



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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September 16, 2016

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

RE: **PETITION NO. 1217** – Eversource Energy petition for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed separation of the existing 1779/1777 115 kilovolt (kV) electric transmission lines for 1.6 miles within existing right of way from Bloomfield Substation to Bloomfield Junction; proposed separation of the existing 1751/1777 115kV electric transmission lines for 5.3 miles within existing right of way from Bloomfield Junction to North Bloomfield Substation; modifications to the existing overhead 1779 115 kV electric transmission line to loop into the Rood Avenue Substation via underground cables; including related transmission line structure improvements; and modifications to the Bloomfield Substation, 40 Crestview Drive and North Bloomfield Substation, 2 Hoskins Road both in Bloomfield, Connecticut and modifications to the Rood Avenue Substation located at 275 Rood Avenue, Windsor, Connecticut.

Dear Ms. Shanley:

At a public meeting of the Connecticut Siting Council (Council) held on September 15, 2016, the Council considered and approved the partial Development and Management (D&M) Plan submitted for this project on July 29, 2016, for modifications to the Rood Avenue Substation and related transmission line connections, Bloomfield Substation and North Bloomfield Substation with the following conditions:

1. Use of off-road construction equipment that meets the latest EPA or California Air Resources Board standards, or in the alternative, equipment with the best available controls on diesel emissions, including, but not limited to, retrofitting with diesel oxidation catalysts, particulate filters and use of ultra-low sulfur fuel;
2. Compliance with the provisions of Section 22a-174-18(b)(3)(C) of the Regulations of Connecticut State Agencies that limit the idling of mobile sources to 3 minutes; and
3. Council staff recommends that approval of requested significant changes to the approved D&M Plan be delegated to Council staff in accordance with Regulations of Connecticut State Agencies §16-50j-62(b). In accordance with that section, if advance written notice is impractical, the Petitioner shall provide verbal notice of the changes and shall submit written specifications to the Council within 48 hours after the verbal notice.

This approval applies only to the partial D&M Plan submitted on July 29, 2016. Requests for any changes to the D&M Plan shall be approved by Council staff in accordance with Regulations of Connecticut State Agencies (RCSA) §16-50j-62(b). Furthermore, the project developer is responsible for reporting requirements pursuant to RCSA §16-50j-62.

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 Council's decision on the petition dated May 3, 2016 and in the partial D&M Plan dated July 29, 2016.

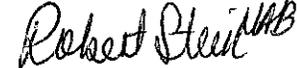


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Enclosed is a copy of the staff report on this D&M Plan, dated September 15, 2016.

Thank you for your attention and cooperation.

Sincerely,



Robert Stein
Chairman

RS/MP/lm

Enclosure: Staff Report dated September 15, 2016

- c: The Honorable Joan A. Gamble, Mayor, Town of Bloomfield
- Philip K. Schenck, Jr., Town Manager, Town of Bloomfield
- Jose Giner, Director of Planning, Town of Bloomfield
- The Honorable Donald Trinks, Mayor, Town of Windsor
- Peter Souza, Town Manager, Town of Windsor
- Eric Barz, Town Planner, Town of Windsor



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Petition No. 1217

Eversource

Bloomfield and Windsor, Connecticut

Development and Management Plan – Substations

Staff Report

September 15, 2016

On April 28, 2016, the Connecticut Siting Council (Council) approved a petition from The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource) for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed modifications to transmission line nos. 1777, 1779 and 1751 and modifications to the Bloomfield Substation, North Bloomfield Substation and Rood Avenue Substation in the Towns of Bloomfield and Windsor. The purpose of the project is to eliminate potential transmission system thermal and voltage criteria violations in the Bloomfield and Hartford areas that were identified in the May 2014 Greater Hartford and Central Connecticut Area Needs Assessment performed by ISO New England (ISO-NE) and in subsequent analyses by Eversource.

In its decision, the Council required Eversource to submit a Development and Management Plan (D&M Plan). Eversource submitted a partial D&M Plan limited to substation modifications and connections to Rood Substation. Eversource provided copies to the towns of Windsor and Bloomfield. Staff has received no comments to date.

Modifications to Overhead 1770 Line Loop into Rood Avenue Substation Portion of the Project

Eversource seeks to install two weathering steel transition structures to configure the 1779 line from overhead to underground, to be looped in and out of Rood Avenue Substation. The use of weathering steel will match the existing weathering steel structures in the area. The transition structures will be approximately 95 feet and 100 feet above ground level and installed on new drilled shaft foundations.

Approximately 800 feet of 5000-kcmil cross-linked polyethylene insulation 115-kV underground cable will be installed in a concrete duct bank from the two transition structures to the proposed termination structures (or terminal structures) inside the Rood Avenue Substation. These proposed terminal structures will be shorter than the existing terminal structures inside Rood Avenue Substation because they are associated with underground transmission connections.

Eversource will also remove one existing span of 1272-kcmil ACSR conductor on the 1779 line between structures 20076 and 20077.

Eversource will also remove one existing 115-kV three-pole wood guyed structure and replace it, in a slightly different location, with a new three-pole self-supported weathering steel structure. The existing height of the structure is 50 feet above ground level. The new structure will be about 65 feet tall.

Eversource will install a new 115-kV weathering steel three-pole structure on new drilled shaft foundations. The new structure would be about 65 feet tall. Eversource will install new overhead 1272-kcmil ACSS from two new 115-kV steel three-pole structures to the existing 1751 and 1448 terminal structures inside the Rood Avenue Substation. Eversource also will install underground conduits, mounting and support beams, relay/controls and cables to accommodate the new equipment.



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Modifications to Rood Avenue Substation Portion of the Project

Eversource will remove two existing 115-kV circuit switchers, install four 115-kV circuit breakers on new foundations, install two additional terminal structures (to accommodate the 1779 line loop) on new foundations, and install nine 115-kV disconnect switches. Eight of the disconnect switches will be installed on new foundations, and one will be installed on an existing foundation.

Eversource will also install six 115-kV coupling capacitor voltage transformers on new foundations, and replace two existing 115-kV manually-operated disconnect switches with two motor-operated switches installed on existing structures. Eversource also will install underground conduits, wave traps, bushings, lightning arresters, mounting and support beams, and relay/controls and cables to accommodate the new equipment.

To accommodate these modifications, Eversource will expand the substation fence line (within Eversource's property) approximately 83 feet to the southwest and 46 feet to the southeast. Two 20-foot wide gates will be replaced. The fence and gates will be the same height as the existing. Eversource will maintain the same 1 1/4-inch mesh size for the expansion area as the existing fence. This will be for uniformity and as an anti-climbing measure. All new equipment will be no taller than the tallest existing equipment within Rood Avenue Substation.

Since the substation expansion area would cross the existing access drive area, the gravel access drive would be modified slightly and shifted to the west to accommodate the expansion.

Modifications to Bloomfield Substation Portion of the Project

Eversource will remove two single-phase bus supports and foundations. Eversource will also install one new 115-kV circuit breaker on a new foundation and relocate one existing 115-kV disconnect switch onto a new foundation. Eversource will install underground conduits, mounting and support beams, and relay/controls and cables to accommodate the new equipment. The proposed new equipment will be no taller than the tallest existing equipment within Bloomfield Substation. All new equipment will be installed within the existing fenced substation. The construction staging and laydown area will be located immediately to the southwest of the substation and adjacent to the existing access drive.

Modifications to North Bloomfield Substation Portion of the Project

Eversource will relocate one 115-kV circuit breaker to a new position next to its existing location in order to create space for the installation of one additional 115-kV circuit breaker. Both circuit breakers will be installed on new foundations. After relocation of the existing circuit breaker, the original foundation for that circuit breaker will be removed.

Eversource will also relocate two existing 115-kV disconnect switches by moving them from their current positions and placing them on new foundations and switch stands. These relocations are required to accommodate the new circuit breaker. The existing foundations for the relocated 115-kV disconnect switches will be removed, and the new foundations and equipment will be installed nearby.

Eversource will install underground conduits, mounting and support beams, and relay/controls and cables to accommodate the new equipment. The new equipment will be no taller than the tallest existing equipment within the North Bloomfield Substation. All new equipment will be installed within the existing fenced substation. The construction staging and laydown area will be located immediately to the northwest of the substation and adjacent to the existing access drive.

Environmental Effects and Mitigation Measures

No significant forested vegetation removal would be required for the substation-related modifications. At Bloomfield Substation and North Bloomfield Substation, all modification work will be performed within the existing gravel substation yards. Portions of the staging areas on Eversource property at Bloomfield Substation and North Bloomfield Substation may require vegetation mowing or scrub removal.

At Rood Avenue Substation, the expansion work and associated staging areas will be located principally within or adjacent to the existing substation yard, a previously graveled area, and in the vicinity of existing transmission lines. Within these areas, vegetation consists primarily of shrubland or low-growth species, but also includes some trees. This vegetation will be cleared for project modifications.

Consistent with the Council's Decision and to mitigate visual impacts of the Rood Avenue Substation expansion area from the nearest residence, Eversource would install landscape plantings to the north of the substation expansion area. This would improve aesthetics as viewed from residences at Sunnyfield Drive to the north.

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 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. Eversource is consulting with DEEP and would continue to do so to minimize the potential impact to these species.

No vernal pools are located in the vicinity of the substations or substation connections. The vernal pool analysis and analysis of vernal pool species such as the blue spotted salamander and marbled salamander with protective measures will be associated with the transmission right-of-way work in a separate upcoming transmission portion of the D&M Plan.

Wetland 26 is located approximately 160 feet to the west of the existing Rood Avenue Substation. There would be no permanent wetland impacts associated with the substation-related work. There would be temporary impacts associated with the use of timber mats to protect Wetland 26 during the expansion of the Rood Avenue Substation. Erosion and sedimentation controls will be installed as necessary to protect portions of Wetland 26 outside of the temporary work pads. After the completion of the work, the temporary work pads will be removed, and the affected portions of Wetland 26 will be restored. All work in Wetland 26 will be in accordance U.S. Army Corps of Engineers and DEEP regulatory authorizations, as well as Eversource's BMP Manual.

Heritage Consultants, LLC (Heritage) performed an assessment of archaeological and historical resources (i.e. cultural resources review) for the proposed project area. As a result of Heritage's Phase I Cultural Resources Reconnaissance Survey, no cultural resources were identified within the proposed project area.

Eversource's D&M Plan includes a number of different plan components intended to help ensure that Eversource abides by the most current best management practices for its construction project. Among the components included are construction procedures, a soil erosion and sedimentation control plan, minimization of dust and vehicle idling protocol, soils and materials handling and disposition plan, spill prevention and control plan, and procedures for snow removal and deicing.

Eversource will provide notice to the Council at least two weeks in advance of work commencement. Eversource will also be providing monthly construction progress reports to the Council.

Eversource expects that construction will commence in October 2016 and will be completed by the end of the third quarter of 2017. 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, but not limited to, Sunday hours, might be necessary due to outage-related time constraints. Any noise related to construction will be exempt per DEEP noise regulations. Operation of the (completed) project is expected to meet the DEEP noise standards at the property boundaries.

Staff finds that Eversource's D&M Plan for this project conforms to the Council's declaratory ruling and that it addresses the environmental issues likely to be encountered during this project. Staff understands that plans for the transmission right-of-way work will be reviewed as a separate D&M Plan item.

Council staff recommends approval of the D&M Plan with the following conditions:

1. Use of off-road construction equipment that meets the latest EPA or California Air Resources Board standards, or in the alternative, equipment with the best available controls on diesel emissions, including, but not limited to, retrofitting with diesel oxidation catalysts, particulate filters and use of ultra-low sulfur fuel; and
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; and
3. Council staff recommends that approval of requested significant changes to the approved D&M Plan be delegated to Council staff in accordance with Regulations of Connecticut State Agencies §16-50j-62(b). In accordance with that section, if advance written notice is impractical, the Petitioner shall provide verbal notice of the changes and shall submit written specifications to the Council within 48 hours after the verbal notice.