



Northeast
Utilities System

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August 27, 2008

Mr. S. Derek Phelps
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

RECEIVED
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ORIGINAL

CONNECTICUT
SITING COUNCIL

Re: Docket No. CSC 364 Waterford Substation - The Connecticut Light and Power Company
Application for a Certificate of Environmental Compatibility and Public Need for the
construction, maintenance, and operation of a proposed substation located off Oil Mill Road and
Waterford Parkway (North)

Dear Mr. Phelps:

This letter provides the response to requests for the information listed below.

Response to CSC-01 Interrogatories dated 08/13/2008

CSC-001, 002, 003, 004, 005, 006, 007, 008, 009, 010, 011, 012, 013

Very truly yours,

John Morissette
Manager
Transmission Siting and Permitting
NUSCO
As Agent for CL&P

cc: Service List

Witness: Raymond L. Gagnon
Request from: Connecticut Siting Council

Question:

On Page F-1, Volume I of The Connecticut Light and Power Company's (CL&P) Application for a Certificate of Environmental Compatibility and Public Need (Application) the footnote states that, "Since the relaying associated with the 1605 circuit will be affected by the Project, transmission-related work at Montville Substation in addition to Flanders and Williams Street Substations is required." Specifically, what type of work (including the protective relaying system changes) is required at the Montville, Flanders, and Williams Street Substations? Does CL&P believe that this work requires a separate Council action such as a petition, or is it part of this docket?

Response:

CL&P will replace one of two existing transmission line lightning shield wires from Flanders Substation to Montville Substation with a new optical ground wire. This work, which does not change the general physical characteristics of the transmission line, would not constitute a modification for which the Council's action is required as part of this docket or via a separate petition for a declaratory ruling. See Attachment A.

Similarly, CL&P plans other work that would not require the Council's action. Specifically, the existing primary and back-up protective line relaying equipment for the 1500 and 1605 circuits, located inside the control houses at Flanders Substation, Montville Substation and Williams Substation, will be upgraded. Also, one existing line trap on the 1605 circuit at Flanders Substation and at Montville Substation will be removed; only the latter trap will be replaced. These upgrades do not change the general physical characteristics of these substations.

All of the work listed above was mentioned in the Application because it will be conducted during the time that the Project is constructed.



Northeast
Utilities System

REC - REC letter on FOSW
D&H

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Data Request CSC-01
Dated 08/13/2008
Q-CSC-001-Page 2 of 3

Roger C. Zaklukiewicz
Vice President - Transmission Projects

July 13, 2004

Ms. Pamela Katz
Chairman
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

Dear Ms. Katz:

The Connecticut Light and Power Company ("CL&P") has many transmission lines built in the first half of the 20th century which have served us well, and which we have maintained on an ongoing basis to provide continued reliable customer service. The lightning shield wire associated with older lines has historically been a vulnerable transmission line component. Shield wires are subject to direct lightning strikes and also serve as a path for fault current to flow. Shield wires are difficult to inspect for local damage from the ground or from the air. To improve system reliability and customer service, CL&P believes it is prudent to embark on a maintenance program over the next few years to replace shield wires on a number of its transmission lines.

Shield wires will be replaced with similar bare conductors, which, in virtually all instances, will also contain optical fibers that CL&P will use with transmission line and substation protective relaying systems and with substation control and data acquisition (SCADA) systems to monitor and control substation electrical equipment, and for other company communications. This will allow CL&P to replace older existing power line carrier and microwave communication equipment. The frequencies assigned to the electric utility industry by the Federal Communications Commission ("FCC") are being retracted and in some instances eliminated. At other locations, the installed optical fibers will permit CL&P to place protective relaying systems on a more reliable communications path than can be provided by lines leased from the telephone company. These leased lines also have higher cost and lower bandwidths than CL&P fibers can provide.

Shield wire replacement will be conducted in an identical manner as our other maintenance programs involving the replacement of poles, cross-arms, and insulators. We are committed to thoroughly evaluating and addressing any construction access and wetland issues, and to keeping local wetland enforcement officers informed before each replacement project begins.

With the recent public sensitivity to CL&P's major construction plans, I thought it might be helpful for you to know of this minor maintenance work that is below the threshold of CSC attention. If you have any questions, please do not hesitate to contact me at (860) 665-6885 or Dorian Hill at (860) 665-6765.

Sincerely,

Roger C. Zaklukiewicz

The Connecticut Light and Power Company
Docket No. CSC 364 Waterford Substation

Data Request CSC-01
Dated: 08/13/2008
Q-CSC-002
Page 1 of 1

Witness: Raymond L. Gagnon
Request from: Connecticut Siting Council

Question:

Does CL&P have any plans to connect the proposed substation to the #1500 transmission circuit also?
Explain why or why not.

Response:

No.

The proposed substation requires only one reliable and cost-effective interconnection to serve the anticipated load.

Circuit #1605 provides that one interconnection.

The Connecticut Light and Power Company
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Data Request CSC-01
Dated: 08/13/2008
Q-CSC-003
Page 1 of 1

Witness: Raymond L. Gagnon
Request from: Connecticut Siting Council

Question:

Since the #1605 line would be separated into two circuits: #1605 and #1617, could the substation operate on one of those circuits if the other was out of service?

Response:

Yes.

The Connecticut Light and Power Company
Docket No. CSC 364 Waterford Substation

Data Request CSC-01
Dated: 08/13/2008
Q-CSC-004
Page 1 of 1

Witness: Raymond L. Gagnon
Request from: Connecticut Siting Council

Question:

How tall would the two proposed steel transmission poles be? Would the conductors be installed in a vertical or delta configuration?

Response:

The two proposed steel transmission poles will be 85' tall with conductors installed in a vertical configuration.

The Connecticut Light and Power Company
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Data Request CSC-01
Dated: 08/13/2008
Q-CSC-005
Page 1 of 1

Witness: Raymond L. Gagnon
Request from: Connecticut Siting Council

Question:
Which structure would be the tallest within the fenced substation area? Provide the height of such structure.

Response:

The tallest structures inside the fenced area will be the two line-terminal structures for the incoming 115-kV lines. The structures are approximately 53 feet 9 inches with a 10 foot lightning masts on top of the structures.

The Connecticut Light and Power Company
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Data Request CSC-01
Dated: 08/13/2008
Q-CSC-006
Page 1 of 1

Witness: Raymond L. Gagnon
Request from: Connecticut Siting Council

Question:

Will an emergency generator be needed for backup power in addition to the battery backup system? If yes, provide the location within the substation, specifications of the emergency generator, and fuel type, storage, and containment.

Response:

No.

The Connecticut Light and Power Company
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Dated: 08/13/2008
Q-CSC-007
Page 1 of 1

Witness: Girish Behal
Request from: Connecticut Siting Council

Question:

Page K-8 of Volume I of the Application states that, "The southeast corner of the substation would encroach approximately 5 feet into Flood Area Zone X." Would any substation equipment be located in this area?

Response:

No.

The Connecticut Light and Power Company
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Data Request CSC-01
Dated: 08/13/2008
Q-CSC-008
Page 1 of 1

Witness: Michael Libertine
Request from: Connecticut Siting Council

Question:
Are any hiking trails in the vicinity of the proposed site?

Response:
No. The closest park with hiking trails is located approximately 5 miles away.

The Connecticut Light and Power Company
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Data Request CSC-01
Dated: 08/13/2008
Q-CSC-009
Page 1 of 2

Witness: Raymond L. Gagnon
Request from: Connecticut Siting Council

Question:
How many residences are located within 1,000 feet of the center of the proposed substation?

Response:
Two (2).

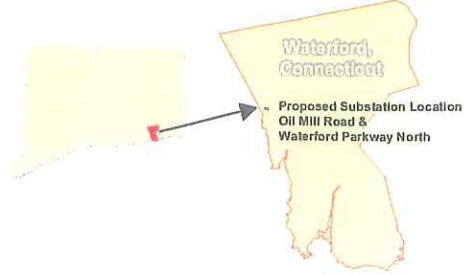
There is an error on figure H-2 of the application. CL&P inadvertently indicated a barn at a distance of 737 feet as a residence. Attached is the corrected figure, Figure H-2 (Revised).

Figure H-2 (Revised): Nearest Residences



Base Map Source: 2005 color aerial photograph with 1 foot resolution
 Parcel data obtained from Town of Waterford Tax Assessor's Office (2008)

VHB Vanasse Hangen Brustlin, Inc.
 Transportation Land Development Environmental Services



Witness: Michael Libertine
Request from: Connecticut Siting Council

Question:

Describe the visibility of the proposed substation from the abutting residences. Indicate if the view is expected to be seasonal or year-round.

Response:

CL&P does not anticipate that the proposed substation would be visible from surrounding residences during "leaf on" conditions because of distances and intervening obstructions (i.e., vegetation and/or structures). There is potential for limited, seasonal views (during "leaf off" conditions) from at least portions of the northern abutting residence (71 Oil Mill Road), located approximately 619 feet from the proposed substation. This property consists of the residence, large barn and other outbuildings, a tree farm (planted in evergreens) and the existing utility right-of-way that abuts the CL&P site. The tree farm offers a visual buffer from the proposed substation location. Construction activities could result in the removal of some of the deciduous trees along CL&P's northern property boundary. If this becomes necessary, replacement plantings, incorporating evergreen species would provide enhanced vegetative screening year-round. Homes further to the north have substantial trees (e.g., 74 Oil Mill Road) and/or intervening structures (homes, barn, outbuildings) that serve to block views in the direction of the substation. No views of the facility are expected from other residences to the north at any time of the year. After construction, additional areas surrounding the substation will be landscaped with evergreen trees to assist in screening the facility along the roads from passing vehicles. No residences are located to the east or west of the substation site. Residences to the south are over 1000 feet away, beyond Interstate 95, and substantial tree cover exists between the highway and these homes.

Residences within 1000 feet of Proposed Substation

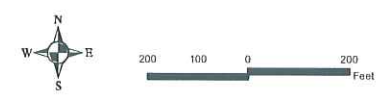
CL&P Docket No. CSC 364 Waterford Substation
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Base Map Source: 2006 color aerial photograph with 1 foot resolution

VHB Vanasse Hangen Brustlin, Inc.
 Transportation Land Development Environmental Services

Legend			
	1000 Foot Radius		Proposed Substation Footprint
	Approx Property Boundary		Assessor Parcels



 **Connecticut Light & Power**
 The Northeast Utilities System

The Connecticut Light and Power Company
Docket No. CSC 364 Waterford Substation

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Dated: 08/13/2008
Q-CSC-011
Page 1 of 1

Witness: Michael Libertine
Request from: Connecticut Siting Council

Question:
Approximately how many trees with a diameter at breast height of six inches or greater would have to be removed to construct the substation and access drives?

Response:
There are approximately 225 trees.

The Connecticut Light and Power Company
Docket No. CSC 364 Waterford Substation

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Dated: 08/13/2008
Q-CSC-012
Page 1 of 1

Witness: Michael Libertine
Request from: Connecticut Siting Council

Question:
Approximately how much cut and fill would be required to prepare the substation site and access drives?

Response:
Estimated cut and fill quantities required to develop the Substation and access drive:

Cut = 2,769 yds
Fill = 552 yds
Net = 2,217 yds (cut)

The Connecticut Light and Power Company
Docket No. CSC 364 Waterford Substation

Data Request CSC-01
Dated: 08/13/2008
Q-CSC-013
Page 1 of 1

Witness: Robert E. Carberry
Request from: Connecticut Siting Council

Question:

How would the proposed substation affect existing magnetic fields at the residence nearest to the substation?

Response:

The proposed substation will have no effect on existing magnetic fields at the nearest residence, which is located 619 feet northeast of the center of the proposed substation footprint.

This residence is located approximately 150 feet from the existing double-circuit 115-kV line from Cohanzie Junction to Flanders Substation. Project-related changes to this line, including the reverse phasing of its two circuits, will reduce the magnetic fields produced by this line on and off of the right-of-way, including at this residence.