



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

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### CERTIFIED MAIL RETURN RECEIPT REQUESTED

November 14, 2016

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

RE: **PETITION NO. 1251** – Eversource Energy petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed rebuilding and reconductoring of approximately 3.8 miles of its existing No. 900 69-kV transmission line within existing right of way between Skungamaug Substation and Mansfield Junction in Coventry, Connecticut, and related transmission line structure improvements.

Dear Ms. Shanley:

At a public meeting held on November 10, 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:

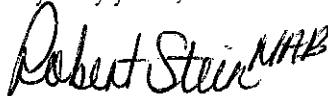
1. The Petitioner submit a Development & Management plan to reduce permanent impacts from access road construction;
2. Use of off-road construction equipment that meets the latest EPA or California Air Resources Board standards, or in the alternative, equipment with the best available controls on diesel emissions, including, but not limited to, retrofitting with diesel oxidation catalysts, particulate filters and use of ultra-low sulfur fuel;
3. 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;
4. Approval of any minor project changes be delegated to Council staff;
5. The Petitioner shall implement protective measures for Natural Diversity Database wildlife and critical habitat in consultation with the Connecticut Department of Energy and Environmental Protection;
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 Coventry;
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 September 9, 2016, and supplemental information dated October 26, 2016.

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

Very truly yours,



Robert Stein  
Chairman

RS/FOC/cm

Enclosure: Staff Report dated November 10, 2016

- c: The Honorable Julie A. Blanchard, Chairman, Town of Coventry  
John A. Elsesser, Town Manager, Town of Coventry  
Eric M. Trott, Director of Planning & Development, Town of Coventry



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### Petition No. 1251

### Eversource Energy

### 900 Line Upgrade Project – Coventry, Connecticut

### Staff Report

November 10, 2016

### Introduction

On September 9, 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 proposed modifications to transmission line no. 900 in the Town of Coventry. Council member Daniel P. Lynch, Jr. and Council staff Fred Cunliffe conducted a field review of the proposed project on September 30, 2016. Eversource representatives in attendance included Kathleen Shanley, Brian Raggazine, and Stephen Marien, as well as Dean Gustafson of All Points Technology. No members of the public or the Town of Coventry were present.

The purpose of the proposed project is to eliminate potential transmission line structure failures. The existing 69 kilovolt (kV) wood H-frame structures were constructed in the 1950s and now exhibit degraded conditions such as: rotting, cracks, leaning, bowed, split tops, or wood pecker damage. The replacement is necessary to maintain physical integrity and operating reliability of the 900 line.

On October 26, 2016, Eversource submitted responses to Council interrogatories relevant to access road construction.

### Project Status

The project was initiated as a maintenance project in anticipation of structure replacements that were to be no taller than the existing structures being replaced. After initial project activities had begun, Eversource reconsidered the field conditions and the deteriorated condition of the wood poles and decided to use steel structures. The final engineering determined that most of the structures would need to increase in height to accommodate a larger conductor and to comply with updated clearance requirements. At the time of this final engineering determination, the project was immediately stopped until the project could be reviewed through the siting process. To date, all access roads and work pads have been constructed.

Eversource has modified its approach to access road and work platform construction in light of major storm events in recent years. Given the continued and increasing reliance on utilizing transmission across the New England bulk power grid, Eversource believes it is prudent to maximize opportunities to create permanent access roads and work platforms. The Eversource goals are to:

- Improve corridor accessibility by building permanent unimpeded, all weather access for all parts of the transmission rights-of-ways;
- Allow sections of access roads that have been upgraded for transmission project activities to remain in place for future right-of-way accessibility; and
- Minimize erosion and sedimentation to wetland resource areas by implementing stormwater controls when the road is built in support of a project or maintenance activity and periodically evaluating the condition of those erosion and sedimentation controls and performing maintenance if needed to ensure that they continue to function as designed.



CONNECTICUT SITING COUNCIL

Affirmative Action / Equal Opportunity Employer

### Proposed Project

Eversource proposes to rebuild an approximate 3.8 mile section of its 900 Line, a 69-kV transmission line extending in a southeast direction from Skungamaug Substation on North River Road (structure no. 6590) to Mansfield Junction south of Route 275 (structure no. 6629) in Coventry. Specifically, the project entails the following components:

- a. Replacement of 40 existing single-circuit, wood H-frame structures with direct-embedded, single-circuit weathering steel H-frame structures;
- b. Replacement of the existing transmission 2/0 copper conductor with new 556-kcmil aluminum conductor with steel support conductor; and
- c. Installation of new optical ground wire.

The work would occur in the existing Eversource right-of-way (ROW) which was established in 1938 and is typically 125 feet in width. Presently, Eversource maintains approximately 75 feet of ROW width characterized by low growth vegetation. No expansion of the established ROW or clearing of the ROW is proposed. Tree limbs within 20 feet of the conductor would be removed. All work would take place within the existing ROW.

The new structures would be direct-embedded and would be located five to ten feet in front of or behind the existing structures. Guying would be used for all dead-end and angle structure locations. One structure (no. 6628) is proposed to be moved 100 feet east of its present location to facilitate conductor clearances over two distribution lines; one that shares the transmission ROW and one that parallels River Road.

The existing structures range in height from 50 feet to 65 feet above ground level (agl). The proposed structures would be 5 feet to 25 feet taller than the existing structures. The maximum structure height would be 74.5 feet agl. The increase in structure height is required to comply with the 2012 National Electrical Safety Code conductor to ground clearance requirements for the larger conductor size.

The 900 line is a radial transmission line that operates at 69-kV. The proposed conductor is capable to operate at 115-kV; however, Eversource does not intend to operate at this voltage.

### Project Construction and Work Procedures

Construction areas would be demarcated by establishing erosion and sedimentation controls (E&S controls) in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* and Eversource's Best Management Practices (Eversource 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. 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.

Construction along the ROW would utilize existing access roads, new access roads and spurs. Existing access roads have been improved in order to be used safely and effectively during construction. Existing access road improvements as well as new access roads included clearing adjacent vegetation and establishing a gravel travel surface approximately 16 to 20 feet wide. Sensitive area avoidance is always the first priority to consider when designing new or improving existing access roads. Alternate access points are always considered by accessing the ROW in the opposite direction or occasionally separate access agreements are made with landowners if the alternate access is outside the ROW.

At each transmission line structure site, a 100-foot by 100-foot work pad has been constructed to stage material for final on-site assembly. Construction of a work pad required the removal of vegetation, grading and the installation of gravel to provide a safe, level work base for the construction equipment.

The new structure sections and associated materials and hardware would be delivered by truck and would be stored at a nearby staging area. The new structure would be delivered to the installation location in sections, and then it would be assembled and installed with a crane. Insulators and connecting hardware would be installed on most structures at this time.

The installation of the overhead line conductors and shield wires would require the use of special pulling and tensioning equipment, which would be positioned at the work pad locations. Once the new lines are installed on the new structures, the old structures and associated equipment would be removed and either recycled or disposed in accordance with Eversource BMPs and applicable regulations.

Access roads and/or structure work pads that are constructed in upland areas would be left in place to facilitate future maintenance, unless requested to be removed by the underlying property owner.

Eversource anticipates beginning construction during fall of 2016 with completion by end of year. Normal work hours would be Monday through Saturday from 7:00 a.m. to 7:00 p.m., as daylight hours permit. Some work may occur on Sunday if work days are lost to inclement weather.

### **Environmental Considerations**

Land-use in the project area consists of a mix of rural residential and subdivision development, nearby public school athletic fields and undeveloped forest lands. Although the project includes slightly taller towers than what presently exists, the new weathering steel structures would have a similar appearance as the existing wood structures, be essentially in the same location as the existing structures and have a negligible visual impact.

No scenic or recreational areas directly abut Eversource's ROW.

No tree clearing was required for the project. The project would traverse some maintained lawn areas, driveways and stone walls that exist in the ROW. Eversource would coordinate with affected property owners to maintain necessary access as well as restore disturbed areas upon completion of construction. Eversource has installed numerous gates where ROW access intersects with roadways.

A cultural resources review determined that no National Register of Historic Places properties or historic districts are located within 500 feet of the proposed project area. However, Eversource is currently consulting with the State Historic Preservation Office for guidance to employ BMPs to avoid disturbance in sensitive areas in context to access roads and work pads, if necessary.

Eversource's review of the Connecticut Department of Energy and Environmental Protection's (DEEP) Natural Diversity Database identified a State-listed species 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 and DEEP have agreed upon protection strategies for this species that might be found within the project area. Eversource will adhere to the DEEP protection measures during construction and will incorporate them into the Company's BMPs relative to the listed species.

Of the six watercourses that exist within the project area, Eversource would only need to cross Green Brook to access structure no. 6623. Green Brook is within Wetland 9 (W9). Eversource installed a new 24-inch diameter by 20-foot long pipe culvert within Green Brook to refurbish existing conditions (improve flow over the existing large rock bottom crossing) and to provide more stable permanent access to the work pad at this location in addition to future maintenance. The pipe culvert crossing used stream-crossing techniques as detailed in Eversource's BMPs, and was placed in a manner that minimizes disruption to the existing bank full and low flow patterns.

A total of ten wetlands were identified within the project area. Construction of the project would require the installation of temporary construction mats/gravel fill in three separate wetland areas (W2, W7, and W10) to access work pad locations, affecting a total of 0.8-acre of wetlands. The temporary mats and gravel fill would be removed upon completion of construction and disturbed wetland areas would be restored in accordance with Eversource BMPs. Approximately 0.27 acre of wetlands would be permanently filled with stone and gravel fill in pre-existing access road crossings of wetlands (W4, W6, and W9). Access roads in W4 and W6 were kept to a 12-foot width. These improvements were designed to minimize the potential of impeding or impounding surface flows through wetlands consistent with Eversource's best management practices. Eversource has obtained U.S. Army Corps of Engineer permits for these regulated activities. No vernal pools were identified within the project area.

Skungamaug Substation and adjacent structure nos. 6628 and 6629 are located in a Federal Emergency Management Agency 100-year flood zone. The diameter of the new structures is slightly larger than the existing structures but would not impact the base flood elevation as a result of construction.

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

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 right-of-way 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 would increase slightly along the edges of the ROW and decrease slightly along the center of the ROW under average annual loading (AAL) conditions. Eversource relied on the 2016 ISO-New England Capacity, Energy, Loads, and Transmission Report for its EMF calculations. These values are well below the guidelines established by ICNIRP and ICES.

### Summary of Electric and Magnetic Field Calculations

| <i>EMF Information</i> |      |              |            |                    |            |
|------------------------|------|--------------|------------|--------------------|------------|
| Units                  |      | ROW Edge     | South Edge | Maximum within ROW | North Edge |
| Electric Field         | kV/m | Pre-Project  | 0.18       | 0.78               | 0.07       |
|                        |      | Post Project | 0.32       | 0.70               | 0.13       |
| Magnetic Field (AAL)   | mG   | Pre-Project  | 3.1        | 18.7               | 1.5        |
|                        |      | Post Project | 4.5        | 15.0               | 2.2        |

### **Municipal and Abutter Notice**

Eversource began project consultation with the Town of Coventry and landowners abutting the ROW for the maintenance phase of the project. Formal notice of the Petition was provided to the Town and abutting property owners on or about September 9, 2016. The Council received comments from one property abutter and one neighboring property owner. The concerns raised include change from wood poles to weathering steel and taller structures, aesthetics, property values, health concerns and construction of access roads which create opportunity for increased use to hike or bike and a request for gates (several gates were installed). The Town did not comment.

### **Recommended Conditions**

Staff recommends 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; and
4. The Petitioner shall implement protective measures for Natural Diversity Database wildlife and critical habitat in consultation with the Connecticut Department of Energy and Environmental Protection