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May 25, 2012

VIA HAND DELIVERY

Ms. Linda Roberts
Executive Director
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Docket No. 426; Third Taxing District, Proposed Fitch Street Substation

Dear Ms. Roberts:

I write on behalf of the Third Taxing District ("TTD") of the City of Norwalk to provide you with an original and 20 copies of TTD's Responses to the Connecticut Siting Council's Pre-Hearing Interrogatories on the above-referenced docket.

If you have any questions or require additional information, please do not hesitate to contact me.

Sincerely,

A handwritten signature in blue ink that reads "Andrew W. Lord".

Andrew W. Lord

Enclosure

cc: Service List

3911485v1

Murtha Cullina LLP | Attorneys at Law

BOSTON

HARTFORD

MADISON

NEW HAVEN

STAMFORD

WOBURN

**LIST OF PARTIES AND INTERVENORS
SERVICE LIST**

Status Granted	Document Service	Status Holder (name, address & phone number)	Representative (name, address & phone number)
<p align="center">Applicant</p>	<input checked="" type="checkbox"/> E-mail	<p>Third Taxing District Electric Department</p>	<p>Andrew W. Lord, Esq. Murtha Cullina LLP CityPlace I, 29th Floor 185 Asylum Street Hartford, CT 06103 (860) 240-6180 (860) 240-6150 fax alord@murthalaw.com</p>
	<input checked="" type="checkbox"/> E- Mail		<p>George E. Leary, General Manager Third Taxing District Electric Dept. 2 Second Street East Norwalk, CT 06855 (203) 866-9271 manager@ttd.gov</p>
	<input checked="" type="checkbox"/> U.S. Mail		<p>James T. Olsen, LEP Senior Project Manager, Associate Tighe & Bond, Inc. 213 Court Street, Suite 900 Middletown, CT 06457 (860) 704-4775 (860) 805-8776 (cell)</p>
<p align="center">Party (granted 5/10/12)</p>	<input checked="" type="checkbox"/> E-mail	<p>The Connecticut Light and Power Company (CL&P)</p>	<p>John R. Morissette Manager – Transmission Siting and Permitting Northeast Utilities Service Co. P.O. Box 270 Hartford, CT 06141-0270 (860) 665-2036 (860) 665-6933 fax morisjr@nu.com</p>
<input checked="" type="checkbox"/> U.S. Mail	<p>Christopher C. Swan Director Municipal Relations & Siting Northeast Utilities Service Company 9 Tindall Avenue Norwalk, CT 06851 (203) 845-3421 (203) 845-3628 swancc@nu.com</p>		

**LIST OF PARTIES AND INTERVENORS
SERVICE LIST**

Status Granted	Document Service	Status Holder (name, address & phone number)	Representative (name, address & phone number)
	<input checked="" type="checkbox"/> U.S. Mail	The Connecticut Light and Power Company (CL&P) continued...	Jeffery D. Cochran, Senior Counsel Northeast Utilities Service Co. P.O. Box 270 Hartford, CT 06141-0270 (860) 665-3548 (860) 665-5504 cochrjd@nu.com

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

APPLICATION TO THE CONNECTICUT SITING	:	DOCKET NO. 426
COUNCIL FOR A CERTIFICATE OF	:	
ENVIRONMENTAL COMPATIBILITY AND PUBLIC	:	
NEED FOR THE 115-Kv TRANSMISSION	:	
CONNECTION AND EXPANSION OF EAST	:	
AVENUE SUBSTATION AND FITCH STREET,	:	
NORWALK, CONNECTICUT	:	May 25, 2012

**THIRD TAXING DISTRICT RESPONSES TO CONNECTICUT SITING COUNCIL'S
PRE-HEARING INTERROGATORIES**

CSC-1. What is the approximate size of the Third Taxing District's (TTD) service area in square miles?

Response: TTD's service area is 4 square miles.

CSC-2. Of TTD's 3,800 customers, approximately how many are residential?
Commercial? Industrial?

**Response: Residential 2930, Small General Service 806, Large General Service
44, Industrial 1.**

CSC-3. Modify Figure G-2 to depict the area served only by the East Avenue Substation.

TTD's East Avenue and Rowan Street substations jointly serve the entire service area with most distribution circuits originating at both substations, therefore the areas served by each substation cannot be distinguished.

CSC-4. Provide an estimate as to the number of interruptions of service related to the 9s-45 and 9s-46 lines within the past five years.

Response: The following table shows the number of hours per year that each of the existing 27.6 kV incoming lines were out of service for all causes.

Summary: Total Hours per Year By Meter			
Year	Rowan Street Substation 9S45	East Avenue Substation 9S46	Simultaneous Outage Hours
2000	1	1	1
2001	4	30	0
2002	61	89	0
2003	1675	5	5
2004	977	0	0
2005	196	51	0
2006	56	83	6
2007	1	27	0
2008	56	39	0
2009	1014	346	0
2010	1949	91	0
2011	29	60	0
2012	22	12	0

CSC-5. What is TTD's current peak load?

Response: TTD's peak load is 16.34 MW reach in 2006.

CSC-6. What is TTD's estimated load growth over TTD's study period? What is the projected peak load? What are the assumptions in TTD's need study that supports these figures?

Response: TTD's load forecast is included in the forecast filed annually on March 1st with CSC by CMEEC. TTD expects normal load growth to be modest over our ten year study period because most growth will be offset by aggressive conservation programs. The projected load growth will come from two major customer additions namely additions to our Waste Water Treatment Plant (WWTP) and a new data center. The WWTP load additions included are 1.3 MW in 2012, 3.5 MW in 2013 and 5 MW in 2014 and thereafter.

The data center load additions included are 2 MW in 2013-14, 4 MW in 2015 and 8 MW thereafter. The data center load is being shared equally by TTD and CL&P with each utility backing up the 8 MW load normally served by the other. TTD, therefore, must be able to serve double the normal 8 MW data center load in the event of a loss of the CL&P supply. This additional load is not included in the TTD forecast but is shown on the following table.

	Annual	With Data Center Backup
Year	Peak	Load
2012	16.251	16.251
2013	20.612	22.612
2014	22.252	24.252
2015	24.384	28.384
2016	28.504	36.504
2017	28.616	36.616
2018	28.729	36.729
2019	28.844	36.844
2020	28.936	36.936
2021	29.026	37.026

CSC-7. Based on TTD's load growth, can the existing CL&P lines provide sufficient capacity? Provide an estimate of reserve capacity.

Response: At the present load levels and with both circuits in service the existing CL&P lines feeding TTD have adequate capacity to serve the load. However, there is not sufficient capacity when the 9S-45 line is out of service. Also, there is little room for the anticipated load growth.

	Normal	Peak	Normal	Emergency
Circuit	Load	Load	Capacity	Capacity
9S-45	9.7	17.4	19.5	25.5
9S-46	7.7	15.4	12.9	19.5

Normal Load = system peak with both circuits in service

Peak Load = system peak with other line out of service

9S-45 carries 2MW of load in addition to TTD load

CSC-8. How much capacity will the new substation provide?

Response: The new substation will have a firm capacity of 40 MVA from two 40 MVA transformers.

CSC-9. What is the size of the existing East Avenue Substation parcel? Identify the use of the existing buildings on the East Avenue Substation parcel.

Response: The .349 acre East Ave. Substation site includes a residential structure, garage, substation building and outdoor open-structure 27.6 - 4.16KV substation. The two-story house, owned by TTD, is used by the Norwalk Tree Alliance for storage and periodic meetings and also serves to screen the existing and proposed substations from the west. The garage is used to store electric distribution supplies and equipment. The substation building houses substation equipment including 4.16 KV switchgear and associated relaying and metering.

CSC-10. Page 10 states an auto body repair shop abuts the proposed site to the east; however, Figure H-2 depicts this property as a residential structure. Please clarify. How was the residence information used in the figure compiled?

Response: The building to the East of the site houses an auto body repair shop on the first floor and three residential apartments on the second floor. The information on Figure H-2 was compiled from TTD's knowledge of the area and customer accounts. Figure H-2 has been revised to only show distances to existing residences (including apartments above retail businesses). The residences have been verified on the City Assessor's online database. Figure H-2 has been renamed to H-2A and is attached hereto.



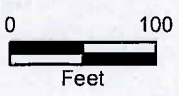
**FIGURE H-2A
NEAREST RESIDENCES**

New 115 kV Substation
Fitch Street
Norwalk, Connecticut

Tighe & Bond

May 2012

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Ortho: Bing, 2010

CSC-11. Regarding Figure H-2, why was the center of the substation compound chosen as the measuring point to adjacent properties? Please revise the figures and use the substation perimeter fence as the measuring point to adjacent residences.

Response: Figure H-2 has been revised to show distances from the substation perimeter fence rather than the center of the substation compound. Figure H-2 has been renamed to H-2A and is attached to the response to CSC-10.

CSC-12. Page 23 states the Coastal Boundary is 50 feet south of the site – what site measuring point was used in this determination?

Response: As defined in C.G.S. 22a-94(b) the coastal boundary is a "continuous line delineated on the landward side by the interior contour elevation of the one hundred year frequency coastal flood zone, as defined and determined by the National Flood Insurance Act, as amended (USC 42 Section 4101, P.L. 93-234), or a one thousand foot linear setback measured from the mean high water mark in coastal waters, or a one thousand foot linear setback measured from the inland boundary of tidal wetlands mapped under section 22a-20, whichever is farthest inland; and shall be delineated on the seaward side by the seaward extent of the jurisdiction of the state." According to the Connecticut Department of Energy and Environmental Protection (CTDEEP) Geographic Information System (GIS) data for Connecticut's Coastal Boundary, the site is not located within the coastal boundary area (as defined by Connecticut General Statute 22a-94(c)). The approximate measurement of fifty feet to the Coastal Boundary Line was taken from the edge of the proposed substation and property boundary (southeastern corner) closest to the coastal boundary demarcation line.

CSC-13. In regards to site lighting, p. 23 of the application, how many lights will be on at night under normal operations? What will they illuminate? Is this lighting required under any standard or best management practice?

Response: The Control House will have low-output wall pack lamps for security camera coverage and access lighting; there will be two fixtures on the substation side and one on each end; the street side will be lit by existing street lights. The substation yard will have six sets of fixtures that will be on at dusk and off at dawn at low lighting levels for security camera coverage. They will have a second level at 20-foot candles at grade for night time switching, maintenance and emergency work. The substation lights will illuminate the substation yard and equipment; the Control House wall packs and existing street light fixtures on Fitch Street will illuminate the access to the Control House and the street-side property for public safety and security. The proposed lighting layout is consistent with the National Electrical Safety Code ("NESC")(cutsheet attached), the Institute of Illumination Engineers Illumination Guidelines and best management practice for worker safety.

(4) Access is limited to qualified personnel.

(5) The storage location and content is such that the risk of fire does not unreasonably jeopardize station operation.

(For battery areas, see Section 14; for guarding, see Rule 124; for auxiliary equipment in classified locations, see Rule 127.)

3. Ventilation

There should be sufficient ventilation to maintain operating temperatures within ratings, arranged to minimize accumulation of airborne contaminants under any operating conditions.

4. Moisture and Weather

They should be dry. In outdoor stations or stations in wet tunnels, subways or other moist or high-humidity locations, the equipment shall be suitably designed to withstand the prevailing atmospheric conditions.

C. Electric Equipment

All stationary equipment shall be supported and secured in a manner consistent with reasonably expected conditions of service. Consideration shall be given to the fact that certain heavy equipment, such as transformers, can be secured in place by their weight. However, equipment that generates dynamic forces during operation may require appropriate additional measures.

111. Illumination

A. Under Normal Conditions

Rooms and spaces shall have means for artificial illumination. Illumination levels not less than those listed in Table 111-1 are recommended for safety to be maintained on the task.

B. Emergency Lighting

1. A separate emergency source of illumination with automatic initiation, from an independent generator, storage battery, or other suitable source, shall be provided in every attended station.
2. Emergency lighting of 11 lux (1 footcandle) shall be provided in exit paths from all areas of attended stations. Consideration must be given to the type of service to be rendered, whether of short or long duration. The minimum duration shall be 1-1/2 h. It is recommended that emergency circuit wiring shall be kept independent of all other wiring and equipment.

C. Fixtures

Arrangements for permanent fixtures and plug receptacles shall be such that portable cords need not be brought into dangerous proximity to live or moving parts. All lighting shall be controlled and serviced from safely accessible locations.

D. Attachment Plugs and Receptacles for General Use

Portable conductors shall be attached to fixed wiring only through separable attachment plugs that will disconnect all poles by one operation. Receptacles installed on two- or three-wire single-phase, ac branch circuits shall be of the grounding type. Receptacles connected to circuits having different voltages, frequencies, or types of current (ac or dc) on the same premises shall be of such design that attachment plugs used on such circuits are not interchangeable.

E. Receptacles in Damp or Wet Locations

All 120 V ac permanent receptacles shall either be provided with ground-fault interrupter (GFI) protection or be on a grounded circuit that is tested at such intervals as experience has shown to be necessary.

Table 111-1
Illumination Levels

Location	lux	footcandles
Generating Station		
Air-conditioning equipment, air preheater and fan floor, ash sluicing	55	5
Auxiliaries, battery areas, boiler feed pumps, tanks, compressors, gage area	110	10
Boiler platforms	55	5
Burner platforms	110	10
Cable room, circulator, or pump bay	55	5
Chemical laboratory	270	25
Coal conveyor, crusher, feeder, scale area, pulverizer, fan area, transfer tower	55	5
Condensers, deaerator floor, evaporator floor, heater floors	55	5
Control rooms		
Vertical face of switchboards		
Simplex or section of duplex operator:		
Type A — Large centralized control room 1.68 m (66 in) above floor	270	25
Type B — Ordinary control room 1.68 m (66 in) above floor	160	15
Section of duplex facing away from operator	160	15
Bench boards (horizontal level)	270	25
Area inside duplex switchboards	55	5
Rear of all switchboard panels (vertical)	55	5
Dispatch boards		
Horizontal plane (desk level)	270	25
Vertical face of board [1.22 m (48 in) above floor, facing operator]:		
System load dispatch room	270	25
Secondary dispatch room	160	15
Hydrogen and carbon dioxide manifold area	110	10
Precipitators	55	5
Screen house	110	10
Soot or slag blower platform	55	5
Steam headers and throttles	55	5
Switchgear, power	110	10
Telephone equipment room	110	10
Tunnels or galleries, piping	55	5
Turbine bay sub-basement	110	10
Turbine room	160	15
Visitors' gallery	110	10
Water treating area	110	10

Table 111-1 (Continued)
Illumination Levels

Location	lux	footcandles
Generating Station (Exterior)		
Catwalks	22	2
Cinder dumps	2.2	0.2
Coal-storage area	2.2	0.2
Coal unloading		
Dock (loading or unloading zone)	55	5
Barge storage area	5.5	0.5
Car dumper	5.5	0.5
Tipple	55	5
Conveyers	22	2
Entrances		
Generating or service building		
Main	110	10
Secondary	22	2
Gate house		
Pedestrian entrance	110	10
Conveyor entrance	55	5
Fence	2.2	0.2
Fuel-oil delivery headers	55	5
Oil storage tanks	11	1
Open yard	2.2	0.2
Platforms—boiler, turbine deck	55	5
Roadway		
Between or along buildings	11	1
Not bordered by buildings	5.5	0.5
Substation		
General horizontal	22	2
Specific vertical (on disconnects)	22	2

112. Floors, Floor Openings, Passageways, and Stairs

A. Floors

Floors shall have even surfaces and afford secure footing. Slippery floors or stairs should be provided with antislip covering.

B. Passageways

Passageways, including stairways, shall be unobstructed and shall, where practical, provide at least 2.13 m (7 ft) head room. Where the preceding requirements are not practical, the obstructions should be painted, marked, or indicated by safety signs, and the area properly lighted.

NOTE: ANSI Z535.1-1998, ANSI Z535.2-1998, ANSI Z535.3-1998, ANSI Z535.4-1998, and ANSI Z535.5-1998 contain information regarding safety signs.

CSC-14. Are there minimum setback standards for the proposed substation components from perimeter fencing and adjacent structures? If so, does the site layout meet such standards?

Response: The NESC setback for 115kV construction is 13 feet and the proposed layout meets the standard. Please refer to the attached NESC sketch and table.

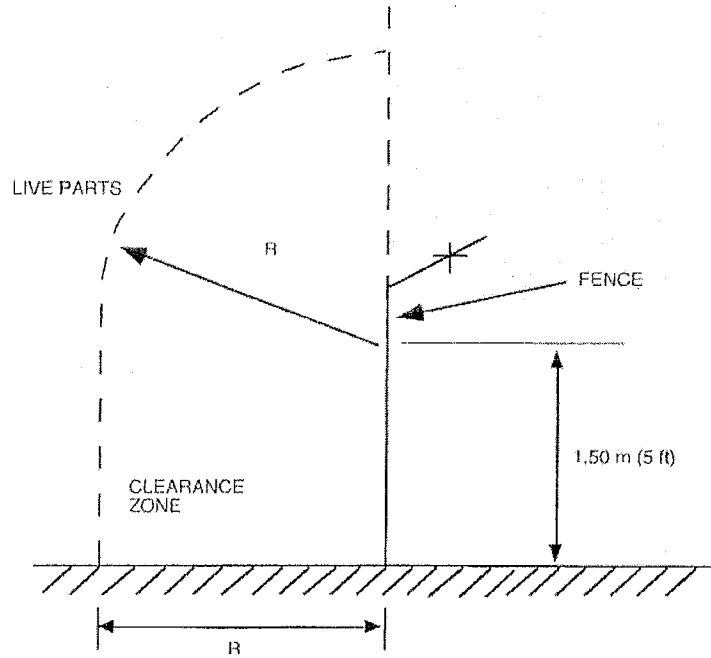


Fig 110-1
Safety Clearance to Electric Supply Station Fences

Table 110-1
Values for Use with Fig 110-1

Nominal Voltage Between Phases	Typical BIL	Dimension "R"	
		m	ft
151-7200	95	3.0	10.0
13 800	110	3.1	10.1
23 000	150	3.1	10.3
34 500	200	3.2	10.6
46 000	250	3.3	10.9
69 000	350	3.5	11.6
115 000	550	4.0	13.0
138 000	650	4.2	13.7
161 000	750	4.4	14.3
230 000	825	4.5	14.9
230 000	900	4.7	15.4
345 000	1050	5.0	16.4
345 000	1175	5.3	17.3
345 000	1300	5.5	18.3
500 000	1550	6.0	19.8
500 000	1800	6.6	21.5
765 000	2050	7.1	23.4

CSC-15. Figure H-6A (Tab E, 4) does not have any associated key colors. Please clarify.

Response: A corrected Figure H-6A is attached hereto.

GROUNDWATER & SURFACE WATER CLASSIFICATION MAP

LEGEND

Coastal and Marine Surface Waters		Surface Water Quality Classification	
SA	SR, SBSEA	A	GA, GAA
SBSEA	SCSEA, SCBSB	AA	GB
SCSEA	SDSEA, SDBSB	B	BCD1a
SDSEA	SESEA, SESB	B, C, D1a	CD1b
SESEA	SESEA, SESB	C, D1a	CD2b
SESEA	SESEA, SESB	D1a	GC
SESEA	SESEA, SESB	D1a	GC
SESEA	SESEA, SESB	D1a	GC

Groundwater Quality Classification

A	GA, GAA
B	GB
BCD1a	GC
CD1b	GC, GAA may be impaired
CD2b	

LOCUS MAP



0 500 1,000 feet

1" = 500'

NOTES

Data source: CT DEP

Coordinate System: NAD 1983 StatePlane Connecticut FIPS 6500 Feet
 Projection: Lambert Conformal Conic
 Units: Feet US

New 115 kV Substation
Fitch Street
Norwalk, Connecticut
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FIGURE
H-6A

Tighe & Bond

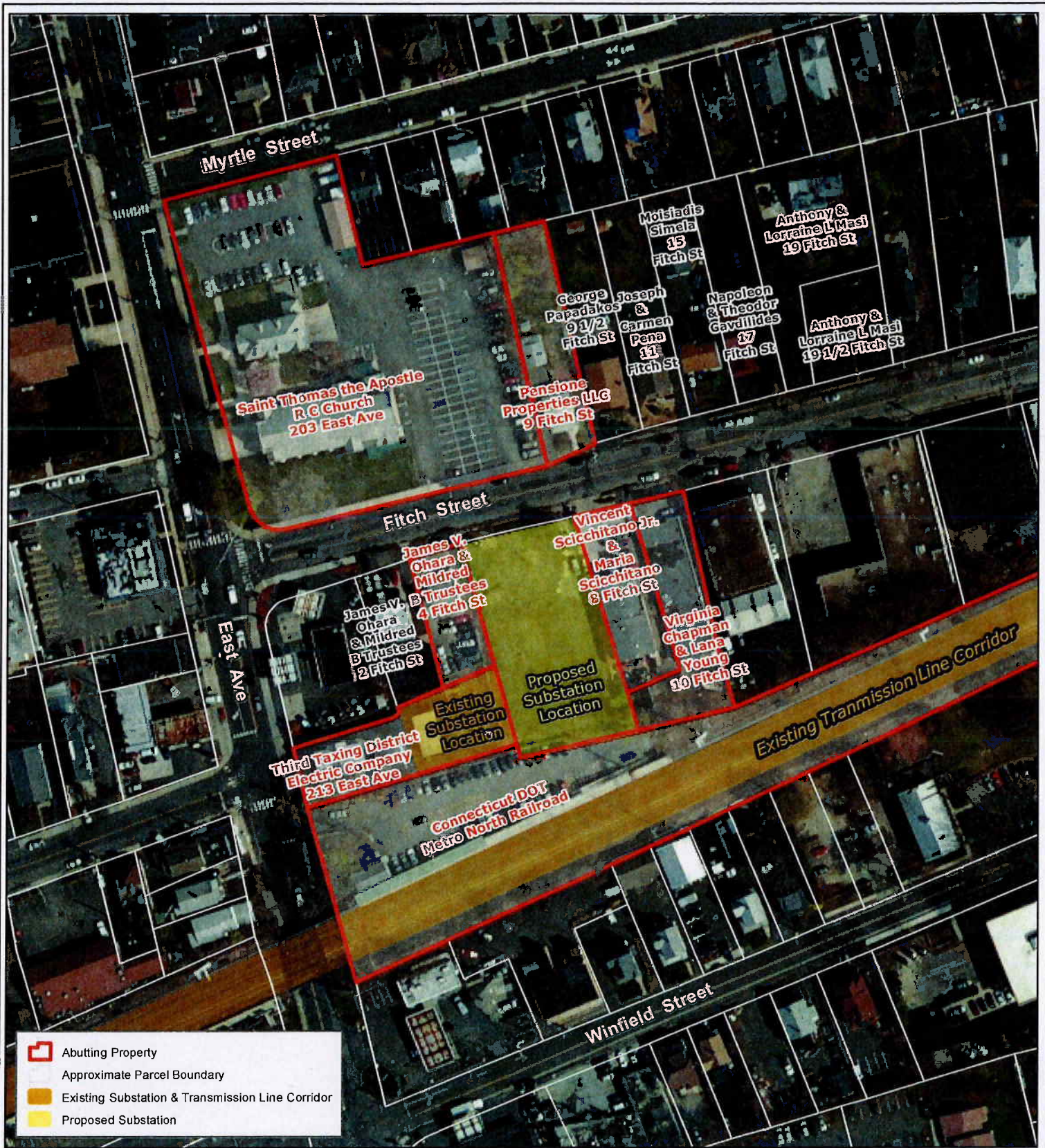


CSC-16. Page 8 of the application states there is little distributed generation within TTD's service area – are there any projects within the service area? If so, what is the output of such?

Response: Not counting emergency generators as distributed generation there are two residential solar installations connected to our system with a capacity of 5.85 KW and 2 KW for a total of 7.85 KW.

CSC-17. Provide a map showing the location of the abutting property owners.

Response: A map depicting the location of abutting property owners is depicted on figure H2-B, attached hereto. The owner information was obtained from the City Assessor's online database.



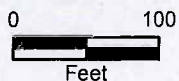
**FIGURE H-2B
ABUTTING PROPERTIES**

New 115 kV Substation
Fitch Street
Norwalk, Connecticut

Tighe & Bond

May 2012

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Ortho: Bing, 2010

CSC-18. In regards to the noise study, clarify the following:

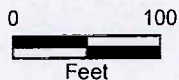
- a. Page 1 states the projected operational noise was corrected using background noise levels. What regulation (city or state) allows for corrected operational noise levels?
- b. Where were the background noise levels taken (show on map)? On what date(s) and time(s)? What were the noise levels per location?
- c. Is the proposed substation exempt from State Noise Control regulations if TTD owns the site? If no, revise the report as necessary.
- d. How were the noise characteristics for the proposed substation equipment obtained?
- e. How were the noise characteristics for the existing substation equipment obtained?
Revise Table 1 (if necessary) and show locations on a map.

Response:

- a. **There is no regulation for background noise correction. It is recommended in acoustics text books. Background noise levels are taken of the existing noise conditions. Then the new estimated noise levels are added to the formula. The difference between the combined level (existing plus new installation) and the existing background level is the correction. In this case, the correction was 1.5 dBA (insignificant).**
- b. **The background noise levels were taken on 10-18-11 between 10 a.m. and 11:30 a.m. and the locations of each are shown on Figure H-13, attached hereto.**
- c. **No; the report was revised on 11-10-11.**
- d. **Tighe & Bond provided information regarding the existing single line and proposed single line layout in addition to site plans, new substation equipment list, and an aerial map.**
- e. **Noise characteristics for the existing substation equipment were obtained by on-site noise measurements. The background noise levels are shown on new Figure H-13. The report shows the estimated noise levels after the new sub-station line is implemented.**
- f. **Refer to Figure H-13 for mapped locations. No revisions to Table 1 are required.**



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Ortho: Bing, 2010



**FIGURE H-13
BACKGROUND NOISE LEVELS
SURVEY LOCATIONS**

New 115 kV Substation
Fitch Street
Norwalk, Connecticut

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May 2012