



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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CERTIFIED MAIL RETURN RECEIPT REQUESTED

August 31, 2017

Kathleen M. Shanley
Eversource Energy
56 Prospect Street
P.O. Box 270
Hartford, CT 06103

RE: **PETITION NO. 1314** - The Connecticut Light and Power Company d/b/a Eversource Energy petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed 1555 Line Rebuild Project consisting of the structure and conductor replacements on its existing 115-kilovolt electric transmission line extending approximately 6.6 miles within existing Eversource electric transmission line right-of-way between the existing Bulls Bridge Substation located at 781 Kent Road and the existing Rocky River Junction located off Boardman Road in New Milford, Connecticut and related substation improvements.

Dear Ms. Shanley:

At a public meeting held on August 31, 2017, 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:

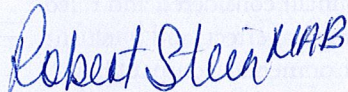
1. Approval of any minor project changes be delegated to Council staff;
2. Eversource shall file a revised copy of Sheets 1 through 12 with the final access drives (temporary and permanent) prior to construction;
3. Evesource shall implement the Vernal Pool Best Management Practices as recommended on pages 3 and 4 of the #1555 Line Vernal Pool Survey dated May 31, 2017;
4. 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;
5. 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 New Milford.
6. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;

7. 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;
8. 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
9. 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 June 30, 2017, and additional information dated August 7, 2017 and August 21, 2017.

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

Very truly yours,



Robert Stein
Chairman

RS/MAB/MP/bm

Enclosure: Staff Report dated August 31, 2017

- c: The Honorable David Gronbach, Mayor, Town of New Milford
Laura Regan, Zoning Enforcement Officer, Town of New Milford



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Petition No. 1314

The Connecticut Light and Power Company d/b/a Eversource Energy New Milford, Connecticut

Staff Report

August 31, 2017

Introduction

On July 3, 2017, 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 proposed modifications to its existing 115-kilovolt (kV) #1555 transmission line (#1555 Line) from Rocky River Substation to Bulls Bridge Substation within Eversource's existing rights of way (ROW) located in New Milford, Connecticut. Council member Robert Silvestri and Council staff member Michael Perrone conducted a field review of the proposed project on August 1, 2017. The following representatives from Eversource attended the field review: Helen Taylor, Christopher Soderman, Mark Wayne, and Tom Kenny. Matthew Davison from Davison Environmental (on behalf of Eversource) also attended the field review.

The purpose of the proposed project is to replace structures and reconductor the existing #1555 Line for a distance of about 6.6 miles. The #1555 Line was built in the 1930s, primarily on wood H-frame structures. Many of these structures are showing age-related degradation and cannot support new conductors. Wood structure deficiencies include rotting, cracks, leaning, bowing, split tops or woodpecker damage. In addition, the #1555 Line copper conductors are in need of replacement due to having exceeded planned service life and experienced a loss of strength.

At the time of the original installation, the National Electrical Safety Code (NESC) did not require consideration for conductor sway due to wind (i.e. blow-out). Thus, the existing H-frame design within portions of the ROW do not meet the conductor blow-out requirements set forth in the 2012 NESC, which would result in the need for additional easements from abutting property owners to replace the existing structures with a similar H-frame design. The proposed project would comply with NESC clearance requirements and Eversource's governing standards, and it would avoid the need to secure additional easements.

The proposed project is not identified on the June 2017 ISO-NE Regional System Plan Project List because it is not associated with a pool transmission facility. However, the project was included in Eversource's presentation to the ISO-NE Transmission Operators Planning Advisory Committee on October 20, 2016.

Specifically, the project consists of the following components noted below:

- a) Replacement of 33 single-circuit wood monopoles with 33 single-circuit direct-embed weathering steel monopoles;
- b) Replacement of 2 single-circuit wood monopoles with two direct-embed single-circuit weathering steel H-frame structures;
- c) Replacement of 10 single-circuit wood H-frame structures with 10 weathering steel direct-embed H-frame structures;
- d) Replacement of 18 single-circuit wood H-frame structures with 18 single-circuit direct-embed weathering steel;
- e) Replacement of one existing single-circuit galvanized steel lattice tower with a single-circuit direct-embed three-pole weathering steel structure (i.e. Structure No. 2601);

- f) Installation of a new 115-kV single-circuit direct-embed weathering steel monopole (i.e. Structure No. 2606-1);
- g) Replacement of the 345-kV dead-end direct-embed three-pole wood structure (i.e. Structure No. 10126) with a new 345-kV dead-end direct-embed three-pole weathering steel structure on the adjacent 345-kV #321 Line where the #321 Line crosses over the #1555 Line;
- h) Replacement of the existing 2/0 copper conductors with 556 kcmil aluminum conductor steel support (ACSS) from Rocky River Substation to Gales Junction (for a distance of about 2.6 miles), with the new conductors to be supported on the new 115-kV structures;
- i) Replacement of the existing 336 kcmil aluminum conductor steel reinforced (ACSR) with 556 kcmil ACSS from Gales Junction to Bulls Bridge Substation (for a distance of about 4.0 miles), with the new conductors to be supported on the new 115-kV structures;
- j) Installation of new optical ground wires (OPGW);
- k) Installation of two new 43-foot weathering steel "stub" poles (i.e. Structure Nos. 541-1 and 2627-1) to support an all-dielectric self-supporting (ADSS) communications cable from Structure No. 2627 to Structure No. 2621; and
- l) Installation of lightning arrestors on eleven of the proposed structures.

Construction Methods

Eversource would utilize three staging/laydown areas at 69 Boardman Road in New Milford, on the property of Medical Instill Technologies. Combined, the staging areas would be just under four acres in area. Erosion and sedimentation controls (E&S Controls) would be used in accordance with Eversource's Best Management Practices (Eversource BMPs) at the staging areas.

Tree clearing within the existing ROW would result in a total forested conversion (to scrub-shrub or herbaceous habitat) area of approximately 8.23 acres, of which, 0.13 acres would be cleared in wetlands. Tree clearing is required, along with vegetation removal, to accommodate access road installation and improvements, work and pull pad installations and for conductor blow-out. Converting forest (including forested wetland) to shrubland, or emergent vegetation along the transmission line ROW is expected to modify, but not adversely impact, habitat.

Following vegetation removal, soil erosion and sedimentation controls would be installed. E&S Controls would be installed in accordance with the 2002 *Connecticut Guidelines for Soil Erosion and Sediment Control* and Eversource BMPs. Typical E&S controls include, but are not limited to, the use of hay bales, silt fence, straw blankets, check dams, berms, swales, and sediment basins. Temporary E&S controls would remain in place until construction is complete and all disturbed areas are stabilized.

The project would utilize existing and new permanent and temporary access roads. Permanent access road installation and improvements would involve the placement of gravel and typically include removing vegetation growth and grading the area to a width of approximately 16 to 20 feet (with additional width needed at turning or passing locations). Access roads would typically be gravel. However, where access roads traverse streams, wetlands, or areas of archaeological sensitivity, construction mats would be used.

In certain locations, Eversource left their contractor(s) options by having both "proposed" and "alternate" access routes. For example, there are cases where shorter, but steeper access is one possibility, and longer, but more gradual grade access is another. Most of these access options are within the existing right-of-way. In some cases, such as on Sheet 1, proposed access may be on private property, but it would be subject to a private agreement between Eversource and the landowner. Council staff recommends including a condition that Eversource file a revised copy of Sheets 1 through 12 with the final access drives (temporary and permanent) prior to construction.

A typical (upland) installation of a work pad at a structure location begins with the removal of vegetation, if necessary. The typical work pad size is approximately 100 feet by 100 feet, but it varies according to site conditions on the ROW. If not already level, the work pad site would then be graded to create a level work area, and the upper three to six inches of topsoil would be removed. The topsoil would be temporarily stockpiled within the ROW, typically near the work pad.

Replacement structure sections would be delivered to the individual structure locations using flat-bed trucks and assembled on-site using a crane and bucket trucks. After assembly, the area around the foundation would be backfilled with processed gravel.

The installation of the new conductors, OPGW and Alumoweld shield wire would occur after the structures have been erected. The equipment required for these activities would include conductor reels, conductor pulling and tensioning rigs, and bucket trucks. The removal of existing conductor and shield wire would take place during the installation of new conductor/OPGW because the existing conductor and shield wire would be used as pulled lines. In this Petition, a typical pull pad size is 150 feet by 150 feet, with some others of various sizes to be located within the existing ROW.

Once the new structures are erected and the line is energized, the existing structures would be demolished and removed. Waste materials, such as structure components and any other construction debris would be disposed of in accordance with Eversource BMPs, applicable regulations and disposal facility policies.

ROW restoration activities would include the removal of construction debris, signs, flagging, and temporary fencing, as well as the removal of construction mats, pull pads and structure work pads that are designated for removal. Areas affected by construction would be re-graded as practical and stabilized using re-vegetation or other measures before removing temporary E&S Controls.

Notice to the Federal Aviation Administration for the proposed structures is not required.

Eversource anticipates beginning construction during the summer of 2017 and completing construction by summer of 2018. Normal construction hours would be Monday through Saturday 7:00 a.m. to 7:00 p.m. Sunday hours may be necessary due to unforeseen conditions such as inclement weather, outage constraints, and/or critical path activities.

Environmental Effects and Mitigation Measures

Eversource's review of the Connecticut Department of Energy and Environmental Protection's (DEEP) Natural Diversity Database identified State-listed endangered, threatened, or special-concern species as well as critical habitat in the vicinity of the proposed project area. According to a data sharing agreement with DEEP, Eversource is unable to publicly identify the protected species. However, Eversource conducted a field review with DEEP on August 16, 2016 and agreed on a protection plan for the identified critical habitat and State-listed species.

One federally-listed Threatened Species, the northern long-eared bat (NLEB), may occur in the vicinity of the project. However, there are no known hibernacula within 0.25 miles of the project area. In addition, tree clearing is expected to occur outside of the June 1 through July 31 pup season for the NLEB.

Heritage Consultants, LLC (Heritage) performed a Phase 1B cultural resources reconnaissance survey of the proposed project. Heritage identified six cultural resources loci. Of these six loci two (552-02 and 2610-AR-01) will be assigned official State of Connecticut site numbers once they are awarded by the Connecticut State Historic Preservation Office (SHPO). The other four loci no longer retain any research potential, and no additional testing of those areas is recommended.

Locus 552-02 was identified along an existing access road leading to Structure No. 552. Eversource has no plans to disturb this area, and thus, no additional examination is recommended prior to construction.

Locus 2609-2610-AR-01 appears to contain intact cultural deposits and is potentially significant under Criterion D of the National Register of Historic Places. Eversource plans to utilize temporary matting at this location to avoid ground disturbance. To date, no response has been received from the SHPO. By email dated August 2, 2017, the Wampanoag Tribal Historic Preservation Office agreed with the findings and recommendations from Heritage, provided that the avoidance plan (i.e. matting) between Structure Nos. 2609 and 2610 is implemented. No response has been received from any other Tribal Historic Preservation Offices (THPOs).

Permanent wetland impacts would be associated with the replacement of three existing structures (i.e. Structure Nos. 566, 2622 and 2633) which are located in wetlands. The placement of these structures would result in approximately 100 square feet of permanent wetland impacts. In order to minimize disturbance to wetlands, the existing wood structures would be cut approximately 10 inches above grade and removed. The pole butts would be left in place. Eversource would utilize direct-embed structures for this project. Direct-embed structures have less wetland impact because of a smaller foundation area.

Council staff inquired about the possibility of relocating Structure Nos. 566, 2622 and 2633 outside of wetlands. Structure No. 566 would require a 100-foot shift to the southeast, 10 feet of additional height and relocation onto a different property on the ROW. Structure No. 2622 cannot be relocated outside wetlands without creating too long of a span between structures. Structure No. 2623 cannot be relocated because it is an angle structure that cannot be shifted in either direction.

Temporary wetland impacts would be associated with the use of construction mats for access roads and work pads. Such temporary impacts would involve a total area of approximately 1.74 acres. Any work within wetland systems would be conducted in accordance with Eversource BMPs.

Eversource would submit Self-Verification Notification Forms to the U.S. Army Corps of Engineers and/or DEEP for impacts to wetland resources. Wetland areas affected by temporary matting are typically left to revegetate naturally from native seed or root stock. In some cases, where fine grading is required or the potential for erosion exists, annual rye grass or wetland seed mix would be applied to facilitate stabilization. Eversource also has developed Invasive Species Control Best Management Practices for the proposed project.

Potential vernal pool surveys were performed in June and July of 2015 by Davison Environmental (DE) and All-Points Technology (APT). Additional vernal pool surveys were performed in August and September of 2016. The only potential vernal pools were located in Wetlands 18 and 20. Wetland 20 is Ladner Pond, an 18-acre pond west of White Swan Drive. Due to size and depth, it likely contains fish and thus is not considered a vernal pool. Wetland 18 contains a historically dug pond (presumably for farming purposes). Wetland 18 was surveyed for vernal pool indicator species on May 9, 2017. Vernal pool indicator species observed included the wood frog, tadpoles and four spotted salamander egg masses. The vernal pool in Wetland 18 is identified as VP 18-1 in the Vernal Pool Survey Report from DE dated May 31, 2017.

Existing access to Structure No. 2623 directly abuts VP 18-1 on the northwest side. Immediately to the northeast and southeast are work pads for Structure Nos. 2623 and 2622. Thus, portions of the work pads and existing access are located within the 100-foot Vernal Pool Envelope. DE has provided recommended best management practices (VP BMPs) to avoid or minimize impacts to VP 18-1. The VP BMPs include the following: no access through the vernal pool; no new access shall be constructed or gravel fill deposited within the VPE; except in work pad locations, existing scrub-shrub vegetation within 25 feet of the vernal pool shall be maintained; E&S Controls shall be maintained along existing access; plastic netting shall not be used; and E&S Controls shall be removed upon final re-vegetation and stabilization of the ROW.

Also, Eversource notes that, should work occur during the active vernal pool season (i.e. March through June), Eversource would implement measures to facilitate unencumbered amphibian access to and from VP 18-1 such as syncoated silt fencing or elevated matting.

No transmission line structures are proposed to be located within the 100-year flood zone. Two replacement structures would be located within the 500-year flood zone.

Approximately 2,000 linear feet of project ROW (between Structure Nos. 2608 and 2603) is located within the Fort Hill Road DEEP-designated Level A Aquifer Protection Area (APA). Construction activities would conform to Eversource's BMPs, as well as to other plans such as the Stormwater Pollution Control Plan and Spill Prevention Plan to protect the APA. For example, best practices for the proper storage, secondary containment and handling of diesel fuel, motor oil, grease and other lubricants, would be used to protect water quality within the APA. The project would not be located within a public water supply watershed, and no public supply reservoirs or public water supply wells are located within the proposed project area. No private water supply wells were observed within the project area during field investigations.

The proposed project would change electric and magnetic fields (EMF) in the transmission line ROW. The maximum existing magnetic field level is in the ROW in the Long Mountain Junction to South Kent Road corridor and is approximately 286 milligauss (mG). Post-construction, this would increase to approximately 324 mG under average annual load conditions. Thus, all projected magnetic field levels identified in Eversource's EMF Analysis would remain far below the International Commission on Non-Ionizing Radiation Protection acceptable exposure level of 2,000 mG for the general public as recognized in the Council's "Electric and Magnetic Field Best Management Practices for the Construction of Electric Transmission Lines in Connecticut."

Noise associated with construction would be exempt per DEEP Noise Control Standards. After completion of the project, there would be no changes to the existing sound levels along the transmission corridor. Thus, the project would continue to comply with DEEP Noise Control Standards as applied to these facilities.

Existing 115-kV transmission structures along the #1555 Line range in height from 34 feet to 92.5 feet above ground level (agl). The replacement structures would range in height from 52 feet to 106 feet agl. All replacement transmission structures would utilize weathering steel which would weather/oxidize to a red/brown color, similar to the wooden structure to be removed. While maximum structure heights would increase, the weathering steel color would fit in with the character of the surrounding wooded area to reduce visual impacts and/or maintain aesthetics.

The closest historic property is the Merwinsville Hotel, located approximately 450 feet southwest of the ROW. Due to the location of the property, which is at a lower elevation than the ROW and the intervening vegetation and rugged topography, no significant visual impact to the viewshed of this NRHP property is expected.

Municipal and abutter notice

In August and November of 2016, Eversource consulted with the municipal officials in the Town of New Milford (Town) regarding the project. In January 2017, Eversource initiated outreach to property owners along the ROW. In February 2017, Eversource consulted with the Town regarding obtaining off-ROW access across the Town property on Scovill Street. The Town approved Eversource's request for temporary off-ROW access in June 2017. Eversource also provided representatives of the Town of New Milford with written notice of the Petition filing.

Formal notice of the Petition was provided to the Towns and abutting property owners on or about June 30, 2017. To date, no comments from the Town have been received. However, the Council has received two responses from one abutting property owner.

By letter dated July 27, 2017, David and Angela Chastain (collectively, "The Chastains") of 26 Deer Woods Drive, New Milford, expressed concerns about the project regarding the replacement of an existing two-pole H-frame structure with a new three-pole H-frame structure with guy wires. The Chastains requested either a comparable replacement two-pole structure, or to elevate the guy wires above grade to reduce the risk of ATV operators accidentally contacting the guy wires. Council staff inquired about these concerns at the field review. Eversource noted that, as a dead-end structure, the proposed structure would require guy wires to support the loading in the event of loss of tension from the conductors. Eversource further noted that guy anchor "foundations" are generally not elevated above grade as suggested because it creates an undesirable bending load on the concrete that protrudes above grade.

By email dated August 13, 2017, The Chastains inquired about placing the transmission project underground. Council staff inquired about an underground alternative via an interrogatory dated August 14, 2017. On August 21, 2017, Eversource responded with the following regarding the feasibility of an underground transmission line in lieu of the proposed overhead line rebuild:

- a) An underground transmission line would cost approximately 5 to 10 times the cost of an overhead line of the same length;
- b) Eversource does not have underground easement rights through its ROW, and additional easement rights would have to be obtained from property owners along the ROW;
- c) Portions of the #1555 Line corridor have extreme terrain issues, water resources, rare species and critical habitat that would be extremely difficult obstacles to underground construction, and an overhead line can span over these sensitive areas without trench excavation;
- d) Underground lines have different electrical characteristics than overhead lines and would require special studies and protection requirements, which add cost and complexity;
- e) A damaged overhead transmission circuit can be repaired from almost any type of damage within a few days, and underground lines require a substantial amount of time just to locate the damage, and thus, it may result in an outage for weeks at a time; and
- f) DEEP has required the use of temporary matting to minimize impacts to a sensitive rare species and critical habitat, and this would not be possible with an underground configuration.

Staff recommends including the following conditions:

1. Eversource shall file a revised copy of Sheets 1 through 12 with the final access drives (temporary and permanent) prior to construction;
2. Evesource shall implement the Vernal Pool Best Management Practices as recommended on pages 3 and 4 of the #1555 Line Vernal Pool Survey dated May 31, 2017; and
3. Approval of any minor project changes be delegated to Council staff.