



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

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### CERTIFIED MAIL RETURN RECEIPT REQUESTED

April 28, 2017

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

RE: **PETITION NO. 1291** - Eversource Energy petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the Towantic Line Upgrades Project that includes rebuilding and reconductoring approximately 4.4 miles of its existing 115-kilovolt electric transmission lines within existing Eversource right of way between Devon 7R Substation and East Devon Junction both located in the City of Milford, Connecticut; between the West Devon Junction located in the Town of Stratford, Connecticut and Trumbull Junction located in the Town of Trumbull, Connecticut; and between Devon 7R Substation located in the City of Milford, Connecticut and West Devon Junction located in the Town of Stratford, Connecticut and related transmission line structure improvements.

Dear Ms. Shanley:

At a public meeting held on April 27, 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. The Petitioner shall implement protective measures for Natural Diversity Data Base (NDDDB) species in consultation with the Department of Energy and Environmental Protection (DEEP);
2. Structure No. 722 shall be relocated to eliminate direct wetland impacts;
3. Any required Federal Aviation Administration (FAA) Determination Letters for the new transmission structures and temporary structures, such as cranes, shall be filed with the Council;
4. Approval of any minor project changes be delegated to Council staff;
5. The Petitioner shall submit a copy of the Soil Management Plan approved by the Department of Energy and Environmental Protection (DEEP) to the Council;
6. The Petitioner shall submit a copy of the Certificate of Permission granted by DEEP Office of Long Island Sound Programs to the Council;
7. Any structures that the petitioner intends to install outside of the former coal ash disposal area cap shall be installed in such a way so that the construction of such structures does not impact the cap;
8. 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.

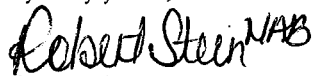
Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The facility owner/operator shall provide written notice to the Executive Director of any schedule changes as soon as is practicable;

9. 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 Stratford, Trumbull, and the City of Milford;
10. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
11. 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;
12. 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
13. 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 February 21, 2017 and additional information received on March 23, 2017 and April 17, 2017.

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

Very truly yours,



Robert Stein  
Chairman

RS/MP/lm

Enclosure: Staff Report dated April 27, 2017

- c: The Honorable Benjamin G. Blake, Mayor, City of Milford  
David Sulkis, City Planner, City of Milford  
The Honorable John A. Harkins, Mayor, Town of Stratford  
Jay Habansky, Planning & Zoning Administrator, Town of Stratford  
The Honorable Timothy M. Herbst, First Selectman, Town of Trumbull  
Rob Librandi, Land Use Planner, Town of Trumbull  
Douglas Wenz, Zoning Enforcement Officer, Town of Trumbull  
Devon Power, LLC





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### Petition No. 1291

### The Connecticut Light and Power Company d/b/a Eversource Energy Milford, Stratford and Trumbull, Connecticut

#### Staff Report

April 27, 2017

#### Introduction

On February 21, 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 upgrades of the existing #1710 and #1730 115-kilovolt (kV) transmission lines from Devon 7R Substation in Milford to West Devon Junction in Stratford and continuing to Trumbull Junction in Trumbull, Connecticut. Council member Robert Hannon and Council staff member Michael Perrone conducted a field review of the proposed project on March 24, 2017. Sue Bellion, Project Siting Specialist, Eversource; Louis Rubano, Project Manager, Burns & McDonnell; Ian Cole, Environmental, Eversource; Louise Mango, Environmental, Phenix Environmental, Inc.; Scott Janko, Construction Superintendent, Burns & McDonnell; Christopher Soderman, Lead Engineer, Eversource; Paul Bukowsky, Environmental Compliance Engineer, NRG (NRG) Devon Power LLC (Devon Power); and Bob Spooner, Regional Environmental Supervisor, NRG also attended the field review.

On May 14, 2015, the Council approved a 785-megawatt natural gas-fired power plant (Towantic Power Plant) in Oxford in Docket No. 192B. Towantic Power Plant will interconnect from an on-site switching station (Towantic Switching Station) to the #1575, #1585 and #1990 115-kV transmission lines located directly to the west in an existing right-of-way (ROW). On May 26, 2016, in Petition No. 1226, the Council approved Towantic Switching Station and associated 115-kV transmission line upgrades from Bunker Hill Substation in Waterbury southward to Towantic Switching Station and continuing south to Oxford Tap in order to accommodate the Towantic Power Plant.

In addition to the already approved transmission upgrades, ISO-NE determined that the existing #1710 and #1730 Lines within a 4.4 mile Eversource-owned ROW between Devon 7R Substation and Trumbull Junction would require upgrades to prevent line overloads associated with changing power flows due to the new Towantic Power Plant. To accommodate these line upgrades, Eversource also proposes to perform modifications to portions of another 115-kV line (i.e. #1580) in the same ROW as the #1710 and #1730 Lines between Devon 7R Substation and West Devon Junction. This proposed upgrade project would need to be completed by June 1, 2018, which is the beginning of Towantic Power Plant's 2018-2019 Capacity Commitment Period under Forward Capacity Auction No. 9. The proposed project is identified as a generator interconnection upgrade on the ISO-NE Regional System Plan Project Lists dated October 2016 and March 2017.

#### **Devon 7R Substation to East Devon Junction Portion of the Project**

This portion of the project is approximately 0.75 miles long in ROW length. Surrounding land uses include commercial, utility and railroad. In this portion of the ROW, the existing #1710 Line is located on wood H-frame structures. To the east (in the same ROW) are the existing #1580 and #1730 Lines that share double-circuit lattice structures. Further east (in the same ROW) is another set of existing conductors associated with the #1730 Line and located on double-circuit lattice structures. (The other side of such structures has an open/de-energized circuit.)



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Affirmative Action / Equal Opportunity Employer

Six double-circuit lattice structures that presently support the #1730/#1580 lines would be removed, as would existing Structure No. 299A (i.e. #1730 Line wood pole tap to adjacent spur line). In addition, seven H-frame wood pole structures that support the existing #1710 Line would be removed and not replaced. At East Devon Junction, existing Structure No. 717, a steel pole dead-end, would also be removed.

To support the upgraded #1710/#1730 Lines in a double-circuit configuration, these structures would be replaced with eight new galvanized steel monopoles and one two-pole steel structure. The proposed steel monopoles for the #1710/#1730 Lines would be installed along the centerline of the existing #1580/#1730 steel lattice towers. Eversource would also reconductor the #1710 and #1730 Lines with 795 kcmil aluminum conductor steel supported (ACSS) and install optical ground wire (OPGW). New steel poles would be in the range of approximately 80 to 115 feet in height, as compared to approximately 80 feet to 85 feet for existing structures.

The existing steel lattice towers that presently support the eastern set of #1730 line conductors would remain and would be re-designated as the #1580 Line. Structure No. 299A would be rebuilt as a steel monopole supporting the #1580 and #1730 lines and reconfigured ADSS.

In order to avoid conflicts with the reconfigured 115-KV lines, the ADSS that is presently underbuilt from the #1497 line Structure No. 3801 to the #1710 Line Structure #710 would be removed and reconfigured with OPGW. The new OPGW would extend from Structure No. 3801 directly to new Structure No. 299A (as an attachment point) and then to new Structure No. 709/802 (#1710/#1730 lines).

#### **East Devon Junction to Housatonic River Portion of the Project**

This portion of the project is approximately 0.75 miles long in ROW length. Surrounding land uses include condominiums, commercial, utility, and railroad. In this portion of the ROW, Eversource would remove five existing steel lattice structures and one steel pole dead-end structure on which the #1730/#1580 lines are currently located. All six wood pole structures that currently support the #1710 Line would also be removed. Eversource would also remove the #1730 line Structure Nos. 289A and 807.5, which would not be replaced. To support the upgrades to the #1710/#1730 Lines, six galvanized steel poles (i.e. five monopoles and one two-pole structure) would be installed. New steel poles would be in the range of approximately 84 to 112 feet in height, as compared to approximately 50 to 75 feet for existing structures. Eversource would also reconductor the #1710 and #1730 lines with 795 kcmil ACSS and install OPGW. The existing lattice steel towers that presently support the eastern #1730 Line conductors would remain and such conductors would be re-designated as the #1580 Line.

#### **Housatonic River Crossing Portion of the Project**

This portion of the project is approximately 0.17 miles long in ROW length. Surrounding land uses include an undeveloped coastal zone. In this portion of the ROW, Eversource would add structural steel reinforcements to existing double-circuit lattice Structure Nos. 813, 814, 287 and 288 to support the upgraded #1710 and #1730 line conductors. After the river crossing, the #1730 Line and the #1580 Line would be relocated such that the reconducted #1710 and #1730 Lines would be supported in a double-circuit configuration on the southern set of reinforced lattice towers (i.e. Structure Nos. 813 and 814). This configuration would be consistent with the 115-kV line positions along other ROW segments and would eliminate the need for cross-overs near West Devon Junction. The former #1730 Line position on the northern set of reinforced towers (i.e. Structure Nos. 287 and 288) would be re-designated as the #1580 Line. New Federal Aviation Administration (FAA) marker balls would be added to the upgraded lines as required.

### **Housatonic River Crossing to West Devon Junction Portion of the Project**

This portion of the project is approximately 0.5 miles long in ROW length. Surrounding land use is residential. In this portion of the ROW, Eversource would also remove five existing three-pole wood structures from the #1710/#1730 Line. Existing Structure No. 814B would be removed and not replaced. Eversource would install three galvanized steel monopoles and one two-pole steel structure, located near the existing #1710/#1730 wood pole structures to be removed, to support the rebuilt/reconducted #1730 and #1710 lines. Eversource would reconductor the #1710 and #1730 lines with 795 kcmil ACSS and install appropriate OPGW. New steel poles would be in the range of approximately 90 to 112 feet in height, as compared to approximately 59 to 89 feet for existing structures.

### **West Devon Junction to Trumbull Junction Portion of the Project**

This portion of the project is approximately 2.25 miles long in ROW length. Surrounding land uses include single-family residential and commercial. In this portion of the ROW, the existing #1710/#1730 Lines are supported in a double-circuit configuration on 18 structures. Fourteen of these existing lattice steel structures would be replaced with thirteen new galvanized steel monopoles and one new galvanized two-pole structure. Eversource would reconductor the #1710 and #1730 Lines with 795 kcmil ACSS and install appropriate OPGW. New steel poles would in the range of approximately 85 to 160<sup>1</sup> feet in height, as compared to approximately 80 to 100 feet for existing structures.

An existing wireless telecommunications facility would need to be removed from each of two existing structures and relocated to the new structures. Specifically, existing Structure Nos. 826 and 830, which support wireless telecommunications facilities would be replaced with new structures. Eversource is coordinating with the wireless telecommunications carriers regarding the relocations of such wireless telecommunications facilities and the wireless telecommunications carriers would request facility modifications from the Council.

### **Construction Methods**

The proposed project would not require any ROW expansion and would not require new forested vegetation clearing along the ROW. Existing vegetation in the ROW is predominantly low-growth vegetation and consistent with the safe and reliable operation of overhead electric transmission line facilities. However, some vegetation within the managed ROW would be mowed or removed as required to provide access to work sites and to establish work pads. Eversource would assess and remove “danger” or “hazard” trees as necessary. Such removals could occur in the ROW or outside the ROW along access roads to facilitate the movement of construction equipment and vehicles to work sites.

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. Eversource would assign an environmental monitor to be on-site weekly during project construction activities.

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<sup>1</sup> While 150 feet is the maximum structure height indicated by Eversource on Sheet XS-5, approximately ten additional feet is required for the wireless telecommunications facilities installed on Structure Nos. 826 and 830. Thus, the worst-case structure height for this portion of the project would be 160 feet.

The project would utilize existing and new permanent and temporary access roads. Permanent access road installation and improvements would generally include removing vegetation growth and grading the area to a width of approximately 16 feet wide, with approximately two-foot shoulders on both sides, for a total width of about 20 feet, if necessary. Access roads would typically be processed rock and/or gravel in upland areas.

In the southern portion of the ROW in Milford, proposed work activities would occur in the vicinity of the existing Iroquois (Iroquois) Gas Transmission pipeline. Eversource has consulted with and would continue to consult with Iroquois during construction to protect the gas pipeline and ensure worker safety. Eversource anticipates the use of timber mats or equivalent protection as necessary for work along the pipeline.

Work pads would be required at the sites of the transmission structures to be installed, removed and/or re-conducted, as well as at conductor and OPGW pulling sites and locations where temporary guard structures may be erected or boom trucks positioned during conductor installation. Timber mats would act as the work pads in wetland areas, residential lawn areas, Connecticut Department of Energy and Environmental Protection (DEEP) Natural Diversity Database (NDDDB) areas, culturally sensitive areas, and gas pipeline areas as noted above.

Excavations for structure foundations would be expected to be accomplished using mechanical excavators (drill rigs) and pneumatic hammers. Blasting would not be expected to be required. If blasting is required, a controlled drilling and blasting plan would be developed by a certified blasting contractor in compliance with State and local regulations.

The new structures and associated hardware would be delivered to work pads in sections, then assembled and installed with a crane. Insulators and conductor pulling blocks would be installed on most structures at this time.

The installation of new overhead line conductors, OPGW 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. Helicopters may be used to install the initial pulling lines at the commencement of the conductor/shield wire pulling process.

After the removal of the old conductors, transmission line structures, hardware, etc., such materials 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 access roads and work pads. Materials used in temporary access road and work pad construction would either be properly disposed of or otherwise re-purposed. Areas affected by construction would be re-graded as practical and stabilized using re-vegetation or other measures.

Temporary E&S controls would be left in place and maintained until final stabilization is achieved. Steep areas may be stabilized with biodegradable, pre-made erosion and sedimentation control fabric containing seed, mulch, and fertilizer, or the equivalent.

Eversource anticipates beginning construction during August 2017 and completing construction by the end of May 2018 in order to meet the target date required for the Towantic Power Plant. Typical construction hours and days of the week would be Monday through Saturday, 7:00 a.m. to 7:00 p.m. However, non-standard work hours, including Sundays, might be necessary due to outage-related time constraints, inclement weather or other issues that could impact critical activities for the proposed project.



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

Eversource's review of the DEEP NDDDB identified State-listed special-concern species in the vicinity of the proposed project area. Specifically, Eversource identified two State-listed animal Species of Special Concern and one State-listed plant Species of Special Concern. According to a data sharing agreement with DEEP, Eversource is unable to publicly identify the protected species. However, Eversource is collaborating with DEEP and, during construction of the proposed project, would adhere to measures, as agreed to with DEEP, to avoid or minimize impacts to these species.

Heritage Consultants, LLC (Heritage) performed a cultural resources review of the proposed project area. Heritage determined that no previously identified archaeological sites or National Register of Historic Places properties are located within 500 feet of the centerline of the electric transmission line ROW in the Project area. Heritage's review identified areas of moderate to high potential for archaeological sensitivity along the route, between Structure Nos. 814A and 817. Specifically, the proposed Structure Nos. 815 and 816 locations would not be expected to have a significant adverse impact on archaeological resources because they are located within existing gravel work pads and areas of pre-disturbed earth that no longer possess depositional integrity and/or archaeological sensitivity. Heritage also determined that no additional examination of the no/low sensitivity areas is recommended, as these areas no longer retain the potential to yield intact archaeological sites.

The proposed project would include the installation of one new structure (i.e. Structure No. 711) in a former coal ash disposal area adjacent to the NRG Devon Power Plant. This coal ash disposal area is located near the Devon 7R Substation and on property owned by Devon Power. This coal ash disposal area is treated as a managed soil contamination area. Eversource has determined that it is not possible to relocate Structure No. 711 outside of the disposal area due to the span length. Eversource also considered not installing proposed Structure No. 711 and having a longer span between proposed Structure Nos. 710 and 712/804. However, this would require increasing the height of the adjacent proposed Structure Nos. 710 and 712/804 from approximately 95 feet to 135 feet. Additionally, it would require modification to the adjacent transmission lines to accommodate the increased blowout from this long span.

Thus, with proposed Structure No. 711 to be located in the ash disposal area, Eversource has developed a Soil Management Plan (SMP) to address the proper handling of excavated material within the capped landfill. The SMP was developed in coordination with Devon Power on April 7, 2017 and would identify the methods to be used during construction to avoid or minimize impacts associated with work in this area. NRG is currently reviewing the final SMP, which has been submitted by Eversource to NRG for its approval. As the property owner, NRG is required to submit the SMP to DEEP for its approval prior to ground disturbance within the capped landfill.

Three existing structures, known as Structure Nos. 710, 711 and 803, would be removed from this area. These structure removals would not entail below grade disturbance because Eversource would cut the structures at grade and leave the underground foundations in place.

Structure No. 722 was originally proposed to be located within wetlands, and thus, it would have resulted in direct wetland impacts. However, Eversource could relocate this structure approximately 20 feet to the north and eliminate all direct wetland impacts for the proposed project. If approved, staff recommends including a condition that Structure No. 722 be relocated to eliminate direct wetland impacts.

Temporary wetland impacts would be associated with the use of construction mats in the existing ROW. The temporary wetland impact area would total approximately 36,950 square feet for the proposed project. Any work within wetland systems would be conducted in accordance with Eversource BMPs. No vernal pools were identified within the proposed project area.

Areas with temporary wetland impacts may be stabilized with annual rye grass, a wetland seed mix (or equivalent), if necessary, to provide temporary vegetative cover until wetland species becomes re-established. No fertilizer, lime or mulch would be applied in wetlands unless specified in regulatory approvals for the proposed project.

Eight existing transmission structures associated with the proposed project are located within the 100-year flood zone. Post-construction, there would be a total of four structures within the 100-year flood zone, for a net reduction of four. The proposed structures to be located within the 100-year flood zone would be designed to withstand a 100-year flood event.

No public water supply wells or reservoirs are located in the vicinity of the proposed project. The proposed project is not located within a DEEP-designated Aquifer Protection Area.

In both the City of Milford and the Town of Stratford, Eversource's ROW crosses the Coastal Boundary associated with the Housatonic River. The proposed project would only have short-term and limited effects on coastal resources and would be limited to the construction phase. Adverse impacts would be avoided or minimized by using existing access roads and employing timber mats for work pads and access roads in wetlands, implementing BMPs for E&S controls, and adhering to the provisions of Eversource's Stormwater Pollution Control Plan. On February 9, 2017, Eversource submitted a Certificate of Permission (COP) Application Form to DEEP, Office of Long Island Sound Programs (OLISP). OLISP has 90-days or until May 9, 2017 to render a decision on the COP.

The proposed project would change electric and magnetic fields (EMF) in the transmission line ROW. The maximum existing magnetic field level is at the center of the ROW in the Devon to East Devon corridor and is approximately 164.6 milligauss (mG). Post-construction, this would reduce to approximately 139.1 mG at the center of such ROW under average annual load conditions. Thus, all projected magnetic field levels identified in Eversource's EMF Report 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."

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 the work site. Eversource does not anticipate that implosive conductor connections would be required for the proposed project at this time. However, should implosion connector technology be required, Eversource would brief municipal officials and provide notifications to nearby residents and businesses in advance of such implosions. Post-construction operation of the transmission lines is not expected to result in noise levels in excess of DEEP noise control standards.

For the 4.4-mile electric transmission line upgrade project, while the range of replacement structure heights does increase from the range of existing structure heights, the visual impact would not be expected to be significant because replacement monopole structures generally would have a more narrow visual profile than the existing lattice structures or H-frame wood structures to be replaced.



### **Municipal and abutter notice**

Eversource met with the Towns of Stratford and Trumbull and the City of Milford collectively referred to as the Municipalities (Municipalities) to brief them on the proposed Project. During such meetings, Eversource presented an overview of the proposed Project, answered questions regarding the line upgrades, and informed municipal officials of its planned outreach to property owners in advance of filing the Petition, and pending approval, and throughout the construction and restoration process. Formal notice of the Petition was provided to the Municipalities and abutting property owners on or about February 14, 2017. The Council has not received any comments from abutters or the Municipalities to date.

### **Staff Recommendations**

Staff recommends the following conditions:

1. The Petitioner shall implement protective measures for NDDDB species in consultation with DEEP;
2. Structure No. 722 shall be relocated to eliminate direct wetland impacts;
3. Any required FAA Determination Letters for the new transmission structures and temporary structures, such as cranes, shall be filed with the Council; and
4. Approval of any minor project changes be delegated to Council staff.



