



56 Prospect Street,
P.O. Box 270
Hartford, CT 06103

John Morissette
Project Manager – Transmission Siting
Tel: (860) 728-4532

April 16, 2015

Robert Stein, Chairman
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Dear Chairman Stein:

Attached are an original and fifteen (15) copies of a petition on behalf of The Connecticut Light and Power Company doing business as Eversource Energy requesting a determination that no Certificate of Environmental Compatibility and Public Need is required for the proposed modifications to the Sandy Hook Substation and associated transmission lines located in the Town of Newtown, Connecticut.

Prior to submitting this petition, written notice was provided to the abutting property owners and the First Selectman E. Patricia Llodra in the Town of Newtown.

A check in the amount of \$625 for the required filing fee is also attached.

Sincerely,

A handwritten signature in black ink, appearing to read "John Morissette", with a stylized flourish extending from the end.

John Morissette
Project Manager – Transmission Siting - CT

Attachment: Petition

cc: First Selectman E. Patricia Llodra, Town of Newtown

THE CONNECTICUT LIGHT AND POWER COMPANY doing business as
EVERSOURCE ENERGY
PETITION TO THE CONNECTICUT SITING COUNCIL
FOR A DECLARATORY RULING OF
NO SUBSTANTIAL ADVERSE ENVIRONMENTAL EFFECT
FOR THE PROPOSED MODIFICATIONS TO AN EXISTING SUBSTATION
AND 1876 LINE CONFIGURATION IN
THE SANDY HOOK BOROUGH OF THE TOWN OF NEWTOWN, CONNECTICUT

1. The Connecticut Light and Power Company doing business as Eversource Energy ("Eversource" or the "Company") hereby petitions the Connecticut Siting Council ("Council") for a Declaratory Ruling that no Certificate of Environmental Compatibility and Public Need ("Certificate") is required pursuant to Section 16-50g et seq. of the Connecticut General Statutes for the modifications to Eversource's existing substation in Newtown, Connecticut and structures and transmission line on Eversource's property ("Project") that are described herein. Eversource submits that no such Certificate is required because the proposed modifications would not have a substantial adverse environmental effect.
2. The purpose of the Project is converting from a single line tap configuration to a loop configuration to improve reliability of transmission service to the customers served by Sandy Hook Substation.
3. The Project consists of two components: 1) modifications to Sandy Hook Substation ("Substation") including expanding the existing fenced area to accommodate the new equipment, which is located on the Company's property at 13 Farmery Road in Newtown, Connecticut; and 2) modifications to convert the connection to the Substation from a tap line configuration on the 1876 Line to a loop configuration with structure modifications on Eversource's property ("Loop").
4. The proposed modifications would include:

A. Sandy Hook Substation

The Substation is a non-bulk substation with one (1) 115-kV transformer, two (2) 115-kV transmission lines, and three (3) distribution circuits. The proposed modifications to the Substation would include the following:

- a) The existing Substation fence would be extended 15 feet to the southwest of the Substation with the installation of a swing gate on Eversource's property. The fence

extension and new gate would be seven (7) feet high with one and a quarter inch mesh and a vertical extension of three strands of barbed wire.

- b) Installation of one (1) 115-kV terminal structure with lightning masts within the Substation. The height of this structure would be approximately 58 feet tall and it would have two top-mounted ten foot tall lightning masts. The existing terminal structure is approximately 55 feet tall and does not have a lightning mast.
- c) Installation of one (1) 115-kV manual circuit breaker disconnect switch.
- d) Installation of two (2) 115-kV motor-operated disconnect switches.
- e) Installation of two (2) single-phase 115-kV coupling capacitor voltage transformers.
- f) Installation of associated bus modifications and bus support structures.
- g) Installation of one (1) 115-kV relay and control enclosure to house battery system and related protection and control equipment. The dimensions of the steel enclosure would be approximately 27 feet long, 19 feet wide and 13 feet high.
- h) Relocation of the transformer mobile position 10 feet northwest to the new terminal position.
- i) Installation of foundations for the all the new equipment and structures and installation of underground conduits, a wave trap, lightning arrestors, mounting and support beams, relay/controls and cables..

The proposed modifications are shown on Attachment A, Drawing No. 19703-92001 - Sandy Hook Yard General Arrangement – Plan & Sections – CSC.

B. 1876 Line Loop

The modifications for the Loop configuration include the following:

- a) Installing one (1) 115-kV dead-end weathering steel monopole (structure 1631-1) on Company property to accommodate the Loop. The height of the structure would be approximately 70 feet. Note: The height of the nearest existing structure (1631A) is 61 feet.
- b) Installing 1590 ACSS strand conductor including 19#10 Alumoweld shield wire to the new terminal position.

The 1876 Line section from Newtown Substation would be repositioned to the new structure 1631-1 looping into the Substation and would be renamed the 1043 Line. The 1876 Line section looping from the Substation to the Stevenson Substation would be renamed the 1232 Line.

The proposed modifications are shown on Attachment B, ROW Sandy Hook Cross Section and Attachment C, Sandy Hook Substation 1876 Line Loop.

5. The proposed modifications would not have a substantial adverse environmental effect because:

a) Radio and Television Interference at the Substation

There would be no change to the existing television or radio interference at the Substation.

b) Sound Levels at the Substation

Sound levels at all points along the property line of the Substation would continue to meet local ordinances and state regulations specified in Regulations of Connecticut State Agencies §§ 22a-69-3.3, -3.5(a), -3.7, -4(g).

c) Appearance of Substation

The new equipment would be similar in appearance to existing equipment Substation and would not cause any significant adverse change in the physical or environmental characteristics of the Substation. The new terminal structure would be the tallest equipment in the Substation and would be slightly taller than the existing terminal structure.

d) Lighting

Photo-electrically controlled lighting would be installed on the control enclosure with manual switch controls similar to those for the existing lighting within the Substation.

e) Access Roads and Work Pads

Eversource plans to use an existing access road from the Substation property during construction.

f) Environmental Effects

Construction and operation of the Project would not result in a substantial adverse environmental effect in the State of Connecticut. The modifications to create the Loop would be constructed entirely on Eversource property and no expansion of the existing maintained transmission corridor would be required.

Wetlands, Watercourses and FEMA Flood Zones

Eversource does not anticipate the need to disturb or clear any wetland vegetation. The proposed modifications are not located within a 500- or 100-year flood zone.

Endangered Species Review

Eversource's review of the Connecticut Department of Energy and Environmental Protection's ("CT DEEP") Natural Diversity Data Base identified that there are no state-listed endangered, threatened, or special concern species in the vicinity of the Loop.

Soil Erosion and Sediment Control

Construction of the Project would conform to best management practices for erosion and sediment control, including those provided in the 2002 *Connecticut Guidelines for Soil Erosion and Sediment Control* and the Company's December 2011 Best Management Practices Manual: Connecticut.

Archaeological, Historical, Forests, Parks and Trails

A field review or field sampling for archaeological or historically significant areas is not required because the area that would be excavated for this Project is not a natural land form; the ground was previously disturbed by the original substation and line construction.

There are no recreational parks, forests or trails within the vicinity of Project area. Therefore, the Project would not conflict with these existing land uses.

Ground Water and Surface Water

The Project would not affect groundwater or surface water resources or cross any aquifer protection areas. No public supply reservoirs are in the vicinity of the Project. Lastly, the Project would not affect public/private water supply wells.

Electric and Magnetic Fields

Electric fields ("EF") are produced within the surrounding area of a conducting object (e.g., a wire) when a voltage is applied to it. Electric fields are measured in units of kilovolts per meter ("kV/m"). The level of an electric field near to an energized power line depends on the applied voltage, the distance between the conductors, and the distance to the measurement location.

Magnetic fields ("MF") are produced within the surrounding area of a conductor or device that is carrying an electric current. Magnetic fields are measured in units of milliGauss ("mG"). The level of a magnetic field near to line conductors carrying current depends on the magnitude of the current, the distance between conductors, and the distance from the conductors to the measurement location.

Both electric and magnetic fields decrease rapidly as the distance from the source increases, and even more rapidly from electric equipment in comparison to line conductors. Electric fields are further weakened by obstructions such as trees and building walls, while magnetic fields pass through most obstructions. In the case of parallel lines of circuit conductors, the levels of EF and MF are also dependent on the phasing of the circuits.

The highest levels of electric and magnetic fields around the perimeter fence of a substation typically occur where transmission and distribution lines cross over or under the substation boundary. The levels of fields from substation equipment decrease rapidly with distance, reaching very low levels at relatively short distances beyond the fenced-in equipment. Substation-caused magnetic fields off the property of a substation would commonly range from less than 1 mG up to 4 mG, the same range as the background magnetic field levels found in homes.

Converting the connection from the 1876 Line into a Loop configuration entering the Substation would result in an increase in the electric and magnetic fields along the south fence line of the Substation. These changes

would be limited to an area with a border that is approximately 200 feet east and west of the Loop. There are no state or federal limits for electric or magnetic field levels at the property line of a substation. The magnetic field underneath the transmission line loop under average annual load would increase from 18.6 mG to 24.4 mG. The electric field underneath the transmission lines would increase slightly from 1.28 kV/m to 1.33 kV/m. There are no residences, public playgrounds, schools, licensed youth camps or licensed child day-care facilities in the area of the increased magnetic fields. Calculations for the magnetic fields underneath the new transmission line loop were based on an average annual load for the year 2018 for the existing system and the proposed transmission lines.

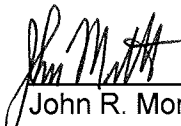
g) Municipal Outreach

Eversource representatives consulted with the First Selectman and the Deputy Director of Planning and Use in the Town of Newtown. All owners of properties that abut the Substation have received written notice of the Project (see Attachment D).

6. Eversource proposes to begin construction during September 2015 and expects that the construction would be completed during May 2016.
7. Section 16-50k(a) of the Connecticut General Statutes provides that a Certificate of Environmental Compatibility and Public Need is needed for proposed modifications of a facility that the Council determines would have a "substantial adverse environmental effect." Eversource respectfully submits that the proposed modifications would not result in a substantial adverse effect on the environment or ecology, nor would they damage existing scenic, historical or recreational values. Accordingly, Eversource requests that the Council issue a declaratory ruling that the proposed modifications would have no substantial adverse environmental effect and, therefore, no Certificate is required.

8. Communications regarding this Petition for a Declaratory Ruling should be directed to:

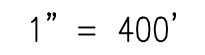
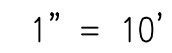
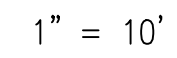
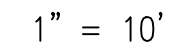
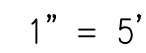
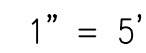
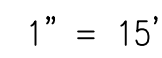
Mr. John R. Morissette
Project Manager - Transmission Siting - CT
Eversource Energy
PO Box 270
Hartford, CT 06141-0270
Telephone: (860) 728-4532

By: _____
John R. Morissette
Project Manager -Transmission Siting - CT

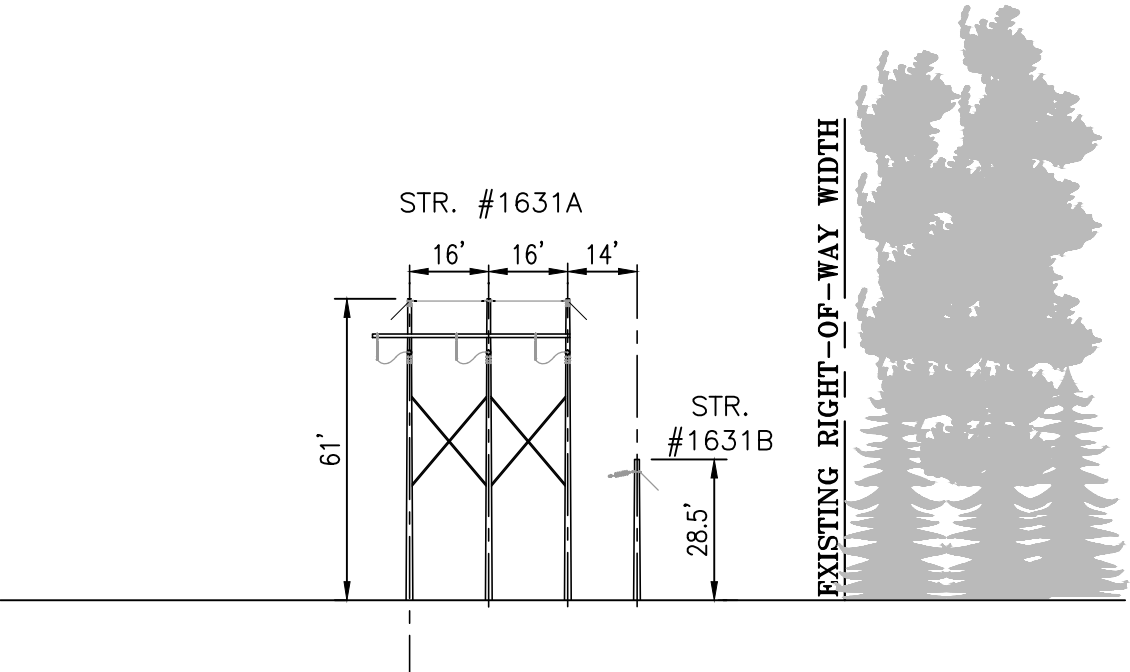
Attachments:

Attachment A: Drawing No. 19703-92001 – Sandy Hook Hill Yard General Arrangement
Attachment B: ROW Sandy Hook Cross Section
Attachment C: Sandy Hook - 1876 Line Loop
Attachment D: Letter to the Abutters, Abutters list and Affidavit of Service

ATTACHMENT A

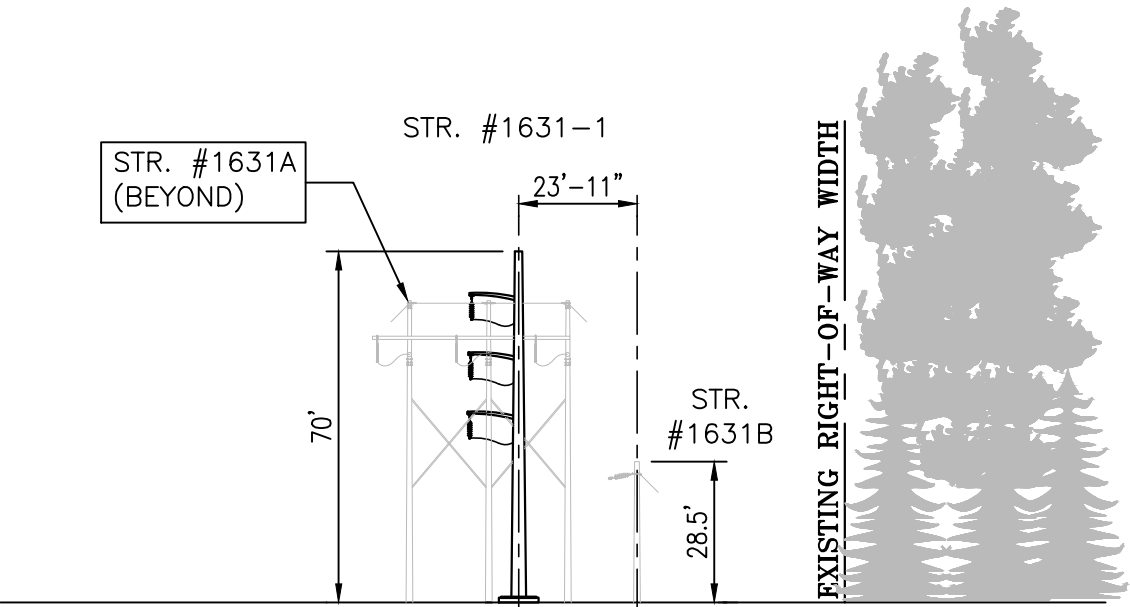
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ATTACHMENT B



EXISTING R.O.W. "A"

HEIGHT (61')



PROPOSED R.O.W. "B"

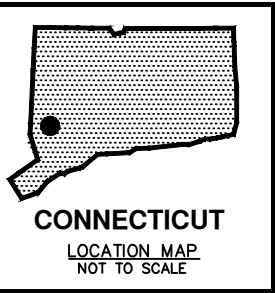
HEIGHT (70')



TITLE: STEVENSON - NEWTOWN
SANDY HOOK SUBSTATION MODIFICATION 1876 LINE LOOP
ROW CROSS SECTION BEFORE & AFTER

BY	RRH	CHKD	EQ	APP	APP
DATE	2/20/15	DATE	2/20/15	DATE	DATE
H-SCALE	1"=40'	SIZE	B	FIELD BOOK & PAGES	
V-SCALE	1"=40'	V.S.		R.E. DWG	
R.E. PROJ. NUMBER				NUSCO	01197-85001 PG 1

ATTACHMENT C



ATTACHMENT D

April 9, 2015

Dear Neighbor,

As part of our everyday effort to deliver reliable energy and superior customer service, Eversource is proposing to make reliability improvements to our Sandy Hook Substation located on Farmery Lane.

These improvements, called the Sandy Hook Substation Project (Project), include the installation of a new transmission structure and modifying the connection of an existing transmission line into the substation. The work would consist of expanding the fence line by 15 feet at the southwest corner of the substation, installing new equipment inside the substation, and installing the new transmission structure outside of the substation fence on Eversource property.

Eversource is submitting a petition to the Connecticut Siting Council (CSC) for the Project. If the work is approved by the CSC, construction is planned to begin in September of 2015. Construction of the Project and site restoration is anticipated to be completed by end of 2016.

If you would like to send comments or concerns regarding Eversource's petition to the CSC, please send them via e-mail to siting.council@ct.gov or by letter to the following address:

Melanie Bachman, Acting Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

For more information about this Project, please call the Eversource Transmission Information Line at 1-800-793-2202, or send an email to TransmissionInfo@eversource.com.

Thank you.

Sincerely,

Branden Reid

Branden Reid
Eversource Project Manager

Attachment D: Eversource Sandy Hook Substation
Abutting Property Owners

Owners Name	Site Address	City	Zip	Owner Mailing Address	Owner Mailing City
LINDA A O'SULLIVAN	10 FARMERY LANE	SANDY HOOK, CT	06482	10 FARMERY LANE	SANDY HOOK
ROBERT D AND BARBARA S SIBLEY	39 GREAT RING ROAD	SANDY HOOK, CT	06482	39 GREAT RING ROAD	SANDY HOOK
GERALD JR AND DIANE ALENA	7 GRACE MOORE ROAD	SANDY HOOK, CT	06482	7 GRACE MOORE ROAD	SANDY HOOK
WILLIAM GARY AND MARY L DEMENNA	3 FARMERY LANE	SANDY HOOK, CT	06482	3 FARMERY LANE	SANDY HOOK

AFFIDAVIT OF SERVICE OF NOTICE

STATE OF CONNECTICUT)
) ss. Berlin
COUNTY OF HARTFORD)

Sec. 16-50j-40 of the Regulations of Connecticut State Agencies ("RCSA") provides that proof of notice to the affected municipalities, owners of properties where facilities are proposed to be sited and abutting property owners shall be submitted with a petition for declaratory ruling to the Connecticut Siting Council ("Council"). In accordance with that RCSA section, I hereby certify that I caused notice of The Connecticut Light and Power Company d/b/a Eversource Energy's proposed modifications of the Sandy Hook Substation and associated transmission lines to be served by mail or courier upon the Town of Newtown's municipal official listed below and four abutting property owners.

Municipal Official:

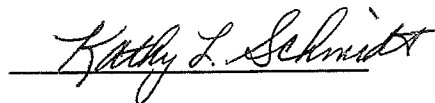
First Selectman E. Patricia Llodra
Town of Newtown
Newtown Municipal Center
3 Primrose Street
Newtown, CT 06470



Branden Reid
Project Manager

On this the 16th day of April, 2015, before me, the undersigned representative, personally appeared, Branden Reid, known to me (or satisfactorily proven) to be the person whose name is subscribed to the foregoing instrument and acknowledged that he executed the same for the purposes therein contained.

In witness whereof, I hereunto set my hand and official seal.



Notary Public
My Commission expires: 9-30-2019