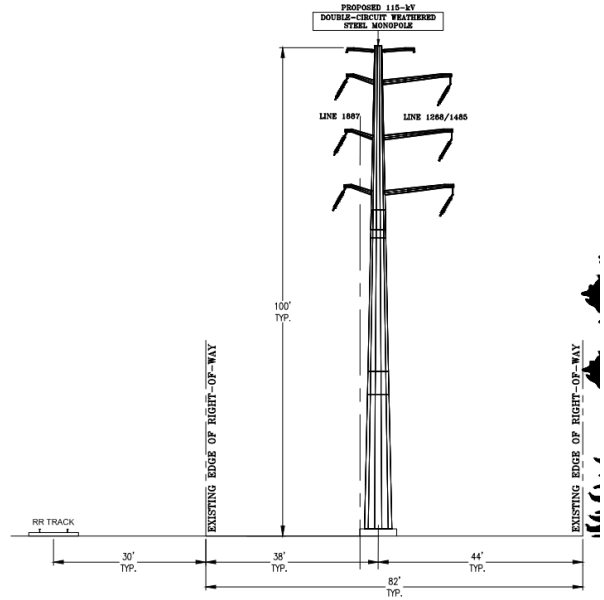
**EXISTING R.O.W. CONFIGURATION
 DOUBLE-CIRCUIT LATTICE TOWER
 LOOKING EAST
 IN THE TOWNS OF BROOKFIELD AND NEWTOWN, CT.**



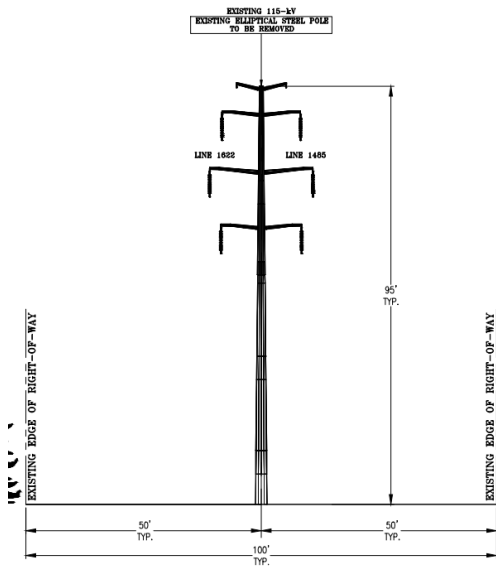
**PROPOSED R.O.W. CONFIGURATION
 DOUBLE-CIRCUIT STEEL MONOPOLE
 LOOKING EAST
 IN THE TOWNS OF BROOKFIELD AND NEWTOWN,**



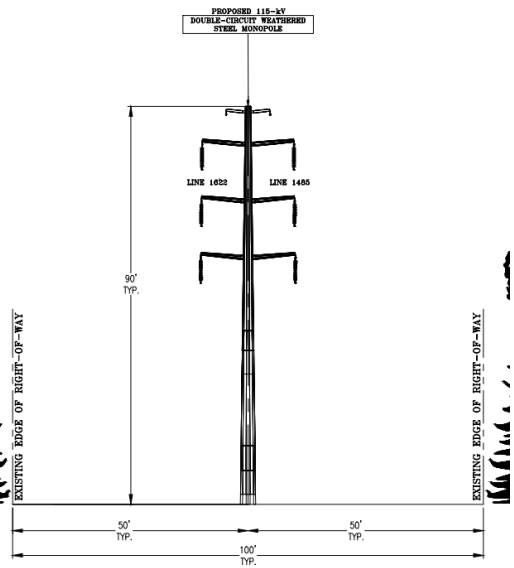
**EXISTING R.O.W. CONFIGURATION
 DOUBLE-CIRCUIT LATTICE TOWER
 LOOKING EAST
 IN THE TOWNS OF BROOKFIELD AND NEWTOWN, CT.**



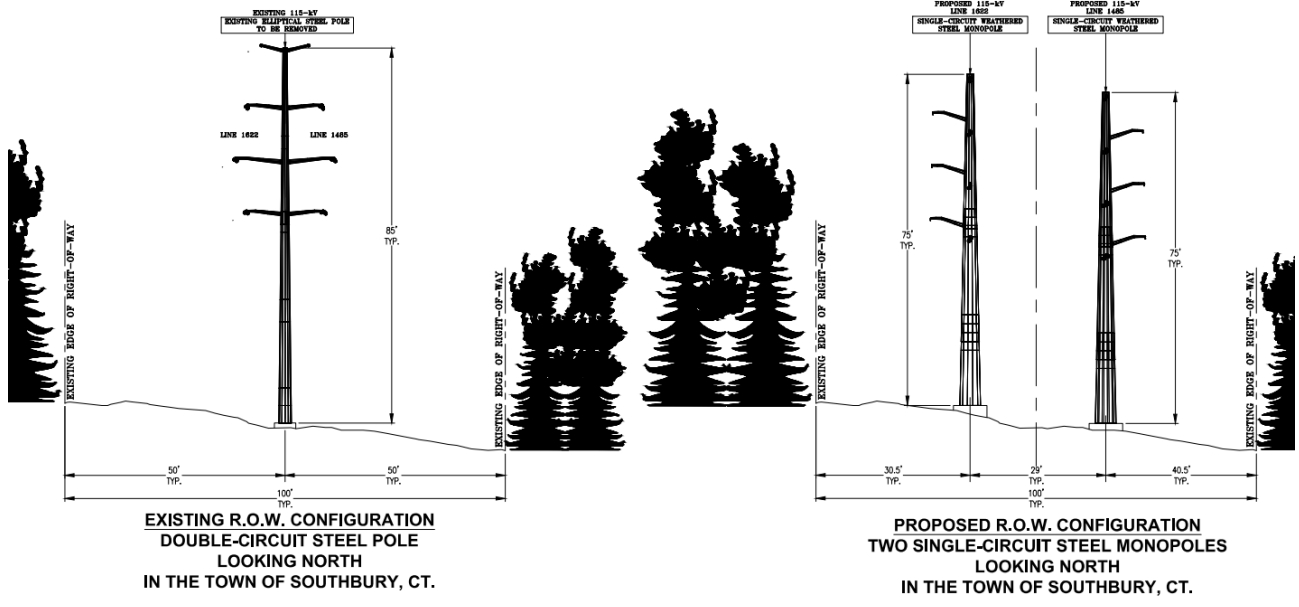
**PROPOSED R.O.W. CONFIGURATION
 DOUBLE-CIRCUIT STEEL MONOPOLE
 LOOKING EAST
 IN THE TOWNS OF BROOKFIELD AND NEWTOWN.**



**EXISTING R.O.W. CONFIGURATION
 DOUBLE-CIRCUIT STEEL POLE
 LOOKING EAST
 IN THE TOWN OF SOUTHURY, CT.**



**PROPOSED R.O.W. CONFIGURATION
 DOUBLE-CIRCUIT STEEL MONOPOLE
 LOOKING EAST
 IN THE TOWN OF SOUTHURY, CT.**



STATE OF CONNECTICUT)

: ss. Southington, Connecticut August 4, 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. 1573 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 4, 2023

COUNTY OF HARTFORD)

I certify that a copy of the Connecticut Siting Council Decision and Staff Report in Petition No. 1573 has been forwarded by Certified First Class Return Receipt Requested mail, on August 4, 2023, to each party and intervenor, or its authorized representative, as listed on the attached service list, dated May 10, 2023.

ATTEST:



Lisa Fontaine
Fiscal Administrative Officer
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