



STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
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**CERTIFIED MAIL
RETURN RECEIPT REQUESTED**

May 13, 2022

Kathleen M. Shanley
Manager-Transmission Siting
Eversource Energy
P.O. Box 270
Hartford, CT 06104-0270
Kathleen.shanley@eversource.com

RE: **PETITION NO. 1484** - The Connecticut Light and Power Company d/b/a Eversource Energy petition for a declaratory ruling, pursuant to Connecticut General Statutes §4-176 and §16-50k, for the proposed modifications to its existing Gales Ferry Substation located at 301 Whalehead Road, Ledyard, Connecticut, and related electric transmission line structure improvements.

Dear Ms. Shanley:

At a public meeting held on May 12, 2022, the Connecticut Siting Council (Council) considered and ruled that the above-referenced proposal would not have a substantial adverse environmental effect, and pursuant to Connecticut General Statutes § 16-50k, would not require a Certificate of Environmental Compatibility and Public Need, with the following conditions:

1. Approval of any project changes be delegated to Council staff;
2. An environmental monitor oversee construction in sensitive resource areas and submit reports to the Council when any deviations from compliance with Eversource's 2016 *Construction and Maintenance Environmental Requirements, Best Management Practices Manual for Massachusetts and Connecticut* (BMPs) occur, including, but not limited to, where BMPs are not installed, where BMPs are installed but incomplete, or where BMPs are installed but failed;
3. The Council shall be notified in writing at least two weeks prior to the commencement of site construction activities;
4. Unless otherwise approved by the Council, if the facility authorized herein is not fully constructed within three years from the date of the mailing of the Council's decision, this decision shall be void, and the facility owner/operator shall dismantle the facility and remove all associated equipment or reapply for any continued or new use to the Council before any such use is made. The time between the filing and resolution of any appeals of the Council's decision shall not be counted in calculating this deadline. Authority to monitor and modify this schedule, as necessary, is delegated to the Executive Director. The facility owner/operator shall provide written notice to the Executive Director of any schedule changes as soon as is practicable;
5. Any request for extension of the time period to fully construct the facility shall be filed with the Council not later than 60 days prior to the expiration date of this decision and shall be served on all parties and intervenors, if applicable, and the Town of Ledyard;

6. Within 45 days after completion of construction, the Council shall be notified in writing that construction has been completed;
7. The facility owner/operator shall remit timely payments associated with annual assessments and invoices submitted by the Council for expenses attributable to the facility under Conn. Gen. Stat. §16-50v;
8. This Declaratory Ruling may be transferred, provided the facility owner/operator/transferee is current with payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v and the transferee provides written confirmation that the transferee agrees to comply with the terms, limitations and conditions contained in the Declaratory Ruling, including timely payments to the Council for annual assessments and invoices under Conn. Gen. Stat. §16-50v; and
9. If the facility owner/operator is a wholly owned subsidiary of a corporation or other entity and is sold/transferred to another corporation or other entity, the Council shall be notified of such sale and/or transfer and of any change in contact information for the individual or representative responsible for management and operations of the facility within 30 days of the sale and/or transfer.

This decision is under the exclusive jurisdiction of the Council and is not applicable to any other modification or construction. All work is to be implemented as specified in the petition dated February 3, 2022 and additional information dated March 15, 2022, April 5, 2022, and April 26, 2022.

Enclosed for your information is a copy of the staff report on this project.

Sincerely,



Melanie A. Bachman
Executive Director

MAB/RDM/laf

Enclosure: Staff Report dated May 12, 2022

c: The Honorable Fred Allyn III, Mayor, Town of Ledyard (mayor@ledyardct.org)



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Petition No. 1484
The Connecticut Light and Power Company d/b/a Eversource Energy
Gales Ferry Substation
301 Whalehead Road, Ledyard

Staff Report
May 12, 2022

Introduction

On February 3, 2022, the Connecticut Siting Council (Council) received a petition (Petition) from The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource) for a declaratory ruling pursuant to Connecticut General Statutes (CGS) §4-176 and §16-50k, for the proposed modifications to Gales Ferry Substation located at 301 Whalehead Road in Ledyard, Connecticut.

Gales Ferry Substation is a 69-kV to 13.8-kV substation on an approximately 2.2-acre Eversource-owned property located east of Whalehead Road. Currently, the substation contains two 69-kV to 13.8-kV transformers, two 69-kV transmission circuits and five 13.8-kV distribution circuits.

On February 3, 2022, in compliance with Regulations of Connecticut State Agencies (RCSA) §16-50j-40, Eversource provided notice of the proposed project to the Town of Ledyard (Town) and abutting property owners. No comments from the Town or abutters were received.

On February 4, 2022, the Council sent correspondence to the Town stating that the Council has received the Petition and invited the Town to contact the Council with any questions or comments by March 5, 2022. No comments from the Town were received.

The Council submitted interrogatories to Eversource on February 22, March 22, and April 12, 2022. Eversource submitted responses to the interrogatories on March 15, April 5, and April 26, 2022, respectively.

On February 23, 2022, the Council on Environmental Quality submitted comments on the proposed project recommending Eversource coordinate with the Town and/or the Department of Energy and Environmental Protection (DEEP) on a restoration plan for permanent and temporary impacts to wetlands.¹ Temporary wetland matting within the maintained right-of-way north of the substation was previously approved by the Council on February 22, 2022 in Petition 1475.

Under CGS §16-50x, the Council retains exclusive jurisdiction over the existing substation facility site. Under RCSA §16-50j-2a(29), “site” means a contiguous parcel of property with specified boundaries, including, but not limited to, the leased area, right-of-way, access and easements on which a facility and associated equipment is located, shall be located or is proposed to be located. The Council cannot delegate its statutory authority to any other entity and it is not required to abide by comments from state agencies.²

¹ Under RCSA §16-50j-40, neither the petitioner nor the Council is required to provide notice to the state agencies listed in CGS §16-50j(g) when a petition for a declaratory ruling for modifications to an *existing facility* is submitted to the Council.

² *Corcoran v. Connecticut Siting Council*, 284 Conn. 455 (2007)

Pursuant to CGS §4-176(e) of the Uniform Administrative Procedure Act, an administrative agency is required to take action on a petition within 60 days of receipt. On March 24, 2022, pursuant to CGS §4-176(e), the Council voted to set the date by which to render a decision on the Petition as no later than August 2, 2022, which is the 180-day statutory deadline for a final decision under CGS §4-176(i).

The purpose of the proposed project is to facilitate the conversion of the 100 Line and 400 Line³ from 69-kV to 115-kV, thereby improving transmission system reliability in the greater southeast Connecticut - Rhode Island area.

Municipal and Abutter Notice

In November 2021, Eversource consulted with representatives of the Town and conducted outreach to abutting property owners. Eversource would continue to conduct outreach during construction. The substation expansion would be approximately five feet from the abutter at 28 Ferry View Drive. Eversource briefed the abutter on the Project (October 2021) and sent subsequent Project information by mail (November 2021 and February 2022). This abutter did not express any concerns and did not contact Eversource after the mailings were sent.

Existing Project Area

Gales Ferry Substation is located on a 2.2-acre Eversource-owned parcel located at 301 Whalehead Road in Ledyard that is zoned residential. It was constructed around 1967. The substation is a 69-kV to 13.8-kV facility.

Proposed Project

The project is being proposed to implement part of a solution determined by ISO New England, Inc. (ISO-NE) to address low and high voltage criteria violations in the Mystic to Kent County, Rhode Island transmission line corridor identified by the 2027 Eastern Connecticut Reliability Needs Assessment and the Eastern Connecticut 2029 Solutions Study. Eversource would convert both the 100 Line and 400 Line from 69-kV to 115-kV to mitigate the identified contingencies. To facilitate the upgrade of the two lines, Eversource would convert the Gales Ferry substation from 69-kV to 115-kV. The conversion of the substation would require an expansion of the substation footprint by 4,800 square feet.

The project is identified in the March 2022 ISO-NE Regional System Plan Project List.

To convert the substation from 69-kV to 115-kV, Eversource proposes the following modifications:

- a) Replace two 69-kV to 13.8-kV transformers (1X & 2X) with two new 115-kV to 13.8-kV 63-MVA transformers;
- b) Replace the 115-kV SF6 Breakers (1X1 and 2X1) with two new 115-kV 3000A 40kA-switchers;
- c) Replace the existing bus and truss structure to meet thermal ratings and electrical clearance distances;
- d) Install two new 115-kV transmission terminal structures and associated equipment, one to terminate the 100 Line and the other for the 400 Line;
- e) Install a new 115-kV bus tie breaker and the associated manual disconnect switches for the 100 and 400 Lines

³ Conversion of the 100 Line and the 400 Line to 115-kV lines was approved by the Council on February 22, 2022 in Petition 1475.

- f) Install a new battery enclosure (approximately 36 feet long by 14 feet wide and 12.5 feet tall) and related equipment;
- g) Install new equipment within the existing control enclosure;
- h) Expand the substation by approximately 4,800 square feet primarily to the east to accommodate the new equipment;
- i) install lightning protection for new or modified equipment;
- j) Install a ground grid where necessary;
- k) Install new station services and a new 13.8-kV metal clad double bus switchgear;
- l) Remove all of the existing equipment from the substation except for the control enclosure. The equipment to be removed includes one 69-kV bus tie breaker; six 69-kV line CCVTs; six 69-kV line arresters; six 69-kV disconnect switches; two 69-kV circuit breakers; two 69- 13.8-kV Power Transformers; two 13.2-kV station service transformers; one 13.2-kV switchgear; and nine 13.2-kV regulators.

Most of the proposed project is located within the existing, fenced substation footprint, except for the 4,800 square foot expansion area. Most of the expansion area is to the east of the existing substation where the fence would be extended by approximately 30 feet. In addition, a portion of the north fence line and the south fence line would be expanded by approximately 7 feet.

The expansion area would be enclosed by a seven-foot high chain link fence and one foot barbed wire on top, consistent with the existing substation fence. Eversource would install lighting within the expanded substation footprint for safety and security purposes.

The existing substation fence is 20 feet from the properties to the south at 28 Ferry View Drive and 303 Whalehead Road. The expansion of the substation would relocate the fence line so that it is five feet from 28 Ferry View Drive and 22 feet from the southwest corner of the expansion area to 303 Whalehead Road.

The distance from the existing and proposed switchgear to the southern property line is approximately 35 feet and 20 feet, respectively. Relocation of the proposed switchgear to increase the buffer to the south property line is not possible due to the alignment of the existing transmission line to the north, the need to maintain existing 69-kV switchgear until the new 115-kV switchgear is in service and to avoid encroaching on the 100 year flood zone to the east.

The substation expansion would require a temporary 115- to 69-kV mobile transformer to address a single contingency line loss risk during the duration of the outages required for construction of the substation modifications. The temporary transformer would be installed on Eversource property north of the existing substation. It would be connected to the existing substation via temporary above-ground and under-ground cables. A temporary wood pole would be installed east of the mobile transformer. A seven-foot high chain link fence with one foot of barbed wire on top would enclose the temporary transformer area (approximately 4,000 square feet).

The total estimated cost of the project is approximately \$36M. Of this total, approximately \$13.1M is associated with Pool Transmission Facilities (PTFs)⁴ and approximately \$22.9M is associated with Non-PTFs. Costs associated with PTFs are eligible for regionalization. Pending a final determination from ISO-NE, total costs are expected to be allocated⁵ as follows:

Eversource Connecticut ratepayers ⁶	70.6%	(\$25.41M)
Other Connecticut ratepayers ⁷	2.1%	(\$ 757k)
Other New England ratepayers ⁸	27.3%	(\$9.82M)
<hr/>		
Cost Total	100%	(\$36M)

Project Construction and Work Procedures

During construction, Eversource would utilize the existing substation access drive extending from Whalehead Road. Eversource would stage materials on the substation property. Equipment, components and hardware would be delivered to the substation using flatbed and light duty utility trucks. New substation components would be either pre-assembled or assembled on-site prior to installation.

The substation expansion area would be cleared and graded. After component installation, disturbed areas would be backfilled and graded with crushed stone.

An approximate 495-foot long retaining wall would be constructed along the limits of the substation expansion area (95 feet on north side, 125 feet on south side, 175 feet on west side). The retaining wall would vary in height from 4 to 14 feet. The new compound security fence would be installed on top of the retaining wall. The use of a retaining wall would eliminate the need for additional filling and wetland impact that would be required if graded, rip rap slopes were used.

Environmental Effects and Mitigation Measures

Construction of the expansion area would require the removal of approximately 4,667 square feet of trees and vegetation beyond the existing compound fence. Approximately 21 trees with a diameter of six inches at breast height would be removed for the Project.

Construction would conform to the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* and Eversource's Best Management Practices. Typical erosion and sediment control (E&S control) measures include, but are not limited to, straw blankets, hay bales, compost filter socks, silt fencing and gravel anti-tracking pads. Following completion of construction, seeding and mulching or finished surface treatments would be completed to permanently stabilize the areas disturbed by the work outside of the substation fence. Temporary E&S control measures would remain in place until project work is complete and all disturbed areas have been stabilized.

⁴ ISO-NE defines PTFs as facilities rated 69-kV or above owned by the participating transmission owners over which ISO-NE has operating authority in accordance with the terms set forth in the Transmission Operating Agreements.

⁵ These allocations are estimates based on 2021 actual loads.

⁶ Electrical service customers of Eversource and located within Connecticut.

⁷ Electrical service customers located within Connecticut but outside of Eversource's service territory.

⁸ Electrical service customers located within New England but outside of Connecticut.

A large wetland is located to the north and east of the existing substation. The expansion of the substation would result in 4,745 square feet of permanent wetlands effects, primarily to the east of the existing substation fence line. Approximately 6,660 square feet of temporary wetland impact would occur using construction matting to the north and east of the substation expansion area. Temporary matting in the wetland within the adjacent ROW was approved by the Council in Petition 1475 (38,562 square feet) for structure replacements and work on the 1410, 100, 400 and 1280 Lines.

The temporary matting would remain in place during the Project to support the temporary transformer and to provide construction space. The temporary transformer contains PCB-free mineral oil as an insulating fluid. In addition to the internal transformer containment system, a secondary containment system would be designed to capture 150 percent of the total volume of mineral oil within the transformer.

Due to the extensive wetlands north and east of the substation, work in wetlands cannot be avoided or reduced. The existing wetlands in the Project area do not provide high-quality wildlife habitat as it is dominated by Phragmites, an invasive species. Project work procedures include a provision to use clean temporary matting to prevent the spread of invasive species.

The Project is eligible for certification through the US Army Corps of Engineers/DEEP Self-Verification Notification Form process in regard to wetland impact and would require a DEEP General Permit for the Discharge of Stormwater and Dewatering Wastewaters from Construction Activities (General Permit). The DEEP General Permit does not specify a time duration or limitation associated with the use of temporary construction matting.

The Project would partially affect a Federal Emergency Management Agency-designated 100-year flood zone associated with Pine Swamp through the installation of approximately 22,798 square feet of temporary matting to facilitate construction. The temporary matting would be secured to prevent movement during a flooding event. No permanent fill would be imported into the flood zone. The substation expansion area itself is not within the 100-year flood zone. The existing substation has not experienced any flooding. Flooding of the new substation area is not expected.

The Project is not located within a DEEP-designated Aquifer Protection Area. The project would not affect groundwater or surface water resources.

According to the DEEP Natural Diversity Database, no state-listed species are within the project area.

A Phase 1A Cultural Resources Assessment of previously recorded archaeological and historical resources was completed during April 2021. A subsequent Phase 1B field survey of substation expansion area was completed in November 2021 that determined no cultural resources would be impacted by the Project. The State Historic Preservation Office issued a letter on November 9, 2021 concurring with the survey results and no further action is recommended. Notification of the Project was sent to the Tribal Historic Preservation Offices of the Mohegan Tribe of Native Americans of Connecticut and the Mashantucket Pequot Tribal Nation for review.

The overall visual impact of the project would be minimal as the site has been used as a substation since 1967. The new equipment within the substation is similar in appearance to existing substation equipment that will be replaced. The tallest structures within the new substation fence line are two terminal structures which will be approximately 67.8 feet in height. Existing transmission structures within the ROW abutting the north side of the substation are of similar height. Open views of the substation would occur from Whalehead Road due to the presence of the maintained ROW as well as the location of the substation access drive which prevents the location of screening vegetation.

Landscaping could only be installed in the southwest corner of the expanded substation. There is not enough room to install landscaping along the south edge of the substation due to limited space (5 feet).

Public Safety

Noise levels associated with construction would be temporary and typical of construction activities. Noise associated with construction activities is exempt from DEEP Noise Control Regulations. Although the new equipment emits noise, noise levels, post-construction noise levels would comply with DEEP Noise Control Regulations (Class C [Utilities] emitter to Class A receptor [residential] 61 dBA day/51 dBA night)⁹.

Electric and magnetic fields (EMF) levels at boundaries of the substation property would not significantly increase as a result of the Project. Changes to EMF levels are primarily a result of a slight change in the location of the substation terminal structures for the 100 Line and the 400 Line within the adjacent ROW.

Construction Schedule

Construction would begin in the second quarter of 2022 with completion by June 2023. Normal work hours would be Monday through Saturday from 7:00 AM to 7:00 PM. Sunday and/or evening work hours (after 7:00 PM) may be necessary to maintain the construction schedule or to perform work during scheduled outages.

Conclusion

If approved, staff recommends the following condition:

1. Approval of any project changes be delegated to Council staff.

⁹ Department of Energy and Environmental Protection, [Noise Control Regulations](#)

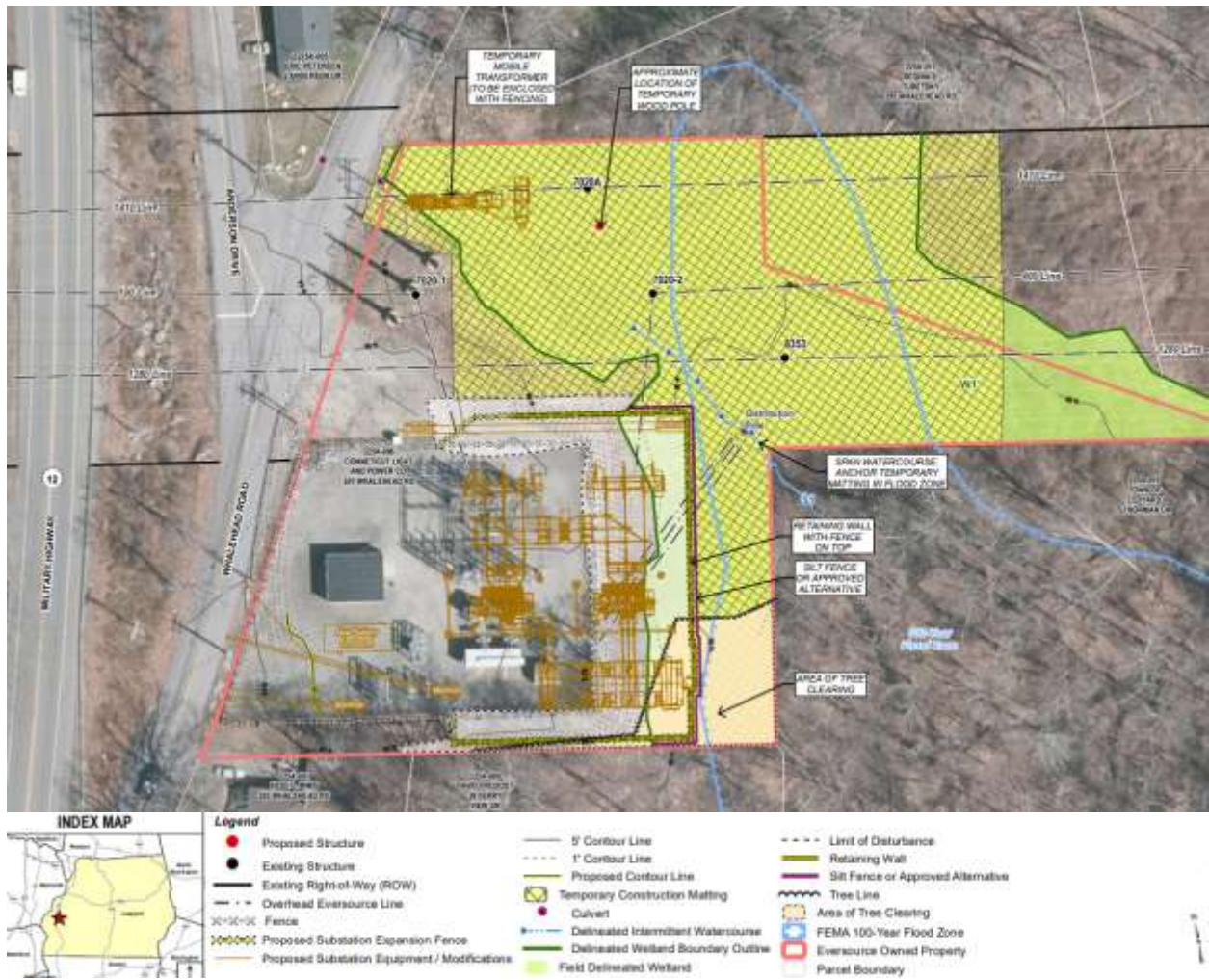


Figure 1. Aerial View of proposed substation layout.

STATE OF CONNECTICUT)

: ss. Southington, Connecticut May 13, 2022

COUNTY OF HARTFORD)

I hereby certify that the foregoing is a true and correct copy of the Decision and Staff Report in Petition No. 1484 issued by the Connecticut Siting Council, State of Connecticut.

ATTEST:



Melanie A. Bachman
Executive Director
Connecticut Siting Council

STATE OF CONNECTICUT)

: ss. New Britain, Connecticut May 13, 2022

COUNTY OF HARTFORD)

I certify that a copy of the Connecticut Siting Council Decision and Staff Report in Petition No. 1484 has been forwarded by Certified First Class Return Receipt Requested mail, on May 13, 2022, to all parties and intervenors of record as listed on the attached service list, dated February 4, 2022.

ATTEST:

/s/ Lisa A. Fontaine

Lisa A. Fontaine
Fiscal Administrative Officer
Connecticut Siting Council

LIST OF PARTIES AND INTERVENORS
SERVICE LIST

Status Granted	Document Service	Status Holder (name, address & phone number)	Representative (name, address & phone number)
Petitioner	<input checked="" type="checkbox"/> E-mail	The Connecticut Light and Power Company d/b/a Eversource Energy	Kathleen M. Shanley Manager-Transmission Siting Eversource Energy P.O. Box 270 Hartford, CT 06104-0270 Phone: (860) 728-4527 Kathleen.shanley@eversource.com