STATE OF CONNECTICUT



CONNECTICUT SITING COUNCIL

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

VIA ELECTRONIC MAIL & CERTIFIED MAIL RETURN RECEIPT REQUESTED

September 24, 2021

Kathleen M. Shanley
Manager – Transmission Siting
Eversource Energy
P.O. Box 270
56 Prospect Street
Hartford, CT 06141-0270
kathleen.shanley@eversource.com

RE: PETITION NO. 1457 - 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 690 Line Rebuild Project consisting of: a) replacement and reconductoring of approximately 1.6 miles of its existing No. 690 69-kilovolt (kV) electric transmission line structures within existing Eversource electric transmission line right-of-way between Salisbury Substation in Salisbury and Central Hudson Gas and Electric Corporation's electric transmission system at the Connecticut/New York state line in Sharon, Connecticut; (b) installation of temporary backup electric generation at Falls Village Substation in Canaan and Salisbury Substation in Salisbury, Connecticut; and (c) related substation and electric transmission line structure improvements.

Dear Ms. Shanley:

At a public meeting held on September 23, 2021, 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. 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;
- 3. 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 Canaan, Salisbury and Sharon;
- 4. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;

- 5. 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;
- 6. This Declaratory Ruling may be transferred, provided the facility owner/operator/transferor is current with payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v and the transferee provides written confirmation that the transferee agrees to comply with the terms, limitations and conditions contained in the Declaratory Ruling, including timely payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v; and
- 7. If the facility owner/operator is a wholly owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or other entity, the Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the facility within 30 days of the sale and/or transfer.

The Council recommends that Eversource communicate with abutters to the Salisbury Station if the generators are expected to run for an extended period of time.

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 July 13, 2021 and additional information received on August 18, 2021 and September 7, 2021.

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

Sincerely,

Melanie A. Bachman Executive Director

Milia Mul

MAB/MP/lm

Enclosure: Staff Report dated September 23, 2021

c: The Honorable Henry W. Todd, First Selectman, Town of Canaan <u>Selectman@canaanfallsvillage.org</u> The Honorable Curtis G. Rand, First Selectman, Town of Salisbury <u>crand@salisbury.ct.us</u>
The Honorable Brent M. Colley, First Selectman, Town of Sharon <u>bcolley@colleyweb.com</u>



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Petition No. 1457
The Connecticut Light and Power Company d/b/a Eversource Energy
#690 Line Rebuild Project
Salisbury, Sharon and Canaan, Connecticut
Staff Report
September 23, 2021

Introduction

On July 14, 2021, the Connecticut Siting Council (Council) received a petition (Petition) from The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource) for a declaratory ruling pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed #690 Line Rebuild Project within existing Eversource electric transmission line right-of-way (ROW) and on Eversource-owned property. The project consists of the replacement and reconductoring of electric transmission line structures along approximately 1.6 miles of existing 69 kilovolt (kV) electric transmission line between Eversource's Salisbury Substation in Salisbury and the Central Hudson Gas and Electric Corporation's (CHGE) electric transmission system at the Connecticut/New York border in Sharon, Connecticut; and the installation of temporary backup electric generation at Falls Village Substation in Canaan and Salisbury Substation in Salisbury.

On July 23, 2021, the Council sent correspondence to the Towns of Salisbury, Sharon and Canaan (collectively, the Towns) stating that the Council has received the Petition and invited the Towns to contact the Council with any questions or comments by August 13, 2021. No comments have been received.

The Council submitted its first set of interrogatories to Eversource on August 4, 2021. Eversource submitted responses to the first set of interrogatories on August 18, 2021. The Council submitted its second set of interrogatories on August 23, 2021. Eversource submitted responses to the second set of interrogatories on September 7, 2021.

On September 9, 2021, pursuant to CGS §4-176(e) of the Uniform Administrative Procedure Act, which requires an administrative agency to take action on a petition within 60 days of receipt, the Council voted to set the date by which to render a decision on the petition as January 10, 2022, the statutorily-mandated 180-day decision deadline for this petition under CGS §4-176(i).

The purpose of the proposed project is to improve system reliability by addressing structural and asset condition issues by rebuilding approximately 1.6 miles of #690 Line in the Town of Sharon between Salisbury Substation and the CHGE transmission system at the Connecticut/New York state line.

Municipal and Abutter Notice

During spring 2021, Eversource consulted with municipal officials in the Town of Salisbury to brief them on the proposed project. In June 2021, Eversource provided written notice of the Petition filing to the Towns. Eversource did not receive any comments from the Towns.

Also, during spring 2021, Eversource conducted outreach to property owners located along the project route. All abutting property owners were notified of the project and provided information on how to obtain additional information, as well as how to submit comments to the Council.

Eversource received one inquiry from an abutter regarding construction impacts to his property associated with the eventual replacement of Structure No. 1063. Replacement of this structure is not proposed as part of this project because it requires significant technical coordination with CHGE. Eversource owns the portion of the line east of the New York/Connecticut state line, and the CHGE owns the portion of the line to the west of the state line. At

¹ The point of change of ownership occurs in the middle of the span across Indian Lake.

this time, CHGE has no plans to replace the conductor or to collaborate on a design for the replacement of the supporting structures. Thus, the property owner's premises would be temporarily disturbed by the proposed project due to pull pad locations and possibly again in the future when Structure No. 1063 is replaced. However, the timing of Structure No. 1063 replacement is subject to CHGE's future plans. Eversource has had several discussions with this abutter and will continue to communicate with him regarding project timing and scope of work.

For the construction phase of the project, Eversource will inform adjacent property owners prior to construction as well as during construction and restoration.

Existing Project Area

The existing project area includes an approximately 1.6 mile portion of existing Eversource ROW located between Salisbury Substation and the CHGE electric transmission system at the Connecticut/New York border in the Town of Sharon. The project ROW is 150 feet wide, with a maintained width that varies from approximately 70 feet to 100 feet. The ROW contains the #690 Line supported by existing lattice structures.

Eversource's Salisbury Substation and Falls Village Substation are both located on Eversource property. Falls Village Substation is connected to the #693, #689, #667, and #694 Lines. Salisbury Substation is connected to Falls Village Substation via the #667 Line. The #690 Line connects Salisbury Substation to New York State to the west.

Land uses adjacent to the project area consist of a mix of rural residential areas, agricultural, and undeveloped lands such as forests and meadows.

Proposed Project

The project consists of conductor, shield wire and structure replacements along portions of the #690 Line. The existing #690 Line lattice structures were originally installed in 1926. Engineering analyses were performed on the structures and determined that the structures are showing age-related deterioration such as bent steel members, corrosion, deteriorated concrete foundations, and weathered and rusted hardware. The existing conductor on the #690 Line is 4/0 aluminum conductor streel reinforced (ACSR), which is no longer a standard conductor and has been prone to failure. The replacement conductor is 556 aluminum conductor steel supported (ACSS) which is 260 percent heavier than the existing conductor. Thus, conductor replacement would require the replacement of the existing structures with stronger structures.

The replacement of the conductor and the degraded lattice structures would reduce the risk of age-related failures, mitigate safety concerns associated with additional construction loads on tower arms during routine maintenance and emergency work (e.g. workers climbing towers to perform repairs), and ensure that both the structures and the conductor meet the latest design standards.

The rebuilding of the line also includes the temporary installation of 22 megawatts (MW) of emergency standby generation at Falls Village Substation and 10 MW of emergency standby generation at Salisbury Substation to address an unacceptable risk of a single contingency line loss (SCLL) resulting from the need to take the #690 Line out of service during construction. Specifically, one of Eversource's sensitive customers is Becton-Dickinson (BD), a company that manufactures COVID-19 test kits and syringes for COVID-19 vaccines. BD could potentially have its service interrupted under a SCLL scenario because BD is served by North Canaan Substation which is solely fed by Falls Village Substation. Another sensitive customer that could potentially be interrupted during a #690 Line outage is Sharon Hospital, which is served by Salisbury Substation. To mitigate the risk of loss of service to customers served by Falls Village, North Canaan and Salisbury Substations, a total of 32 MW of temporary emergency standby generation would be installed.

The transmission rebuild portion of the project entails the following:

- a) Replace 10 steel lattice structures² with weathering steel monopole structures and install one new weathering steel structure;
- b) Replace the existing 4/0 ACSR conductor with a single 556-kcmil ACSS conductor³;
- c) Replace the existing alumoweld overhead shield wire with one new 48-fiber optical ground wire (OPGW);
- d) Install new hardware, insulators, lightning arresters and counterpoise; and
- e) Improve and/or install access roads and work pads to support the project.

The heights of the existing structures range from 74 to 92 feet above ground level (agl). The proposed replacement structures would range in height from 84 to 131 feet agl. The replacement structures must be taller than the existing structures to accommodate a delta configuration on certain proposed monopoles and to meet current National Electrical Safety Code (NESC) clearance requirements.

Eversource's proposed design for the Project employs a vertical configuration of three phase conductors supported on tubular steel poles for about 1.1 miles west of Salisbury Substation and then rolling to a single circuit delta configuration for the remaining approximately 0.55 mile portion of the route. The existing configuration is the same as the proposed configuration.

The Falls Village Substation temporary emergency standby backup generation portion of the project includes, but is not limited to, the following:

- a) Eleven 2 MW diesel backup generator units. Each generator unit is located within a sound attenuating enclosure with approximate dimensions of 40 feet long by 8 feet wide by 14 feet tall and includes a self-contained 1,000 gallon diesel fuel tank;
- b) Six 2,500 kilovolt-ampere (kVA) transformers; and
- c) One 10,000 kVA transformer.

The generators and associated equipment would arrive on 16 trailers each about 53 feet long. The trailers would be located within an approximately 200 foot by 200 foot area on temporary matting on the west side of the Falls Village Substation. All of the trailers/units would be located within an impermeable inflatable berm to provide containment.

The Salisbury Substation temporary emergency standby backup generation portion of the project would be similar and include, but not be limited to, the following:

- d) Six 1 MW diesel backup generator units each with a sound attenuating enclosure and self-contained diesel fuel tank;
- e) Eight 0.5 MW diesel backup generator units each with a sound attenuating enclosure and selfcontained diesel fuel tank;
- f) Four 2,500 kilovolt-ampere kVA transformers; and
- g) Two 15-kV breaker switch combinations and connecting cables.

The generators and associated equipment would be located within the fenced Salisbury Substation and would include similar protective measures e.g. temporary matting and containment berm.

The temporary emergency backup generators are expected to be removed from Falls Village Substation and Salisbury Substation within thirty days of the re-energization of the line.

² While the #690 Line is 69-kV, the proposed transmission structures would be designed to support a future upgrade to 115-kV operation.

³ The replacement conductor would be capable of carrying a line voltage of 115 kV but would be energized to 69 kV.

The total estimated cost of the project is approximately \$11.0M. The #690 Line is a Pool Transmission Facilities (PTF)⁴. Thus, the project cost is eligible for regionalization. Of the total, approximately \$2.079M would be allocated to Eversource customers. Pending a final review by ISO-NE, approximately \$638k would be allocated to other Connecticut customers, and \$8.283M would be allocated to other New England customers.

Project Construction and Work Procedures

Eversource would utilize 166 Sand Road, Falls Village for a staging/laydown area. This area is approximately 6.7 acres in size and would be used for storage of construction materials, equipment, tools and supplies. Office trailers and Conex storage containers may also be located at the staging area, as well as parking for construction vehicles and construction crews' personal vehicles. Appropriate erosion and sedimentation (E&S) controls would be installed and maintained until completion of construction in accordance with Project permitting and Eversource Best Management Practices (BMPs).

Eversource would utilize existing access roads to the extent possible. However, some new access roads would be required. Construction matting would be utilized to install temporary access roads through wetland areas to reach certain structure locations.

Use of existing off-ROW access from Millerton Road (Route 361) along an unimproved logging road is required because access within the ROW is prohibitively challenging due to the presence of some extreme slopes (cliffs in some locations) and shallow exposed bedrock.

Existing access roads, including, but not limited to, the unimproved logging road off Millerton Road, may require improvement, e.g. grading, trimming adjacent vegetation, and widening and/or reinforcement. Access road widening would be performed as necessary to provide a maximum travel surface of about 16 feet wide (or greater at turning or passing locations) for construction equipment.

Construction areas would be isolated by establishing E&S controls in accordance with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control and Eversource BMPs. Typical E&S control measures include, but are not limited to, straw blankets, hay bales, silt fencing, gravel anti-tracking pads, soil and slope protection, water bars, check dams, berms, swales, plunge pools, and sediment basins. A project-specific Stormwater Pollution Control Plan (SWPCP) would be developed for registration under a Department of Energy and Environmental Protection (DEEP) Stormwater Permit.

At each transmission line structure location, a work pad would be constructed to stage material for final onsite assembly and/or removal of structures, to pull conductors and to provide a safe, level work base for construction equipment. Work pads for the project would typically be 100 feet by 100 feet, but they may be larger in some areas due to terrain and spacing between existing and proposed structures. Thus, some work pads may be slightly larger, up to approximately 110 feet by 120 feet. Most work pads would be graveled, though some would use temporary matting to protect sensitive areas such as wetlands.

The proposed structures would have either drilled (caisson) foundations or direct embed foundations. Foundation installation work would require the use of equipment such as augers, drill rigs, pneumatic hammers, dump trucks, concrete trucks, grapple trucks, and light duty trucks. If groundwater is encountered, and when working within wetland areas, pumping (vacuum) trucks or other equipment would be utilized. The water would then be discharged in accordance with local, state and federal requirements.

⁴ Per page 22 of the 2019 ISO-NE Regional System Plan, PTFs are 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.

New structure sections, components and hardware would be delivered by flatbed truck to the structure locations for assembly by crane and bucket trucks. After assembly, the area around the direct embed foundations would be backfilled with processed gravel.

New conductors and OPGW would be installed after the structures are installed. The required equipment would include cable reels, pulling and tensioning rigs, and bucket trucks. The removal of the existing conductor and static wire would take place during the active installation of the new conductor and OPGW because the existing conductor and static wire would be used as pulling lines, if possible. Conductor dead-ending and splicing would be accomplished with pressed hardware. The existing structures would be removed after the new conductor, static wire and OPGW are installed.

After the new structures, conductors and OPGW are installed, the line is energized, 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. 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.

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 work with such property owner regarding mitigation options.

Construction-related traffic would utilize public roads in the project area to access the ROW. However, generally, project-related traffic would be expected to be temporary and highly localized in the vicinity of ROW access points 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. Notwithstanding, Eversource or its contractor would work with the Towns and the Connecticut Department of Transportation, as appropriate, to develop and implement traffic management procedures as necessary.

Construction is expected begin in September or October 2021. 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 delays caused by unforeseen circumstances, inclement weather and/or outage constraints; in the event that this is necessary, Eversource would provide notice to the Council and the Town(s).

Environmental Considerations

Some clearing, selective tree removal and vegetation removal/trimming would be required along the ROW in select areas to accommodate access road installation and improvements, work pad installations, remove incompatible vegetation, and maintain proper clearance from conductors. Thus, the project would include an estimated total permanent conversion of approximately 3.9 acres of forest habitat to scrub-shrub or herbaceous habitat areas in the ROW. Vegetation clearing to improve the existing off-ROW access from Millerton Road would result in the clearing of approximately 3.27 acres of forest habitat. Given the overall limited extent of forest conversion to shrubland or emergent vegetation, this is not expected to result in a significant adverse impact to forested habitat. Furthermore, additional shrubland and early successional habitat along the ROW or access roads would be beneficial for many species of wildlife due to declining shrubland habitat in New England.

A total of 7 wetland areas and 9 watercourses are located along the ROW. No transmission structures would be located within these areas. Seven temporary watercourse crossings would be required during construction to provide access and would utilize temporary construction mats. The total temporary impacts to these resource areas due to the use of temporary matting would be approximately 0.53 acre. Of the approximately 7.17 acres total tree cutting area for the project, approximately 0.88 acre would be located within wetlands. See table below.

Wetland / Watercourse ID	200 Scale Petition Mapping Sheet No.	Wetland / Watercourse Effects (± square feet)			
		Temporary (Matting)	Permanent (Structures)	Secondary (Selective Tree Removal)	
W1	01	7,112	0	0	
W2, S2, S4, S5	01	10,780	0	23,310	
\$6	01	246	0	0	
\$7	01	174	0	0	
W4, 58	01	401	0	1,011	
W7, S10	02	550	0	518	
W8/S11	02	0	0	2,641	
W9	03	0	0	10,659	
W10, \$13	03	3,795	0	68	
TOTAL		23,058 sq. ft. (0.53 acre)	0	38,207 (0.88 acre)	

All temporary matting would be removed upon project completion. Restoration of the wetlands after mat removal is not expected to be necessary. Typically, wetlands naturally rebound following removal of temporary matting. Eversource would monitor the area after the removal of the matting and restore any vegetation with New England wetland seed mix, if necessary.

Vernal pool surveys of the project area were performed during spring 2018 and spring 2020. One vernal pool was identified in Wetland 9 located west of proposed replacement Structure No. 1057. No temporary matting would be utilized in Wetland 9, and any tree clearing of Wetland 9 would be performed by hand to be protective of the vernal pool. Additionally, to minimize potential impacts to this vernal pool, Eversource would implement recommended best management practices including, but not limited to, avoiding work within the vernal pool depression, avoid installing access or work pads within the 100-foot vernal pool envelope, and maintaining scrub-shrub vegetation within 25 feet of the vernal pool.

The project ROW extends across a 100-year Federal Emergency Management Agency-designated flood zone. None of the proposed replacement structures would be located within a 100-year or 500-year flood zone. The proposed temporary backup generation and associated equipment at Falls Village Substation would be located within the 100-year flood zone. A Flood Contingency Plan (FCP) would be developed by the contractor prior to the start of construction. The FCP would include, but not be limited to, local weather monitoring, securing the work site before predicted major storms, and taking measures to protect and secure materials, equipment and protect personnel.

There are no DEEP-designated Aquifer Protection Areas within or proximate to the Project ROW. The Project is not located within a public water supply watershed. No public supply reservoirs or public water supply wells are located within the Project area. Additionally, no private water supply wells were observed within the Project area during field investigation activities. To be protective of water quality, Eversource would require its contractors to employ best practices for the proper storage, secondary containment, and handling of diesel fuel, motor oil, grease, and other lubricants. No fuel or hazardous materials would be stored within the 100-year flood zone, except those within the generator tanks or transformers. Construction activities would conform to Eversource BMPs; a SWPCP; and a Spill Prevention and Control Plan.

In November 2020, Eversource submitted a Natural Diversity Database (NDDB) review request to DEEP for the proposed structure replacement activities within the buffered NDDB habitat area. In December 2020, Eversource received a response from DEEP NDDB that acknowledged surveys were performed for one statelisted and federally-listed species know to occur within or proximate to the site, and the survey confirmed the absence of this species in the project area. Thus, DEEP noted its NDDB letter that negative impacts to this state-listed species are not expected to result from the project.

Eversource also consulted with the U.S. Fish & Wildlife Service's Information, Planning and Consultation (IPaC) service regarding federally-listed species that may be present within the project area. The IPaC report identified two federally-listed species, both of which are state-listed species. Per the DEEP NDDB letter, these species are not expected to be negatively impacted by the project.

The nearest publicly-accessible recreational resource is the Appalachian Trail (AT). At its closest point to the project, the AT passes by the southern and southeastern portion of the Falls Village Substation site. Eversource would utilize a construction safety fence between the Falls Village Substation site and the AT.

A Phase 1A Cultural Resources Assessment (Phase 1A Assessment) was conducted, and no previously identified archaeological sites, National or State Register of Historic Places properties/districts, or inventoried historic standing structures were identified within 500 feet of the proposed project area.

Eight locations within the project area were identified as having moderate to high potential for archaeological sensitivity. Thus, a Phase 1B Cultural Resources Reconnaissance Survey (Phase 1B Survey) was performed and included shovel testing at 27 locations. The Phase 1B Survey identified one area along the access road that yielded miscellaneous historical artifacts but lacked substantial intact deposits and cultural features. This location was not considered eligible to be listed on the National Register of Historic Places, and no additional archaeological examination of this location or the remainder of the project area was recommended. The Phase 1B Survey was submitted to the State Historic Preservation Office (SHPO) as well as the Tribal Historic Preservation Offices of the Mohegan Tribe of Native Americans of Connecticut and the Mashantucket Pequot Tribal Nation (collectively, the THPOs). By letter dated February 9, 2021, SHPO concurred with the findings of the Phase 1B Survey Report. As of August 18, 2021, Eversource has not received a response from the THPOs.

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.

The emergency standby generation is not expected to run except for a limited duration during commissioning or unless there is a loss of load during the outage. If the temporary generators are required to operate, the projected sound level at the abutting property line of Salisbury Substation would be less than 75 dBA. At Falls Village Substation, the projected sound level at the abutting property line would be less than 80 dBA. Notwithstanding, noise created as a result of, or relating to, an emergency, such as an emergency backup generator, is exempt from DEEP Noise Control Regulations under Regulations of Connecticut State Agencies (RCSA) Section 22a-69-1.8.

Also, the temporary generators would not require a New Source Review Air Permit as long as certain criteria are met under RCSA Section 22a-174-3b.

The Project ROW does not cross a locally or state designated scenic roadway.

On average, the replacement structures would be about 26 feet taller than the corresponding existing structures. However, proposed replacement Structure Nos. 1057, 1058 and 1062 would be 49 feet, 32 feet and 44 feet taller, respectively, to prevent clearance violations and to reduce uplift forces on structures that are located at lower elevations than adjacent structures.

The project would result in some changes to the visual character of the transmission line, but the changes are not expected to be significant. While the proposed replacement structures would be taller and of a different design than the existing structures that they would be replacing, the proposed replacement structures would be located as close as possible to the existing structure locations, and they would have a more streamlined appearance. Additionally, the visual impacts of the replacement structures would be further mitigated by utilizing weathering steel to allow the structures to blend in more easily with existing vegetation. Thus, the project would not result in a substantial change to the existing visual character of the line in this area.

Electric and Magnetic Fields

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.*

Eversource reviewed EMF levels associated with the Project. Pre- and post-construction EMF levels (based on average annual loads for MF) are presented in the table below.

Salisbury S/S - Structure 1061		South ROW Edge	Max in ROW	North ROW Edge
Magnetic Fields (mG)	Existing	0.37	3.15	1.44
	Proposed	0.37	1.76	1.11
Electric Fields (kV/m)	Existing	0.03	0.48	0.04
	Proposed	0.02	0.29	0.08

Structure 1061 - NY/CT Border		South ROW Edge	Max in ROW	North ROW Edge
Magnetic Fields (mG)	Existing	0.55	1.38	0.88
	Proposed	0.38	0.62	0.48
Electric Fields (kV/m)	Existing	0.05	0.15	0.10
	Proposed	0.04	0.08	0.05

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All EF and MF values would be below the ICNIRP exposure guidelines of 4.2 kV/m and 2,000 mG, respectively.

Aviation Safety

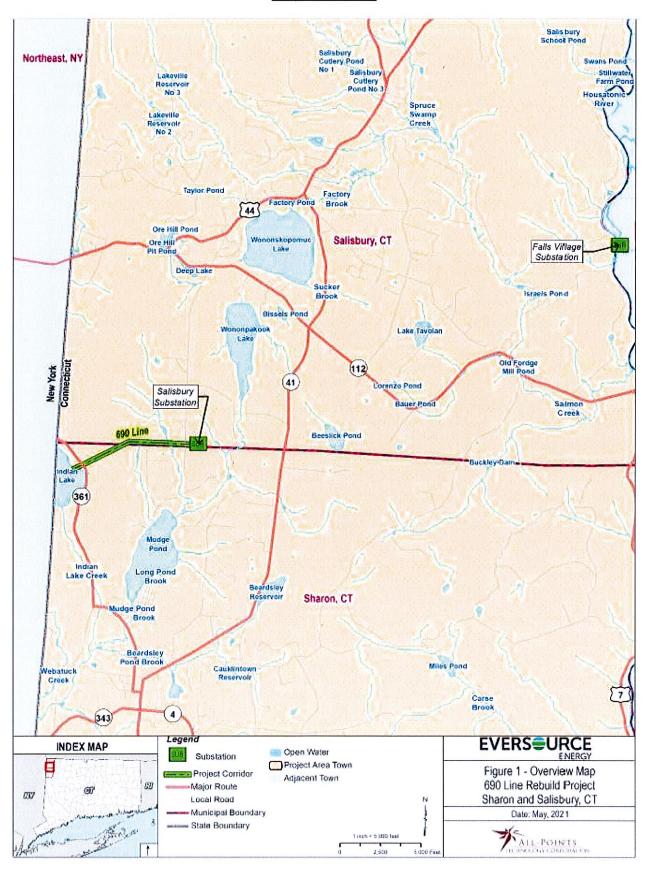
The Federal Aviation Administration (FAA) Notice Criteria Tool did not indicate that any marking or lighting would be necessary for any of the proposed replacement structures. There are existing aerial marker balls located in the span between Structure Nos. 1062 and 1063. Eversource is coordinating with a vendor familiar with the FAA and associated best practices to replace the existing aerial markers.

Staff Recommendation

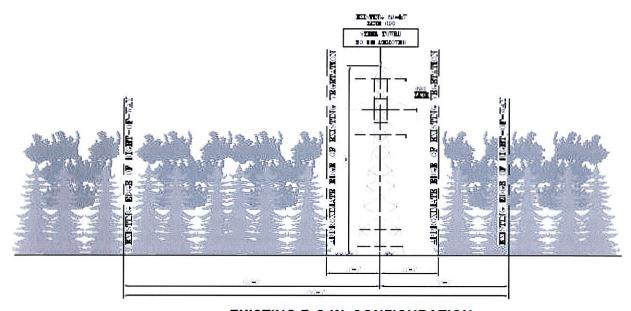
If approved, staff recommends the following condition:

1. Approval of any project changes be delegated to Council staff.

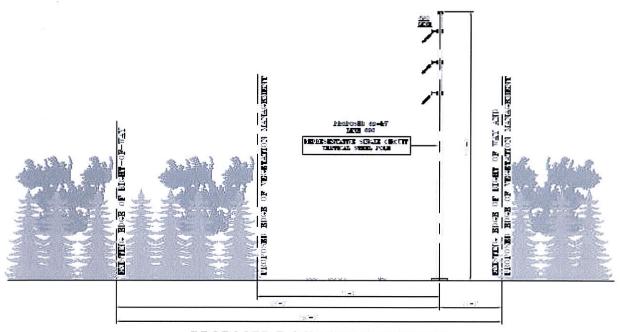
Project Location



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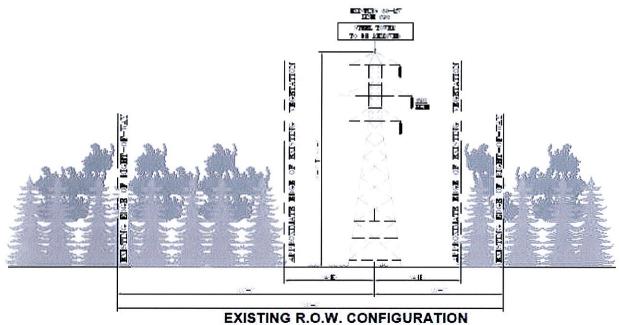


EXISTING R.O.W. CONFIGURATION SINGLE CIRCUIT STEEL LATTICE TOWER VERTICAL DESIGN LOOKING FROM SALISBURY SUBSTATION TO NY/CT BORDER IN THE TOWN OF SALISBURY, CT STR. #1058

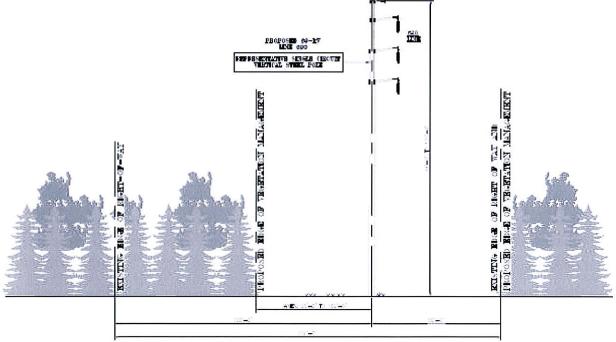


PROPOSED R.O.W. CONFIGURATION NO ADDITIONAL RIGHT-OF-WAY REQUIRED SINGLE CIRCUIT STEEL POLE VERTICAL DESIGN LOOKING FROM SALISBURY SUBSTATION TO NY/CT BORDER IN THE TOWN OF SALISBURY, CT STR. #1058

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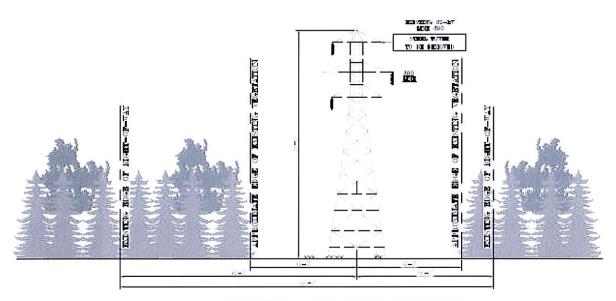


SINGLE CIRCUIT STEEL LATTICE TOWER VERTICAL DESIGN
LOOKING FROM SALISBURY SUBSTATION TO NY/CT BORDER
IN THE TOWN OF SALISBURY/SHARON, CT
0.78 MILES BETWEEN STR. #1053 - STR. #1057, AND STR. #1059 - STR. #1060

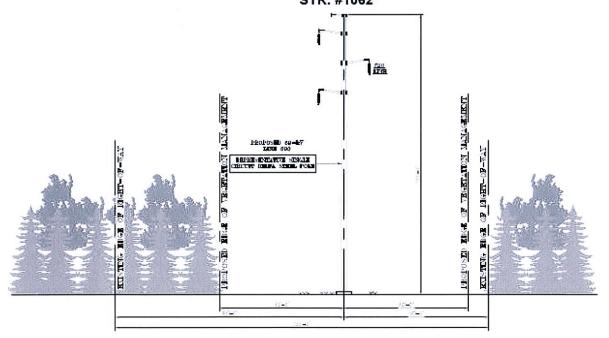


PROPOSED R.O.W. CONFIGURATION
NO ADDITIONAL RIGHT-OF-WAY REQUIRED
SINGLE CIRCUIT STEEL POLE VERTICAL DESIGN
LOOKING FROM SALISBURY SUBSTATION TO NY/CT BORDER
IN THE TOWN OF SALISBURY/SHARON, CT
0.97 MILES, BETWEEN STR. #1053 - STR. #1057, AND STR. #1059 - STR. #1060

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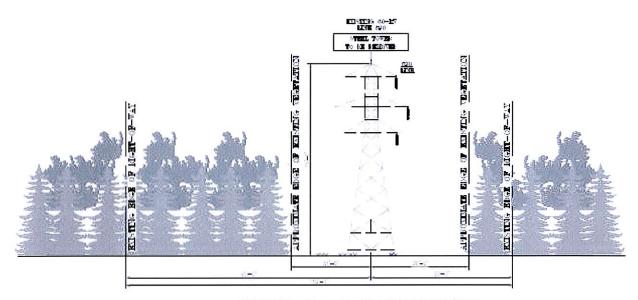


EXISTING R.O.W. CONFIGURATION SINGLE CIRCUIT STEEL LATTICE TOWER DELTA DESIGN LOOKING FROM SALISBURY SUBSTATION TO NY/CT BORDER IN THE TOWN OF SHARON, CT STR. #1062

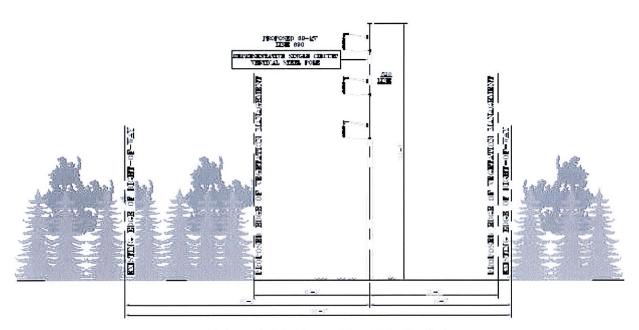


PROPOSED R.O.W. CONFIGURATION
NO ADDITIONAL RIGHT-OF-WAY REQUIRED
SINGLE CIRCUIT STEEL POLE DELTA DESIGN
LOOKING FROM SALISBURY SUBSTATION TO NY/CT BORDER
IN THE TOWN OF SHARON, CT
STR. #1062

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EXISTING R.O.W. CONFIGURATION SINGLE CIRCUIT STEEL LATTICE TOWER VERTICAL DESIGN LOOKING FROM SALISBURY SUBSTATION TO NY/CT BORDER IN THE TOWN OF SHARON, CT STR. #1061



PROPOSED R.O.W. CONFIGURATION

NO ADDITIONAL RIGHT-OF-WAY REQUIRED

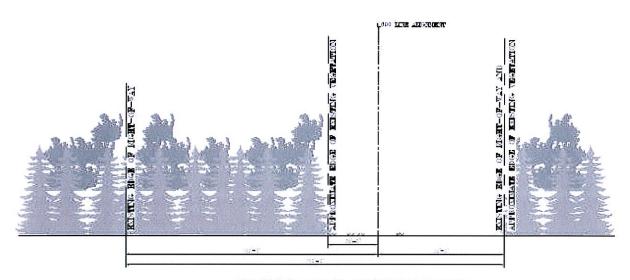
SINGLE CIRCUIT STEEL POLE DELTA DESIGN

LOOKING FROM SALISBURY SUBSTATION TO NY/CT BORDER

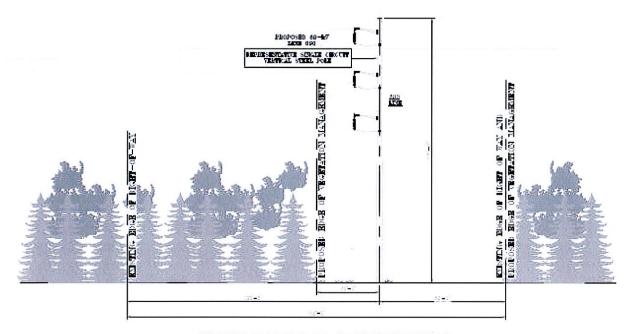
IN THE TOWN OF SHARON, CT

STR. #1061

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EXISTING R.O.W. CONFIGURATION SINGLE CIRCUIT STEEL LATTICE TOWER VERTICAL DESIGN LOOKING FROM SALISBURY SUBSTATION TO NY/CT BORDER IN THE TOWN OF SALISBURY, CT STR. #1052.5



PROPOSED R.O.W. CONFIGURATION NO ADDITIONAL RIGHT-OF-WAY REQUIRED SINGLE CIRCUIT STEEL POLE VERTICAL DESIGN LOOKING FROM SALISBURY SUBSTATION TO NY/CT BORDER IN THE TOWN OF SALISBURY, CT STR. #1052.5

^{*}There is no existing Structure No. 1052.5. Proposed Structure No. 1052.5 will be a new installation, not a replacement.