



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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April 26, 2019

Kathleen M. Shanley
Manager-Transmission Siting
Eversource Energy
56 Prospect Street
Hartford, CT 06103

RE: **DOCKET NO. 474** - The Connecticut Light & Power Company d/b/a Eversource Energy Certificate of Environmental Compatibility and Public Need for the Greater Hartford-Central Connecticut Reliability Project that traverses the municipalities of Hartford, West Hartford, and Newington, which consists of (a) construction, maintenance and operation of a new 115-kilovolt (kV) electric transmission line within existing Eversource, Amtrak and public road rights-of-way and associated facilities extending overhead approximately 2.4 miles and underground approximately 1.3 miles between Eversource's existing Newington Substation in the Town of Newington and existing Southwest Hartford Substation in the City of Hartford; (b) modifications to a .01 mile section within existing Eversource right-of-way of the existing overhead 115-kV electric transmission line connection to the Newington Substation (Newington Tap); and (c) related modifications to Newington Substation and Southwest Hartford Substation. **Partial Development and Management Plan-Overhead Segment.**

Dear Ms. Shanley:

At a public meeting of the Connecticut Siting Council (Council) held on April 25, 2019, the Council considered and approved the Partial Development and Management (D&M) Plan for the 115-kV transmission line overhead segment submitted for this project on March 1, 2019.

This approval applies only to the partial D&M Plan submitted on March 1, 2019, and other supplemental information dated April 10, 2019. Requests for any changes to the partial D&M Plan shall be approved by Council staff in accordance RCSA §16-50j-62(b). Furthermore, the Certificate Holder is responsible for reporting requirements pursuant to Regulations of Connecticut State Agencies Section 16-50j-62.

Please be advised that changes and deviations from this plan are enforceable under the provisions of the Connecticut General Statutes § 16-50u. Enclosed is a copy of the staff report on this partial D&M Plan, dated April 25, 2019.

Thank you for your attention and cooperation.

Sincerely,

Melanie Bachman
Executive Director

MAB/MP/lm

Enclosure: Staff Report, dated April 25, 2019

c: Parties and Intervenors

The Honorable Roy Zartarian, Mayor, Town of Newington
Craig Minor, Town Planner, Town of Newington
Tanya Lane, Town Manager, Town of Newington
The Honorable Shari Cantor, Mayor, Town of West Hartford
Todd Dumais, Town Planner, Town of West Hartford
Matt Hart, Town Manager, West Hartford
The Honorable Luke Bronin, Mayor, City of Hartford
Erik C. Johnson, Director of Development Services, City of Hartford
Frederick Peck, Senior Planner, City of Hartford

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Development and Management Plan – 115-kV Transmission Line Overhead Segment

Greater Hartford-Central Connecticut Reliability Project

Staff Report

Introduction

On March 1, 2019, The Connecticut Light and Power Company d/b/a Eversource Energy (Eversource) submitted to the Connecticut Siting Council (Council) the second partial Development and Management Plan (Overhead D&M Plan) for the construction of the Greater Hartford-Central Connecticut Reliability Project (GHCCRP). The GHCCRP traverses the municipalities of Hartford, West Hartford, and Newington and consists of (a) construction, maintenance and operation of a new 115-kilovolt (kV) electric transmission line within existing Eversource, Amtrak and public road rights-of-way and associated facilities extending overhead approximately 2.4 miles and underground approximately 1.3 miles between Eversource’s existing Newington Substation in the Town of Newington and existing Southwest Hartford Substation in the City of Hartford; (b) modifications to a .01 mile section within existing Eversource right-of-way of the existing overhead 115-kV electric transmission line connection to the Newington Substation (Newington Tap); and (c) related modifications to Newington Substation and Southwest Hartford Substation. This Overhead D&M Plan is limited to the approximately 2.4-mile long overhead transmission segment. The Overhead D&M Plan conforms to the Council’s February 1, 2018 Decision and Order (D&O), and the details are summarized in this staff report.

Permits and Agency consultations

During the preparation of the Overhead D&M Plan, Eversource consulted with state and federal agencies, including, but not limited to: United States Army Corp of Engineers (USACE); United States Fish and Wildlife Service (USFWS); Federal Aviation Administration (FAA); Connecticut Department of Energy and Environmental Protection (DEEP); Public Utilities Regulatory Authority (PURA); Connecticut Department of Transportation (DOT); and Connecticut State Historic Preservation Office (SHPO).

Eversource received USACE, FAA and DEEP permits/authorizations, including:

1. USACE Section 404 authorization on July 25, 2018;
2. FAA Determinations of No Hazard to Air Navigation; and
3. The DEEP *General Permit for the Discharge of Stormwater and Dewatering Wastewaters Associated with Construction Activities* for the management of discharge of stormwater and dewatering wastewaters from construction sites (General Permit) authorization on August 24, 2018. Pursuant to CGS §22a-430b, DEEP retains final jurisdiction over stormwater management.

Municipal and other public consultations

In December 2018, Eversource submitted a draft of this D&M Plan to the chief elected officials of Newington, Hartford and West Hartford. Subsequently, Eversource met municipal representatives to review the draft D&M Plan. The municipal officials from Newington, Hartford and West Hartford had no comments on the draft D&M Plan that necessitated changing the draft D&M Plan.

In accordance with Condition No. 2 of the D&O, final copies of the Overhead D&M Plan were sent to the Towns of Newington and West Hartford and the City of Hartford on or about March 1, 2019. No comments on the Overhead D&M Plan have been received by the Council to date.

Community outreach during the construction process

Eversource has conducted community outreach during the project planning and siting processes. Outreach efforts will continue throughout construction and will include notification of upcoming construction activities to affected stakeholders.

Eversource representatives will be available to brief residents and businesses affected by the project construction activities and other interested stakeholders regarding the construction process, key construction stages and expected construction timeline. Project representatives will also contact adjacent and nearby residents and businesses to notify them of upcoming construction activities and will be available throughout the construction process to address any specific questions or concerns.

Schedule

Overhead Portion of Transmission Line

In the first quarter of 2019, subject to the timing of the Council D&M Plan review, construction contracts will be awarded; material laydown yards and field offices will be established; materials will begin to be received; contractors will be mobilized; and vegetation clearing, access road installation and work space preparation will commence.

From the first quarter of 2019 through fourth quarter of 2019, Eversource will perform construction such as vegetation clearing, access road/work space installation, structure foundation installation, structure installation, conductor installation, and right-of-way clean-up and restoration.

During the fourth quarter of 2019, Eversource will connect the new overhead 115-kV transmission line (via the underground lines) at Newington Substation and Southwest Hartford Substation, perform line testing, energization, and continue ROW cleanup and restoration.

Construction work will typically occur between 7:00 a.m. and 7:00 p.m., six days per week (Monday through Saturday). In addition, to conform to Amtrak specifications for work within the railroad ROW and to

minimize impacts to business operations, some construction activities must occur during non-typical hours, i.e. between 7:00 p.m. to 7:00 a.m., as well as on Sundays.

General Project Overview

The first underground segment will end at Transition Structure No. 11B and will convert to overhead. The new 115-kV transmission line will be designated as the #1346 Line and the overhead portion will extend for about 2.4 miles. From Transition Structure No. 11B, the overhead line will cross the Amtrak ROW in an east-southeast direction to reach the first deadend Transmission Structure No. 12B. The overhead line will then proceed in roughly a north-northeast direction parallel to and along the Amtrak ROW to reach deadend Structure No. 60 in Hartford. The overhead #1346 Line will again cross the Amtrak ROW in a perpendicular fashion to reach a property on the opposite side of the Amtrak ROW. The overhead line will then connect to Transition Structure No. 61 and will then continue along the second underground segment to connect to Southwest Hartford Substation.

The overhead portion of the #1346 Line will be a single-circuit vertical configuration. There will be a total of 49 galvanized steel monopole structures: 43 tangent structures, 4 deadend structures, and 2 transition structures. The structures will be placed at intervals of 250 to 300 feet along the Amtrak ROW. The typical structure will be approximately 95¹ to 110 feet in height above ground level (agl). However, three structures, known as Structure Nos. 47 through 49 will be 135 feet in height² to accommodate a potential future development by CT DOT. The structure design is in accordance with an agreement between Eversource and Amtrak regarding the alignment of the transmission line within the railroad ROW.

General Construction Procedures

The D&M Plan contains site plans for provisions for access and structure foundations. Eversource will construct the Project in several stages, some overlapping in time. The following generally summarizes the sequence of construction activities for the overhead transmission line installation:

- Survey and stake the proposed structure locations, temporary work spaces, Amtrak ROW boundaries, and the areas of tree clearing required along and adjacent to the Amtrak ROW;
- Mark the boundaries of the wetland located adjacent to Structure No. 48;
- Establish the approximately 4.77-acre Jansen Court staging area, typically including spaces for office trailer(s), equipment storage and maintenance, sanitary facilities, and parking. Prepare other temporary construction support areas along/adjacent to the Amtrak ROW, where necessary;
- Perform vegetative clearing (e.g. tree removal or mowing), where necessary;
- Install erosion and sedimentation controls, as necessary, in accordance with the Stormwater Pollution Control Plan (SWPCP) developed for the Project and approved by DEEP, Amtrak specifications, and (as appropriate to urban areas) Eversource's BMP Manual;
- Improve or construct access to work sites, as needed;
- Prepare level work spaces as necessary at each 115-kV structure site, as well as at conductor pulling areas, and (if necessary) at guard structure/boom truck sites³. Although the Amtrak ROW is graveled, work areas for structure installation and conductor pulling require a stable, level base. Thus, minor grading and the addition of gravel, timber mats (or equivalent) may be required;

¹ Both transition structures will be (conservatively) about 96 feet high agl.

² The height was determined in consultation with CT DOT.

³ Temporary guard structures or boom trucks with "bat wings" will be located at road and other utility crossings as a safety measure during conductor and optical OPGW installation.

- Construct structure foundations and erect/assemble new structures⁴. These activities will involve the use of flat-bed trucks for hauling new structure components, new hardware and augers, as well as trucks for hauling reinforcing rods. Other equipment required during structure installation will include drill rigs, cranes, concrete trucks for structures that require concrete for foundations, dump trucks for structures that require crushed rock backfill, and bucket trucks. Dump trucks also will be used to remove materials excavated from the structure foundations. If groundwater is encountered during foundation excavation, pumping trucks or fractionization tanks will be used to pump water from the excavated areas. Both excavated soils and groundwater will be handled and disposed of in accordance with Amtrak specifications and applicable regulatory requirements;
- Install grounding. Grounding consists of ground rings, placed around transmission poles and counterpoise as required;
- Install optical ground wire (OPGW) and conductors. The equipment required for these activities will include conductor reels, conductor pulling and tensioner rigs, and bucket trucks. Helicopters also may be used to install the initial pulling lines for the conductors or shield wires;
- Restore construction sites. Construction materials and debris will be removed from temporary access roads, work specs, and staging areas. Such sites will then be re-graded (if necessary) or otherwise restored and stabilized. In the Project area, gravel or paving will typically be used for site restoration/stabilization; and
- Maintain temporary E&S controls until vegetation is re-established or disturbed areas are otherwise stabilized with gravel or pavement. After site stabilization is achieved through establishment of vegetative cover or with gravel or pavement, all temporary E&S controls will be removed from construction sites and disposed of properly.

Rock removal

Geotechnical investigations have been performed along the overhead transmission line route. These investigations indicate that bedrock is deep and not likely to be encountered during structure foundation installation. If encountered, rock will typically be removed using mechanical methods, or mechanical methods supplemented by controlled drilling. Excavated rock will be transported to either a suitable final disposal site or a temporary storage site prior to final off-site disposal. No blasting is expected to be required for the overhead portion of the transmission project. However, if site-specific subsurface conditions (encountered at the time of construction) warrant blasting, a controlled drilling and blasting plan will be developed by a certified blasting contractor in conformance with Amtrak approval and procedures and state and local regulations. A copy of the plan would be provided to the Council. Owners of nearby properties would be contacted in advance of the blasting and pre-blast surveys will be performed as appropriate.

Access Roads and Work Spaces

Access will be required to each transmission structure during construction. The existing Amtrak access road that is aligned east of and parallel to the railroad tracks will be used for construction, as will other existing access used by Amtrak for rail line maintenance. Access to the transition structures on either end of the overhead line will be via public roads and the parking areas of commercial/industrial facilities that border the Amtrak ROW.

Within the Amtrak ROW, the existing Amtrak access roads may need to be improved, widened, or otherwise modified for use during the #1346 Line construction. Depending on site-specific conditions, grading may be

⁴ At several locations along the Amtrak ROW, adjacent distribution lines/poles will be modified/removed in order to construct the #1346 Line. Distribution work is expected near Structure Nos. 12B, 27-28, and 52-57. Eversource will coordinate with the affected property owners for all distribution line work.

required to develop or to improve access along the railroad corridor. In such cases, the access roads will be coordinated with and approved by Amtrak. To provide access across a graveled drainage ditch that extends along the Amtrak ROW, temporary timber mats or culverts surrounded by gravel fill will be used as applicable.

In addition to the access on Amtrak property, Eversource will use various public roads and private driveways and parking lots to provide access to the transition structures and Amtrak ROW. Most of these existing access roads are already paved or graveled. In some areas, however, Eversource will develop or improve access roads, typically using gravel.

In the vicinity of the construction sites, Eversource's contractor will periodically sweep public roads and commercial parking lot areas, if necessary, to remove dirt tracked from work sites by construction vehicles.

Work space will be required at each new transmission structure location, as well as at conductor and OPGW pulling sites and at locations where temporary equipment (e.g. boom trucks) must be placed at road and other crossings during conductor and OPGW installation. These areas will provide a safe, level work base for construction equipment to install structure foundations and erect the structures; in addition, work spaces will be used to stage structure components for final on-site assembly.

At the transition structure location in Newington, no work space improvements will be needed because construction equipment can safely operate on this existing level pavement/gravel surface. However, a graveled work pad will be required for the transition structure site in Hartford. Similarly, along the Amtrak ROW where there is a stable gravel base from which the construction equipment can operate, minimal work space improvements will be required. However, the installation of the #1346 Line within the narrow space along the Amtrak ROW poses certain constraints for the use of the typically-sized 115-kV line work pads. As a result, all unoccupied portions of the Amtrak ROW east of the railroad tracks may be used during construction. Additionally, a graveled work area will be installed adjacent to the Amtrak ROW to facilitate the construction of Structure No. 47.

Pulling areas will be required in certain locations for conductor and OPGW installation, subject to Eversource requirements and the constraints posed by the width of the Amtrak ROW. Pulling areas will be located within the temporary work spaces.

During conductor and OPGW installation, temporary work space to accommodate a boom truck with arms (which will serve as a "guard" to prevent the conductors and OPGW from sagging or reaching the ground) will be required at road crossings, as well as at the two locations where the overhead line will cross the Amtrak rail lines and CTfastrak busway.

Wetlands and Watercourses

The overhead line will extend through commercial/industrial areas in which few water resources are present. The overhead line will span only one watercourse, Trout Brook in West Hartford, and will be aligned near (but will not traverse or otherwise affect) three wetlands. Work will be performed around Wetland WH-3 located near Flatbush Avenue in West Hartford. However, Eversource will surround this wetland resource with erosion and sedimentation controls in accordance with the DEEP-approved SWPCP. No permanent or temporary access roads or work areas will be located in any of these water resources. In addition, no vernal pools were confirmed within the Project area. Thus, the construction and operation of the overhead line will have no impacts on water resources.

None of the transmission structures identified in the Overhead D&M Plan (include the two transition structures) would be located within the 100-year or 500-year flood zones.

Rare and endangered species

Eversource consulted with the DEEP Natural Diversity Database program regarding the potential for state-listed species to occur in the Project area. Based on these consultations, no habitat for any state-listed species is found along the overhead line route.

Public trails and recreational areas

The Project route does not cross the Trout Brook Greenway and Trail (Trout Brook Trail), but it spans Trout Brook approximately 265 feet to the east of Trout Brook Trail's terminus at New Park Avenue.

Cultural Resources

SHPO has determined that no adverse effects to any cultural resources will result from the Project. It is also unlikely that cultural materials will be discovered during the construction of the #1346 Line, which will extend through areas previously disturbed by extensive commercial/industrial/transportation uses. Notwithstanding, Eversource will brief project construction contractor managers regarding the procedures to be followed should unanticipated potential cultural materials be discovered during construction. Specifically, construction personnel will be instructed to stop the task that resulted in the potential discovery and inform Eversource. Construction work at the potential cultural resource discovery site will not resume until authorized by Eversource, after review and approval by a professional archaeologist retained by Eversource.

Vegetative Clearing

Along the Amtrak ROW and adjacent to the various industrial/commercial uses that abut the railroad, existing vegetation is limited. However, some vegetation, consisting of scattered shrubs and trees is present within and adjacent to certain portions of the railroad corridor, as well as adjacent to Transition Structure No. 61 in Hartford.

In these areas, tree and vegetative clearing will be required in order to provide work space for construction activities, as well as to maintain minimum clearing distances from the 115-kV conductor during operation of the new overhead line. In total, approximately 0.9 acres of trees, all in upland areas, will be removed for the construction of the overhead line.

Temporary erosion and sedimentation controls, consistent with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* (2002 E&S Guidelines), may be installed before vegetation removal, depending on site-specific characteristics.

The tree clearing and vegetation removal will be performed in accordance with Eversource specifications, Amtrak protocols, and (to the extent located on private properties) pursuant to property owner agreements. Eversource's clearing contractor will use standard vegetation clearing methods and equipment, appropriate to the type of vegetation being removed. In general, vegetation removal will be accomplished using mechanical methods, although manual methods (e.g. climbing crews with chain saws) may be used in some locations. In addition, Eversource will require the contractors to use low-impact tree clearing means and methods to the extent practical. Low-impact tree clearing, which incorporates approaches, techniques, and equipment to minimize site disturbance and to protect soils, may include felling trees to minimize impacts to residential vegetation (where practical) and stockpiling cut timber and brush only in uplands prior to removal/disposal from work areas.

Any vegetation removed within the Amtrak ROW will be in accordance with Eversource's agreement with Amtrak. Similarly, timber and brush removed from private property will be removed and disposed of in accordance with Eversource's agreement with the property owner, consistent with any regulatory approvals.

Spill Prevention and Countermeasures Plan

Eversource submitted a Spill Prevention and Countermeasures Plan (SPCP). The SPCP describes measures to minimize potential for a spill of petroleum products or hazardous or toxic substances and, if a spill does occur, to contain the release of the spill and minimize effects. Additionally, Eversource included provisions for construction equipment and vehicle washing in designated locations with wash water control and containment.

Post-Construction EMF Monitoring Plan

Consistent with the Council's D&O, Eversource submitted a post-construction Electric and Magnetic Field Monitoring Plan for the Project. Electric and magnetic field measurements will be made to compare actual levels to calculated levels. Eversource will collect measurements along the perimeter of Newington Substation, along a portion of Avery Road, Newington for the underground transmission line, along a portion of Flatbush Avenue in West Hartford for the overhead transmission line, and the perimeter of Southwest Hartford Substation. Within 12 months of the in-service date of the new 115-kV line, Eversource will submit a report to the Council containing the results of the measurements with "true up" comparisons to predicted values.

Reports

The following reports will be provided to the Council:

1. **Quarterly Construction Progress Reports:** As required by RCSA § 16-50j-62(b)(3) and Condition No. 9 of the D&O, these reports shall summarize construction progress, as well as identify changes and deviations to the approved D&M Plan.
2. **Final Report:** As required by RCSA § 16-50j-62(c), Eversource shall provide this report no later than 180 days after completion of all site construction and rehabilitation. The report shall identify:
 - a) All agreements with abutters or property owners regarding special maintenance precautions;
 - b) Significant D&M Plan changes necessary due to property rights/ landowner concerns or for other reasons;
 - c) The location of any construction materials left in place;
 - d) The location of areas where special plantings and reseeding have been performed; and
 - e) The actual construction cost of the facility.
3. **Operating Report:** As required by Condition No. 5 of the D&O, Eversource shall provide this report within three months after the conclusion of the first year of the operation of all project facilities. The report will describe the overall condition, safety, reliability, and operation of the new transmission line.

Recommendations

The D&M Plan complies with requirements of RCSA § 16-50j-60 to 16-50j-62 and is consistent with the Council's D&O dated February 1, 2018.