



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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CERTIFIED MAIL RETURN RECEIPT REQUESTED

December 7, 2018

Kathleen Shanley
Project Manager-Transmission Siting
Eversource Energy
P.O. Box 270
Hartford, CT 06141-0270

RE: **PETITION NO. 1351** - 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 Wallingford to Branford Upgrade Project consisting of the replacement of approximately 10 miles of its existing No. 1655 115-kilovolt (kV) electric transmission line structures within existing Eversource electric transmission line right of way between the existing East Wallingford Junction located at Traditions Golf Course in Wallingford and the existing Branford Substation located at 272 East Main Street in Branford, Connecticut, traversing Wallingford, North Haven, East Haven, North Branford and Branford, and related electric transmission line structure improvements.

Dear Ms. Shanley:

At a public meeting held on December 6, 2018, 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 minor 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 Wallingford, North Haven, East Haven, North Branford and Branford;
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.

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 October 15, 2018 and additional information received on October 19, 2018 and November 15, 2018.

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

Sincerely,


Robert Stein
Chairman

RS/RDM/lm

Enclosure: Staff Report dated December 6, 2018

- c: The Honorable William W. Dickinson, Jr., Mayor, Town of Wallingford
Kacie Hand, Town Planner, Town of Wallingford
The Honorable Michael J. Freda, First Selectman, Town of North Haven
Laura Magaraci, Zoning Enforcement Officer, Town of North Haven
The Honorable Joseph Maturo, Jr., Mayor, Town of East Haven
Christopher Soto, Planning & Zoning Enforcement Officer, Town of East Haven
The Honorable Michael J. Doody, Mayor, Town of North Branford
Michael T. Paulhus, Town Manager, Town of North Branford
Carey Duques, Town Planner, Town of North Branford
The Honorable James B. Cosgrove, First Selectman, Town of Branford
Harry Smith, Town Planner, Town of Branford



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Petition No. 1351

Eversource Energy

1655 Line Upgrade Project

Wallingford, North Haven, North Branford, East Haven Branford

Staff Report

December 6, 2018

Introduction

On October 16, 2018, 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 modifications to a portion of its existing 1655 115-kV Transmission Line in the Towns of Wallingford, North Haven, North Branford, East Haven and Branford (Towns).

The Council submitted interrogatories to Eversource on November 7, 2018. Eversource submitted responses to the interrogatories on November 15, 2018.

The purpose of the proposed project is to replace 69 wood H-frame transmission structures that exhibit damage caused by woodpecker activity or structural deficiencies due to age and weathering. The project is identified in the ISO-New England Regional System Plan, October 2018 Asset Condition Update (#49). After the Petition was filed, Eversource provided emergency notification to the Council that Structure #4696A in Wallingford, one of the 69 structures proposed for replacement in this Petition, exhibited cross arm failure. The failure posed an immediate risk to transmission line operation and the structure was subsequently replaced under an emergency condition. On October 22, 2018, the Council sent correspondence to Eversource, acknowledging the emergency condition that necessitated an immediate replacement of the structure.

Proposed Project

The 1655 Line, in its entirety, is located between New Haven Junction in Wallingford and the Branford Substation in Branford. The 1655 Line was originally constructed using 102 single circuit wood H-frame structures in three segments: the first segment was constructed in 1958 on 70 structures from East Wallingford Junction to Totoket Junction; the second segment was constructed in 1964 on 20 structures from Totoket Junction to Branford Substation; the third segment was constructed in 2007 on 12 structures from East Wallingford Junction to New Haven Junction. Within the Project area, the 1655 Line shares the existing right-of-way (ROW) with the 345-kV 387 Line extending from East Wallingford Junction to Totoket Junction and the 115-kV 1537 Line extending from Totoket Junction to the Branford Substation.

Recent assessment of the line found that 69 structures on a 10 mile portion of line between East Wallingford Junction in Wallingford to the Branford Substation in Branford are in immediate need of replacement (Structure #4696A was already replaced). The structure replacements are necessary to maintain transmission line operation and electric system reliability.

The Project entails the following:

- a. Replacement of 51 existing single-circuit wood H-frame structures with 51 single circuit direct-embed, weathering steel H-frame structures;
- b. Replacement of 15 existing single-circuit wood H-frame structures with 15 single circuit direct-

- embed, weathering steel monopole structures with the transmission line segment from Totoket Junction to Branford Substation;
- c. Replacement of 3 existing wood H-frame structures with 3 single-circuit weathering steel monopole structures on drilled shaft foundations;
 - d. Installation of one new direct-embed 115-kV structure H-Frame weathering steel structure (Structure #4763.5);
 - e. Replacement of existing Autoweld ground wire with two fiber optic ground wires (OPGW); and
 - f. Installation of lightning arrestors on approximately every third structure.

Eversource would install 15 monopole replacement structures instead of wider H-frame structures on the segment of line between Totoket Junction and the Branford Substation to meet current National Electrical Safety Code (NESC) clearance requirements. Additionally, the height of the new replacement structures (15 new monopoles, 3 new H-frames) in this segment would need to be 14 to 33 feet higher than the existing H-frame structures to comply with the NESC. The existing H-frame structures to be replaced range in height from 39 feet to 79 feet above grade. The ROW in this segment is 110 feet wide and is shared with the adjacent 115-kV 1537 transmission line that is supported on monopole structures. Although the new replacement structures are taller than the existing structures to be replaced, the new structures would be approximately the same height as the existing, adjacent 1537 Line monopole structures.

For the remaining portions of the line, 31 of the new replacement structures would be approximately 5 to 14 feet taller than the existing structures in order to comply with the NESC and Eversource standards. Additionally, the height of new structure #4763.5 would be approximately 57 feet above ground level.

The proposed replacement structures would be located in-line with the existing structures to the extent possible, approximately 10 to 15 feet from the location of the existing structure. Direct-embedded structures would be used at nearly all locations, except for three structures that would be installed on drilled shaft foundations (structure #s 4764, 4767 and 4781). The new replacement structures would be designed to support additional structural loading to support heavier conductors if the need arises, although the amount of excess structural capacity would vary depending on the type of structure.

Project Construction and Work Procedures

All work would occur within the existing ROW or on Eversource property. The existing ROW from Branford Substation to Totoket Junction is typically 110 feet wide, with the full width of the ROW in a maintained state. The segment from Totoket Junction to East Wallingford Junction is typically 320 feet wide, with approximately 300 feet in a maintained state. Land uses adjacent to the ROW consist of a mix of rural, residential, recreational open space, agricultural areas and undeveloped lands.

Access to the ROW would be from existing access roads extending to the ROW from off-ROW areas or where the ROW intersects with a public road. Eversource is attempting to obtain additional access rights from underlying property owners in order to use additional off-ROW access points to avoid wetland, agricultural or residential areas.

Eversource would consult with representatives of town and local representatives and/or the Connecticut Department of Transportation to develop and implement traffic management procedures, as necessary. Construction warning signs would be installed along public roads near work sites and flaggers or police personnel would be used to direct traffic, as necessary.

Specific work areas within the ROW will be accessed via existing roads that extend along the ROW. In some areas temporary or new gravel access roads would be constructed within the ROW extending from the existing roads. Some of the existing access roads may need to be graded, widened, and/or reinforced with additional material in order to accommodate the safe passage of construction vehicles and equipment. A minimum travel surface of 12 to 16 feet is required although some road turning locations will be wider. Where access roads traverse streams and wetlands, temporary construction matting would be used to avoid significant disturbance to underlying surfaces and soils.

Upon completion of the Project, access roads and work pads located in uplands would be left in place to facilitate future transmission line maintenance, unless the underlying property owner requests their removal. Access roads and work pads located within improved areas would typically be removed and the areas restored, unless the underlying property owner requests that they remain. No new permanent access roads or work pads are proposed in wetlands or streams.

At each transmission structure site, a 125-foot by 125-foot gravel work pad would be constructed for on-site structure assembly and/or removal, and to provide a safe, level work base for the construction equipment. Pull pads would be approximately 125 feet by 80 feet. All work pads may vary in size due to environmental and topographical constraints. Once the new structures have been installed and the transmission line relocated and energized, the existing 115-kV structures would be removed and disposed of in accordance with Eversource's *Best Management Practices Manual for Massachusetts and Connecticut*, September 2016 (BMPs) and applicable regulations or recycled consistent with regulations and Eversource policies.

Eversource would begin work in February 2019 and anticipates all work, including restoration, to be completed by spring 2020. Multiple work crews would be deployed. Normal work hours would be Monday through Saturday from 7:00 a.m. to 7:00 p.m. Sunday work hours or hours beyond normal work hours may be required for time sensitive work, delays caused by weather, and line outages.

Environmental Considerations

Land use adjacent to the ROW includes rural, residential, recreational, undeveloped forested areas. Topography of the area is characterized by small hills interspersed with narrow valleys. Most of the ROW is currently maintained and no clearing is required. Some vegetation removal and tree trimming would be required for access road and work pad installation, and to maintain adequate conductor clearance.

Construction areas would be isolated by establishing erosion and sedimentation controls (E&S controls) in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* and 2006 Eversource's BMPs. Typical E&S controls include, but are not limited to, the use of hay bales and silt fence, straw blankets, check dams, berms, swales, water bars, and sediment basins. Excavated soils would not be stored within or adjacent to wetlands or watercourses. A project specific Stormwater Pollution Control Plan would be developed for registration under the DEEP's *General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities*.

Following the completion of construction, topsoil would be replaced and disturbed areas seeded or mulched to provide stabilization until new vegetation can grow. Temporary E&S controls would remain in place until all disturbed areas are stabilized. Any remaining soil stockpiles would be spread evenly in the surrounding areas.

Water resources within the Project area include inland wetlands, watercourses (perennial and intermittent streams), ponds, vernal pools, and Federal Emergency Management Agency (FEMA) Flood Zones. All work in or near these areas would be conducted in accordance with Eversource's BMPs and with the requirements of applicable regulatory permit conditions and approvals.

A total of 28 wetlands were identified in or proximate to the Project area. Approximately 300 square feet of wetlands would be filled due to the replacement of 6 existing wood H-frame structures. The Project would also result in approximately 4 acres of temporary effects to wetlands, through the use of temporary construction mats. In order to minimize disturbance to wetlands, existing wood poles would be cut approximately 6 inches above grade leaving the pole butts in place.

One work area is adjacent to a vernal pool and within the 100-foot vernal pool envelope. Temporary matting would be used within the vernal pool envelope to minimize disturbance to underlying soils. There would be no direct impacts to the vernal pool.

A total of 21 watercourses and water bodies were delineated within the Project area. Most of the existing ROW access roads cross these features using culverts. Some upgrades to the access roads and existing crossings would be required. Additionally, the Project would use temporary matting for 13 watercourse crossings.

Upon completion of work activities, all temporary construction mats would be removed and the affected wetland and watercourse areas restored in accordance with Eversource's BMPs.

Six work areas and three replacement structures would be located within FEMA designated 100-year flood zones. Eversource would perform work in these areas in accordance with their BMPs and would utilize temporary construction matting to prevent permanent impacts to flood zone areas. Although access roads in these areas would be upgraded, the upgrades would be constructed to prevent an increase to FEMA identified base flood elevations within the flood zones. Prior to significant storm events, construction mats would be secured to prevent movement during any subsequent flooding that could occur.

No Aquifer Protection Areas are within the Project area. The Project area is within the Saltonstall Public Water Supply Watershed and crosses South Central Connecticut Regional Water Authority (SCCRWA) property associated with the watershed. In order to perform work on watershed lands, a Water Company Land Permit Application would be filed with the Connecticut Department of Public Health (DPH). To protect water quality within the watershed, Eversource would adhere to its BMPs and any conditions imposed by the DPH and/or SCCRWA related to the proper storage, containment, and handling of diesel fuel, motor oil, grease and other lubricants/materials.

Eversource has consulted with the Department of Energy and Environmental Protection's (DEEP) Bureau of Natural Resources Wildlife Division regarding state-listed species within the Project area. Eversource received DEEP determination on July 11, 2018 and would adhere to DEEP recommendations and species protection measures.

No state or local designated scenic roads or vistas were identified within the Project area. The new replacement weathering steel structures are of similar color to the existing wood poles that would be removed.

No National or State Register of Historic Places resources would be impacted by the Project. Based on a review of historic maps, aerial photographs, and soil profiles, 14 work areas were identified as possessing a potential for moderate to high archaeological sensitivity. A subsequent field evaluation found no evidence of archaeological significance at these locations.

Construction-related noise would be short-term and localized in the to the work site areas. Construction-related noise is exempt per DEEP noise regulations. There would be no permanent change to the existing sound levels along the transmission ROW after completion of the Project.

Magnetic Fields

In the United States, no state or federal exposure standards for 60-hertz magnetic field (MF) based on demonstrated health effects have been established, nor are there any such standards established world-wide. However, the International Commission on Non-Ionizing Radiation Protection (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 the MF levels associated with the Project. Calculations indicate MF levels, when compared to existing levels, would increase slightly by 0.5 to 2.5 mG along the west edge of the ROW. MF along the east edge of the ROW would not change or would decrease slightly, depending on location. The slight increase in MF along the west edge of the ROW from Branford Junction to Totoket Junction is attributable to a conductor design change from a horizontal arrangement to a vertical arrangement where two of the conductor phases would be closer to the ROW edge. The slight increase in MF along the west edge of the ROW from Totoket Junction to East Wallingford Junction is from the design of the new H-frame structures that increases the space between phases by 2.5 feet and thus slightly closer to the edge of the ROW.

Municipal and Abutter Notice

In May 2018 Eversource consulted with the municipal officials in the respective Towns. Eversource also initiated outreach to property owners located along the ROW as well as to nearby property owners in proximity to the work areas. On October 15, 2018, Eversource provided representatives of the Towns and abutting and underlying property owners with written notice of the Petition filing.

Recommended Condition

Staff recommends including the following condition:

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

Project Route Overview

