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September 25, 2015

VIA E-MAIL AND FEDERAL EXPRESS

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

Re: DOCKET NO. 461 - 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.

Dear Attorney Bachman:

Under separate cover, Eversource is filing its responses to the Council's Prehearing Interrogatories – Set 2. Please note that the responses to Interrogatories #1 and #6 include information that Eversource indicated on September 1, 2015 that it would file after the evidentiary hearing. [See pages 40-41 and 63, respectively, of the September 1, 2015 evidentiary hearing transcript.]

Very truly yours,

Marianne Barbino Dubuque

MBD/mkw

cc: Service List dated September 18, 2015 attached (via e-mail)

Ms. Meg Glass (via e-mail)

LIST OF PARTIES AND INTERVENORS <u>SERVICE LIST</u>

Status Granted	Document Service	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Applicant	E-Mail	Eversource Energy	Jacqueline Gardell Project Manager Eversource Energy 56 Prospect Street Hartford, CT 06103 jacqueline.gardell@eversource.com John Morissette Project Manager-Transmission Siting-CT Eversource Energy 56 Prospect Street Hartford, CT 06103 john.morissette@eversource.com Jeffery Cochran, Esq. Senior Counsel, Legal Department Eversource Energy 107 Selden Street Berlin, CT 06037 jeffery.cochran@eversource.com Marianne Barbino Dubuque Carmody Torrance Sandak & Hennessey LLP 50 Leavenworth Street Waterbury, CT 06702 mdubuque@carmodylaw.com
Party Approved on July 23, 2015	⊠ E-Mail	Office of Consumer Counsel	Lauren Henault Bidra, Esq. Staff Attorney Office of Consumer Counsel Ten Franklin Square New Britain, CT 06051 Lauren.bidra@ct.gov Joseph A. Rosenthal, Esq. Principal Attorney Office of Consumer Counsel Ten Franklin Square New Britain, CT 06051 Joseph.rosenthal@ct.gov

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Intervenor Approved on September 1, 2015	⊠ E-Mail	Parker Stacy 1 Kinsman Lane Greenwich, CT 06830 pstacy@optonline.net	
Intervenor Approved on September 1, 2015	⊠ E-Mail	Pet Pantry Super Discount Stores LLC	Mark L. Bergamo, Esq. Edward L. Marcus, Esq. The Marcus Law Firm 275 Branford Road North Branford, CT 06471 mbergamo@marcuslawfirm.com emarcus@marcuslawfirm.com
Intervenor Approved on September 1, 2015	⊠ E-Mail	Field Point Estate Townhouses, Inc.	Carissa Depetris Dwight Ueda Field Point Estate Townhouses 172 Field Point Road, #10 Greenwich, CT 06830 carissa.depetris@gmail.com d ueda@yahoo.com
Intervenor Approved on September 1, 2015	⊠ E-Mail	Christine Edwards 111 Bible Street Cos Cob, CT 06807 SeeEdwards@aol.com	
Intervenor Approved on September 1, 2015	⊠ E-Mail	Richard Granoff, AIA, LEED AP Granoff Architects 30 West Putnam Avenue Greenwich, CT 06830 rg@granoffarchitects.com	

Date: September 18, 2015

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Intervenor Approved on September 1, 2015	⊠ E-Mail	Anthony Crudele Bella Nonna Restaurant & Pizzeria 280 Railroad Avenue Greenwich, CT 06830 bellanonnagreenwich@gmail.com	
Intervenor Approved on September 1, 2015	⊠ E-Mail	Cecilia H. Morgan 3 Kinsman Lane Greenwich, CT 06830 cecimorgan@aol.com	
Intervenor Approved on September 1, 2015	⊠ E-Mail	Dr. Danielle Luzzo Greenwich Chiropractic & Nutrition 282 Railroad Avenue Greenwich, CT 06830 drdanielleluzzo@gmail.com	
Intervenor Approved on September 17, 2015	⊠ E-Mail	Joel Paul Berger 4208 Bell Boulevard Flushing, NY 11361 communityrealty@msn.com	

Mr. Robert Stein Connecticut Siting Council 10 Franklin Square New Britain, CT 06051

Re: Docket No. 461 - CSC 461 Greenwich Substation and Line Project

Dear Mr. Stein:

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

 $\frac{\text{Response to CSC-}02 \text{ Interrogatories dated } 09/09/2015}{\text{CSC-}001,\,002,\,003,\,004,\,005,\,006,\,007,\,008,\,009,\,010,\,011,\,012}$

Very truly yours,

John Morissette Project Manager Siting As Agent for CL&P dba EversourceEnergy

cc: Service List

Data Request CSC-02 Dated: 09/09/2015 Q-CSC-001 Page 1 of 4

Witness: Witness Panel

Request from: Connecticut Siting Council

Question:

In regards to the Yellow Preferred Open Trench Route Variation through the tidal basins in Bruce Park, please explain in detail the following:

- a) construction of the coffer dams;
- b) suitability of coffer dam installation within tidal waters;
- c) amplitude of the tide in the construction area;
- d) biological habitats that would be disturbed by coffer dam installation and trench excavation;
- e) maximum depth of the trenches within the tidal basins;
- f) duration of construction within each tidal basin;
- g) material used for trench backfill within the tidal basins;
- h) type of restoration, if any, of the disturbed area within the tidal basins;
- i) length of time for the disturbed areas to resume its original habitat function; and
- j) maintenance and operation concerns associated with the conduits beneath the tidal basins.

Response:

a) Construction of the coffer dams

The purpose of a cofferdam is to dewater the work area and segregate construction activities from the adjacent water resource area, while maintaining the flow of the water resource. The type of material and the construction of the cofferdam will be determined following a more detailed engineering analysis and included as part of Eversource's Tidal Wetlands and Structures Dredging and Fill Individual Permit application submitted to the Connecticut Department of Energy and Environmental Protection's Office of Long Island Sound Programs (OLISP).

When crossing the Indian Harbor tidal basins in Bruce Park, Eversource would use a phased approach, first building a cofferdam approximately half way across the water resource. When construction in the first half is complete, a second cofferdam would be erected on the remaining half and the first cofferdam removed. The same process would be used for both tidal basins. Although the location specific dewatering plan is still in development, the general approach is as follows:

- The cofferdam would be installed in the Indian Harbor tidal basins and water within the confines of the dam would be removed.
- To maintain dry conditions during construction, a pump would be utilized to remove any water accumulation within the work area to the dewatering area.

- Tidal wetland sediments would be removed via excavator and stored within a sediment stockpile area. Surficial and subsurface tidal wetland sediments would be differentiated by a professional wetland scientist or registered professional soil scientist and the two soil types, as well as upland sediments, would be stockpiled separately to ensure proper replacement during restoration. Erosion and sediment controls will be installed around the stockpiles to prevent runoff and migration/intermingling of sediments.
- All dewatering practices will be consistent with the *CT 2002 Guidelines for Soil Erosion* and Sediment Control and the Project's OLISP Tidal Wetlands and Structures Dredging and Fill Individual Permit.

b) Suitability of coffer dam installation within tidal waters

Cofferdams have become standard practice in the construction industry, with numerous examples in various aquatic resources, including tidal waters. In 2013 Eversource completed work on the exposed section of two natural gas mains located within the western shoreline of the Connecticut River in the Town of Windsor. This regulated activity involved work below the Coastal Jurisdiction Line (CJL) in tidal waters. It was conducted under dry conditions via the installation of a temporary cofferdam. It was reviewed and approved by OLISP.

c) Amplitude of the tide in the construction area

The Indian Harbor tidal basin was constructed to be utilized as a tidal mill pond, which remained operational for over 200 years. Construction of the tidal basin included the placement of a dam at the inlet which controls the tidal fluctuation to only a few feet, thereby reducing the amount of tidal influence that must be included in the design of a cofferdam placed in the tidal basin. The precise amplitude of the tide in the Indian Harbor tidal basins will be determined by survey and included in the OLISP permit application.

d) Biological habitats that would be disturbed by coffer dam installation and trench excavation

Aquatic resources (including biological habitats) within and adjacent to the project area, and potential impacts to these resources, will be detailed as part of the OLISP permit application (DEEP-OLISP-INST-100, pages) and depicted on a project plan. A copy of the permit application would be provided to the CSC.

e) Maximum depth of trenches in the tidal basin

During the winter of 2014-2015, workers were sent out on the ice in the Indian Harbor tidal basin to drill and probe the bottom of the pond at twenty foot intervals across the proposed underground transmission line corridor. Eversource expects the trench not to exceed 8 feet below the surface of the water. According to the bore log, there was 2.5 feet of ice/water over 5 feet of silt in the boring location near the cofferdam crossing. Eversource expects this depth throughout, although there could be a slight variant if there is a natural channel of water draining the creek feeding this pond.

f) Duration of construction within each tidal basin

The Yellow Route Variation with the open trench through the tidal basins is expected to take 3-4 months to complete the 2,675 feet from the north end of Kinsman Lane and through Bruce Park. Work within the tidal basins will happen in parallel with trenching elsewhere in Bruce Park and is expected to take 3-4 months.

g) Material used for trench backfill within the tidal basin

Tidal wetland sediments will be removed via excavator and stored within a sediment stockpile area. Surficial and subsurface tidal wetland sediments will be differentiated by a professional wetland scientist or registered professional soil scientist and the two soil types,

as well as upland sediments, will be stockpiled separately to ensure proper replacement during restoration. Erosion and sediment controls will be installed around the stockpile area to prevent runoff.

The eight-inch steel pipes of the 115-kV HPFF underground transmission line along with the four-inch PVC communications conduits and two-inch temperature sensing conduits would be placed along the rock bottom of the pond and, as with a typical open trench, would be covered with fluidized thermal backfill and then a high-strength concrete cap to serve as a protective layer. The subsurface tidal wetland sediments will be used as additional backfill if they are determined suitable based on industry standards. If this native material is not suitable as fill, a suitable fill will be used. The stockpiled surficial tidal wetland sediments will be used to cover the top 12 inches of the trench.

h) Type of restoration, if any, of the disturbed area in the tidal basins

The proposed project will temporarily affect the tidal basins and their associated fish and wildlife habitat. No permanent effects are expected and all areas will be restored and replanted with native vegetation. As part of the OLISP permit application Eversource will document effects to tidal wetland vegetative communities, as detailed in Connecticut General Statutes section 22a-29(2). OLISP typically requires a 3 to 1 mitigation ratio to restore the vegetative communities affected by work in tidal areas. All topography and bathymetry along the shore and within the tidal basin will also be restored to preconstruction grades.

i) Length of time for the disturbed areas to resume its original habitat function

It is estimated that the disturbed areas within the tidal wetland and surrounding areas will resume original habitat function one growing season after construction restoration. Post-construction inspections of restored areas will be conducted at regular intervals throughout the growing season, as required by any applicable permits, and/or after major storm events. Sites will be inspected for success or failure of revegetation, invasive species colonization, and erosion and sedimentation. In the event that additional measures are required to achieve site restoration and stabilization, corrective actions shall be identified and implemented. See the attached *Route Variations - Bruce Park Comparison* with construction duration estimates for each route variation.

j) Maintenance and operation concerns associated with the conduits beneath the tidal basins

Subsurface cables are very reliable, however, there are occasions when a repair to a cable could become necessary. In the event that a repair were needed below a tidal basin, Eversource would use similar cofferdam methods to unearth the cable and repair a fault.

Bruce Park Routing Variations Comparison*

From end of Kinsman Lane to Davis Avenue

	Total Length	Approximate Length of Component (in feet)			Estimated Rock	Estimated Tree Clearing	Est. Construction Duration (months)**	Cost Delta (from Preferred)
Route	Miles	Open Trench Horizontal Directional Drill (HDD) Open Trench Cofferdam			% of excavation	Square feet	Total	(\$M)
Preferred Route	0.46	760	1670	None	10%-20%	100	5-6	\$0.0
Yellow Route - HDD		North end of Kinsman Lane to HDD set up in outfield of ball field	From ballfield area - Kinsman Lane and Bruce Park Dr. over to Davis Avenue			North end of Kinsman Lane and some trees along Kinsman towards the Park		
Preferred Route Variation	0.51	2675	0	525	10%-20%	100	5-6	-\$3.0
Yellow Route - Cofferdam		North end of Kinsman Lane and through the Park. Includes 525 feet cofferdam		125 feet one side small pond and 200 feet each side of large pond		North end of Kinsman Lane and some trees along Kinsman area		
BPV-1 Blue Route	0.48	1170	1340	None	10%-20%	100	5-6	-\$1.0
Blue Route Variation		North end of Kinsman Lane to HDD site just south of CDOT right-of- way border near I-95	From site just south of Interstate 95, in the park, over to Davis Avenue			North end of Kinsman Lane and some trees along the rock outcropping area south on Kinsman		
BPV-2 Orange Rte	0.42	900	1340	None	40%-50%	15,000	7-8	-\$1.0
Orange Route Variation		North end of Kinsman Lane, over and across the rock outcropping to the HDD site just south of the CDOT right- of-way border near I-95	From site just south of Interstate 95, in the park, over to Davis Avenue			Kinsman Lane and across the rock outcropping – 25 foot wide construction work zone		

^{*}Based on current estimates

^{**}Based on work hours in Eversource's Connecticut Siting Council Application

Data Request CSC-02 Dated: 09/09/2015 Q-CSC-002 Page 1 of 1

Witness: Witness Panel

Request from: Connecticut Siting Council

Question:

In regards to the Bruce Park Yellow, Blue and Orange open trench route variations, please explain the post construction effect on the scenic resources of the park. What open trench route would require the least amount of tree removal in the park?

Response:

The Project team is committed to mitigating post construction effects on the scenic resources of Bruce Park. All areas disturbed by construction activities shall be restored. Disturbed upland areas will be re-graded to approximate pre-construction elevations and then re-seeded and stabilized as necessary. The proposed project will temporarily affect the tidal basins and their associated fish and wildlife habitat. No permanent effects are expected and all areas will be restored and replanted with native vegetation. As part of the OLISP permit application Eversource will document effects to tidal wetland vegetative communities, as detailed in Connecticut General Statutes section 22a-29(2). OLISP typically requires a 3 to 1 mitigation ratio to restore the vegetative communities affected by work in tidal areas. All topography and bathymetry along the shore and within the tidal basin will also be restored to pre-construction grades.

Open trenching will require the removal of trees. For the Yellow or the Blue Route these trees are in visible locations. The Project plans to replace these trees with a compatible species in locations that do not inhibit future maintenance or reliability. See CSC-02, Q-CSC-001, Route Variations - Bruce Park Comparison Matrix which includes tree removal estimates for each route variation.

The Bruce Park Yellow and Blue open trench route would require the least amount of tree removal in the Bruce Park.

Data Request CSC-02 Dated: 09/09/2015 Q-CSC-003 Page 1 of 1

Witness: Witness Panel

Request from: Connecticut Siting Council

Question:

Is it possible to extend the Bruce Park Blue Open Trench Route Variation further southwest so it intersects with the Yellow Preferred Open Trench Route Variation on Kinsman Lane at the corner of the ball field? What would be the approximate duration of trenching for this area (Blue Open Trench Route Variation from north end of Kinsman Lane to Kinsman Lane at ball field corner)?

Response:

Yes, it is possible to extend the Bruce Park Blue Open Trench Route Variation further southwest so it intersects with the Yellow Preferred Open Trench Route Variation on Kinsman Lane at the corner of the ball field. The approximate duration to complete this section of trenching is three to five weeks.

Data Request CSC-02 Dated: 09/09/2015 Q-CSC-004 Page 1 of 1

Witness: Witness Panel

Request from: Connecticut Siting Council

Question:

Does the Bruce Park Orange Open Trench Route Variation traverse the only densely wooded area in Bruce Park? If so, does it offer wildlife values not present in other areas of the park? How would this woodland area be restored upon completion of the project?

Response:

No. The Orange Open Trench Route Variation traverses a densely wooded area in Bruce Park that is approximately five acres. However, the largest densely wooded area in Bruce Park is approximately 17 acres, located between Wood Road and Indian Field Road. This area connects to a densely wooded area of approximately 40 acres outside of Bruce Park between Indian Field Road and Cos Cob Harbor.

The wooded area that would be subject to tree clearing is a forest fragment located between I-95 and Kinsman Lane. Forest fragments are common in Greenwich and this fragment does not present unique habitat values. While no field surveys have been conducted in this area, wildlife values in fragmented developed landscapes such as this are typically low. These areas are often inhabited by disturbance tolerant habitat generalists which would not be adversely affected by the proposed tree clearing.

Once construction is complete, the wooded area subject to tree clearing would be re-graded to approximate pre-construction elevations and then re-seeded and stabilized as necessary with mulch. It will then be allowed to revegetate naturally.

Data Request CSC-02 Dated: 09/09/2015 Q-CSC-005 Page 1 of 1

Witness: Witness Panel

Request from: Connecticut Siting Council

Question:

Referring to the March 10, 2015 Greenwich Planning and Zoning Commission Transcript p. 29 (bulk file), chemicals that could be used to fracture rock during trenching are mentioned. Please elaborate on what chemicals would be used for this purpose and their potential frequency of use for this project.

Response:

The material that could be used to fracture rock would be better described as an "expanding grout". Eversource recently used such material on a project in Cos Cob Substation for a small pier type foundation below grade. Due to the shallow depth of bedrock and proximity of other equipment, the expanding grout was used to excavate into the bedrock and avoid the noise and vibrations associated with large hydraulic hammer equipment. The area was broken out of the middle of bedrock using a specific hole pattern and the expanding grout. It is a slow process used primarily for specific locations that require breaking up boulders or pieces of ledge that are above ground or are partially excavated. Expanding grout compounds are commonly used in various industries for the removal of rock and concrete. Examples of commercially available products: Ecobust, Dexpan, Betonamit, or Crackamite. Eversource expects to use this technique multiple times during the course of the work at Cos Cob Substation to reduce vibrations.

Data Request CSC-02 Dated: 09/09/2015 Q-CSC-006 Page 1 of 2

Witness: Witness Panel

Request from: Connecticut Siting Council

Question:

Provide a table with the estimated cost of each of the Bruce Park variations.

Response:

The table below shows the approximate costs for each of the transmission routes.

Preferred Route ¹	Southern Route Alternative ²	Northern Route Alternative ³	
\$72.1M	\$71.3M	\$87.1M	

Note:

- 1. Cos Cob Substation to public and private parts of Station Drive and through Bruce Park to the proposed Greenwich Substation. See Section G.4 (pages G-15 to G-22) in the Application for a more detailed description of the Preferred Route.
- 2. Cos Cob Substation with impacts to commercial private property and commuter parking adjacent to Sound Shore Drive through Bruce Park to the proposed Greenwich Substation. See Section H.4.2.1 (pages H-20 to H-22) in the Application for a more detailed description of the Southern Alternative.
- 3. Cos Cob Substation to Route 1 to the proposed Greenwich Substation. See Section H.4.2.2 (pages H-23 to H-25) in the Application for a more detailed description of the Northern Alternative.

The Preferred Route Variations cost table below shows the approximate costs of the Preferred Route compared with the Blue, Orange and Open Trench Variations in the Bruce Park.

The cost savings of each variation compared to the Preferred Route has also been included in the table below.

Preferred		Blue	Orange	Open
Route	Green	Variation ⁵	Variation ⁶	Trench
Route	Variatio	variation ³	variation ³	Variation ⁷

	n ⁴			
\$72.1M	\$72.1M	\$71.1M	\$71.1M	\$69.1M
	(\$0M	(\$1.0M	(\$1.0M	(\$3.0M
	Savings)	Savings)	Savings)	Savings)

Note:

- 4. The Green Variation has the same cost as the original Railroad/I-95 crossing and, therefore, no cost savings result from this variation. See Section G.4.1 (page G-22), paragraph MNRR/I-95 Crossing Variation, in the Application for a more detailed description of this Variation. See Section G.4 and G.4.1 (pages G-15 to G-22) in the Application for a more detailed description of the Preferred Route and Green Variation.
- 5. The Blue Variation (BPV1) would move the open trenching off of Kinsman Lane and place it along the tree line at the base of the rock outcropping as the route heads south down Kinsman Lane. It also would move the site of the HDD crossing of the Park from the intersection of Bruce Park Drive and Kinsman Lane to a site south of the CDOT right-of-way, parallel and in close proximity to Interstate 95. This alternate site for the HDD crossing is further away from the residential properties along Kinsman Lane and it minimizes impacts to the ball field. See Section G.4 and G.4.1 (pages G-18 to G-22) in the Application for a more detailed description of the Blue Variation.
- 6. The Orange Variation (BPV2) would head west from the north end of Kinsman Lane and cut across the rock outcropping, paralleling Interstate 95 to the same HDD site as the Blue Variation, It would avoid open trenching along or off to the side of Kinsman Lane. It also would avoid trenching near the ball field. Just as with the Blue Variation (BPV1), the alternate site for the HDD crossing of the Park is further away from the residential properties and minimizes impacts to the ball field. See Section G.4 and G.4.1 (pages G-18 to G-22) in the Application for a more detailed description of the Orange Variation.
- 7. The open trenching along Bruce Park Drive would be faster than the Horizontal Directional Drill (HDD) across the Park, however it would interrupt the normal traffic flow along an important east/west travel corridor and there would be impacts to vegetation along the road. See Section G.4 and G.4.1 (pages G-18 to G-22) in the Application for a more detailed description of the Open Trench Variation.

Data Request CSC-02 Dated: 09/09/2015 Q-CSC-007 Page 1 of 1

Witness: Witness Panel

Request from: Connecticut Siting Council

Question:

What is the estimated construction time for the following

- a) Bruce Park Orange Open Trench Variation;
- b) Bruce Park Blue Open Trench Variation;
- c) Bruce Park Orange/Blue HDD segment;
- d) Yellow Preferred Route HDD (segment 6); and
- e) Bruce Park Yellow Preferred Route Open Trench Variation (segments 5 &6).

Response:

The approximate duration of construction for the areas identified below is as follows:

- a) Bruce Park Orange Open Trench Variation approximately 4-5 months for the trenching.
- b) Bruce Park Blue Open Trench Variation approximately 1-2 months for the trenching.
- c) Bruce Park Orange/Blue HDD Segment approximately 4-5 months for the HDD.
- d) Bruce Park Yellow Preferred Route HDD Segment (Segment 6) approximately 5-6 months for the HDD.
- e) Bruce Park Yellow Preferred Route Open Trench Variation (Segments 5 & 6) approximately 6-7 months for the trenching and the coffer dams.

Data Request CSC-02 Dated: 09/09/2015 Q-CSC-008 Page 1 of 1

Witness: Witness Panel

Request from: Connecticut Siting Council

Question:

What is the life span of the HPFF cable system? What would happen to the HPFF installation at this point?

Response:

Typically, high voltage HPFF transmission lines are depreciated over 40 years, although there are currently 115-kV HPFF underground transmission lines on the Eversource system that have been in operation for nearly 60 years with no immediate plans for retirement. Other utility companies have had even longer operating experiences (over 60 years) with HPFF lines.

System components, such as the containment pipes, terminations, valves, and pressurization plants must be properly maintained in order to achieve this longevity. Dielectric fluids are tested periodically using dissolved gas analysis (DGA) to check for signs of an aging cable system. Periodic visual examinations of valves, terminations, and the pressurization plant components are conducted to identify and correct potential issues. System operational functions are recorded and analyzed to identify events occurring outside of the routine.

When a HPFF underground system is retired, the dielectric fluid and cable are removed from the containment pipe and recycled. The pipe is then swabbed clean, capped off, and abandoned in place, or it can be reused for electric facilities.

Data Request CSC-02 Dated: 09/09/2015 Q-CSC-009 Page 1 of 1

Witness: Witness Panel

Request from: Connecticut Siting Council

Question:

How is the HPFF cable system monitored for leaks? If soil becomes saturated with HPFF cable fluid, is it considered a hazardous waste?

Response:

The HPFFcable system is a closed system in which the dielectric fluid volume within the pipe system and the pump house reservoir is monitored for any loss of fluid. Pressurizing pumps used to maintain the operating pressure on the system are also monitored regarding frequency of operation. Frequent operation may be an indicator of a leak on the system.

The soil impacted by a dielectric fluid leak does not meet the definition of a Resource Conservation and Recovery Act ("RCRA") hazardous waste. However, if dielectric fluid leaks into soil then all visible traces of the fluid must be treated and/or removed. Upon removal, the soils are then characterized as solid waste and managed in accordance with the CT Solid Waste Management Regulations.

Data Request CSC-02 Dated: 09/09/2015 Q-CSC-010 Page 1 of 1

Witness: Witness Panel

Request from: Connecticut Siting Council

Question:

What is the main reason for HPFF cable system failure? If there was a leak in the HPFF cable system, what is the typical repair time?

Response:

The most likely reason for an HPFF cable system failure is damage to cable and/or pipe caused become damaged by a third party dig-in. Depending upon the location of the failure, the cable system may be restored with the addition of a new splicing vault at that location. Otherwise, the pipeline is repaired in place and, if it is determined the cables inside the pipe were also damaged, new cable is installed between the existing splice vaults. Being that dig-ins are the most likely reason for a system failure, the HPFF cable system contains several safety features that offer mechanical protection. The pipe containing the cable is made of steel which helps protect against accidental punctures. The pipes are surrounded by concrete and/or flowable fill, each of which provides added protection. In addition, warning tapes are placed above the pipes and concrete backfill to identify the presence of the ductbank. CBYD, or Call Before You Dig, is a statewide program that requires the mark-out of all existing underground utilities prior to the start of any excavation. This system helps to identify the approximate location of existing utilities which, in turn, provides information to the excavation contractor as to what underground facilities he is likely to encounter. Such information can serve to protect existing underground utilities from dig-ins.

The time to repair a leak in an HPFF cable system depends on upon the nature of the leak. Leaks have the greatest potential of occurring wherever equipment is joined together, such as at the termination potheads, the valving and piping in the pump house, or along the cable route should the pipe be penetrated due to a dig-in. Leaks detected at the potheads, valves or piping in the pump house are easily addressed and in a relatively short timeframe, typically within days. Pipe penetrations due to a dig-in can also be repaired in relatively short timeframe. The location of the puncture along the cable route is known, and the backfill around the pipe where the puncture occurred has already been excavated, so there is easy access to the pipe to perform the needed repair work. In most cases, leaks of this nature are addressed in relatively short timeframes.

Data Request CSC-02 Dated: 09/09/2015 Q-CSC-011 Page 1 of 1

Witness: Witness Panel

Request from: Connecticut Siting Council

Question:

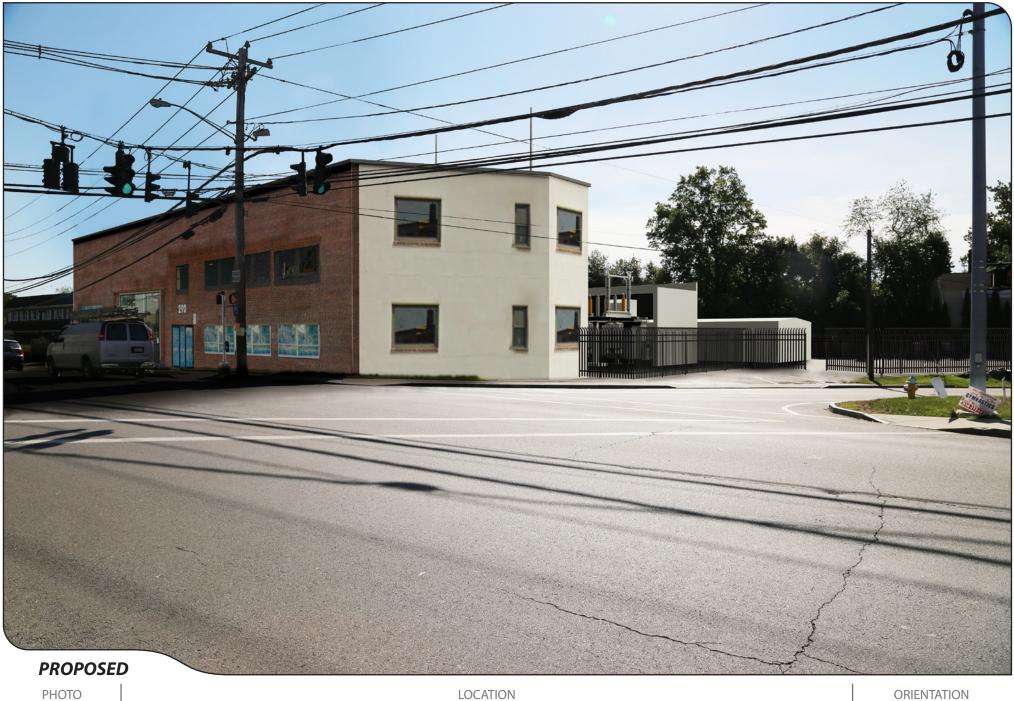
Is it possible to design the façade of the 290 Railroad Avenue GIS building to appear similar to the existing Pet Pantry building? If so, provide a rendering of what it could look like. Would a simple brick façade blend in better with the surrounding neighborhood rather than the proposed turret design?

Response:

Yes, it is possible; the rendering is attached.

Any alternative design for the GIS building must be evaluated for technical merit, feasibility and cost.

A simple brick facade would possibly blend in better; however, blending a design into a neighborhood is a very subjective exercise.



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||Docket No. 461 ||Data Request CSC-02 ||Dated 09/09/2015 ||Q-CSC-011, Page 1 of 1

LOCATION

RAILROAD AVENUE

ORIENTATION







Data Request CSC-02 Dated: 09/09/2015 Q-CSC-012 Page 1 of 1

Witness: Witness Panel

Request from: Connecticut Siting Council

Question:

Referring to the Site Plans in Application Appendix B, is it possible to install a concrete/brick veneer wall from the southwest corner of the GIS building to the swing gate? If such a wall were installed, what height would be necessary to meet security needs? For the remaining fence line along Indian Point Road south of the swing gate, is it possible to install a low concrete/brick veneer wall with a fence mounted on top of the wall?

Response:

Yes, it is possible to install a concrete with brick veneer wall from the southwest corner of the GIS building to the swing gate. The minimum preferred height for security purposes would be 8 feet and this can be achieved through a combination of concrete topped by the black iron rod fence or by concrete topped with barbed wire.

Yes, it is possible to install a low concrete/brick veneer wall with a fence mounted on top of the wall. However, there is an as elevation change that would need to be addressed along with security requirements.

Note: Reference to Indian Point Rd may be a typo error. It should be Field Point Rd.