DRAFT

Petition No. 1624
The Connecticut Light and Power Company d/b/a Eversource Energy
Sandy Hook Substation Expansion Project
13 Farmery Lane
Newtown, Connecticut

Staff Report
May 31, 2024

Introduction

On April 1, 2024, the Connecticut Siting Council (Council) received a 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 Sandy Hook Substation Expansion Project (Petition or Project) at its existing Sandy Hook Substation facility site located at 13 Farmery Lane in Newtown, Connecticut.

The Project consists of an expansion of the fenced substation facility site to improve access to existing associated equipment for maintenance and inspection.

On March 28, 2024, in compliance with Regulations of Connecticut State Agencies (RCSA) §16-50j-40, Eversource provided notice of the proposed Project to the Town of Newtown (Town), and abutting property owners.

On April 2, 2024, the Council sent correspondence to the Town stating that the Council has received the Petition and invited the municipality to contact the Council with any questions or comments by May 1, 2024. The Town Director of Planning and Land Use, who is also an abutting property owner with an address at 39 Great Ring Road (Sibley), submitted comments on May 1, 2024 related to construction hours, architectural fencing and landscaping.

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 submitted interrogatories to Eversource on May 3, 2024. Eversource submitted responses to the interrogatories on May 24, 2024.

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. During a regular meeting held on May 9, 2024, 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 September 28, 2024, which is the 180-day statutory deadline for a final decision under CGS §4-176(i).

Notice and Community Outreach

Eversource initiated outreach to the Town in May 2023 and met with Sibley in January 2024 to review the proposed landscaping along the substation fence expansion area. During the meeting, Sibley requested coniferous species like white pines for year-round screening of the substation facility. In April 2024,

Eversource met with the Town First Selectman to propose a juniper species be planted along the northern side of the fence line. The Town First Selectman indicated acceptance of the juniper species.

Eversource initiated outreach to property owners abutting the substation in May 2023. All abutting property owners were notified of the Project and provided information on how to obtain additional information, as well as how to submit comments to the Council. As noted above, Eversource received comments from Sibley and met with Sibley in January 2024 to discuss visual mitigation options. During the construction phase of the Project, Eversource would maintain contact with the Town and abutting property owners to inform them of construction activities.

Existing Facility Site

Sandy Hook Substation is located approximately midway between Eversource's Stevenson Substation in Monroe and Newtown Substation in Newtown on a 6.1-acre Eversource-owned parcel located at 13 Farmery Lane in Newtown that is zoned farming and residential. Existing access to the facility site extends from a locked gate at the cul-de-sac of Farmery Lane approximately 300 feet south to the locked gate at the northern fence line of the substation. The existing facility site occupies approximately 0.57 acre located in the southwestern portion of the host parcel.

The surrounding area consists of developed residential parcels and undeveloped forested areas. The nearest abutting property line from the existing north fence is approximately 60 feet to the west. The nearest residence from the existing north fence is approximately 135 feet to the east.

Existing Facility

The Council issued a Certificate of Environmental Compatibility and Public Need to Eversource for the substation facility in Docket No. 153 on April 7, 1993. The approved facility consisted of one 115- to 23-kilovolt (kV) 25 megavolt ampere (MVA) transformer, two 115-kV transmission lines and three 23-kV distribution circuits.

The two 115-kV transmission lines that connect to the substation are the 1043 Line, which extends to Newtown Substation, and the 1232 Line, which extends to Stevenson Substation. The tallest existing structure associated with the substation is a 67.5-foot A-frame termination structure, including a lightning mast, for the 1043 Line.

Condition No. 5d of the Council's April 7, 1993 Decision and Order (D&O) in Docket No. 153 required "a landscaping plan showing the locations and types of plantings to screen the facility" and Condition No. 5f required "provisions to construct a solid architecturally-treated wall, if and when necessary, to attenuate excessive noise generated by the substation and further screen the substation with an appearance consistent with existing area land uses."

The landscaping plan that was submitted to and approved by the Council as part of the Development and Management Plan in accordance with Condition No. 5d of the Council's D&O for Docket No. 153 included, but was not limited to, white pines. Since 1993, due to weakness, susceptibility to disease and growth into the wire zone, Eversource classifies white pines as an incompatible tree species that create interference and clearance issues for electric transmission facilities.

The existing facility is surrounded by an 8-foot-tall chain link fence with barbed wire. The existing facility entrance gate is 20 feet wide by 8-feet tall. The surface of the fenced substation facility area is covered in crushed stone. In accordance with Condition No. 5f of the Council's D&O for Docket 153, no solid architecturally-treated wall was necessary to attenuate excessive noise generated by the substation. Hence, there are no sound walls installed at the existing substation facility.

On July 25, 2022, the Council acknowledged Eversource's proposed modifications to the existing substation facility including, but not limited to, installation of one 115- to 23-kV 62.5 MVA transformer, one 23-kV station service transformer, circuit switches and circuit breakers in EM-EVER-097-220613e.

On October 17, 2022, pursuant to Condition No. 1 of the Council's decision in EM-EVER-097-220613e, the Council acknowledged 3,400 square feet of additional temporary vegetation clearing on Eversource-owned property adjacent to the substation fence to accommodate the installation of CONNEX boxes for construction materials storage associated with the approved substation modifications.

The deadline for completion of construction associated with EM-EVER-097-220613e is July 25, 2024. Whether or not the proposed Project is approved, Eversource anticipates completion of the approved modifications within the current deadline for construction.

Project Development

The purpose of the proposed Project is to improve Eversource access to existing substation equipment for maintenance and inspection. The facility is typically accessed monthly for maintenance and inspection purposes. The Project is not part of Eversource's programs or planned upgrades to substation facilities.

The Project is not identified in the 2024 Eversource Forecast of Loads and Resources Report (2024 FLR). However, EM-EVER-097-220613e is identified in the 2024 FLR as an additional transformer that is under construction with an expected in-service date of 2024.

Neither the Project nor EM-EVER-097-220613e is identified in an Independent System Operator - New England (ISO-NE) needs assessment or solutions study or included in the ISO-NE Regional System Plan Project List or Asset Condition List. No generation facilities listed on the ISO-NE interconnection queue are associated with the proposed Project.

Sandy Hook Substation is not a "bulk substation." The bulk power system includes facilities and control systems necessary for operating an interconnected electric energy transmission network and electric energy from generating facilities needed to maintain transmission system reliability.[1] It does not include facilities used in local distribution of electric energy. Therefore, the existing facility is not subject to North American Electric Reliability Corporation (NERC) or Federal Energy Regulatory Commission (FERC) physical security reliability standards.

Cost

The total estimated cost of the Project is approximately $150,000. The proposed Project is not associated with Pool Transmission Facilities[2] and therefore, it is not eligible for regional cost allocation. The entire Project cost would be borne by Eversource customers.

The cost to implement the proposed landscaping plan for the Project is approximately $40,000.

Proposed Project

The purpose of the proposed Project is to extend the existing substation fenced area approximately 125 feet by 40 feet to the north for a 5,100 square foot (.12 acre) expanded area to provide permanent access inside the northern portion of the substation and facilitate future operation and maintenance activities.

[1] 18 C.F.R. §39.1 (2024).
[2] ISO-NE defines Pool Transmission Facilities 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.

The expanded area would be surfaced with 1,650 cubic feet of crushed stone to match the surface of the existing fenced area and enclosed by an 8-foot tall, chain-link fence topped with barbed wire to match the existing substation fence.[3] The nearest abutting property line to the west would remain at approximately 60 feet from the expanded fence line.

The area of the host parcel that will be occupied by the substation facility after construction of the Project is approximately 0.68 acre.

Project Construction

No additional clearing or grading is necessary for the Project. Eversource would utilize the current soil erosion and sedimentation (E&S) controls that are installed for EM-EVER-097-220613e in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Controls* (2002 E&S Controls) and Eversource's April 2022 Best Management Practices Manual for Massachusetts and Connecticut (BMPs).[4] Additional E&S controls would be installed as necessary. An on-site monitor will oversee daily construction activities to ensure compliance with BMPs and permits.

Typical E&S control measures include, but are not limited to, straw wattles and silt fencing. Eversource would consider using 100 percent natural fiber erosion control protection measures to prevent wildlife entanglement during construction if it would provide an environmental benefit compared to other measures.

The new fence would either be pre-assembled upon delivery or assembled on-site and installed. Once the new fence is installed, the existing portions of the fence will be removed, and the expanded area will be covered with crushed stone to match the existing crushed stone surface of the fenced facility.

During construction, Eversource would utilize the existing access drive. Project-related traffic is not expected to increase beyond levels associated with the current construction activities at the facility site.

The CONNEX boxes will remain on-site during construction and will be removed from the site upon completion of construction.

Environmental Effects and Mitigation Measures

Construction of the expansion area would conform to the 2002 E&S Controls and Eversource's BMPs.

The Project site is not located within a Federal Emergency Management Agency-designated 100-year or 500-year flood zone.

One wetland (Wetland 1) and two intermittent watercourses occur on the host parcel. The distance from the closest point of the expanded fence line to Wetland 1 is approximately 274 feet. The distances from the closest point of the expanded fence line to the two intermittent streams (S1 and S2) are approximately 126 feet and 394 feet, respectively. The proposed Project would have no direct impact on Wetland 1 or the two intermittent watercourses.

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[3] 2023 NESC Section 11, Rule 110 (A)(1) states, "An installed barrier may be satisfied with any one of the following: (a) Fence fabric, not less than 7 feet in height; (b) a combination of 6 ft or more of fence fabric and…three or more strands of barbed wire to achieve an overall height of the fence of not less than 7 ft; or (c) other types of construction, not less than 7 ft…"

[4] 2022 Eversource Best Management Practices MA_CT

One potential vernal pool occurs within Wetland 1. No work is proposed within the 100-foot vernal pool envelope. Approximately 0.78 acre of clearing occurred within the 750-foot critical terrestrial habitat for work associated with EM-EVER-097-220613e. All remaining portions of the forested habitat could be utilized as directional corridors for the life-cycle activities of vernal pool species.

A Potential Vernal Pool Assessment determined the potential vernal pool within Wetland 1 provides optimal breeding habitat for vernal pool indicator species. Specifically, marbled salamanders are known to occur in the vicinity of the Project site. Marbled salamanders breed in late summer and fall on land rather than in water. The Potential Vernal Pool Assessment recommends the installation of silt fencing around the proposed fence expansion area prior to the commencement of construction to minimize the potential for wildlife intrusion and erosion and sedimentation of downgradient resource areas. Additional protection measures that could be employed for marbled salamanders are identification training and daily sweeps of the construction area.

The entire host parcel is located in a New England Cottontail (NEC) Focus Area. After construction is complete, Eversource would continue to incorporate NEC BMPs that focus on habitat management, such as retaining cut woody debris along the ROW to enhance NEC habitat.

The Project would not require a DEEP-issued Stormwater Permit.

The facility site is not located within a DEEP Natural Diversity Database (NDDB) buffered area.

The existing facility site is previously disturbed. A Cultural Resources Assessment determined that there are no previously identified archaeological sites or National Register of Historic Places or State Register of Historic Places, listed historic properties or districts within 1.0 mile of the facility site.

There are no publicly accessible scenic or recreational resources within the vicinity of the facility site.

The Project would not result in a substantial change to the visual character of the substation. The new fence would match the existing fence in height and appearance. The white pines that were removed from the existing fence line will be replaced with 47 juniper species around the expanded fence line spaced 5-feet apart that would be 5 to 6-feet in size at planting and reach a mature height of 15 feet. This landscaping plan is consistent with the landscaping plan approved by the Council in Docket No. 153.

The juniper plantings would not provide adequate space or light for restoration of disturbed areas outside the fence expansion with plantings that provide habitat for the benefit of pollinator species. The junipers are a deer-resistant species. Eversource would replace landscaping elements in the event of die-off.

Public Health and Safety

The Project would comply with the current National Electrical Safety Code.

The proposed modifications will be in accordance with the Institute of Electrical and Electronics Engineers ("IEEE") Standard 1264 - IEEE Guide for Animal Deterrents for Electric Power Supply Substations.

There would be no permanent changes to existing substation sounds levels after completion of the Project. Noise associated with construction activities is exempt from state noise control standards. Notwithstanding, any construction-related noise would be short-term and localized in the vicinity of the facility site.

Electric and magnetic field levels at the boundaries of the substation parcel would not change as a result of the Project.

The proposed modifications would not change the security measures currently employed at the existing substation. The access gates would be locked except during construction and existing substation lighting will remain, including manual-operated lights on the switchgear enclosure.

Construction Schedule

Construction is expected to begin in the summer of 2024 and take about 5 to 7 days to complete. Normal work hours would be Monday through Saturday from 7:00 a.m. to 7:00 p.m.

Conclusion

If approved, staff recommends the following conditions:

1) Approval of any project changes be delegated to Council staff; and
2) Implement the recommended protection measures detailed in the Potential Vernal Pool Assessment.

Figure 1: Existing Facility Location

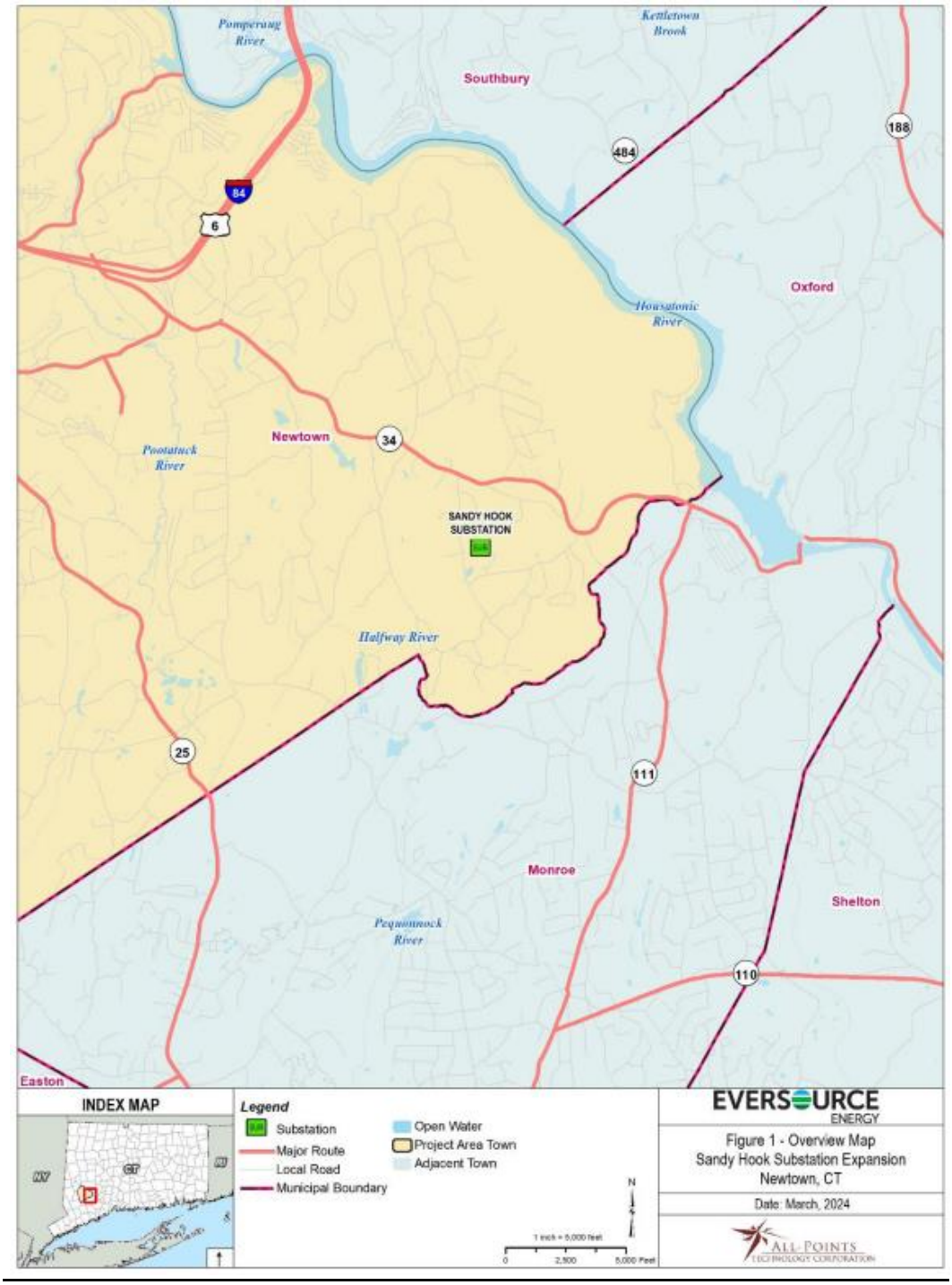

Figure 2: Project Overview