COHEN and WOLF P.C.
ATTORNEYS AT LAW

DAVID E. DOBIN

Please Reply To Bridgeport
E-Mail: ddobin@cohenandwolf.com

September 1, 2017

Via Electronic Filing and Federal Express

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

Re: ***Docket No. 461A - Eversource Energy application for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a 115-kilovolt (kV) bulk substation located at 290 Railroad Avenue, Greenwich, Connecticut, and two 115-kV underground transmission circuits extending approximately 2.3 miles between the proposed substation and the existing Cos Cob Substation, Greenwich, Connecticut, and related substation improvements. Petition for Reconsideration.***

Dear Attorney Bachman:

In response to the questions asked by members of the Connecticut Siting Council at the hearing on August 29, 2017, I've enclosed one (1) original and fifteen (15) copies of the Town of Greenwich Late Filed Exhibit 1 dated September 1, 2017.

I certify that a copy has been sent on this date to all participants of record as reflected on the Council's service list.

Please do not hesitate to contact me if you have any questions regarding this filing.

Very truly yours,

David E. Dobin

DED/lcc
Enclosures

cc: Service List

1115 Broad Street
P.O. Box 1821
Bridgeport, CT 06601-1821
Tel: (203) 368-0211
Fax: (203) 394-9901

158 Deer Hill Avenue
Danbury, CT 06810
Tel: (203) 792-2771
Fax: (203) 791-8149

320 Post Road West
Westport, CT 06880
Tel: (203) 222-1034
Fax: (203) 227-1373

657 Orange Center Road
Orange, CT 06477
Tel: (203) 298-4066
Fax: (203) 298-4068

Witness: **Witness Panel**
Request from: **Connecticut Siting Council**

Question:
As discussed at the August 29, 2017 Hearing, please provide a description of the Town of Greenwich's achievements and strategy in reducing energy demand in the Town, including a report on the Town's progress towards achieving a 20% reduction in municipal building energy consumption by 2018.

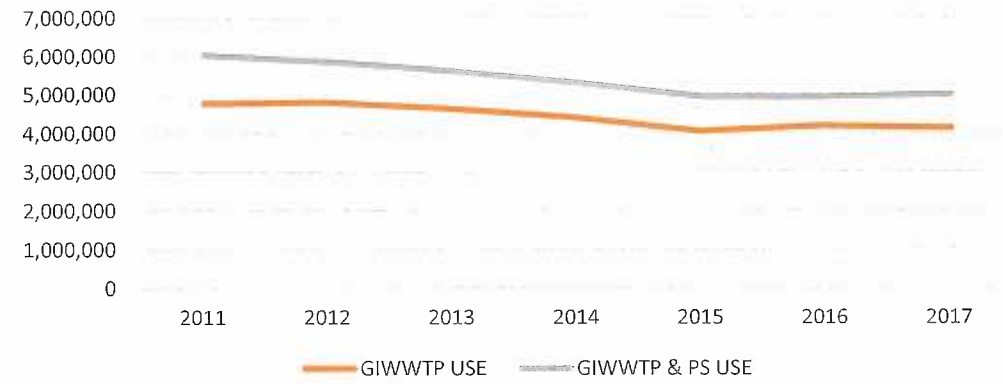
Response:
The Town's strategy is to focus on reducing usage by commercial and industrial users, and the largest Town facilities such as the Grass Island Wastewater Treatment Plant, Town Hall, and Greenwich High School. The Town also believes that Eversource must promote solutions in the Town that combine energy efficiency with alternative sources of energy and distributed energy and grid modernization solutions.

With every upgrade to the Grass Island Wastewater Treatment Plant, the Town looks at improving energy efficiency. A major project to right size its blowers (the equipment that supplies air to the treatment process) came on line in 2014. The Town received a rebate from Eversource for the work, and it is one of the factors in the energy reduction trend seen from 2011 to the present, which is demonstrated on Schedule A. Other work at the plant as well as in the collection system is continuing to help reduce overall energy use for the wastewater system.

In addition, please see attached Schedule B, describing (1) the Town's energy use by classification; (2) the Town's strategy and accomplishments in reducing energy consumption in Town facilities; (3) recent accomplishments in community outreach; and (4) alternative energy installations by municipalities since 2014.

SCHEDULE A

WASTEWATER TREATMENT PLANT AND PUMP STATIONS ELECTRIC CONSUMPTION (FISCAL YEAR KWH)



FISCAL YEAR	GIWWTP TOTALS (KWH)	GIWWTP & PS TOTALS (KWH)	
2011	4,759,400	6,028,961	
2012	4,796,800	5,853,755	
2013	4,629,600	5,614,044	
2014	4,404,088	5,302,334	
2015	4,044,000	4,935,611	
2016	4,185,600	4,925,190	
2017	4,120,600	4,985,758	17.3% Reduction from FY11 to FY17

GIWWTP = GRASS ISLAND WASTEWATER TREATMENT PLANT
PS = 28 PUMP STATIONS

FISCAL YEAR IS JULY 1 TO JUNE 30

DATA OBTAINED FROM MONTHLY ELECTRIC BILLS

Schedule B. Energy Reduction Strategy and Accomplishments in Greenwich

1. Energy Usage by Classification

Total Energy by Classification

Energy Consumption in Greenwich 2016	kWh	
Business kWh (includes government)	429,731,278.00	53.24%
Households kWh	377,394,521.00	46.76%
Total kWh	807,125,799.00	100.00%

With business being the largest sector and included town government, Eversource provided the Town profiling based on demand (kW) rather than consumption (kWh). Since demand metering is based on peaks, this looks at both reducing overload and peaks.

Greenwich Energy Demand	kW	% of townwide	% of large users
Total for Large Businesses (includes gov't)	53,000.00	74.65%	
Total for Small Businesses	18,000.00	25.35%	
Total for All Greenwich	71,000.00	100.00%	
Large Business Breakdown			
Town Facilities	3,682.00	5.19%	6.95%
Town Schools/BOE	3,471.00	4.89%	6.55%
Health Care Large Users	3,180.00	4.48%	6.00%
Manufactuing Large Users	3,180.00	4.48%	6.00%
RE Management Large Users	16,960.00	23.89%	32.00%
Retail - Large Users	5,830.00	8.21%	11.00%
Financial - Large Users	3,710.00	5.23%	7.00%
Lodging - Large Users	1,060.00	1.49%	2.00%
Housing Authority - Large Users	439.00	0.62%	0.83%
Other Education	2,650.00	3.73%	5.00%
Other - Large Users	11,488.00	16.18%	21.68%

2. Strategy and accomplishments in achieving 20% reduction in electricity usage by the Town of Greenwich by 2018 (32M kWh used annually)

Total Energy Demand by Town 2014 Baseline	kW
Town Facilities	3,682.00
Town School Facilities	3,471.00
Total	7,153.00

The Town has installed solar on two schools so far. Looking to significantly expand the array at GHS. In addition, the Town has several smaller solar installations on isolated buildings including the Innis Arden Cottage and the caretaker's cottage on Great Captain's island.

Solar energy	kW	Year
Glenville Solar	97.5	2010
GHS Solar	7.7	2011

Short term energy strategy adopted

a. Completed update of bench marking using 2014 baseline
b. Completed profile of town buildings and continued lighting programs. Identified key focus facilities including: Wastewater Treatment Plant, Town Hall, and GHS.
c. Completed energy audit of Town Hall as pilot with Eversource Feb. 2017. Contacted Aug 21, 2017 that audit report is ready for meeting with Town.
d. Town reduced energy by 5% from 2013-2016. Plan for more targeted strategy to reach 20% goal.
e. Eversource to work with large private energy users not identified to Town
f. Energy Outreach Campaigns
   Initiated Homeowner outreach Oct. 2016 – Home Energy Solutions
   Planning for Oct 2017 of Small Business Advantage Campaign
g. Agree to enter into Strategic Partnership with Eversource. This is a significant effort to ramp up EE programs and also identify distributed energy resource solutions. Planning charrette scheduled for September 27, 2017 with Strategic Plan completion by end of 2017. Existing CT Strategic Partnerships with Eversource are: United Technologies, UConn, ESPN, Foxwoods, and City of Stamford. Greenwich would be the second municipality to enter into such a partnership with Eversource.

Recent Accomplishments – Town Facilities

Town facility - 3 largest users	% reduced from 2014 baseline to 2015	Mean Peak Demand kW	Low hanging savings potential identified kW
Wastewater Treatment Plant	9.00%	807	5-10%
Town Hall	3.00%	572	10-25%
Greenwich High School	8.00%	1327	

Lighting projects completed	kW	Year
Greenwich High School	67	2015-16
Other BOE completed	48.82	2016
EMS Lighting project scheduled	6	2017
Total BOE completed/scheduled	121.82	

Identified for implementation in 2018

Identified Projects	Mean Peak Demand	Potential Savings	kW saved at 10%	kW Saved at 25%
Grass Island Wastewater Treatment Plant	807	5-10%	80.70	na
Town Hall	572	10-25%	57.20	143.00

3. Recent Accomplishments – Community Outreach

Households comprise 46.7 % of the energy use in Greenwich. Greenwich has been involved in several CT Clean Energy programs aimed at both households and small businesses including the Solarize CT campaign and the CPACE program. (see alternative energy report attached). Most recently, we joined with Eversource to increase the number of homeowners participating in the Home Energy Solutions (HES) program. This program works on the easiest solutions for homeowners including swapping out lightbulbs, and insulating against drafts etc. It also identifies key areas for homeowners to focus on to reduce their energy bills while taking advantage of EE incentive programs. The light bulb swap is an outreach strategy to get folks in the door to learn more about the HES program and also to introduce folks to the best light bulb technology. The Small Business Advantage program is similar to the HES program only for small businesses.

HES – before start of outreach campaign was at 5% now at 7.8% participation in less than one year.

Communuty Outreach	Starting Oct 2016	thru April 2017	
Home Energy Solutions Audits	78	122	Aug 2017 second round of letters sent out under First Selectman's signature. Campaign to run thru Dec 2017
Light bulbs distributed	1159	1785	3rd Lightbuld swap and HES outreach open house planned for Oct 2017 - introducing of 587 households to EE programs
Small business advantage program			Planning stages for launch fall 2017

4. Greenwich third in Fairfield County in alternative energy installations since 2014

The CT Energize programs began tracking alternative energy installations in 2014 and have the reports available at https://ctenergydashboard.com/CEC/CECTownData.aspx.

For ease of comparison, the reports have been compiled into one spreadsheet. The data has been sorted by total kW over the 3 years. As you will note the top two municipalities are two of our largest cities. I highlighted in green, the towns from lower Fairfield County. Greenwich ranks 40 out of 169 towns for renewable installations of the past 3 years. In lower Fairfield County it ranks 3rd behind Bridgeport and Fairfield.

Installed Renewables Energy Capacity Report by Town
Source: CT Energize Clean Energy Community Website
https://ctenergydashboard.com/CEC/CEC_RenewableEnergy_Report.aspx?home=1

	Town Name	Total KW Installed 2014	No. of Units 2014	Total KW Installed 2015	No. of Units 2015	Total KW Installed 2016	No. of Units 2016	Total KW Installed	Total No. of Units
1	New Haven	1322	33	3109	49	23991	156	28422	238
2	Bridgeport	1420	29	4845	91	7323	265	13588	385
3	Glastonbury	757	66	764	60	4454	89	5975	215
4	Hartford	2611	16	660	50	1844	137	5115	203
5	Colebrook	19	3	4991	3	36	4	5046	10
6	East Lyme	4132	22	508	73	358	43	4998	138
7	Waterbury	400	46	2706	161	1883	235	4989	442
8	Bloomfield	1345	23	379	64	2964	120	4688	207
9	Sprague	1352	53	375	35	2925	26	4652	114
10	Middletown	1390	52	1070	117	2033	115	4493	284
11	Danbury	1189	53	789	84	2367	96	4345	233
12	Fairfield	638	44	953	81	2561	148	4152	273
13	Hamden	1481	79	727	111	1854	232	4062	422
14	Meriden	486	21	1120	122	2429	169	4035	312
15	Windsor	1134	37	851	104	2029	212	4014	353
16	Berlin	124	20	974	58	2910	64	4008	142
17	Woodbridge	41	5	901	30	3016	43	3958	78
18	New Britain	1161	24	936	114	1846	142	3943	280
19	Manchester	655	69	1696	89	1575	145	3926	303
20	East Hartford	1191	39	1101	119	1520	231	3812	389
21	Suffield	234	36	1149	137	2418	388	3801	561
22	Bristol	319	50	1505	169	1681	157	3505	376
23	South Windsor	763	67	1221	149	1417	111	3401	327
24	West Haven	514	38	1786	115	1089	178	3389	331
25	Cheshire	1351	75	1404	58	436	52	3191	185
26	Oxford	355	55	1574	148	1187	126	3116	329
27	Enfield	1800	97	428	75	763	89	2991	261
28	Milford	248	42	1321	156	1397	216	2966	414
29	West Hartford	571	102	766	122	1627	123	2964	347
30	North Haven	535	21	619	88	1723	168	2877	277
31	Waterford	476	29	1026	67	936	75	2438	171
32	Seymour	423	32	603	84	1281	111	2307	227
33	Watertown	149	23	1401	69	732	55	2282	147
34	Newington	474	37	1066	101	652	94	2192	232
35	Trumbull	548	36	548	80	1057	53	2153	169
36	Simsbury	612	40	789	93	698	89	2099	222
37	Union	646	61	634	68	786	98	2066	227
38	Preston	378	10	381	26	1275	48	2034	84
39	Plainfield	116	17	954	68	921	50	1991	135
40	Greenwich	498	48	1025	36	435	38	1958	122
41	Windsor Locks	77	14	1446	76	360	48	1883	138

Installed Renewables Energy Capacity Report by Town
Source: CT Energize Clean Energy Community Website
https://ctenergydashboard.com/CEC/CEC_RenewableEnergy_Report.aspx?home=1

	Town Name	Total KW Installed 2014	No. of Units 2014	Total KW Installed 2015	No. of Units 2015	Total KW Installed 2016	No. of Units 2016	Total KW Installed	Total No. of Units
42	Norwalk	203	17	276	36	1229	147	1708	200
43	Ellington	178	26	612	50	867	53	1657	129
44	Somers	1075	13	284	36	293	34	1652	83
45	Newtown	531	51	834	39	276	29	1641	119
46	Stafford	290	39	477	35	847	69	1614	143
47	Woodstock	104	12	339	45	1111	29	1554	86
48	Killingly	127	17	790	53	605	71	1522	141
49	Voluntown	182	29	535	81	785	85	1502	195
50	Montville	183	23	841	88	426	61	1450	172
51	Old Saybrook	95	14	235	31	1118	68	1448	113
52	Naugatuck	202	34	345	56	871	114	1418	204
53	Cromwell	539	21	585	57	268	37	1392	115
54	New Milford	104	15	668	54	606	66	1378	135
55	East Haven	260	10	391	62	726	114	1377	186
56	Guilford	404	33	404	53	518	67	1326	153
57	New London	43	12	884	34	388	43	1315	89
58	Branford	339	21	290	37	668	74	1297	132
59	Coventry	660	34	316	34	274	38	1250	106
60	Farmington	349	33	622	81	249	32	1220	146
61	Torrington	397	55	330	43	488	38	1215	136
62	Windham	264	28	279	42	672	33	1215	103
63	Shelton	468	44	590	66	142	14	1200	124
64	Wethersfield	100	16	530	79	570	71	1200	166
65	Derby	234	5	185	29	776	36	1195	70
66	Avon	78	12	983	55	128	20	1189	87
67	Thomaston	205	29	760	96	197	25	1162	150
68	East Windsor	633	15	238	32	285	33	1156	80
69	Haddam	234	32	655	89	203	24	1092	145
70	Burlington	192	24	605	71	279	32	1076	127
71	Mansfield	709	30	222	35	111	15	1042	80
72	Griswold	163	24	602	84	254	35	1019	143
73	Wolcott	172	25	412	54	406	59	990	138
74	Westbrook	38	4	771	26	151	17	960	47
75	Orange	57	7	225	27	672	43	954	77
76	Southington	16	2	77	12	847	6	940	20
77	Clinton	161	24	370	30	396	31	927	85
78	East Granby	95	14	713	39	89	13	897	66
79	Westport	223	14	320	19	326	24	869	57
80	New Fairfield	133	18	290	36	443	19	866	73
81	Brookfield	213	25	437	51	208	21	858	97
82	Redding	168	23	342	54	330	39	840	116

Installed Renewables Energy Capacity Report by Town
Source: CT Energize Clean Energy Community Website
https://ctenergydashboard.com/CEC/CEC_RenewableEnergy_Report.aspx?home=1

	Town Name	Total KW Installed 2014	No. of Units 2014	Total KW Installed 2015	No. of Units 2015	Total KW Installed 2016	No. of Units 2016	Total KW Installed	Total No. of Units
83	Colchester	156	21	345	48	274	35	775	104
84	Ledyard	114	17	341	52	286	41	741	110
85	New Hartford	79	11	547	49	113	14	739	74
86	Hebron	115	17	193	27	427	50	735	94
87	Brooklyn	74	12	295	40	365	57	734	109
88	Harwinton	52	8	168	22	510	33	730	63
89	Monroe	124	13	241	32	337	43	702	88
90	Killingworth	182	20	419	49	92	11	693	80
91	Norwich	114	13	391	43	170	25	675	81
92	Ansonia	152	12	153	28	368	55	673	95
93	Putnam	85	11	278	28	309	23	672	62
94	Sherman	297	11	185	25	170	21	652	57
95	Ashford	237	31	311	30	93	13	641	74
96	Essex	58	10	315	21	268	15	641	46
97	East Haddam	281	11	212	26	137	19	630	56
98	Groton	135	21	257	42	231	38	623	101
99	Salisbury	85	11	132	26	402	47	619	84
100	Old Lyme	81	14	318	50	214	31	613	95
101	Tolland	85	13	235	35	263	37	583	85
102	Granby	135	23	264	32	172	22	571	77
103	East Hampton	111	16	239	34	220	30	570	80
104	Bethel	114	17	201	33	239	32	554	82
105	Deep River	23	4	402	18	121	18	546	40
106	Canterbury	58	8	199	25	285	22	542	55
107	Madison	183	26	141	19	206	23	530	68
108	Weston	52	7	353	32	119	11	524	50
109	Lebanon	260	38	121	18	134	18	515	74
110	Easton	107	15	324	14	74	9	505	38
111	Wilton	62	8	55	7	375	38	492	53
112	Kent	78	5	293	7	111	11	482	23
113	Middlefield	42	7	178	25	260	28	480	60
114	Columbia	215	32	125	19	110	15	450	66
115	Stonington	81	12	122	20	241	33	444	65
116	Bethany	89	12	218	19	112	15	419	46
117	Bolton	59	9	185	23	171	24	415	56
118	Lisbon	72	10	191	27	143	22	406	59
119	Barkhamsted	26	5	83	10	295	20	404	35
120	Portland	98	13	135	22	166	23	399	58
121	North Stonington	17	3	205	19	170	22	392	44
122	New Canaan	88	5	243	26	60	7	391	38

Installed Renewables Energy Capacity Report by Town
Source: CT Energize Clean Energy Community Website
https://ctenergydashboard.com/CEC/CEC_RenewableEnergy_Report.aspx?home=1

	Town Name	Total KW Installed 2014	No. of Units 2014	Total KW Installed 2015	No. of Units 2015	Total KW Installed 2016	No. of Units 2016	Total KW Installed	Total No. of Units
123	North Branford	141	17	119	16	131	20	391	53
124	Durham	33	5	169	20	177	19	379	44
125	Wallingford	17	3	296	17	64	12	377	32
126	Sterling	72	12	152	15	145	18	369	45
127	Pomfret	55	8	137	19	174	20	366	47
128	Willington	71	6	186	22	107	14	364	42
129	Canton	128	15	171	22	64	9	363	46
130	Plainville	92	14	189	27	82	11	363	52
131	Prospect	136	14	97	11	122	11	355	36
132	Rocky Hill	24	4	178	24	139	20	341	48
133	Plymouth	67	10	115	14	152	13	334	37
134	Scotland	59	8	60	7	211	12	330	27
135	Thompson	45	6	116	19	165	24	326	49
136	Litchfield	63	9	57	7	186	24	306	40
137	Stamford	21	3	181	27	91	14	293	44
138	Hampton	75	11	193	12	24	4	292	27
139	Winchester	62	10	154	18	67	11	283	39
140	Chester	63	10	91	6	116	13	270	29
141	Bethlehem	65	7	85	12	112	14	262	33
142	Woodbury	50	6	122	15	90	12	262	33
143	North Canaan	15	3	20	3	226	6	261	12
144	Roxbury	26	5	88	15	137	14	251	34
145	Ridgefield	162	22	38	4	38	4	238	30
146	Marlborough	31	4	83	12	102	13	216	29
147	Beacon Falls	77	11	74	11	56	8	207	30
148	Darien	88	4	61	7	56	7	205	18
149	Eastford	44	5	70	9	86	11	200	25
150	Lyme	33	4	107	12	52	5	192	21
151	Middlebury	43	6	61	9	80	9	184	24
152	Washington	23	4	48	8	110	12	181	24
153	Franklin	37	5	89	7	52	7	178	19
154	Chaplin	114	17	27	4	29	4	170	25
155	Norfolk	19	3	86	9	55	7	160	19
156	Andover	32	6	38	4	83	9	153	19
157	Canaan	15	3	51	7	84	10	150	20
158	Sharon	12	2	62	8	73	8	147	18
159	Warren	6	1	27	2	96	10	129	13
160	Goshen	35	5	56	9	36	4	127	18
161	Vernon	24	4	74	10	22	4	120	18
162	Hartland	39	6	40	6	40	5	119	17
163	Cornwall	21	3	28	6	62	4	111	13

Installed Renewables Energy Capacity Report by Town
Source: CT Energize Clean Energy Community Website
https://ctenergydashboard.com/CEC/CEC_RenewableEnergy_Report.aspx?home=1

	Town Name	Total KW Installed 2014	No. of Units 2014	Total KW Installed 2015	No. of Units 2015	Total KW Installed 2016	No. of Units 2016	Total KW Installed	Total No. of Units
164	Bridgewater	10	2	13	2	76	7	99	11
165	Morris	35	5	31	6	31	5	97	16
166	Stratford	23	2	17	3	47	6	87	11
167	Southbury	0	0	10	1	71	4	81	5
168	Salem	19	3	24	3	26	3	69	9
169	Bozrah	0	0	0	0	0	0	0	0

Lower Fairfield County Towns