

# DRAFT

## Petition No. 1565

### **The Connecticut Light and Power Company d/b/a Eversource Energy East of Hurd State Park to East Haddam Junction Line Rebuild Project East Hampton, Haddam, and East Haddam**

**Staff Report  
July 14, 2023**

## **Introduction**

On April 11, 2023, 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 East of Hurd State Park to East Haddam Junction Line Rebuild Project (Petition or Project) within existing Eversource electric transmission line right-of-way (ROW) in the Towns of East Hampton, Haddam, and East Haddam (municipalities).

The Project consists of the replacement of electric transmission line structures on the 1772, 362, 376, and 364 Lines, and the replacement of shield wire with optical ground wire (OPGW) along approximately 6.2 miles of existing ROW east of Hurd Park Road in East Hampton to East Haddam Junction (north of Norwich Road) in East Haddam, and related electric transmission line and substation improvements.

On April 10, 2023, in compliance with Regulations of Connecticut State Agencies (RCSA) §16-50j-40, Eversource provided notice of the proposed Project to the municipalities and abutting property owners.

On April 12, 2023, the Council sent correspondence to the municipalities stating that the Council has received the Petition and invited the municipalities to contact the Council with any questions or comments by May 11, 2023. No comments were received from any of the municipalities.

Under RCSA §16-50j-40, neither Eversource 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. On April 27, 2023, the Council on Environmental Quality submitted comments on the Project.<sup>1</sup>

Under CGS §16-50x, the Council retains exclusive jurisdiction over the existing electric transmission line and substation facility sites. 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.<sup>2</sup>

The Council submitted interrogatories to Eversource on April 28, May 23, and June 9, 2023. Eversource submitted responses to the interrogatories on May 19, June 5, and July 3, 2023.

---

<sup>1</sup> [https://portal.ct.gov/-/media/CSC/3\\_Petitions-medialibrary/Petitions\\_MediaLibrary/MediaPetitionNos1501-1600/PE1565/ProceduralCorrespondence/PE1565-SACRCDPI\\_CEQ.pdf](https://portal.ct.gov/-/media/CSC/3_Petitions-medialibrary/Petitions_MediaLibrary/MediaPetitionNos1501-1600/PE1565/ProceduralCorrespondence/PE1565-SACRCDPI_CEQ.pdf)

<sup>2</sup> *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 May 11, 2023 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 October 8, 2023, 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 municipalities in early-mid February 2023. None of the municipalities commented on the Project.

Also, in early-mid February 2023, Eversource initiated outreach to property owners along the Project route. 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. After the filing of the Petition with the Council, two abutting property owners contacted Eversource regarding the Project. One abutting property owner was concerned about construction notification and access gate control. The other abutting property owner had concerns regarding structure locations, visibility, and property value. Eversource met with this abutting property owner to discuss these concerns. During the construction phase of the Project, Eversource would maintain contact with property owners to inform them of construction activities.

### **Existing Facility Site**

The existing facility site includes approximately 6.2 miles of Eversource ROW that extends through rural residential areas, open space and undeveloped land between Structures 12053 and 19099 east of Hurd Park in East Hampton, Haddam Neck Switching Station in Haddam and East Haddam Junction in East Haddam. Approximately 0.3 mile of the ROW is within East Hampton, 3.5 miles are located in Haddam, and 2.4 miles are located in East Haddam.

The ROW was acquired in the early 1960's. Eversource's easements for the existing ROW grant Eversource rights to enter upon and travel and transport materials over and across the right of way and to erect, construct, repair, maintain, replace, relocate, inspect, operate and remove upon, infrastructure related to the conduction of electricity. The easements also grant rights to trim, cut, and remove vegetation within the ROW.

The ROW is approximately 300 to 375 feet wide, and the full width is managed. No expansion of the ROW is proposed.

Vegetation management was last performed from August 2022 to October 2022 to remove incompatible tree species within the ROW that can reach a height of 15 feet and to trim trees along the edge of the ROW.

### **Project Development**

The purpose of the proposed Project is to improve system reliability on the 1772, 362, 376, and 364 Lines by replacing electric transmission line structures that are deteriorated, not structurally adequate to support additional loading, or are at or near the end of their service life to meet National Electrical Safety Code (NESC) standards, including, but not limited to, conductor clearance requirements.

The Project is also aligned with Eversource's Lattice Structure Retirement Program. Replacement of the lattice opportunity structures prior to the expiration of their useful lifespan as part of this Project would maintain reliability, result in cost efficiencies and minimize disturbance to abutting property owners. It is common for lattice structures to go beyond the 40-year lifespan identified in the Council's 2022 Life Cycle Analysis if an assessment indicates they are reliable and structurally sufficient. The life span of the existing lattice transmission structures is approximately 50 - 60 years. The life span of the existing conductors is approximately 60 - 70 years.

Prior to submitting this Petition, Eversource performed limited asset condition work within the subject ROW for Sub-Petition No. 1293-HEHLELMW-01 (Haddam, East Haddam, Lyme, East Lyme, Montville and Waterford) approved by the Council on February 4, 2019 to replace 12 structures on the 364 Line, among others. A total of 10 wood structures would remain on the 364 and 1772 Lines that were not replaced as part of the sub-petition and will not be replaced as part of the proposed Project. These remaining wood structures were installed within the past nine years and are in good condition.

The Project is identified in the 2023 Eversource Forecast of Loads and Resources Report and in the June 2023 Independent System Operator-New England (ISO-NE) Regional System Plan Asset Condition List,<sup>3</sup> There are no generation facilities listed on the ISO-NE interconnection queue associated with the proposed Project.

#### *Cost*

The total estimated cost of the Project is approximately \$22.7M. The entire Project cost would be eligible for regional cost allocation as it is associated with Pool Transmission Facilities.<sup>4</sup> Pending a final determination from ISO-NE, total costs are expected to be allocated<sup>5</sup> as follows:

|   |                        |
|---|------------------------|
| Eversource Connecticut ratepayers <sup>6</sup>  | 19.2% ( \$4.4M)        |
| Other Connecticut ratepayers <sup>7</sup>       | 6.0% ( \$1.3M)         |
| <u>Other New England ratepayers<sup>8</sup></u> | <u>74.8% (\$17.0M)</u> |
| Cost Total                                      | 100% (\$22.7M)         |

#### **Proposed Project**

The Project is proposed to address identified asset condition deficiencies by replacement of deteriorated structures that are approaching the end of their service life, and structures that cannot structurally support the new OPGW. A total of 58 out of 113 single-circuit transmission structures on the 1772, 362, 376, and 364 Lines would be replaced (wood pole and lattice structures). Forty structures will be replaced due to age-related degradation and 18 structures will be replaced as “opportunity structures” to eliminate additional structure replacements within the same ROW in the future.

The Project requires taller structures to meet NESC standards, including, but not limited to, conductor clearance requirements. The NESC is the authoritative code for ensuring the continued practical safeguarding of persons and utility facilities during the installation, operation and maintenance of electric power and communications utility systems, including substations, overhead lines and underground lines.

NESC clearance requirements for conductor uplift and insulator swing were factored into the transmission line design. Conductor uplift is a condition where wire on a structure pulls up on the hardware instead of hanging down vertically. It typically occurs in spans where structures are located at different ground levels or have different heights. The amount of insulator swing on a transmission line depends on conductor tension, temperature, wind velocity, insulator weight, ratio of weight span to wind span, and line angle. These issues can be mitigated by taller structures in certain locations to increase the load tension of the insulators and the span weight load of the conductors.

---

<sup>3</sup> Two existing entries (#357 and #359) and two additional entries that would be listed by ISO-NE at a later date.

<sup>4</sup> 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.

<sup>5</sup> These allocations are estimates based on 2022 actual loads.

<sup>6</sup> Electrical service customers of Eversource and located within Connecticut.

<sup>7</sup> Electrical service customers located within Connecticut but outside of Eversource’s service territory.

<sup>8</sup> Electrical service customers located within New England but outside of Connecticut.

### *1772 Line Structure Replacements*

The 1772 Line is a 115-kV line that extends along the entire 6.2-mile Project ROW. It consists of 1272 aluminum conductor steel reinforced (ACSR) conductor supported on a mix of weathering steel and wood H-frame structures of varying installation dates. Nine of the wood H-frame structures date from the original line construction in 1966.

Project work consists of the following:

- a) Replace 17 single-circuit wood pole H-frame structures with 17 weathering steel direct embed H-frame structures due to asset condition, inadequate structural capacity to support OPGW or at or near the end of their service life;
- b) Install lightning arrestors on seven structures;
- c) Replace Alumoweld shield wire with OPGW; and
- d) Install new all dielectric self-supporting (ADSS) fiber optic cable under the conductors from Structure 15162 to Structure 15163 adjacent to Haddam Neck Switching Station.<sup>9</sup>

### *362 Line Structure Replacements*

The 362 Line is a 345-kV line that extends along the 2.8-mile ROW segment from east of Hurd Park Road to Haddam Neck Switching Station. It consists of 954-kcmil ACSR conductor supported on 18 steel lattice towers installed in 1967.

Project work consists of the following:

- a) Replace 16 single-circuit galvanized steel lattice structures with 16 weathering steel H-frame structures (mostly direct embedded) due to asset condition or at or near the end of their service life;
- b) Replace 2 single-circuit galvanized steel lattice structures with 2, three-pole weathering steel H-frame structures installed on foundations due to asset condition;
- c) Install grounding and counterpoise; and
- d) Replace Alumoweld shield wire with OPGW.

### *376 Line Structure Replacements*

The 376 Line is a 345-kV line that extends along the 2.8-mile ROW segment from east of Hurd Park Road to Haddam Neck Switching Station. It consists of 954-kcmil ACSR conductor supported on 18 steel lattice structures installed in 1966.

Project work consists of the following:

- a) Replace 18 single-circuit galvanized steel lattice structures with 18 weathering steel H-frame structures (mostly direct embedded) due to asset condition or at or near the end of their service life;
- b) Install grounding and counterpoise; and
- c) Replace one of the Alumoweld shield wires with OPGW and transfer the other existing shield wire to the replacement structures.

### *364 Line Structure Replacements*

The 364 Line is a 345-kV line that extends along the 3.4-mile ROW segment from Haddam Neck Switching Station to East Haddam Junction. It consists of 954-kcmil ACSR conductor supported on 16 light-duty weathering steel H-frames of varying installation dates and 10 original wood pole H-frame structures installed in the 1960's.

---

<sup>9</sup> There is insufficient clearance between the 1772, 376 and 362 Lines at this location to continue the OPGW installation between these structures.

Project work consists of the following:

- a) Replace 5 wood pole H-frame structures with five single-circuit direct embed weathering steel H-frame structures due to inadequate structural capacity to support OPGW; and
- b) Replace Alumoweld shield wires with OPGW along the entire 3.4-mile segment of ROW.

#### *Haddam Neck Switching Station*

The 362, 376 and 364 Lines terminate at Haddam Neck Switching Station while the 1772 Line bypasses it. Haddam Neck Switching Station is a 345-kV switching station.

Additional modifications necessary to facilitate this Project within the fenced switching station include installation of underground ADSS fiber optic cable to connect the new OPGW on the 362, 376, and 364 Lines from the terminal structures to the switching station control enclosure.

#### **Project Construction**

Eversource would establish temporary equipment staging areas near the Project site prior to construction. These area(s) have not yet been identified but would contain Project equipment, vehicles and office trailers.

Eversource would utilize existing ROW access roads to the extent possible during construction. Where existing access roads are not present, new permanent gravel roads would be established. Multiple access roads are required so that equipment can access various construction zones along the ROW without relying on one point of access for long ROW segments. Construction matting would be utilized to install temporary access roads to protect sensitive areas (e.g. wetlands, lawn, meadow) to reach certain structure locations.

Eversource would obtain a Department of Transportation Encroachment Permit to cross State Route 149 within the Project area.

Construction areas would be isolated by establishing erosion and sedimentation (E&S) controls in accordance with the *2002 Connecticut Guidelines for Soil Erosion and Sediment Control* and Eversource's April 2022 Best Management Practices Manual for Massachusetts and Connecticut (BMPs).<sup>10</sup> Typical E&S control measures include, but are not limited to, straw blankets, hay bales, silt fencing, gravel anti-tracking pads, soil and slope protection, water bars, check dams, berms, swales, plunge pools, and sediment basins.

A Project-specific Stormwater Pollution Control Plan (SWPCP) would be developed for registration under a Department of Energy and Environmental Protection (DEEP) Stormwater Permit. The Stormwater Permit requires the designing qualified professional to conduct the SWPCP Implementation Inspection that confirms compliance with the Stormwater Permit and the initial implementation of all SWPCP control measures for the initial phase of construction. The SWPCP also requires a qualified inspector to inspect the work areas at least once per week and within 24-hours after a rain event that meets certain permit criteria.

The Project is eligible for certification through the U.S. Army Corps of Engineers (USACE)/DEEP Self-Verification Notification process in regard to wetland impact. The self-verification notification forms would be submitted to the USACE - New England District and DEEP prior to the start of project construction, as required by the SWPCP.

---

<sup>10</sup> [2022 Eversource Best Management Practices MA\\_CT](#)

At each transmission line structure location, a work pad would be constructed, if necessary, to stage material for final on-site assembly and/or removal of structures, to pull conductors and to provide a safe, level work base for construction equipment. Work pad dimensions would vary based on site specific conditions such as terrain, proximity to the existing and replacement structures, and the type of construction activities. Where practical, Eversource would combine work pads if structure replacement work is in close proximity to another structure replacement.

Work pads for the project would typically be 100 feet by 100 feet for a single structure but could be up to 225 feet by 175 feet in areas where work pads are combined for multiple structure replacement. Pull pads, necessary to accommodate machinery needed for pulling conductors and OPGW, would range from 200 feet by 80 feet to approximately 265 feet by 125 feet. Most of the work/pull pads would be composed of gravel. Temporary work pads would be used in sensitive areas such as wetlands, habitat areas, lawns and agricultural land.

The proposed structures would mostly be directly embedded into the ground. Six structures would have drilled (caisson) foundations. Foundation installation work would require the use of equipment such as drill rigs, pneumatic hammers, augers, dump trucks, concrete trucks, grapple trucks, and light duty trucks. If groundwater is encountered, pumping trucks or other equipment would be utilized. The water would then be discharged in accordance with local, state and federal requirements. New structure sections, components and hardware would be delivered by flatbed truck to the structure locations for assembly by crane and bucket trucks.

After the new structures are installed, the existing conductors would be transferred from the old structures to the new structures and the OPGW would be installed along the line using cable reels, pulling and tensioning rigs, and bucket trucks. Helicopters may be used for OPGW installation at several locations. OPGW installation over large waterbodies, such as the Salmon River Cove, would be pulled using the existing static wire or a rope between the span structures. The static wire would be unclipped and removed after OPGW installation.

The existing structures would be removed after the OPGW is installed. Concrete foundations for the steel lattice towers would remain in place. Wood poles within wetlands would be cut at grade, leaving the pole butt in place to prevent wetland disturbance.

After the new structures/conductors/OPGW are installed and the existing structures are removed, ROW restoration activities would commence. Restoration work would include the removal of construction debris, signage, flagging, temporary fencing, and construction mats and work pads that are designated for removal or mitigation. Affected areas would be re-graded as practical and stabilized via revegetation or other measures before removing temporary E&S controls. ROW restoration would be performed in accordance with Eversource BMPs and in consultation with affected property owners.

Upon completion of the project, access roads and work pads located in uplands would be left in place to facilitate future transmission line maintenance. If a property owner requests their removal, Eversource would discuss mitigation options with the landowner. Eversource would restore stone walls that were affected by the Project if requested by the property owner.

Except for concrete trucks, no construction equipment or vehicle washing would be allowed in the ROW. In accordance with Eversource's BMPs, concrete truck wash-out would occur only in upland areas of the ROW (a minimum of 50 feet from wetlands) to avoid or minimize the potential for impacts to water resources. All wash-out areas would include measures to control and contain wash-water and collect the cement wash-off for off-site disposal.

Project-related traffic would be expected to be temporary and highly localized in the vicinity of ROW access points along public roads and at the staging area. Due to the phasing of construction work, project-related traffic is not expected to significantly affect transportation patterns or levels of service on public roads. Construction warning signs along public roads would be installed near work sites and flaggers or police personnel would be used to direct traffic, if necessary.

### **Environmental Effects and Mitigation Measures**

Work would occur within a maintained ROW and thus, no tree clearing is required. Tree trimming, minor vegetation removal and/or mowing within the managed transmission line ROW corridor may be required to improve work site access, and to develop and/or restore off-ROW access roads and to meet NESC and Eversource conductor clearance standards. Vegetation in the work areas would be cut to an above ground height of 6-8 inches to limit soil disturbance.

Vegetation removal/tree trimming would be accomplished using mechanical methods using flat-bed trucks, brush hogs or other types of mowing equipment, skidders, forwarders, bucket trucks for canopy trimming, and chippers. Vegetation removal activities would be performed in accordance with Eversource BMPs.

The ROW crosses several wetlands, small watercourses and the Salmon River. A total of 21 wetland areas, 14 watercourses, and one river occur along the ROW or in adjacent off-ROW areas. The Project would result in 1,280 square feet (0.03 acre) of permanent wetland impacts associated with the replacement of 9 structures where the new structures would be located within or immediately adjacent to wetlands. The replacement structures are proposed within the wetlands in accordance with the overall Project design and structure alignment. Relocating the structures out of the wetlands would affect conductor uplift, insulator swing, and NESC conductor clearance requirements.

Approximately 800 square feet of permanent wetland impacts would result from the construction of a permanent pre-formed modular concrete bridge over Succor Brook within the ROW near East Haddam Junction. The permanent bridge, approximately 25 feet long and 20 feet wide, is required to ensure Eversource has unencumbered access to East Haddam Junction along the ROW from Route 151, located 0.25 miles to the east.

The bridge would be constructed at the narrowest portion of the brook (15 feet side) and would consist of five pre-cast concrete sections with pre-cast concrete footings. Permanent steel sheeting, backfilled with riprap, would be installed around the abutments and along the sides of the gravel roads on either side of the bridge to protect against any scouring of the stream bank and protection against flooding.

Temporary wetland impacts related to project construction matting would total approximately 4.4 acres. The Project would require 7 temporary watercourse crossings, using wood matting, for work pads and access roads. Construction activities within wetlands and over watercourses would be conducted in accordance with Eversource's BMPs.

A total of 3 vernal pools (VP) were identified in the Project area in an April 2023 field survey but none of the VPs would be directly affected by construction activities. Work would occur within the 100 feet from the VP edge (vernal pool envelope) of one VP located near Orchard Road in East Haddam, where construction matting would be used to facilitate the installation of a replacement structure and removal of an existing structure.

Eversource would conduct work in this area in accordance with Eversource's BMPs as well as Project specific vernal pool protective measures, which include, but are not limited to, selective tree/shrub vegetation clearing with hand tools where necessary, avoidance of clearing (as practicable) during periods of peak vernal pool species breeding and migration, establishment of E&S controls, use of temporary matting, and avoidance of permanent disturbance that could cause permanent habitat alteration or changes in local drainage patterns.

The DEEP-approved SWPCP would contain details regarding the E&S control measures that would be implemented to protect wetlands and vernal pools. E&S controls would also be inspected weekly by a qualified inspector, as required by the SWPCP. The Project would comply with the SWPCP, USACE self-verification procedures, and Eversource's BMPs. In addition, the qualified inspector would be on-site to monitor environmental resource protections in accordance with Eversource's BMP's and the DEEP Natural Diversity Database (NDDDB) Determination letter.

Invasive species mitigation measures would be conducted in accordance with Eversource's BMPs. Measures include the cleaning of temporary mats to prevent the introduction of invasive species into wetlands, the cleaning of vehicles, equipment, materials, gear, footwear or clothing of all visible soil and plant material on site known to contain invasives or as near as practical to the invasive area, prior to leaving the Project site.

The Project ROW extends across a 100-year Federal Emergency Management Agency-designated flood zone and floodway associated with the Salmon River in Haddam and East Haddam and a 100-year flood zone associated with Succor Brook in East Haddam but no work activities would take place within these designated areas. Eversource would utilize temporary matting for four work pads and one access road located within the flood zone. In addition, the proposed permanent Succor Brook bridge is located within the flood zone and would be designed and constructed to comply with USACE Appendix G – Stream Crossing and Eversource BMPs to avoid any adverse effects to flood storage capacity and hydrology. The bridge decking would be installed above the 100-year floodplain.

The Project is not within a DEEP-designated Aquifer Protection Area or a Department of Public Health Drinking Water Watershed. Private wells are in the general area of the ROW and Eversource would conduct work in accordance with its BMPs which include provisions for the proper storage, secondary containment, and handling of diesel fuel, motor oil, grease and other lubricants, to protect subsurface water quality.

A DEEP NDDDB Determination is a requirement of the DEEP Stormwater Permit application, and once received, Eversource would implement DEEP recommended species-specific protection measures during construction, which could include, but are not limited to, providing contractor training, time of year best management practices, monitoring, and installation of exclusionary fencing.

Eversource also consulted with the U.S. Fish & Wildlife Service's (USFWS) Information, Planning and Consultation (IPaC) service regarding federally-listed species that may be present within the Project area. The IPaC report identified the northern long-eared bat (NLEB), a federally-listed and state-listed Endangered Species. Per USFWS NLEB guidance, Eversource performed an additional analysis using the new USFWS NLEB planning tool which determined the Project would not likely have an adverse effect on NLEB. There are no known NLEB maternity roost trees within 150 feet of the Project area, and no known NLEB hibernaculum is located within the municipalities; thus, no Project-related impacts to NLEB are expected.

The Project ROW traverses a New England Cottontail (NEC) focus area, established by DEEP, USFWS and other conservation groups to preserve NEC habitat. Gravel work pads located in the NEC focus area would be reduced in size where feasible to minimize potential effects to NEC habitat. Shrubland would be maintained in the ROW to the extent feasible to provide habitat for the NEC. Post-construction, gravel pads would be covered with soil or processed stone and reseeded with a native grass mix. Inspections of the restored areas would be conducted to ensure the seeded grasses have been established.

A Phase 1A Cultural Resources Assessment (Phase 1A) of the Project area determined that one Historic District (Little Haddam Historic District) listed on the National Register of Historic Places (NRHP) is located within 500 feet of the Project. In addition, due to the proximity of the Project to three previously identified archaeological sites, various portions of the ROW have a moderate to high archaeological sensitivity. The Phase 1A determined that the Project would not affect these archaeological sites or the NRHP-listed Historic District. It was recommended that a Phase 1B Cultural Resources Reconnaissance Survey be completed if ground disturbance would occur in these areas. Eversource intends to complete the Phase 1B survey by early Summer 2023 and implement any State Historic Preservation Office (SHPO) recommended cultural resource protection measures.

A portion of the Project ROW is adjacent to the Silvio O. Conte National Fish and Wildlife Refuge, which encompasses approximately 425 acres located along the west bank of the Salmon River. There are no established trails or recreational areas within the refuge. There would be no construction-related impacts within the refuge.

Eversource would notify DEEP and the municipalities, prior to the installation of OPGW over the Salmon River Cove, a waterbody used for recreation. The work would be conducted during winter months when on-water recreational use would be lowest. Signs notifying the public would be posted at area boat ramps.

Disturbed areas would be stabilized using E&S controls such as straw mulch, compost filters, and biodegradable erosion control blankets until final stabilization has been achieved. Appropriate seed mixes would be applied in uplands to revegetate disturbed areas promote shrub land and other low-growth habitat along the ROW to benefit pollinators and other species.

In accordance with the SWPCP, monthly inspections would be conducted to monitor stabilization measures. A qualified soil E&S control professional or a qualified professional engineer would inspect the areas and confirm compliance with the post-construction stormwater management requirements.

The Project would require increasing the height of many replacement structures to meet NESC clearance requirements within the existing ROW. Existing structures on the lines range from 43 to 105 feet above ground level. The replacement structures on the lines would range from approximately 47.5 feet to 130 feet above ground level, with an average height increase of approximately 9.8 feet to meet NESC clearance requirements. Six replacement structures would increase in height by 25 feet or more, and of those, four are on Eversource property (increase by 25-45 feet), one is along the west bank of the Salmon River (increase by 31.5 feet) and one is south of State Route 149 in East Haddam (increase by 31.5 feet).

Due to the increase in structure heights to comply with NESC clearance criteria, there would be indirect visual impacts to the surrounding area. The use of weathering steel replacement structures would blend in with the surrounding wooded landscape.

### **Public Safety**

There would be no permanent changes to existing ROW sound levels after completion of the Project. Noise associated with construction activities is exempt from DEEP Noise Control Regulations. Notwithstanding, any construction-related noise would be short-term and localized in the vicinity of work sites.

Eversource consulted with the Federal Aviation Administration (FAA) regarding structure height increases. The FAA determined that lighting/markings of any replacement structure is not required. The FAA issued a circularization (an opportunity for interested groups to comment) for two structures near Route 151 in East Haddam. The results of the circularization are pending.

Electric fields (EF) are produced whenever voltage is applied to electrical conductors and equipment. Electric fields are typically measured in units of kilovolts/meter (kV/m). As the weight of scientific evidence indicates that exposure to electric fields, beyond levels traditionally established for safety, does not cause adverse health effects, and as safety concerns for electric fields are sufficiently addressed by adherence to the NESC, as amended, health concerns regarding Electric and Magnetic Fields (EMF) focus on MF rather than EF. The International Commission on Non-Ionizing Radiation Protection (ICNIRP) has established a guideline of 4.2 kV/m.

The Project route contains an existing transmission line that emits magnetic fields (MF). In the United States, no state or federal exposure standards for 60-Hertz MF based on demonstrated health effects have been established, nor are there any such standards established worldwide. However, the ICNIRP has established a level of 2,000 milliGauss (mG), based on extrapolation from scientific experimentation, and the International Committee on Electromagnetic Safety (ICES) has calculated a guideline of 9,040 mG for exposure to workers and the general public, and recognized in the Council's *Electric and Magnetic Field Best Management Practices for the Construction of Electric Transmission Lines in Connecticut*.

In general, the heights of the replacement structures would be taller than the existing structures and no new conductors are proposed; therefore, EMF at and beyond the edges of ROW would not materially change and would remain well below the ICNIRP and ICES recommended exposure standards.

### **Construction Schedule**

Construction is expected to begin in the third quarter of April 2023 with an anticipated completion by March 2024. Normal work hours would be Monday through Saturday from 7:00 a.m. to 7:00 p.m. Sunday work hours or evening work (i.e. after 7:00 p.m.) may be necessary due to unforeseen circumstances, delays caused by inclement weather and/or outage constraints.

### **Conclusion**

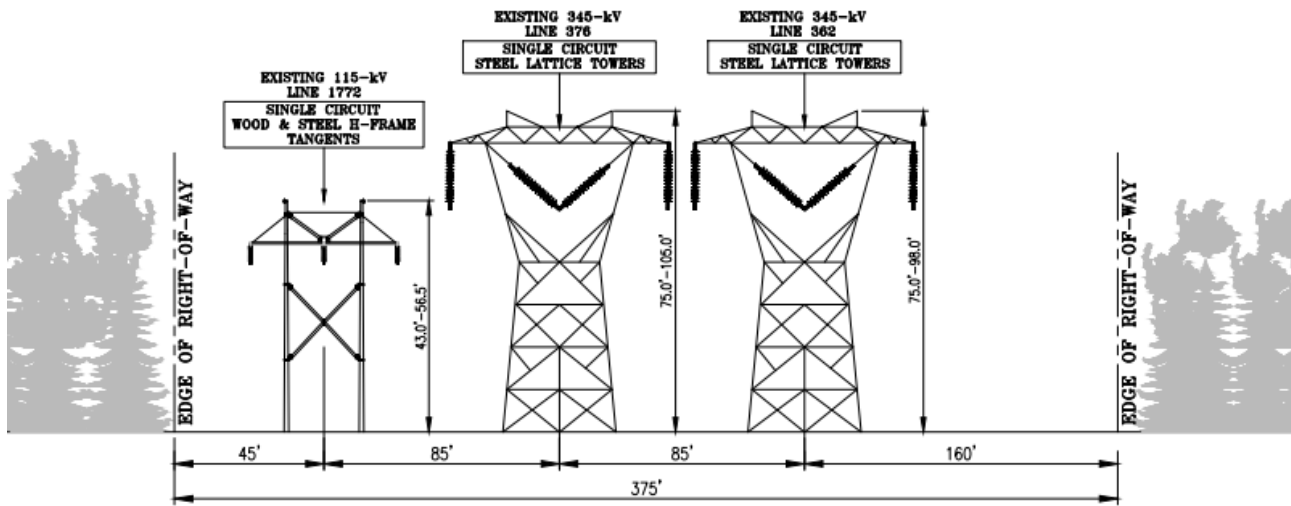
If approved, staff recommends the following conditions:

1. Approval of any project changes be delegated to Council staff;
2. Identification of staging areas and provisions for erosion and sedimentation (E&S) controls, if necessary, at the staging area locations prior to the commencement of construction;
3. Submit a copy of the DEEP Stormwater Permit prior to commencement of construction;
4. Submit a copy of the DEEP NDDB determination letter prior to commencement of construction;
5. Submit a copy of any SHPO-recommended cultural resource protection measures, if applicable, prior to commencement of construction; and
6. Incorporate pollinator habitat in the restoration of disturbed areas consistent with CGS §16-50hh, where feasible.

### Project Location

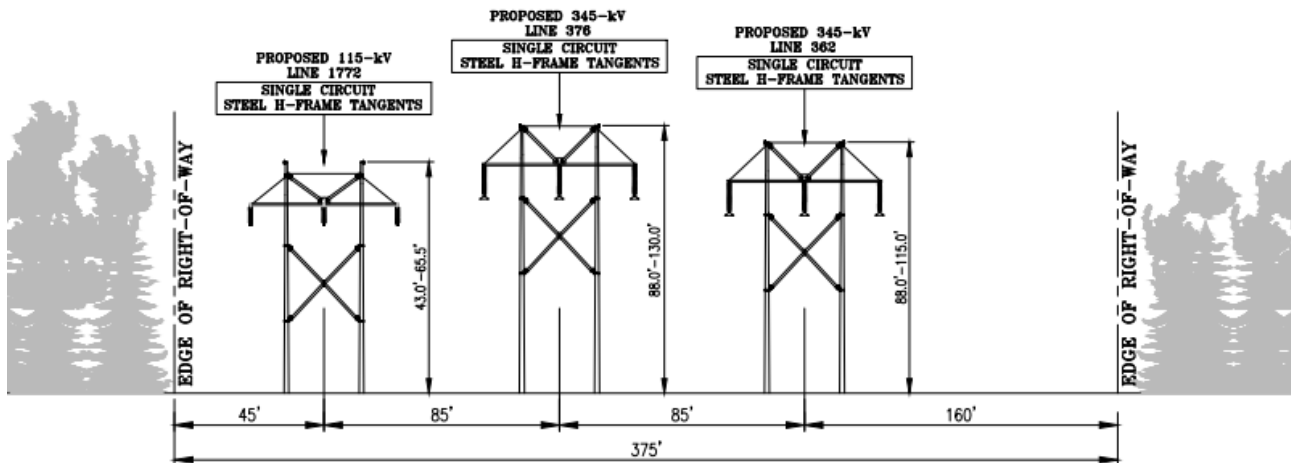


### Project ROW Profiles



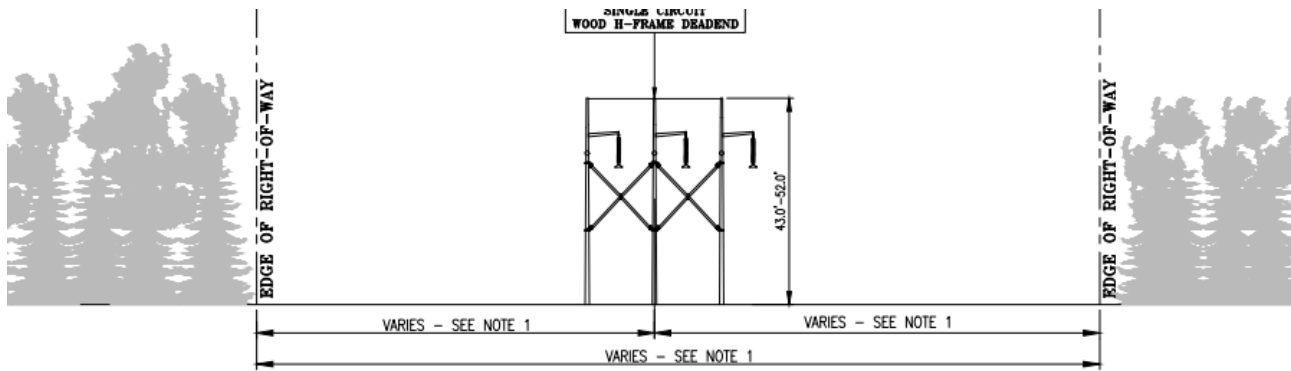
### EXISTING R.O.W. CONFIGURATION

EAST OF HURD STATE PARK, LOOKING SOUTH TOWARD HADDAM NECK S/S  
IN THE TOWN OF EAST HAMPTON & HADDAM, CT  
APPROXIMATELY 2.80 MILES BETWEEN LINE 1772: STR #15138 TO STR #15162  
LINE 376: STR #12054 TO STR #12036, LINE 362: STR #19098 TO STR #19116

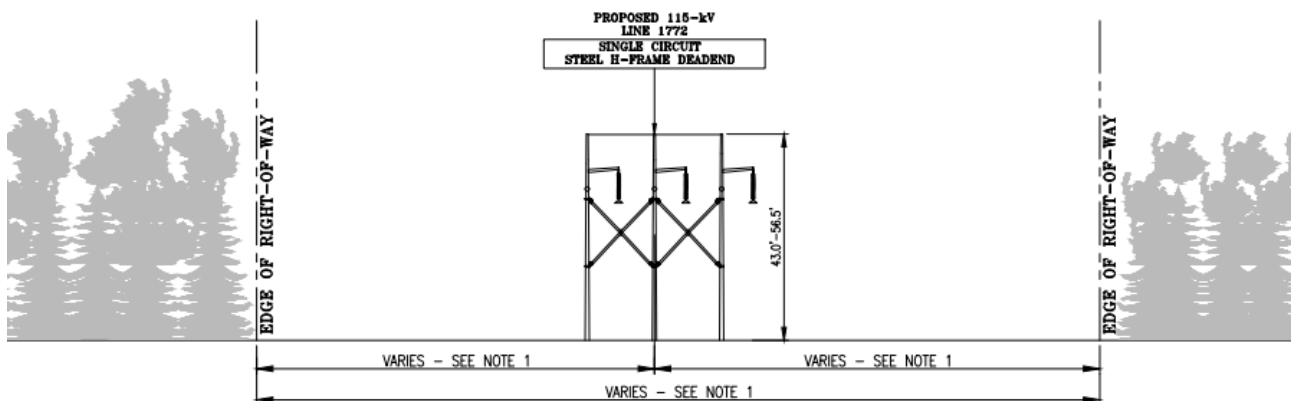


### PROPOSED R.O.W. CONFIGURATION

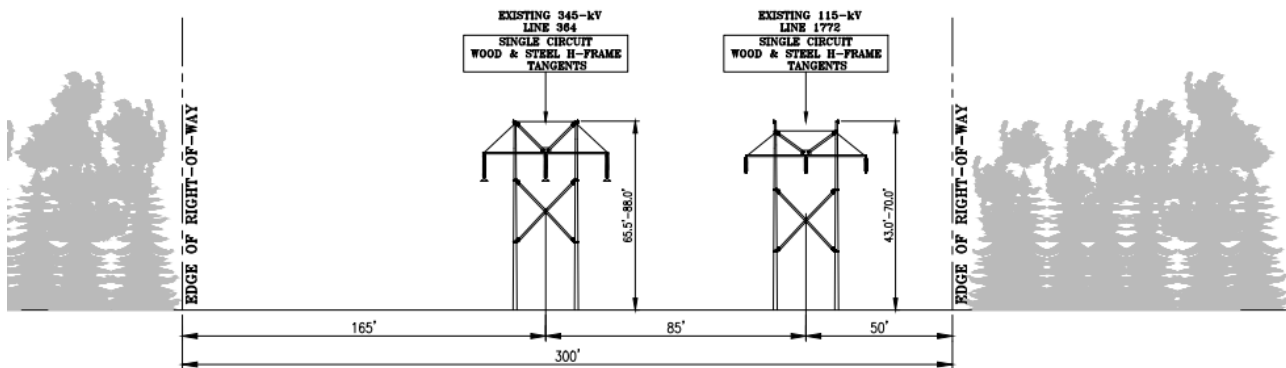
EAST OF HURD STATE PARK, LOOKING SOUTH TOWARD HADDAM NECK S/S  
IN THE TOWN OF EAST HAMPTON & HADDAM, CT  
APPROXIMATELY 2.80 MILES BETWEEN LINE 1772: STR #15138 TO STR #15162  
LINE 376: STR #12054 TO STR #12036, LINE 362: STR #19098 TO STR #19116



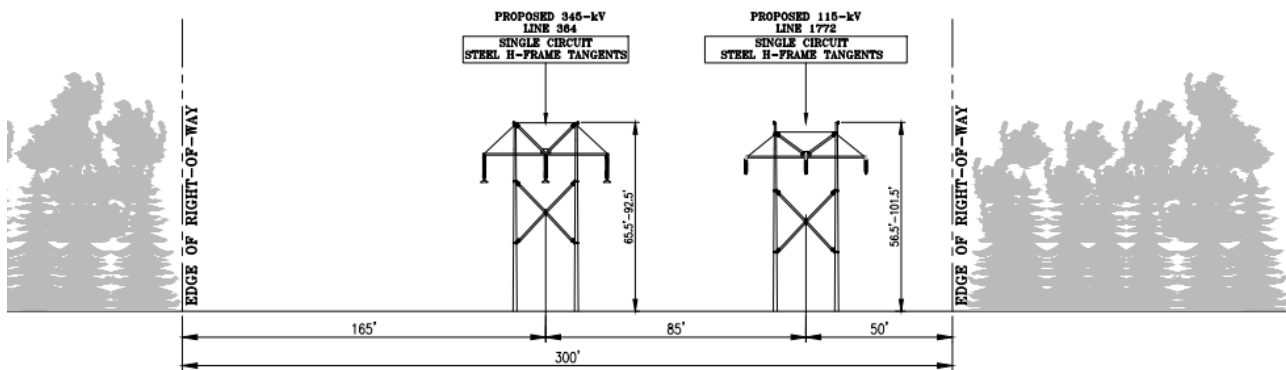
**EXISTING R.O.W. CONFIGURATION  
SINGLE CIRCUIT WOOD H-FRAME  
LOOKING SOUTH FROM NEAR HADDAM NECK S/S TO EAST HADDAM JUNCTION  
IN THE TOWN OF HADDAM, CT  
APPROXIMATELY 0.43 MILES BETWEEN LINE 1772: STR #15162 TO STR #3744**



**PROPOSED R.O.W. CONFIGURATION  
SINGLE CIRCUIT STEEL H-FRAME  
LOOKING SOUTH FROM NEAR HADDAM NECK S/S TO EAST HADDAM JUNCTION  
IN THE TOWN OF HADDAM, CT  
APPROXIMATELY 0.43 MILES BETWEEN LINE 1772: STR #15162 TO STR #3744**



**EXISTING R.O.W. CONFIGURATION**  
**LOOKING SOUTH TOWARD EAST HADDAM JUNCTION**  
**IN THE TOWN OF HADDAM & EAST HADDAM, CT**  
**APPROXIMATELY 3.09 MILES BETWEEN LINE 1772: STR #3744 TO STR #3722**  
**LINE 364: STR #5402 TO STR #5425**



**PROPOSED R.O.W. CONFIGURATION**  
**LOOKING SOUTH TOWARD EAST HADDAM JUNCTION**  
**IN THE TOWN OF HADDAM & EAST HADDAM, CT**  
**APPROXIMATELY 3.09 MILES BETWEEN LINE 1772: STR #3744 TO STR #3722**  
**LINE 364: STR #5402 TO STR #5425**