



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

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### CERTIFIED MAIL RETURN RECEIPT REQUESTED

May 27, 2016

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

**RE: PETITION NO. 1227** – Eversource Energy petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed replacement of electric transmission line structures within approximately .8 miles of existing right of way along its existing No. 1975 115-kV transmission line traversing the municipalities of Middlefield, Durham and Middletown, Connecticut, and related transmission line structure improvements.

Dear Ms. Shanley:

At a public meeting held on May 26, 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 shall prepare a Development and Management Plan (D&M) for this site in compliance with Sections 16-50j-60 through 16-50j-62 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Towns of Durham and Middlefield and City of Middletown for comment and submitted to and approved by the Council prior to the commencement of facility construction and shall include;
  - a. A detailed site plan showing the placement of the access roads, work pads, equipment and material staging area, pull pad and route to pull conductors, and identifying these areas as temporary;
  - b. Plan and notification of using helicopter for conductor installation, if applicable;
  - c. Identification of developed areas for staging and equipment lay down, field office trailers, sanitary facilities and parking;
  - d. An erosion and sediment control plan, consistent with the 2002 Connecticut Guidelines for Soil Erosion and Sediment Control as amended;
  - e. A spill prevention and countermeasures plan;
  - f. Provisions for crossing inland wetland and watercourses;
  - g. Vegetative clearing plan and use of organic materials;
  - h. Mark established or ornamental vegetation for preservation prior to clearing, to the extent practicable;
  - i. A wetland and upland restoration plan;
  - j. A schedule of construction hours;
  - k. Consult with the Town of Durham on construction traffic during the Durham Fair;
  - l. A plan to minimize air quality effects during construction;
  - m. Confirm no blasting is necessary;
  - n. Identification and protective measures to private wells and septic systems; and
  - o. Plans and strategies to prevent the use of the right-of-way by off-road vehicles;



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 Middlefield, Durham and Middletown;
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 April 7, 2016 and additional information dated May 3, 2016.

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

Very truly yours,



Robert Stein  
Chairman

RS/FOC/lm

Enclosure: Staff Report dated May 26, 2016

- c: The Honorable Laura L. Francis, First Selectman, Town of Durham  
Geoffrey Colegrove, Town Planner, Town of Durham  
The Honorable Edward Bailey, First Selectman, Town of Middlefield  
Allan Johanson, Zoning Enforcement Officer, Town of Middlefield  
The Honorable Daniel T. Drew, Mayor, City of Middletown  
Michiel Wackers, AICP, Director of Planning, City of Middletown



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### Petition No. 1227

### The Connecticut Light and Power Company d/b/a Eversource Energy Durham, Middlefield, and Middletown, Connecticut

#### Staff Report

May 26, 2016

#### Introduction

On April 7, 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 replacement of electric transmission line structures and conductors within approximately 0.8 miles of existing right of way (ROW) along its existing No. 1975 115-kilovolt (kV) transmission line traversing the municipalities of Middlefield, Durham and Middletown, Connecticut, and related transmission line structure improvements. Council member Robert Hannon and Council staff member Fred Cunliffe conducted a field review of the proposed project on May 3, 2016. Kathleen Shanley, Chris Soderman, Marcia Wellman and Farah Omakard represented Eversource. The following Royal Oak subdivision neighbors were present; William Norton, Michael Taylor, Walter Pietruska, Trisha Bradley, Cathleen Tannon, Gilles Plante. Beth Moncata of the First Selectman's office represented the Town of Durham.

The purpose of the proposed project is to rebuild an approximately 0.8 mile portion of the 115-kV 1975 line extending through Durham, Middlefield, and Middletown within Eversource's existing 1975 line ROW between East Meriden Substation, Meriden and Haddam Substation, Haddam. The width of the ROW in the 0.8 mile section is 125 feet. These transmission line structures were constructed in the 1920s and 1950s and have been operating beyond the expected operational life of 40 years. Furthermore, this section of transmission line was planned for upgrade in Docket No. 272 Middletown-Norwalk transmission line project combined with a new 345-kV line but was left unchanged as the Council decided to approve an alternate route in this area. In that decision the Council opined as follows:

"Initially, the Council may not have considered deviating from an existing electric transmission line right-of-way. However, because the Royal Oaks neighborhood and existing right-of-way are intertwined specifically via a special agreement between CL&P and the Royal Oak neighbors for vegetation management within the ROW; the Council interprets this as a unique "residential" area. Moreover, the undeveloped area north of the Royal Oaks neighborhood is essentially uninhabited and provides a reasonable corridor to protect the public health and safety of an existing neighborhood. The suggested bypass appears rational, appropriate, and the Applicant does not object to it; therefore, the Council will order the construction of the Royal Oak Bypass which shall include rights-of-way not to exceed a total of 165 feet in width for the proposed 345-kV transmission line and leave the existing 115-kV ROW in place. Furthermore, the minimum buffer zone is the existing right-of-way."

Eversource has individual private agreements with five residents in the Royal Oak subdivision who own property subject to Eversource easements that allow these owners to maintain the vegetation on their properties to Eversource's vegetation management specifications in lieu of removing trees or using herbicides to control incompatible vegetation on these properties. As a matter of practice, Eversource has managed the entire section of ROW through the Royal Oak subdivision as if these agreements applied to the entire section, so as to maintain a uniform appearance of the ROW. These agreements, and Eversource's practice consistent with them, apply only to maintenance of the ROW and not to new construction where previously allowed vegetation would conflict with the installation of new facilities. During construction, vegetation that conflicts with or impedes the installation of the new facilities will need to be removed. Following construction, vegetation will be allowed to re-establish in the cleared areas to the extent consistent with Eversource's specifications to maintain adequate clearances.



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Affirmative Action / Equal Opportunity Employer

. The aging equipment is in need of replacement and Eversource proposes the following:

- o Removal of 13 115-kV wood H-frame structures.
- o Removal of six weathering single-circuit steel structures and foundations. This includes two deadend H-frame structures which support the southerly line and four tap structures which currently facilitate the bundling of the two transmission lines
- o Removal of the existing 4/0 copper conductor and copperweld shield wires on the existing wood structures.
- o Installation of five direct-embedded 115-kV H-frame weathering steel structures which would match the existing structures. The height ranges of the existing structures are between approximately 43 to 61 feet above ground level. The new proposed structures would be approximately 5 to 15 feet taller than the existing structures with the tallest proposed structure at 75 feet.
- o Installation of new conductor 1590-kcmil aluminum conductor steel supported ("ACCSS") on the proposed steel structures.
- o Installation of two optical ground wires ("OPGW") on the proposed structures.

Looking along the ROW, two sets of single-circuit wood pole transmission structures exist today, one of which would be replaced with single-circuit steel H-frames and the second would be removed. The existing configuration in this corridor is two lines bundled together. The new configuration would be a single line. The increase in height is required to comply with the 2012 National Electric Safety Code ("NESC"). The project will enable Eversource to improve the safety and reliability of its 1975 transmission line.

### **Construction Methods**

Eversource would utilize its Dooley Substation property located at 1279 Long Hill Road in Middletown as the staging area for the project, including construction trailers and parking for vehicles.

Vegetation removal would consist of removing overgrowth at the base of existing structures and providing unobstructed access for construction equipment as well as conducting side trimming and vegetation removal along existing access roads to improve access to existing structure locations. No new access roads are required. This would ensure the stability of work pads and safe operation of equipment used for the project.

Following vegetation removal, soil erosion and sedimentation controls would be installed. Erosion and sedimentation control measures (E&S controls) would be installed 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, sediment basins, seeding, mulching, and straw blankets. Temporary E&S controls would remain in place until construction is complete and all disturbed areas are stabilized.

Installation and improvements of the existing access roads would involve grading the area to a width of approximately 16 to 20 feet (with additional width needed at turning or passing locations) and covered with gravel. The work pad site (100 foot by 100 foot) for both structure installation and removal would then be graded, if needed, 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. Eversource would work with property owners who request to have the gravel access roads and work pads removed upon completion of the project. Seeding and mulching would occur to permanently stabilize disturbed areas.

The proposed steel structures would be direct buried using excavation auger or pneumatic hammer. No blasting is proposed. If ground water is encountered it would be discharged in accordance with applicable requirements. The new structure sections and associated materials and hardware would be delivered by truck and would be stored at the 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 reconductoring of the overhead line conductors and shield wires would require the use of special pulling and tensioning equipment, which would be positioned at pre-determined pull pad locations specified by Eversource. In this Petition, a typical pull pad size is 100 feet by 300 feet located within the existing ROW.

Helicopters may be used for conductor and shield wire pulling activities. The Royal Oak Neighbors and the Town of Durham request consideration that a helicopter be used to install conductors. This would reduce vegetation clearing needed for ground-level pulling equipment. After the removal of the old conductors, the existing transmission line structure, hardware, and associated conductors and wires would be disposed of in accordance with Eversource BMPs.

ROW restoration activities would include the removal of construction debris, signs, flagging, and fencing, as well as the removal of temporary mat access roads and work pads in wetlands and other areas that require protection from construction equipment. All other work pads and access roads would be left in place to facilitate future transmission line maintenance unless the underlying property owner requests removal and restoration to pre-construction condition. Areas affected by construction would be re-graded as practical and stabilized using re-vegetation or other measures before removing temporary erosion and sedimentation controls.

Eversource anticipates beginning construction during the summer 2016 and completing construction in November 2016. Normal working hours would be Monday through Saturday 7 am to 7 pm. Sunday work hours may be needed during transmission outages.

### **Environmental Effects and Mitigation Measures**

Land uses in the project area are a mix of residential, agricultural, and undeveloped lands. Residential features that abut and extend into the ROW include maintained lawns and gardens. Though the project would traverse through some maintained lawns and gardens within the established ROW, Eversource would work with the property owners to restore these and other similarly improved areas upon completion of the project.

Heritage Consultants, LLC (Heritage) performed an assessment of archaeological and historical resources (i.e. cultural resources review) for the proposed project area. Heritage reviewed a previous survey conducted by Raber Associates in 2003 associated with Docket 272 project and concluded the project corridor possesses little potential of intact cultural deposits and no further archeological examination was recommended. The State Historic Preservation Office reviewed and concurred with Heritage's findings.

Eversource's review of the Connecticut Department of Energy and Environmental Protection's (DEEP) Natural Diversity Database did not identify any State-listed endangered, threatened, or special-concern species nor critical habitat areas in the vicinity of the proposed project area.

Four wetlands were identified within the existing ROW and project area. Three of the wetlands would not be disturbed. Temporary wetland impacts would be associated with the use of construction mats in the existing ROW between Little Lane and Route 17 for the removal of four existing structures. The temporary wetland impact area would total approximately 27,200 square feet. Eversource would obtain an Army Corps of Engineers Category 1 permit for placement of mats in a regulated wetland. Any work within wetland systems would be conducted in accordance with Eversource BMPs. No vernal pools were identified within the project area.

The proposed project is not located within a 100-year or 500-year flood zone.

No public water supply reservoirs are located in the vicinity of the proposed project. The project would not affect ground water or surface water features, and the project would not cross any aquifer protection areas.

The nearest residences to an existing structure to be removed are at a distance of approximately 53 feet, which occurs at two locations, structure no. 4501 proximate to 11 Packinghouse Hill Road in Durham and

structure no. 3579 proximate to 49 Black Walnut Drive in Middletown. The tallest proposed structure is structure no. 3581 with an above-ground height of 74.5 feet. The nearest house to this new structure is located at 30 Evergreen Terrace in Durham and is approximately 190 feet due north from the house. The overall visual effects would be mitigated by replacing 19 structures (13 wood structures and 6 steel structures) with 5 new weathering steel structures within the existing ROW that would match existing structures in the area.

Electric and magnetic field levels following the proposed line modifications are expected to remain similar to those produced by the existing transmission lines. Eversource's proposed design for the Project is a horizontal configuration of three phase conductors supported on steel H-frames. During Average Annual Load ("AAL") conditions, the magnetic field level would be slightly reduced along the ROW edges and slightly increased within the ROW. Electric fields would also be slightly reduced at the edges of the ROW. This is 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."

EMF Information					
Units		ROW Edge	South Edge	Maximum within ROW	North Edge
Electric Field	kV/m	Pre-project	0.57	1.41	1.08
		Post-project	0.33	1.27	0.4
Magnetic Field	mG	Pre-project	7.53	22.22	12.52
		Post-project	7.41	28.75	8.51

Construction-related noise is exempt per DEEP noise regulations. Notwithstanding, any construction-related impacts to existing noise levels 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.

**Municipal and abutter notice**

Eversource consulted with the Towns of Durham and Middlefield, and City of Middletown. Formal notice of the Petition was provided to the Towns and abutting property owners on or about April 5, 2016. On May 6, 2016, First Selectman Laura L. Francis of the Town of Durham submitted the following comments:

- Require that Eversource develop and distribute the Design and Management Plan that will have all specifications of the project before approval. In addition, we ask that the town and neighbors be given the opportunity to review and comment on the D&M plan prior to approval.
- Require Eversource to work with EVERY property owner along the ROW individually before construction to discuss individual concerns about project.
- Identify crane/work pads on the D&M Plan as "temporary" and confirm that they will be removed in their entirety at the completion/restoration phase of the project.
- Specify and locate on D&M plan where permanent access road will be installed sub grade, backfilled with top soil, so that grass lawns can be restored in ROW, in lieu of re growth of wild vegetation.
- Please note that the 2016 Durham Fair will be held on September 22-25. I ask that there be no disruption on the Route 17 side of the project during that week that would hinder traffic flow.
- Require a helicopter to pull the wires. The use of helicopters would minimize defoliation and vegetation removal, damage to wells, leaching fields, pools, foundations, etc. due to heavy equipment traversing personal property.
- If helicopters are not used, require construction team to traverse property on the far north side of the ROW, away from the houses and driveways and leaching fields.
- If a helicopter is not used and it is necessary to clear a path the entire length of the ROW, we would like any cut trees or bushes, as well as any trap rock and matting cleared from those paths and grass

planted. It will look better and prevent creating a path for motorized recreational vehicles and vandals.

- Confirm that there will be no blasting.
- Require the use of organic materials for vegetation management.
- Encourage the least amount of clearing as possible, especially in the individual easement areas.
- Require Eversource to work with each property owner individually to fully restore private property after construction, including removal of unwanted materials such as matting and trap rock.
- Require that any ornamental trees on town or private property are preserved and to make sure they are properly marked.
- Require proper insurance is in place in the event that private property is damaged to include but not limited to such things as septic systems, wells, pools, fencing (both upright and electronic).
- Require the work to be done Monday through Friday so that residents may enjoy their yards for summertime recreational activities.

A neighbor present at the field review submitted written comments on May 13, 2016 reiterating the Town of Durham's comments with one addition, that Eversource consider use of wood poles as it would blend in with the area.

### **Conclusion**

Staff recommends inclusion of the following condition:

The Petitioner shall prepare a Development and Management Plan (D&M) for this site in compliance with Sections 16-50j-60 through 16-50j-62 of the Regulations of Connecticut State Agencies. The D&M Plan shall be served on the Towns of Durham and Middlefield and City of Middletown for comment and submitted to and approved by the Council prior to the commencement of facility construction and shall include:

- a. A detailed site plan showing the placement of the access roads, work pads, equipment and material staging area, pull pad and route to pull conductors, and identifying these areas as temporary;
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