



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

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### CERTIFIED MAIL RETURN RECEIPT REQUESTED

July 1, 2015

Richard J. Reed, PMP  
Vice President-Engineering and Project Excellence  
The United Illuminating Company  
180 Marsh Hill Road  
Orange, CT 06477

RE: **PETITION NO. 1110** - The United Illuminating Company declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed Milford 115-kV transmission line upgrade project consisting of the northern and southern sections of 115-kV lines extending from Milvon Substation to Devon Tie Switching Station in Milford, Connecticut.

and

**PETITION NO. 1151** - The United Illuminating Company declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for the proposed removal and replacement of the existing 115-kV transmission line structures in the Connecticut Department of Transportation right-of-way outside of Milvon substation located at 772 Bridgeport Avenue, Milford, Connecticut.

Dear Mr. Reed:

At a public meeting of the Connecticut Siting Council (Council) held on June 25, 2015, the Council considered and approved the Development and Management (D&M) Plan submitted for this project on May 29, 2015, with the following conditions:

- UI shall provide copies to the Council upon receipt of federal and state regulatory permits;
- UI shall utilize a third-party environmental inspector and provide bi-weekly reports on the status of construction and environmental protection;
- UI shall immediately notify the Council in any case when an environmental permit is issued to UI by a federal and/or state regulatory agency that contains a provision inconsistent with the record in Petition Nos. 1110 and 1151;
- UI shall comply with the notice and reporting requirements of § 16-50j-62 of the Regulations of Connecticut State Agencies;
- Requests for any significant changes to the D&M Plan shall be approved by Council staff in accordance RCSA §16-50j-62(b); and
- UI shall provide the Council with a final report containing all agreements with abutters or other property owners regarding special maintenance precautions; significant changes to the D&M Plan that have been approved by the Council; locations of special planting and seeding; and actual construction cost of the project.

This approval applies only to the D&M Plan submitted on May 29, 2015 and supplemental data dated June 19, 2015. Requests for any changes to the D&M Plan shall be approved by Council staff in accordance with Regulations of Connecticut State Agencies Section (RCSA) §16-50j-62(b). Furthermore, the project developer is responsible for reporting requirements pursuant to RCSA 16-50j-62.

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 in the D&M Plan submitted on May 29, 2015 and supplemental information submitted on June 19, 2015.

Enclosed is a copy of the staff report on this D&M Plan, dated June 25, 2015.

Thank you for your attention and cooperation.

Sincerely,

Handwritten signature of Robert Stein MAB in cursive script.

Robert Stein  
Chairman

RS/MP/lm

Enclosure: Staff Report dated June 25, 2015

- c: The Honorable Benjamin G. Blake, Mayor, City of Milford
- David Sulkis, City Planner, City of Milford
- Bruce L. McDermott, UIL Holdings Corporation
- Bohdan Katrecko, UIL Holdings Corporation
- Amy Hicks, The United Illuminating Company
- Julie Thomas, State of CT Department of Transportation



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### Petition Nos. 1110 and 1151

UI

#### Milford 115-kV Transmission Line Upgrade Project & Modifications to Transmissions Lines

Milford

Development and Management Plan

Staff Report

June 25, 2015

### Introduction – Petition No. 1110

On July 14, 2014, the Connecticut Siting Council (Council) received a petition (Petition No. 1110) from The United Illuminating Company (UI) for a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for its proposed Milford 115-kV Transmission Line Upgrade Project. This project would replace transmission structures and conductors along a portion of two lines between Milvon Substation and Devon-Tie Switching Station, a distance of approximately 1.3 miles.

UI's Petition No. 1110 transmission line upgrade project would affect two existing transmission lines currently located on catenary structures within the Metro North/Connecticut DOT railroad right-of-way. UI would relocate its lines from the catenary structures onto new tubular steel monopoles that would be offset 15 to 30 feet from the edge of the rail lines, but still within the existing railroad right-of-way (ROW).

On the northern transmission line, UI would replace its 26 steel bonnet structures, one steel column, two steel lattice towers, and two steel H-frame structures with 21 new galvanized steel tubular monopoles. For the southern transmission line, UI would replace 26 steel bonnet structures, one steel column, two steel lattice towers, and two steel H-frame structures with 22 steel monopole structures. The existing steel bonnet structures are on the order of 58 feet tall. For the northern transmission line, the new structure heights would vary from 70 to 115 feet tall, with an average height of 92 feet above ground level (agl). For the southern transmission line, the new structure heights would vary from 70 to 115 feet agl with an average height of 95 feet agl. The upgraded transmission lines would have new 1590 kcmil aluminum conductor steel supported (ACSS) conductors. UI would utilize galvanized steel structures for the Petition No. 1110 project. On August 21, 2014, the Council approved the Petition No. 1110 project with the condition that UI file a Development and Management Plan (D&M Plan) for this project.

### Petition No. 1151

On April 7, 2015, UI filed another petition (Petition No. 1151) to replace additional aging infrastructure in the railroad ROW. Specifically, UI notes that two existing steel H-frame transmission structures located in the ROW directly outside of UI's Milvon Substation do not currently meet the National Electrical Safety Code Standards. (Milvon Substation is located at the eastern end of the Petition No. 1110 project area.) UI would replace the existing transmission structures with six tubular steel monopole structures. On April 7, 2015, UI filed a motion for a protective order relative to Critical Energy Infrastructure Information (CEII). On April 30, 2015, the Council approved UI's motion for a protective order relative to CEII. On May 28, 2015, the Council approved Petition No. 1151 with the condition that UI file a joint D&M Plan to include but is not limited to erosion and sedimentation controls, eastern box turtle protection plans, and swamp mat design, placement and cleaning;



CONNECTICUT SITING COUNCIL

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## **Joint D&M Plan**

UI performed engineering and environmental studies to finalize the design of both projects for the joint Petition No. 1110/1151 D&M Plan. On May 29, 2015, UI submitted the joint D&M Plan for both petitions detailing the construction activities. On June 19, 2015, UI filed supplemental D&M Plan information relative to swap mat management as well as eastern box turtle protection.

### **Permits and consultations**

UI received Connecticut Department of Energy and Environmental Protection (DEEP) permits, including:

- a) 401 Water Quality Certification; and
- b) Stormwater and Dewatering Wastewaters from Construction Activities Registration

UI filed a Section 404 Project Notification Form with the United States Army Corps of Engineers (ACOE) regarding the temporary swap map placement.

During the preparation of this joint D&M Plan, UI also consulted with the City. A copy of the D&M Plan was sent to the City at the time of filing with the Council (May 29, 2015). No comments from the City regarding the D&M Plan have been received to date. UI will submit applications for local road crossings, street excavation and blasting permits where necessary.

UI is coordinating with the Connecticut Department of Transportation (CDOT) and Metro-North Railroad (MNRR) regarding approval for construction of the overhead transmission lines crossing at Interstate 95. Project construction in locations requiring specific permits would not commence until these permit approvals are received.

### **Schedule**

Project construction is scheduled to begin in July 2015 and end in December 2016. Construction work hours would typically occur between 7:00 a.m. and 7:00 p.m. on Monday through Friday and sometimes require work on Saturdays and Sundays. Some construction activities would occur at night between 10:00 p.m. and 5:00 a.m. However, certain activities, such as those that must be performed during outages, may involve work during non-typical hours, in some cases on a continuous 24-hour basis. The performance of these activities during non-typical work hours can be critical for contemplating the required work within the allowed outage durations.

### **Construction**

#### **General Construction Sequence**

UI would construct the proposed transmission project in several stages, some overlapping in time. However, the general construction sequence is listed below.

- a) Prepare material laydown sites (e.g. storage, staging, and laydown areas) to support the construction effort;
- b) Establish laydown area(s), typically including space for an office trailer, equipment storage and maintenance, sanitary facilities, and parking;
- c) Survey and stake the ROW boundaries (where necessary), vegetation clearing boundaries, and new structure locations;

- d) Mark the boundaries of previously delineated wetlands and watercourse areas, including vernal pools if applicable;
- e) Identify other areas, as appropriate, where special construction considerations would apply;
- f) Perform vegetative clearing;
- g) Install erosion and sedimentation controls;
- h) Construct new access roads or improve existing roads and prepare level work pads as necessary at new structure sites and conductor pulling sites;
- i) Construct foundations and erect/assemble new structures;
- j) Install shield wires and conductors;
- k) Install structure grounding systems, including counterpoise (where needed);
- l) Remove existing shield wires, conductors, hardware, and steel bonnets;
- m) Remove temporary roads and construction debris and restore disturbed sites; and
- n) Maintain temporary erosion and sedimentation controls until vegetation is re-established or disturbed areas are otherwise stabilized.

#### **Specific Construction methods for 115-kV Transmission Upgrade**

The specific order of construction for the 115-kV transmission upgrade is listed below.

- a) The foundation locations would be staked.
- b) Auger drilling would be used to perform the excavation for pier foundations.
- c) Once the excavation is complete, steel reinforcing bars would be placed in the excavation and encased in concrete.
- d) Field tests of concrete would be conducted regularly to ensure the quality and compressive strength.
- e) Once a foundation is in place and cured (for a minimum of seven days), the steel structure would be assembled and erected.
- f) The structures may be assembled on the ground and erected as a complete unit or assembled in pieces with a crane.
- g) Once the structure is erected and framed with the support insulators and hardware, it would be ready for installation of the overhead lines.
- h) The conductors would be pulled over rollers or sheaves mounted on the line structures pulling and tensioning equipment.
- i) The wires would be sagged, clipped in, spliced, dead ended, and jumpered.

#### **Wetlands and Watercourses**

Eight regulated and jurisdictional freshwater inland wetland areas and eight watercourses were found in the vicinity of the proposed project. However, the project would only have temporary impacts at three wetland locations in the vicinity of Milvon Substation. No proposed structures would be located within wetlands; however, swamp mats would be used as the method to address the temporary impacts to wetlands associated with temporary construction areas. The total temporary wetland impact area would be 2,600 square feet. During the field visits, no vernal pools were identified within the project study area.

UI filed a Swamp Mat Management Plan as supplement to the D&M Plan. Specifically, the swamp mats would be maintained in proper condition. Wherever feasible, swamp mats would be arranged in a manner that minimizes the amount of swamp mats needed for the wetland crossing.

Swamp mats would be cleaned in accordance with UI's ACOE Category I permit. Swamp mats which become covered with soil or construction debris would be cleaned, and the materials would be removed and disposed of in accordance with Connecticut's solid waste regulations. Mats would be removed by "backing" out of the site, removing mats one at a time, and restoring the area to its pre-existing conditions.

### **Rare and endangered species**

By letter dated January 13, 2014, DEEP indicated that the Peregrine Falcon, a threatened species, may occur in the vicinity of the project. Accordingly, DEEP recommends that work be conducted outside of the breeding season (July 31 through March 1) to protect nesting Peregrine Falcons. Or alternatively, if work is conducted during the breeding season, activity should be a minimum of 600 feet from the nest.

By letter dated April 2, 2014, the DEEP indicated that the eastern box turtle, a State-designated Species of Special Concern may occur in the vicinity of the project. In order to protect the eastern box turtle, DEEP recommends that following measures:

- a) Silt fence should be installed around the work area prior to construction;
- b) After silt fence is installed and prior to construction, a sweep of the work area should be conducted to look for turtles;
- c) Workers should be apprised of the possible presence of turtles, and provided a description of the species;
- d) Any turtles that are discovered should be moved, unharmed, to an area immediately outside of the fenced area, and position in the same direction that it was walking;
- e) No vehicles or heavy machinery should be parked in any turtle habitat;
- f) Work conducted during early morning and evening hours should occur with special care not to harm basking or foraging individuals; and
- g) All silt fencing should be removed after work is completed and soils are stable so that reptile and amphibian movement between uplands and wetlands are not restricted.

UI has identified the DEEP Natural Diversity Database areas and would comply with all of the DEEP recommendations to protect the eastern box turtle. Furthermore, UI would conduct turtle sweeps every day at the beginning and end of each construction shift. Continuous monitoring would occur while vehicles or heavy machinery pass through these areas.

For Peregrine Falcon, while UI is not proposing a seasonal restriction, UI intends to hire an avian expert to monitor the Peregrine Falcon when performing construction around the identified habitat during the noted breeding season. UI would also minimize construction noise to the extent feasible during that time period as well.

### **Cultural Resources**

The State Historic Preservation Office (SHPO) has determined that further archaeological surveys or other investigations are not warranted within respect to this project. SHPO has also indicated that the proposed undertaking would have no adverse effects to historic properties.

## **Access Roads and Work Pads**

During construction, existing access within the ROW would typically be used as the principal means of accessing the work area. However, in selected locations along the ROW, new access roads would be created in order to reach new pole locations and remove/replace existing structures. For new pole locations, permanent access roads are required for construction and ongoing maintenance. Some existing access roads would require maintenance or upgrades to allow safe passage of the necessary equipment to install the new structures. Prior to the construction of the access roads and work pads, UI would install erosion and sedimentation controls to mitigate any erosion or sediment runoff. All temporary access roads would be removed at the end of the project.

Work pads would be required at each transmission structure site, as well as at conductor and optical groundwire pulling sites. UI would have two different sizes of work pads: a construction pad approximately 30 feet by 50 feet and a pull pad which has dimensions of approximately 25 feet by 100 feet. All work pad locations would be removed at the end of the project.

Any excess soils generated from the construction of access roads and work pads would be managed in accordance with UI's Soil Management Plan. Any rock generated from the development of access roads or work pad placements would be removed to off site.

## **Electric and Magnetic Fields**

Under peak load conditions, the existing worst-case magnetic field levels are 14.1 milligauss (mG) at the north edge of the right of way and 20.3 mG at the south edge of the right of way. With the proposed project, these worst-case magnetic field levels would increase to 42.3 mG and 40.0 mG, respectively. This is far below the International Commission on Non-ionizing Radiation Protection acceptable exposure level of 2,000 mG for general public as recognized in the Council's "Electric and Magnetic Field Best Management Practices for the Construction of Electric Transmission Lines in Connecticut."

## **Noise**

UI would comply with the applicable State of Connecticut noise standards.

## **Independent Environmental Inspector**

A UI environmental analyst would be assigned to oversee the environmental requirements during construction. Along with the UI environmental analyst, UI would have a third-party environmental inspector present.

## **Vegetation Clearing**

UI would minimize tree clearing and associated impacts by utilizing a project design that keeps the position of the conductors within the existing cleared ROW corridor as much as possible, thus minimizing additional clearing. UI would also allow low-maturing tree species such as dogwoods to remain within 15 feet of the outer edges of clearing (where such low-maturing species exist). UI would also comply with the Department of Energy and Environmental Protection (DEEP) Best Management Practices for Water Quality While Harvesting Forest Products. While cutting trees close to the ground, stumps and root systems would be left in the ground to naturally decompose over time. These decaying root systems provide additional soil stability as well as host native organisms.

## **Stormwater Pollution Protection Plan**

As part of the D&M Plan, UI submitted a Stormwater Pollution Protection Plan. The purpose of the plan is to minimize pollution caused by the use of the project sites during and after construction is completed.

### **Final Restoration**

ROW cleanup and restoration activities would include removal of construction debris, temporary access roads, and temporary work pads, followed by final re-grading of areas affected by construction and site stabilization using re-vegetation or other measures. Construction mats used in temporary access and work pad construction would be cleaned of any plant propagation material stock and would be removed from the ROW.

After final grading, upland areas affected by construction would be seeded with appropriate seed mixes. Seed mix(es) would be selected by UI to provide a quick vegetative cover until vegetation recolonizes the ROW naturally. At some locations, site specific erosion and sedimentation controls such as erosion control blankets or mulch would be used as appropriate due to the grade or long term need for restoration. In some areas, longer term sediment and erosion control measures, such as water diversion bars or crushed stone, would be installed as appropriate.

Wetlands impacted by construction would be restored using a New England Wetland Seed Mix (NEWSM), which would serve to provide a temporary vegetative cover until wetland species become re-established. Based on the approach of applying NEWSM with a thin layer of straw (which contains no invasive species), UI expects that this method would impede the spread of invasive species into the wetlands.

### **Snow Removal and De-icing Procedures**

The removal of snow and ice from construction site is critical to a safe working environment. Snow and ice removal procedures would be conducted in accordance with DEEP's Best Management Practices for Disposal of Snow Accumulations from Roadways and Parking Lots.

### **D&M Plan Changes**

All D&M Plan changes that are deemed "significant" in accordance with RCSA § 16-50j-62, will be submitted to the Council for approval prior to implementation of the change. A significant change to the project is one that would include but not be limited to the location of a wetland or watercourse crossing; the location of an access way or a structure in a regulated wetland or watercourse; the construction or placement of any temporary structures or equipment; a change in the structure type or location including but not limited to, towers, guy wires, associated equipment or other facility structures; and utilization of additional mitigation measures.

Council staff recommends that approval of future requested significant changes to the approved D&M Plan be delegated to Council staff in accordance with Section 16-50j-62(b). In accordance with that section, if advance written notice is impractical, the Petitioner shall provide verbal notice of the changes and shall submit written specifications to the Council within 48 hours after the verbal notice. All changes pursued without advance notification and approval shall be subject to a penalty, enforceable by the Attorney General pursuant to C.G.S. §16-50u.

## Reports

The following reports will be provided to the Council:

1. **A Monthly Construction Progress Report:** As required by RCSA § 16-50j-62(b)(3), this report will identify changes and deviations to the approved D&M Plan.
2. **A Bi-Weekly Independent Environmental Inspector Report:** this report will be provided to the Council and the Chief Elected Officials of each involved town (or their designated representatives) and will describe the status of construction and environmental protection.
3. **A Final Report:** As required by RCSA § 16-50j-62(c), UI will provide this report to the Council no later than 180 days after completion of all site construction and rehabilitation. The report will identify:
  - a) All agreements with abutters or other property owners regarding special maintenance precautions;
  - b) Significant D&M Plan changes that were required because of property rights of underlying and adjoining owners or for other reasons;
  - c) The location of any construction materials which have been left in place including, but not limited to, culverts, erosion control structures along watercourses and steep slopes, and corduroy roads in regulated wetlands;
  - d) The location of areas where special plantings and reseeding have been done; and
  - e) The actual construction cost of the facility, including, but not limited to the following costs: clearing and access; construction of the facility and associated equipment; rehabilitation; and property acquisition for the site or access to the site.

## Recommendations

Council staff recommends approval of the joint D&M Plan for the 115-kV rebuild project, with the following conditions:

UI shall provide copies to the Council upon receipt of federal and state regulatory permits.

UI shall utilize a third-party environmental inspector and provide bi-weekly reports on the status of construction and environmental protection.

UI shall immediately notify the Council in any case when an environmental permit is issued to UI by a federal and/or state regulatory agency that contains a provision inconsistent with the record in Petition Nos. 1110 and 1151.

UI shall comply with the notice and reporting requirements of § 16-50j-62 of the Regulations of Connecticut State Agencies.

Requests for any significant changes to the D&M Plan shall be approved by Council staff in accordance RCSA §16-50j-62(b).

UI shall provide the Council with a final report containing all agreements with abutters or other property owners regarding special maintenance precautions; significant changes to the D&M Plan that have been approved by the Council; locations of special planting and seeding; and actual construction cost of the project.