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

CERTIFIED MAIL
RETURN RECEIPT REQUESTED

July 20, 2018

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

RE: **PETITION NO. 1344** - 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 replacement of approximately 11 miles of its existing No. 1342 115-kilovolt (kV) electric transmission line structures within existing Eversource electric transmission line right of way between the existing Green Hill Substation located at 775 Green Hill Road in Madison and the existing Bokum Substation located at 49 Bokum Road in Old Saybrook, Connecticut, traversing Madison, Killingworth, Clinton, Westbrook, Essex and Old Saybrook, and related electric transmission line structure improvements.

Dear Ms. Shanley:

At a public meeting held on July 19, 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 Madison, Killingworth, Clinton, Westbrook, Essex and Old Saybrook;

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 take precautions with regard to the replacement of existing Structure No. 4900 in Old Saybrook, including, but not limited to, cutting the base of the existing structure six inches above grade, due to the potential presence of an unlisted snake species den at the base of the existing structure.

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 10, 2018 and additional information received on June 27, 2018 and June 29, 2018.

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

Sincerely,

Robert Stein

Robert Stein
Chairman

RS/RDM/lm

Enclosure: Staff Report dated July 19, 2018

c: The Honorable Christine Goupil, First Selectman, Town of Clinton
Jullie Pudem, Land Use Technician, Town of Clinton
Honorable Norman Needleman, First Selectman, Town of Essex
Joseph Budrow, Zoning Enforcement Officer, Town of Essex
Honorable Catherine Iino, First Selectwoman, Town of Killingworth
Cathie Jefferson, Zoning Enforcement Officer, Town of Killingworth
Honorable Thomas Banisch, First Selectman, Town of Madison
David Anderson, Town Planner, Town of Madison
Honorable Noel Bishop, First Selectman, Town of Westbrook
Kim Riggio, Administrative Assistant, Town of Westbrook
Honorable Carl P. Fortuna, Jr., First Selectman, Town of Old Saybrook
Christine Nelson, Town Planner, Town of Old Saybrook
Helen Taylor, Project Siting Specialist, Eversource

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Petition No. 1344
Eversource Energy
1342 Line Upgrade Project – Madison to Old Saybrook
Staff Report
July 19, 2018

Introduction

On May 10, 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 its existing 1342 Line, extending from the Green Hill Substation in Madison to the Bokum Substation in Old Saybrook. The Council submitted interrogatories to Eversource on June 18, 2018. Eversource submitted responses to the interrogatories on June 27 and June 29, 2018.

On June 21, 2018, 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 November 6, 2018, the statutorily-mandated 180-day decision deadline for this petition under CGS §4-176(i).

The purpose of the proposed project is to replace 116 wood laminate transmission structures out of 121 structures on an 11 mile segment of the 1342 Line, a 115-kilovolt (kV) electric transmission line. The project is identified in the ISO-New England Regional System Plan, June 2018 Asset Condition Update. The affected portion of the line extends through the Towns of Madison, Killingworth, Clinton, Westbrook and Old Saybrook. A portion of the line is located on the Essex-Old Saybrook town boundary.

On June 28, 2018, a project field review was conducted that was attended by the following: Council member Robert Hannon, Council staff member Robert Mercier, and Eversource representatives Helen Taylor, Dalesa Holgerson, Ryan Kyan, Ervin Qyra, Mark Paplardeo, and Matt Davison.

Proposed Project

The existing wood laminate structures were installed in 1976 and have reached the end of their lifespan. The structures are deteriorating and are exhibiting rotting, cracking, splitting and woodpecker damage. Several structures were previously replaced/repaired on this section of line due to deterioration and wholesale structure replacement is now necessary to maintain line operation and electric system reliability.

The Project entails the following:

a. Replacement of 116 single-circuit wood laminate structures with 116 single-circuit weathering steel direct-embedded monopoles and relocating the existing conductors to the new structures;
b. Replacement of existing Autoweld ground wire with two fiber optic ground wires (OPGW); and
c. Installation of lightning arrestors on approximately every third structure.

All structure replacement work would be performed within the existing right-of way (ROW) or on Eversource property. Of the 116 new structures, 109 of would be installed within 10 feet of the existing structures. Of the remaining 7 structures, 6 would be located generally within 30 feet of the existing structure to avoid or minimize impacts to wetlands. The remaining structure, #4896 in Westbrook, would be relocated approximately 100 feet east of the existing structure to improve access for future maintenance activities. The existing #4896 structure is located on a steep embankment along Route 153 where current access is only possible by a highway closure or by installing temporary matting through an extensive wetland.

The existing ROW is typically 150 feet wide with the maintained, managed areas varying in width from 60 to 80 feet. The 1342 line is generally within the northern portion of the ROW. No other lines are located within the ROW and no expansion of the existing ROW is required.

The existing wood structures range in height from 61 feet to 93 feet above ground level. Eighty of the proposed replacement steel monopoles would be 1 to 9 feet taller than the existing structures in order to comply with the 2012 National Electrical Safety Code conductor to ground clearance requirements and Eversource's Overhead Transmission Line Standards. The tallest proposed structure would be 97 feet above ground level.

Project Construction and Work Procedures

A temporary construction staging area would be established at 517 Pond Meadow Road in Westbrook for the storage of structure sections, hardware and other project materials as well as office trailers and a construction equipment support area. This location was previously used as a staging area for a similar transmission structure replacement project that was the subject for Petition 1337.

The Project would utilize existing access roads to the extent possible. Where existing access roads are degraded, they would be improved by grading, widening the travel surface to a width of 12 feet to 16 feet, establishing 20-foot wide turning zones, and placing compacted gravel material in upland areas. In several upland locations, new gravel roads would be established and constructed in accordance with Eversource access road standards for site access. Where access roads traverse streams and wetlands, temporary construction matting would be used to avoid significant disturbance to underlying surfaces and soils. Eversource is negotiating with adjacent landowners to obtain ROW access from off-ROW areas that are preferable to in-ROW locations to avoid wetlands, watercourses, or difficult topography. Various ROW egress points are preferable in order to allow for several work crews to work in different areas of the ROW at the same time.

At each transmission line structure site, a 150-foot by 125-foot (typical) work pad would be constructed to stage material for structure assembly. Work pad sizes would vary due to environmental and topographical constraints. Generally, live line work can be accomplished at the larger work pads whereas the smaller pad locations would require an outage to safely transfer the conductors from the old structures to the new structures.

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 Best Management Practices (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. A project specific Stormwater Pollution Control Plan would be developed for registration under the Department of Energy and Environmental Protection's (DEEP) *General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities.*

At each work pad location, the upper three to six inches of topsoil would be removed and temporarily stockpiled within the ROW. Work pad sites would be graded to create a level work area, and a rock base would then be installed on top of a filter fabric. Work pads located in upland locations would be composed of gravel and left in place upon completion of the work unless removal is requested by the underlying landowner. Temporary work pads, consisting of wood matting, would be used in wetland areas and would be removed once construction is complete.

New structure sections and associated hardware would be delivered by flatbed truck to each work pad for assembly by crane and bucket trucks. The structures would be direct-embedded using equipment such as augers, drill rigs, cranes and excavators. Structure setting depths would range from 14 feet to 17 feet, depending on the structure height. Crushed rock backfill would be installed by dump truck. Structure sections would be assembled by crane followed by the installation of insulators and connecting hardware. If necessary, counterpoise installation would occur based on in-field conditions. Once the new structures are in place, Eversource would relocate the conductors from the existing structures to the new structures.

The existing structures and associated equipment would be removed and either recycled or disposed of in accordance with Eversource's BMPs and applicable regulations. Thereafter, OPGW installation will commence. Areas affected by construction would be re-graded as practical and stabilized before removing E&S controls. Wood structures located in wetland areas would be cut 6 inches above grade to minimize disturbance to the wetlands.

Following the completion of construction, topsoil would be replaced and the area seeded or mulched to provide stabilization until new vegetation can grow. Temporary E&S controls would remain in place until construction is complete and all disturbed areas are stabilized. Excavated soils would not be stored within or adjacent to wetlands or watercourses. Any remaining soil stockpiles would be spread evenly in the surrounding area.

Eversource proposes to begin work in September 2018 and would deploy multiple work crews to complete the Project. 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. Construction and restoration is expected to be completed by mid-2019.

Environmental Considerations

Land use adjacent to the ROW includes rural, residential, recreational, undeveloped forested areas, and open space parcels. Topography of the area is characterized by small hills and ledges interspersed with narrow valleys containing small brooks and wetlands.

Vegetation removal along the ROW would occur to facilitate the work and to maintain conductor clearance zones. Vegetation removal for work pads would generally extend beyond the current maintained vegetation edge and in some cases would be close to the southern ROW edge. Vegetation clearing for conductor clearance requirements would expand the current maintained vegetation edge by an additional 10 feet on either side of the conductors, as necessary. The ROW edge clearing would create an additional 38.5 acres of scrub-shrub habitat. No tree clearing is proposed in wetlands.

A total of 27 watercourses and waterbodies were delineated within the Project area including two rivers, 10 perennial watercourses, 10 intermittent watercourses, and five ponds. Named watercourses include the Hammonasset River, Menunketesuck River, Plane Brook, and Trout Brook. No new permanent access road or work pad watercourse crossings would be required. Existing access road crossings would be used at various locations throughout the Project ROW. In addition, a total of 13 temporary watercourse crossings would be required during construction, including five for work pads and eight for access roads. Each of these crossings would be spanned using temporary construction mats.

The Project area contains 65 delineated wetland areas. The replacement of 4 structures would result in 219 square feet of wetland filling. An additional 3.32 acres of wetlands would be temporarily impacted through the use of construction mats for access roads and work pads. Temporary matting would be removed upon completion of construction and disturbed wetland areas would be restored in accordance with Eversource BMPs.

A total of 23 vernal pools were identified within the Project area. Three of the vernal pools would be impacted by temporary matting for work at structures #4827 and #4879, and for temporary access to structure #4902, with temporary disturbance to vernal pools totaling approximately 11,106 square feet. To minimize the impact to the vernal pools, Eversource would incorporate vernal pool protection measures into the Project BMPs that include, but are not limited to, the following: performing work within the vernal pools between November 2018 and March 2019, minimizing the size of work pads, limiting tree and shrub clearing to the extent possible, and use of erosion control measures (syncopated silt fencing and/or straw wattles) that allows for unencumbered amphibian access to the vernal pool.

The Project area extends across several Federal Emergency Management Agency (FEMA) designated 100-year and 500 year flood zones. Four replacement structures are within 100-year flood zones but no permanent effect on flood storage capacity is anticipated since the new structures will replace existing structures. Temporary work pads/matting would be placed within the designated flood zones. Prior to significant storm events, Eversource would secure construction mats to impede lateral movement during anticipated temporary flooding. No permanent access roads or work pads are proposed within the flood zones.

No public water supply reservoirs are located in the vicinity of the proposed Project. Residences within the Project area are generally served by public and private water supply wells. A portion of the Project, between structures 4895 and 4900 in Westbrook and Old Saybrook, is located within the Holbrook Aquifer Protection Area (APA). To protect water quality within the APA, Eversource would adhere to best management practices for the proper storage, secondary containment, and handling of diesel fuel, motor oil, grease and other lubricants.

Several sections of the Project ROW are within mapped Natural Diversity Database (NDDB) areas. Eversource is consulting with DEEP regarding NDDB listed-species that may be affected by the Project. For all listed species that occur in the Project area, Eversource would follow established DEEP protection protocols during construction.

The Project area is within the known range of the northern long-eared bat (NLEB), a federally-listed threatened species and state-listed endangered species that prefers wooded areas for roosting and feeding. Eversource does not anticipate Project-related impacts to the NLEB as the Project is not proximate to any known NLEB hibernacula or maternity roost trees.

The Project ROW crosses a United States Fish and Wildlife Service designated New England Cottontail rabbit (NEC) Focus Area in an open space parcel, known as The Preserve, located primarily in Essex and Old Saybrook that is jointly owned by the State of Connecticut, the Essex Land Trust and the Town of Old Saybrook. The NEC prefers shrubland habitat and may occur within the managed section of the Eversource ROW within The Preserve. In order to reduce impacts to shrubland habitat, Eversource is proposing to reduce gravel work pads to 50 feet by 50 feet within The Preserve section of the ROW.

Eversource met with the managers of The Preserve on April 6, 2018 and is coordinating construction activities to reduce environmental and recreational impacts to the extent practical. Eversource would attempt to schedule work around Rhe Preserve's survey activities and planned events, as well as develop signs and notices for hiking trails impacted by construction activities. Several existing off-ROW access roads would be refurbished and used to gain access to the ROW within The Preserve area.

No state or local designated scenic roads or vistas were identified within the Project area. The visual impact of the replacement project would be negligible as the new structures are the same height or slightly higher than the existing structures. Additionally, the weathering steel finish of the new monopoles would be similar to that of the existing wood poles.

No resources listed on the National or State Register of Historic Places would be impacted by the work. In-field cultural resource studies did not identify any areas possessing moderate to high archeological sensitivity.

Construction-related noise is exempt per DEEP noise regulations. Notwithstanding, any construction-related noise would be short-term and localized in the vicinity of work sites. There would be no permanent changes to the existing sound levels along the transmission ROW after completion of the Project.

Magnetic Fields

Eversource reviewed magnetic field (MF) levels associated with the Project. The Project route already contains an existing transmission line that emits 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 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.*

Calculations performed by Eversource indicate MF, when compared to existing levels, would increase slightly, by 0.2 to 0.7 depending on location, along the edges of the ROW. The slight increase in MF is mostly related to longer conductor support arms that are required to maintain conductor clearances from the new steel monopoles. Post-Project levels at the edge of the ROW would range from 5.4 mG to 25.2 mG.

Municipal and Abutter Notice

In February and March 2018, Eversource consulted with the municipal officials in the Towns of Madison, Killingworth, Clinton, Westbrook, Essex and Old Saybrook (Towns) regarding the proposed Project. In February 2018, Eversource initiated outreach to property owners located along the ROW. In addition to conducting outreach to those directly abutting the ROW, Project Outreach representatives conducted door-to-door outreach to an expanded area of abutters in locations where it is anticipated other nearby property owners may see or hear construction due to the presence of a nearby access road, substation or other proposed project impact.

On May 9, 2018, Eversource provided representatives of the Towns and abutting and underlying property owners with written notice of the Petition filing. The Council received comments from The Preserve Advisory Committee on June 21, 2018 that presented numerous concerns regarding Project construction impacts on The Preserve's biological resources and provided recommendations to address those concerns.

Recommended Condition

Staff recommends including the following condition:

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

Project Route Overview