STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
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CERTIFIED MAIL
RETURN RECEIPT REQUESTED

December 12, 2016

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

RE: **PETITION NO. 1256** - Eversource Energy petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed replacement of approximately 8 miles of its existing No. 1620/1975 115-kilovolt electric transmission line structures with new transmission line structures within existing right of way between Haddam Substation and Oxbow Junction in Haddam, Connecticut, and related transmission line structure improvements.

Dear Ms. Shanley:

At a public meeting held on December 8, 2016, 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. Use of off-road construction equipment that meets the latest EPA or California Air Resources Board standards, or in the alternative, equipment with the best available controls on diesel emissions, including, but not limited to, retrofitting with diesel oxidation catalysts, particulate filters and use of ultra-low sulfur fuel;

2. Compliance with the provisions of Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies that limit the idling of mobile sources to 3 minutes;

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

4. Use of erosion control fiber rolls adjacent to wetland areas;

5. Provide to the Council a copy of any State Historic Preservation Office recommended mitigation measures;

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. 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 Town of Haddam;

8. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;

9. 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;

10. 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

11. 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 13, 2016.

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

Very truly yours,

Robert Stein MAB

Robert Stein
Chairman

RS/RDM/lm

Enclosure: Staff Report dated December 8, 2016

c: The Honorable Lizz Milardo, First Selectman, Town of Haddam
Liz West Glidden, Town Planner, Town of Haddam

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Petition No. 1256
Eversource Energy
1620/1975 Lines Upgrade Project - Haddam
Staff Report
December 8, 2016

Introduction

On October 13, 2016, 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 that no Certificate of Environmental Compatibility and Public Need is required for the proposed modifications to its existing 1620 and 1975 115-kV transmission lines in Haddam. On November 22, 2016, Council member Robert Hannon and Council staff member Robert Mercier conducted a field review of the proposed project with Eversource Project Siting Specialist Helen Taylor and other Eversource project representatives.

Proposed Project

The purpose of the proposed project is to replace 64 existing transmission structures, mostly wood laminate, that are located in an eight mile section of electric transmission right-of-way (ROW) between Oxbow Junction in Haddam and the Haddam Substation in Haddam. The structures, installed in the 1970's, are exhibiting severe deterioration and structure replacement is necessary to maintain electric system reliability.

Earlier in 2016, a cross arm support on one of the wood laminate structures unexpectedly failed leading to an outage on the transmission line. Subsequent inspections of the wood laminate structures revealed severe wood rot within support cross arms on multiple structures. To reduce the potential for further transmission line outages from cross arm failure, Eversource implemented an emergency cross arm replacement project. During the emergency cross arm replacement project, additional structure inspections revealed an unacceptable amount of deterioration within the main body of a majority of the wood laminate structures. As a result, Eversource proposes to immediately replace all of the wood laminate structures along this section of ROW and make other necessary upgrades.

Specifically, the Project entails the following components:

a. Replacement of 56 double-circuit wood laminate structures with 56 double-circuit weathering steel direct-embedded monopoles. The new structures would be installed 10 feet of the existing structures;
b. Replacement of six single-circuit guyed wood poles and two single-circuit wood H-frames with eight single circuit guyed weathering steel H-frame structures; and
c. Evaluation and refurbishment, if necessary, of four steel lattice towers (#4394, 4397, 4429, 4430).

The existing structures range in height from 68 feet to 101 feet above ground level. The replacement steel monopoles would be 2 to 16 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.

Project Construction and Work Procedures

All work would occur an existing, maintained 200-foot wide ROW. The ROW also contains Line 348, a 345-kV transmission line supported by H-frame structures.

Construction along the ROW would utilize existing gravel access roads. All of the roads along the Project right-of-way have already been refurbished as part of the emergency cross arm replacement project. Improvements included clearing adjacent vegetation and establishing a 16 to 20-foot wide travel surface. In areas where existing access roads traverse streams or wetlands, temporary construction mats were deployed to reduce disturbance to underlying soils.

At each transmission line structure site, a 100-foot by 100-foot (typ.) work pad would be constructed to stage material for structure assembly. Work pads located in upland locations would be composed of gravel and left in place unless removal is requested by the underlying landowner. Temporary work pads would be used in wetland areas.

The new structures would be delivered in sections by truck and stored at a nearby staging area along with other project materials and hardware. Eversource would consult with town officials when staging areas are identified.

Direct-embedded structures with storm guys would be utilized for structures located within flood zone areas with good soil conditions. Self-supported structures on drilled shaft foundations would be utilized for structures located in poor soil areas and for all angle structures. Structure sections would be assembled by crane at each work pad followed by the installation of insulators and connecting hardware. Once the new structures are in place, Eversource would relocate the conductors from the existing structures to the new structures.

The old structures and associated equipment would be removed and either recycled or disposed of in accordance with Eversource's Best Management Practices (BMPs) and applicable regulations. Holes that result from the removal of the structures would be backfilled and compacted except in wetland or sensitive areas where the wood structures would be cut 10 inches above grade, leaving the pole butts in place.

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 BMPs. Typical E&S controls include, but are not limited to, the use of hay bales and silt fence, check dams, berms, swales, and sediment basins. Eversource would be willing to use rolled fiber rolls (silt socks) adjacent to wetland areas to provide more reliable erosion control.

Following the completion of construction, seeding and mulching would occur to permanently stabilize previously disturbed areas. 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 as soon as possible and would deploy multiple work crews to complete the Project within a three month time frame. 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, agricultural, state forest, vacant land, and open space parcels. Topography of the area is characterized by small hills and ledges interspersed with narrow valleys containing small brooks and wetlands.

The Project area contains 57 delineated wetland areas and 27 watercourses. The Project would not permanently affect any wetlands. Temporary wetland impact, totaling 0.83-acre, would include the installation of timber mats for structure access and structure work pad locations. Temporary matting would be removed upon completion of construction and disturbed wetland areas would be restored in accordance with Eversource BMPs. Prior to construction, Eversource would obtain a U.S. Army Corps of Engineers Self Verification approval for the placement of timber mats in regulated wetlands.

Six vernal pools were identified within the Project area: four are located along access roads, one is located beyond the ROW, and one is within the ROW. The Project would not directly affect any of the vernal pools and BMPs, such as exclusionary fencing, syncopated silt fencing, mat bridging, would be employed to avoid or minimize impacts to vernal pools and vernal pool obligate species.

Seven watercourse crossings would occur in areas where no existing crossing is present. Work would also occur adjacent to an additional watercourse. All work within and adjacent to the watercourses would be in accordance with Eversource BMPs.

One structure would be replaced within a Federal Emergency Management Agency (FEMA) designated 100-year flood zone associated with Candlewood Hill Brook. No permanent effect on flood storage capacity is anticipated since the new structure will replace an existing structure. Temporary work pads/matting would be placed within 100-year flood zones but the temporary structures are not anticipated to have an adverse effect on the hydraulic characteristics of the affected zones. No permanent access roads or work pads are proposed for any FEMA designated flood zones.

No public water supply reservoirs are located in the vicinity of the proposed Project. The Project is not located within an aquifer protection area.

Several areas of the Project 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 does not require tree clearing.

The visual impact of the replacement project would be negligible as the new structures are only slightly higher than the existing structures. Additionally, the existing ROW has been in existence for decades and traverses sparsely developed hilly, wooded terrain. In areas where there is structure visibility, the weathering steel finish would blend in with the wooded surroundings. The Project crosses several recreational trails and designated greenways. The Project would have no permanent effect on these resources as all work is occurring within existing ROW.

No historic resources are within 500 feet of the Project area. Cultural resource surveys identified three known archeological sites near the Project area as well as areas of moderate to high archeological sensitivity in portions of the ROW. Eversource is conducting cultural resource surveys in the identified areas and is coordinating with the State Historic Preservation Office (SHPO) and tribal organizations regarding any subsequent mitigation requirements.

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 decrease slightly along the edges of the ROW from Haddam Junction to Oxbow Junction and would not materially change along the edges of the ROW from the Haddam Substation to Haddam Junction. Post-Project levels at the edge of the ROW would range from 11.6 mG to 38.1 mG.

Municipal and Abutter Notice

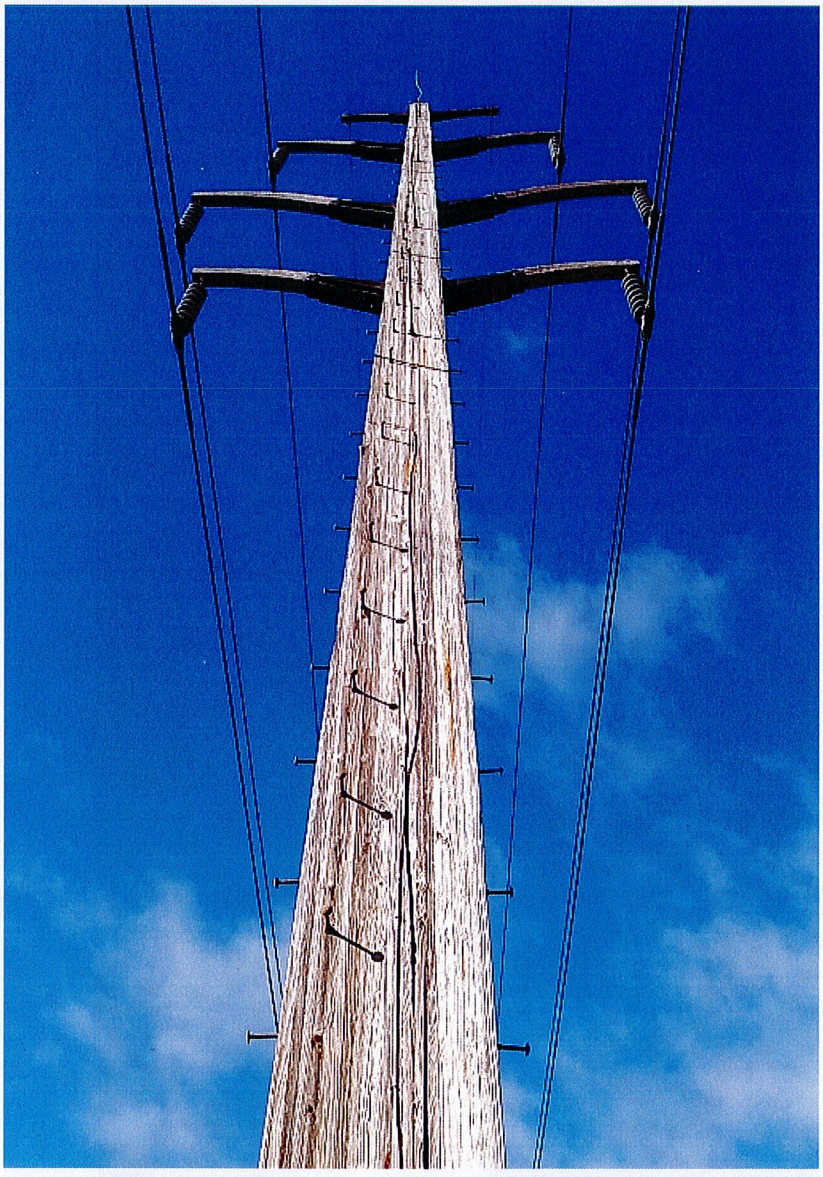
Eversource began Project consultation with the Town of Haddam prior to submitting the Petition to the Council. Formal notice of the Petition was provided to the Town of Haddam and abutting and underlying property owners on or about October 13, 2016. The Council has not received any comment regarding the Project to date.

Recommended Conditions

If approved, staff recommends including the following conditions:

a. Use of off-road construction equipment that meets the latest EPA or California Air Resources Board standards, or in the alternative, equipment with the best available controls on diesel emissions, including, but not limited to, retrofitting with diesel oxidation catalysts, particulate filters and use of ultra-low sulfur fuel;
b. Compliance with the provisions of Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies that limit the idling of mobile sources to 3 minutes;
c. Approval of any minor project changes be delegated to Council staff;
d. Use of erosion control fiber rolls adjacent to wetland areas; and
e. Provide to the Council a copy of any SHPO recommended mitigation measures.

Photograph of Existing Wood Laminate Structure (#4427)



Project Route Overview - Haddam, Connecticut