



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051

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CERTIFIED MAIL RETURN RECEIPT REQUESTED

July 21, 2017

Kathleen M. Shanley
Manager - Transmission Siting
Eversource Energy
P.O. Box 270
Hartford, CT 06103

RE: **PETITION NO. 1140** - Eversource Energy declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed reconductoring of a portion of an existing 115-kV transmission line extending from Barbour Hill Substation in South Windsor to Manchester Substation in Manchester, Connecticut and modifications to Barbour Hill Substation and Manchester Substation. Request to Amend.

Dear Ms. Shanley:

At a public meeting held on July 20, 2017, the Connecticut Siting Council (Council) considered and approved the request to amend the above referenced project, dated May 31, 2017 to include the installation of sound walls around auto transformers and increasing the height of the existing 115-kV conductor at the Barbour Hill Substation.

All work is to be implemented as specified in the request submitted on May 31, 2017, and additional information dated June 15, 2017, and is subject to the following conditions:

1. Approval of any minor project changes be delegated to delegated to Council staff; and
2. Eversource shall submit a post-construction noise study to the Council.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction.

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

Very truly yours,

Robert Stein
Chairman

Enclosure: Staff Report dated July 20, 2017

RS/CMW/laf

c: The Honorable Carolyn Mirek, Mayor, Town of South Windsor
Matthew B. Galligan, Town Manager, Town of South Windsor
Michele R. Lipe, AICP, Town Planner, Town of South Windsor



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Petition No. 1140

The Connecticut Light and Power Company d/b/a Eversource Energy Amendment at Barbour Hill Substation, South Windsor, Connecticut

Staff Report

July 20, 2017

On April 16, 2015, the Connecticut Siting Council (Council) approved a petition from The Connecticut Light and Power Company doing business as Eversource Energy (Eversource) for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for proposed modifications to Manchester Substation in Manchester, Barbour Hill Substation in South Windsor, and the 1763 Line extending between the two substations. The project was placed in service on May 30, 2016. Eversource is now proposing the installation of sound walls around transformers at Barbour Hill Substation in South Windsor.

After receiving calls regarding noise emissions from residents abutting Barbour Hill Substation, Eversource conducted a sound study and determined that some newly installed equipment was exhibiting unusual acoustical characteristics under certain operating conditions and, at limited times, did not meet applicable sound regulations. Eversource took an immediate corrective action of installing anti-vibration pads under the new and existing 345-kilovolt (kV) to 115-kV autotransformers.

For the permanent noise mitigation, Eversource determined that the installation of sound walls around the existing autotransformers on the east side of the substation, and around the new autotransformers on the west side of the substation would be most effective. The proposed sound walls on the east side of the substation would be approximately 35 feet high and would encompass an area that is approximately 102 feet long and 45 feet wide. The proposed sound walls on the west side of the substation would be approximately 35 feet high and would encompass an area that is approximately 141 feet long and 47 feet wide. For both, three sides of the walls would cantilever inward slightly above the autotransformers at approximately a 45-degree angle.

The proposed sound walls would be constructed of acoustic panels and structural steel, and placed on existing and new foundations. Eversource expects this to mitigate noise at the property lines and comply with applicable state noise emissions regulations.

The height of the existing 115-kV conductor would have to be increased by approximately 12 feet to meet the required clearances for the sound walls around the transformers on the west side of the substation and to facilitate the connection between the 115-kV bushing of the transformer and the 115-kV substation bus.

The proposed modifications would occur within the substation's existing fenced area. All new equipment would be shorter than the tallest existing equipment within the substation. No wetlands, vernal pools or waterways would be affected. There are no state-listed endangered, threatened, or special concern species near the substation property. The modifications would not cause television or radio interference. Electric and magnetic field levels at the property boundary would not change as a result of the proposed modifications.

Typical construction work hours would occur Monday through Saturday from 7:00 a.m. to 7:00 p.m.; however, Sunday work hours may be necessary for work performed during outages. Construction would commence in the summer of 2017 and is expected to be complete by spring 2018.

Staff recommends the following conditions:

1. Approval of any minor project changes be delegated to Council staff; and
2. Eversource shall submit a post-construction noise study to the Council.