

STATE OF CONNECTICUT
DEPARTMENT OF ENERGY AND ENVIRONMENTAL PROTECTION
PUBLIC UTILITIES REGULATORY AUTHORITY

PETITION FOR APPROVAL OF METHOD AND MANNER OF CONSTRUCTION AND PERMISSION TO ENERGIZE THE SOUTH MEADOW SUBSTATION-BLOOMFIELD SUBSTATION 115-kV TRANSMISSION LINE (1779 LINE) : DOCKET NO.
:
: July, 26, 2013

PETITION OF
THE CONNECTICUT LIGHT AND POWER COMPANY

Pursuant to C.G.S. §16-243 and Conn. Agencies Regs. §16-11-137 and §16-11-139, Northeast Utilities Service Company, as agent for its affiliate, The Connecticut Light and Power Company (“CL&P”) respectfully requests that the Public Utilities Regulatory Authority (“PURA”) approve the method and manner of construction and provide permission to energize the South Meadow Substation to Bloomfield Substation Line, the 1779 Line NERC Facility Rating Alert Project, (“Project”), as specifically described below:

1. The purpose of the Project is to provide adequate vertical clearance by replacing Str. # 3017. See Conn. Agencies Regs. §16-11-137(1).
2. The proposed construction will take place between South Meadow Substation and Bloomfield Substation in the Town of East Hartford, within the existing CL&P right of way. A map indicating the Project route and location of circuits, including the points at which the Project will cross over or under public highways and the circuits, tracks and other facilities of other utilities and municipalities, if any, is attached at Exhibit A. See Conn. Agencies Regs. §16-11-137 (2) and §16-11-139(1).
3. The entire length of the Project is approximately 0.2 miles. See Conn. Agencies Regs. §16-11-137(3).

4. The Project involves replacing one (1) existing 115kV double circuit lattice tower (Str. # 3017) that supports 6 phases, one conductor per phase at a voltage of 115kV at 60Hz frequency with two 115kV single circuit wood poles that will each support 3 phases, one conductor per phase at a voltage of 115kV at 60 Hz. This line was covered by DPUC file 25-T-122, dated 9/15/1961. See Conn. Agencies Regs. §16-11-137(4).
5. The Project will replace one (1) double circuit lattice tower with two (2) single circuit wood poles. See Conn. Agencies Regs. §16-11-137(5).

6. The materials to be used include:

Structures: Two wood pole structures approximately 90 feet in height above ground

Conductor: One existing 4/0 AWG 6/1 strands Aluminum Conductor Steel Reinforced (“ACSR”) per phase

Overhead lighting shield wires: One existing 3/8 aluminum clad shield wire

Insulators: Ceramic insulators, 30,000-pound Class 5 (115-kV) Mechanical and Electrical (“M&E”) strength in accordance with American National Standards Instituted C29.1 Test Methods for Electrical Power Insulators. The electrical ratings of the insulators are as follows:

Configuration	No. of Units per string	Minimum 60 Hertz Flashover, kV	
		<u>Wet</u>	<u>Dry</u>
Strain – Steel	10	416	590
Suspension	8	375	540

See Conn. Agencies Regs. 16-11-137(5), §16-11-137(6), and §16-11-137(7).

7. Lightning protection will consist of one existing lightning shield wire over both circuits. See Conn. Agencies Regs. §16-11-137(7).

8. The Project will not cross over or under circuits and facilities of other utilities or municipalities. See Conn. Agencies Regs. §16-11-137(8).
9. Construction shall be in accordance with Part 2 of the 2012 Edition of the National Electrical Safety Code as recommended in Section 16-11-134 of the Regulations of Connecticut State Agencies. See Conn. Agencies Regs. §16-11-137(9).
10. The Project will not impact the facilities of other utilities or municipalities, as it will not cross over, under, parallel or conflict with such facilities. See Conn. Agencies Regs. §16-11-137(10).
11. Construction of the Project is scheduled to begin on August 12, 2013, with completion anticipated by November 1, 2013. The Project will be re-energized during and after construction. See Conn. Agencies Regs. §16-11-137(11).
12. A drawing showing typical arrangement and spacing of conductors on poles or towers is attached at Exhibit B as follows:

Sketch 1 Typical Site Drawing

The sag of the conductors for a typical span of 600 feet will be approximately 14 feet at 60°F and approximately 21 feet at 285°F. The clearance of the conductor to the ground for a typical span of 600 feet will be approximately 29 feet at 60°F and approximately 19 feet at 285°F. See Conn. Agencies Regs. §16-11-137(12).
13. The Project does not include underground line construction. See Conn. Agencies Regs. §16-11-137(13).
14. This Project construction will involve the daily outage and re-energizing of the circuits as the proposed work is being performed. For this reason CL&P seeks permission to energize during and after the construction period. See Conn. Agencies Regs. §16-11-137(14).

15. The Connecticut Siting Council ruled on Petition No. 1000 at a meeting held on August 11, 2011 that a Certificate of Environmental Compatibility and Public Need is not required pursuant to Section 16-50k(a) of the General Statutes of Connecticut.

Pursuant to C.G.S. §16-243 and having met the requirements of Conn. Agencies Regs. §16-11-137 and §16-11-139, CL&P hereby requests PURA's approval of the method and manner of construction and permission to energize Line 1779, as specifically described above.

RESPECTFULLY SUBMITTED THIS 26th day of July, 2013.

**THE CONNECTICUT LIGHT AND POWER
COMPANY**

By: Keith M. Sickles

Keith M. Sickles, P.E.

Manager

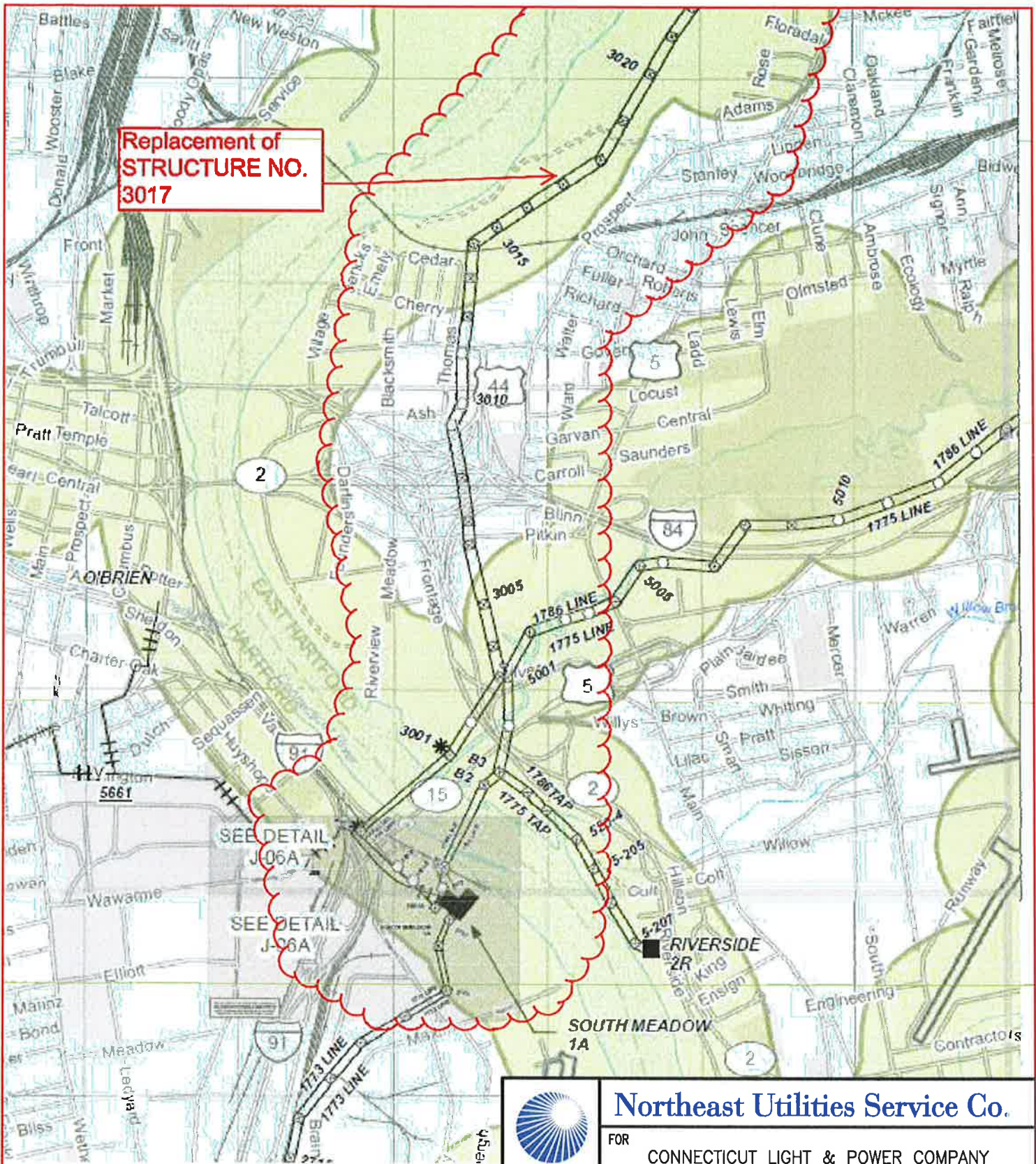
Transmission Line and Civil Engineering


Northeast Utilities Service Company

107 Selden Street

Berlin, CT 06037

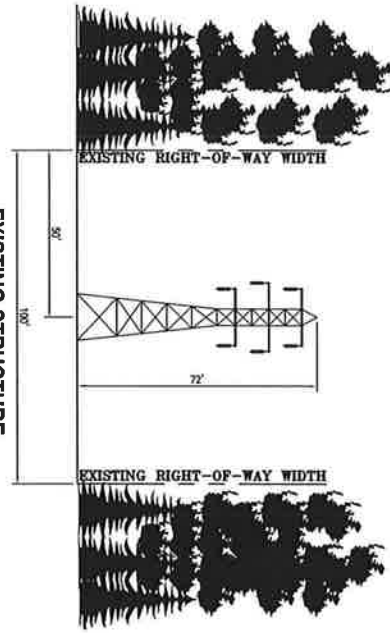
EXHIBIT A
MAP
Required by §16-11-139(1)



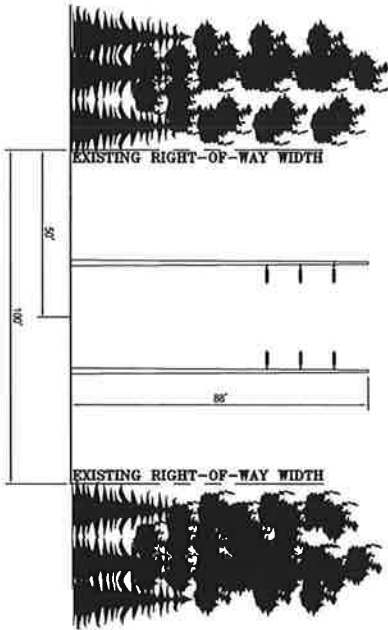
	Northeast Utilities Service Co.			
	FOR CONNECTICUT LIGHT & POWER COMPANY			
TITLE SOUTH MEADOW SS – BLOOMFIELD SS 1779 LINE LOCATION MAP EAST HARTFORD CT				
BY	AMC	CHKD	EQ	APP
DATE	7-19-2013	DATE	7-19-2013	DATE
H-SCALE	N.T.S.	SIZE	A	FIELD BOOK & PAGES
V-SCALE	N.T.S.	V.S.		R.E.DWG.
R.E. PROJ. NUMBER				NUSCO
				EXHIBIT A

**EXHIBIT B
DRAWINGS**


**Required by Conn. Agencies Regs. §16-11-137(12)
(Spacing of conductors, sag and clearances)**



EXISTING STRUCTURE
HEIGHT (72')



PROPOSED STRUCTURE
HEIGHT (84')

		Northeast Utilities Service Co. FOR CONNECTICUT LIGHT & POWER COMPANY	
TITLE NERC ALERT PROJECT TYPICAL SITE DRAWING DEPICTING EXISTING AND PROPOSED TYPICAL STRUCTURES			
BY	AMC	CHKD	ED
DATE	04/15/13	DATE	04/15/13
H-SCALE	1"=40'	SIZE	8
V-SCALE	1"=40'	FIELD BOOK & PAGES	
FILE PROJ. NUMBER		REVISION	
		INSDO	
			SKETCH 1