

Via Federal Express and Electronically

July 29, 2022

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

Re: Groton Utilities - Buddington Substation Modification

Enclosed please find an original plus fifteen (15) copies of Groton Utilities' petition to the Connecticut Siting Council requesting a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is necessary for the proposed modifications to Groton Utilities' Buddington Substation (the "Project"). The Project is part of an ISO-NE identified regional upgrade to address electric reliability issues in Southeastern Connecticut and which have been made part of the Eastern Connecticut Reliability Needs Assessment, the Eastern Connecticut (ECT) 2029 Solutions Study – Final.

Pursuant to the Regulations of Connecticut State Agencies § 16-50j-40, all municipal and governmental agencies and officials have been notified. There are no abutting property owners and all modifications will occur within the existing fenced perimeter of the Substation.

Groton Utilities is submitting this filing electronically and will deliver an original and 15 copies, along with a check for the \$625 filing fee to the Council.

Should you have any questions, please contact me at 860.383.1042

Sincerely,

Robin Kipnis

Robin Kipnis

Enclosure

cc: The Honorable Juan Melendez, Jr. Mayor, Town of Groton The Honorable Keith Hedrick, Mayor, City of Groton



CONNECTICUT SITING COUNCIL

PETITION OF GROTON UTILITIES FOR A DECLARATORY RULING THAT NO CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED IS REQUIRED FOR A PROPOSED MODIFICATION TO THE BUDDINGTON SUBSTATION

1. Introduction

Groton Utilities is a municipal electric utility and a Department of the City of Groton, CT as well as a Member of the Connecticut Municipal Electric Energy Company.

Pursuant to Section 16-50g et seq. of the Connecticut General Statutes, the City of Groton, d/b/a Groton Utilities is hereby petitioning the Connecticut Siting Council (the "Council") for a Declaratory Ruling that a Certificate of Environmental Compatibility and Public Need (the "Certificate") is not required for a proposed modification of the Groton Utilities Buddington Substation (the "Substation") for the reason that the proposed modification would not have a substantial adverse environmental impact.

In support of its petition, Groton Utilities provides the following description of the proposed modifications.

2. Purpose of the Project

This modification is being proposed as part of a regionally based improvement plan to address electric reliability issues in Southeastern Connecticut, all of which have been incorporated into the Eastern Connecticut Reliability Needs Assessment, the Eastern Connecticut (ECT) 2029 Solutions Study – Final" conducted by ISO-NE in June 2020. These improvements have also been the subject of various Petitions filed with the Council, including Petition 1486 filed by Eversource Energy for modifications to the Gales Ferry Substation in the Town of Ledyard, CT and Petition 1436 filed by Groton Utilities. All of the needs identified in the study are deemed time sensitive due to the number of thermal and voltage violations identified.

3. Proposed Modifications

The Substation modifications proposed by this Petition consists of the following:

- Rebuilding the existing 400 terminal
- Converting the terminal from 69-33 kV operation to 115-33 kV operation.
- Adding an additional 115-kV bus and one 115-kV circuit breaker with associated reconnection of the existing Buddington 1X transformer's high voltage taps from 67 kV to 110 kV
- Re-termination of the converted 400 Line (115-kV Line 1911) to the new 115-kV bus at Buddington

The Substation is located in Groton wholly within a commercial area with the only abutter being the City of Groton. The current Substation, built in 1950 and operating continuously since that time, is a 69kV & 115kV bulk substation with one (1) 69kV to 34.5kV and two (2) 115kV to 34.5kV three-phase autotransformers each being a 94 Megavolt Ampere (MVA) autotransformer, and six (6) 34.5kV distribution circuits.

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The following is a map of the Project Area.

As a first step, there will be a demolition of the existing structure to accommodate space for the upgraded 400 terminal. The existing 400-line transformer will be relocated within the existing Substation perimeter onto a new concrete pad with containment. All new structures within the Substation will have new concrete foundations. All modifications being proposed in this Petition and construction will be performed inside the existing fence-line and within the existing footprint of the established Substation. The Substation perimeter and fence line is depicted in the highlighted area provided in Attachment A to this Petition.

The new structures inside the Substation will be the same height as the existing 1410- and 1280line terminals. Attachment B depicts the proposed construction of the new Substation bay, which will replicate the existing structures within the Substations and illustrates that the height of the new structures will not deviate from the current line-terminals structures. Attachment C provides a description of the sequence of demolition that will occur.

There will also be a conversion of the 400-4 Line (Eversource/CTMEEC border to the Buddington 69-kV Substation) from 69 kV to 115-kV operation. The conductor of the line remains unchanged. The converted line will be renumbered to be the 1191-4 Line from Eversource/CTMEEC border to the Buddington 115-kV Substation located in Groton, CT.

Attachment D depicts the Substation plan on completion.

4. Construction Methods

The Project would be constructed, operated and maintained in accordance with Groton Utilities' Best Management Practices Manual. Access to the Substation for construction-related vehicular traffic would occur via the existing Substation Buddington St. access road. The construction work will require the use of equipment such as excavators, dump trucks, bucket trucks, concrete trucks, and light duty trucks. It is expected that traffic from construction and related vehicles would be temporary and localized. It is not anticipated that improvements to the access road would be required. All of the equipment will be transported to the site on flatbed trucks and assembled on site. No staging area outside of the fence line will be required.

Normal work hours would be Monday through Saturday from 7:00 AM to 7:00 PM. Sunday work hours may be occasionally necessary due to delays caused by inclement weather and/or outage constraints. Multiple crews may work concurrently. Groton Utilities proposes construction to begin on approval of the proposed modifications by the Siting Council and completed by July 2023.

No additional clearing would be required to accommodate the modification to the Substation.

5. Grading, Installation of Foundations and Security

All grading that will occur will be within the existing fenced area. Existing security at the Substation consists of a six-foot chain link fence surrounding the perimeter of the substation. It

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is not anticipated that new security will be installed at his time but upgraded security is planned to occur at a later date.

6. Environmental Impacts

A. Natural Diversity Database

Groton Utilities review of the Connecticut Department of Energy and Environmental Protection's ("CTDEEP") Natural Diversity Database ("NDDB"), shows that an area of the Substation falls within a NDDB buffered area, but that the work would occur within areas that have been historically subject to on-going disturbances associated with the operation of the Substation. This area has been identified and addressed in Groton Utilities Petition 1436. Petitioner would adhere to the measures and protections provided in connection with that Petition whereby Contractors and Groton Utilities personnel would be educated prior to beginning work and instructed to avoid or minimize impact to terrestrial habitats that may support rare species. As a result, there will be no adverse impact to rare species because of the work.

In addition, the existing substation area is located in the New England Cottontail habitat, but the work would occur within areas that have been historically subject to on-going disturbances associated with the operation of the Substation. Groton Utilities will follow the same Best Management Practices as that filed in connection with Petition 1436. This would consist of educating contractors and Groton Utilities personnel about the NEC and the necessity of avoiding and minimizing the impact to the terrestrial habitats of the NEC.

B. 100/500-year flood zone

The Substation is partially located within a 100-year flood zone but is not within the 500-year flood zone. The actual construction work will not impact the area that is identified as within the 100- year flood zone.

C. Electric and Magnetic Field Levels

Electric and magnetic field levels at the property boundary would not change because of the modifications.

D. Impact on Wetlands and Watercourses

In connection with its filing of Petition 1436,Groton Utilities identified and delineated water resources in the vicinity of the Substation. The modifications will have no impacts to wetlands as there are no identified wetlands or watercourses within the Substation perimeter and noting that the work would occur within areas that have been historically subject to on-going disturbances associated with the operation of the Substation.

E. Scenic, Recreational and Cultural Resources

The impact on scenic or recreational resources were part of studies performed in connection with the filing of Petition 1436 by Groton Utilities. No local, state or federally designated scenic or recreational resources were identified within Substation area. No public or open space properties or trails were identified.

F. Archeological and Historical Resources Assessment

The impact on previously recorded cultural resources was examined in connection with the filing of Petition 1436 pursuant to a Phase 1A assessment review performed by Heritage Consultants, LLC.

7. Municipal and Property Owner Outreach

Groton Utilities orally updated the Town of Groton Town Manager with information on the proposed modification and followed up with a letter to the Town Manager and the Mayor of the Town of Groton notifying them of the impending filing and where to receive additional information or provide comments. A copy of this correspondence is included with this Petition as Attachment E. Attachment F is a map depicting the absence of abutting property owners other than the City of Groton.

8. Conclusion

Based on the foregoing, Groton Utilities respectfully submits that the proposed modifications would not result in a substantial adverse effect on the environment, nor would they damage existing

scenic, historical or recreational values. Accordingly, Groton Utilities requests that the Council issue a declaratory ruling that the proposed modifications would have no substantial adverse environmental effect.

Respectfully submitted,

Groton Utilities

By: Robin Kipnis

Robin Kipnis, Esq. General Counsel Connecticut Municipal Electric Energy Cooperative 30 Stott Avenue Norwich, CT 06360 860.383.1042

Its Attorney

List of Attachments

Attachment A – Perimeter Map Attachment B - Bay Construction Attachment C – Demolition Sequence Attachment D- Completion Overall Plan Attachment E – Correspondence to Municipal Officials Attachment F-Abutter Map

ATTACHMENT A MAP PERIMETER



ATTACHMENT B Bay Construction



BHI	DRAWN JLH CHECKED JLH QA	
T&D Engineering Services BHI Engineering Inc. 500 Columbia Dr. Suite 100 West Palm Beach FL. 33409	APPROVED JLH	1911 BAY CONSTRUCTION SIZE D SHIELDING PLAN SCALE 1/16" = 1'-0" SHEET 18

ATTACHMENT C Demolition Sequence

DEMOLITION SEQUENCE

1. CONTRACTOR SHALL SECURE OUTAGE OF THE 400 69kV TRANSMISSION LINE. 2. CONTRACTOR SHALL INSTALL PROPOSED H-FRAME INCLUDING ALL DEADENDS, DOWNGUYS AND CONDUCTOR.

DEMOLITION BY GROTON UTILITIES

69kV STRUCTURE

3. PARTIALLY DEMOLISH STRUCTURE USING PLASMA CUTTERS AND CRANE TO CUT AND REMOVE ALL STEEL MEMBERS TO MINIMIZE DAMAGE TO REMAINING STRUCTURE DURING DEMOLITION PROCESS. 4. REMOVE ALL EQUIPMENT (INSULATORS, SWITCHES, BUS, ETC.) WITHIN AREAS TO BE REMOVED. DETAILED LIST OF EQUIPMENT TO BE REMOVED IS LISTED ON THE DEMOLITION ONE LINE DRAWING. 5. BEAMS AND COLUMNS SHALL BE REMOVED IN THE FOLLOWING ORDER:

A. BEAMS ACROSS BAY 3.

B. BEAMS ACROSS BAY 3.

C. EAST NORTH TO SOUTH BEAMS ON BAY 3. D. EAST COLUMNS ON BAY 3.

E. MIDDLE NORTH TO SOUTH BEAMS ON BETWEEN BAYS 2 & 3.

F. BEAMS ACROSS BAY 3. G. COLUMNS BETWEEN BAYS 2 & 3.

35kV STRUCTURE (400 LINE TERMINAL MUST BE NERGIZED)

6. INSTALL PROPOSED POLES 1-4 AND ASSOCIATED CONDUCTOR TO MATCH EXISTING. THIS

WILL BE THE NEW EMERGENCY BUS FEED. 7. OPEN OR CONFIRM OPEN SWITCHES

304-16L-8,16L-3X3-8,305-16L-8,305-16L-3,16L-3TR-8,16L-8T-3 AND 16L-7T-6.

8. INSTALL BOLT ON 4-HOLE NEMA PADS ON EXISTING STRUCTURE AND JUMPER TO PROPOSE

STRUCTURE INSTALLED IN ITEM NO. 6.

9. REMOVE 33kV BUS TIE.

10. OPEN ADDITIONAL SWITCHES 16L-12T-7 AND 16L-12T-3.

11. JUMPER FROM THE EXISTING POLE CLOSEST TO THE 33kV STRUCTURE TO THE NEW EMERGENCY BUS FEED.

12. REMOVE EXISTING EMERGENCY BUS TIE POLES AND CONDUCTOR.

13. ONCE NEW EMERGENCY BUS TIE IS CONNECTED CONTRACTOR SHALL COORDINATE WITH GU FOR CONFIGURATION. 14. WITH SWITCH 16L-7T-6 STILL OPEN REMOVE ALL EXISTING BUS EAST OF SWITCH 16L-7T-6 AND EXISTING EAST TO WEST BEAMS ON 33kV. CONTRACTOR WILL COVER ALL ENERGIZED BUS OR WORK WITH THE TOWN TO ASSURE PROPER CLEARANCES ARE MET PRIOR TO HANDLING ANY BUS.

15. REMOVE REMAINING BEAMS AND COLUMNS EAST OF SWITCH 16L-7T-6 ON THE 33kV

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E REMOVED	ellergy	MFG	1911 BAY CONSTRUCTION	
BE INSTALLED	T&D Engineering Services	APPROVED JLH		
	BHI Engineering Inc.		SIZE DWG NO F	REV
	500 Columbia Dr. Suite 100		D DEMOLITION PLAN	
	West Paim Beach FL. 33409		SCALE 1/16" = 1'-0" SHEET 2	

ATTACHMENT D Completion Overall Plan

B	DRAWN JLH CHECKED JLH
energy	QA MFG
T&D Engineering Services	APPROVE JLH
BHI Engineering Inc.	
500 Columbia Dr. Suite 100	
west Paim Beach FL. 33409	

TITLE

NOPTH

BUDDINGTON 115Kv - 35Kv SUBSTATION	
1911 BAY CONSTRUCTION	

SHEET 4

 $\frac{\text{SCALE}}{1/16''} = 1'-0''$

DWG NO DOVERALL PLAN ATTACHMENT E Letter to Municipal Officials

At Your Service

Mr. John Burt, Town Manager 45 Fort Hill Road Groton, Ct 06340

July 27, 2022

RE: Groton Utilities Petition to the Connecticut Siting Council for Declaratory Ruling – Modification of Buddington Substation

Dear Sir/Madam;

Pursuant to Section 16-50j-40 of the Connecticut Siting Council's (the "Council") regulations, we are notifying you that Groton Utilities intends to file on or shortly after July 20, 2022 a Petition for Declaratory Ruling with the Council to perform upgrades at the Buddington Substation located at the intersection of Buddington Road and the Goldstar Highway in Groton, CT.

The upgrades, all of which will occur within the existing Substation fence-line, will consist generally in upgrading the Substation from 69 kV to 115 kV to improve electric reliability issues identified in Southeastern Connecticut.

If the Siting Council approves the project, construction will commence immediately and be completed by July of 2023.

Contact Information for Further Questions

If you have any questions regarding the proposed Project, please contact Randall Surprenant, Groton Utilities - Electric Division, Manager of Engineering, 295 Meridian St., Groton, CT 06340 0r 860.446.4037 or email him at surprenantr@grotonutilities.com.

You have the right to send your comments for consideration by the Connecticut Siting Council. You may do this by sending an email to the following address: <u>sitingcouncil@ct.gov.org</u> or a letter to Melanie Bachman, Executive Director, Connecticut Siting Council, 10 Franklin Square, New Britain, CT. Please reference the Groton Utilities Buddington Substation Modification in any correspondence. The full application for this Petition may be viewed at the offices of Groton Utilities, 295 Meridian St., Groton, CT/06430.

Sincerely, (

Randall Surprenant (Manager of Engineering City of Groton - Groton Utilities

At Your Service

Mr. Juan Melendez, Mayor 45 Fort Hill Road Groton, Ct 06340

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Sincerely, lir Randall Surprenant Manager of Engineering

City of Groton - Groton Utilities

ATTACHMENT F Abutter Map

Base I	Map Source:	
2016	Aerial Imagery	(CTDEF

