

Petition No. 1110
The United Illuminating Company
Milford, Connecticut
Staff Report
August 15, 2014

On July 14, 2014, the Connecticut Siting Council (Council) received a petition 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 along a portion of two lines between Milvon Substation and Devon-Tie Switching Station, a distance of approximately 1.3 miles. Council members Phil Ashton, Michael Caron and Robert Hannon and Council staff member David Martin conducted a field review of this proposal on August 5, 2014. Chris Hughes, Shawn Crosbie, Bruce McDermott, Yan Lachowicz, Samantha Crowley, and Bohdan Katreczko represented UI at the field review. For the field review, Council members, staff and UI representatives met at Milvon Substation and then drove west along the route of the proposed pole replacement project to the Devon station, stopping at several vantage points along the way.

UI's transmission line upgrade project would affect two existing transmission lines: the 88005A line and the 89005B line. Both lines in the project area are currently located on catenary structures within the Metro North/Connecticut DOT railroad right-of-way; the 88005A line is on the north side of the railroad, and the 89005B line is on the south side of the railroad. The catenary structures are over 100 years old, and UI installed its transmission lines onto these structures during the early 1940s. 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.

The upgrade project is necessitated by the need to increase the thermal capacity of the two lines, a determination made as part of the 2011 Southwest Connecticut Needs Assessment Report — a study completed by UI, CL&P, and ISO-NE to measure the reliability of southwest Connecticut's existing grid using NERC, NPCC, and ISO-NE standards and criteria. Due to their age and physical limitations, the existing line support structures are inadequate for the higher capacity conductors needed. The Upgrade Project would also have the advantage of separating UI's transmission infrastructure from the railroad's infrastructure. This would obviate or reduce the necessity of UI coordinating its outages to accommodate the needs of the railroad corridor and vice versa. The structure replacement project would also make maintenance of the two different transmission systems easier for both parties.

For the 88005A line on the north side of the railroad, UI would replace its 34 existing structures with 21 new galvanized steel tubular monopoles. On the south side of the railroad, UI would replace its 34 existing structures with 23 new galvanized steel tubular monopoles. Council members asked whether it would be possible to use weathering steel instead of galvanized steel. UI responded by saying it had looked into the use of weathering steel but had some concerns about how the diesel-fueled freight trains on the railroad would affect the steel.

During the field review, UI indicated that the new monopoles to be installed would be designed to accommodate larger capacity conductors in case they were needed at some time in the future. Council members asked why the larger capacity conductors couldn't be installed as part of this project in order to save money, as the cost of any future installation would most likely be much higher than what today's costs are. UI representatives said they could look into the possibility of installing the higher capacity conductors as part of this project.

As a follow-up to the field review, UI did look into the two questions about the installation of larger capacity conductors and the use of weathering steel instead of galvanized steel. Regarding the conductor size, UI concluded that the proposed conductor would be sufficient beyond its ten-year planning horizon. Installing the larger conductor could result in the additional costs being considered a localized cost for Connecticut rate payers whereas the costs of the proposed conductor could most likely be regionalized throughout New England. Regarding weathering versus galvanized steel, UI's experience has been that life expectancy of the two materials is about the same, but that maintenance costs for galvanized steel are typically less than those of weathering steel. This is particularly true when the costs of graffiti removal are considered. Removal of graffiti from weathering steel poles could compromise their protective weathered layer and expose areas to accelerated corrosion.

The environmental impacts of the upgrade project should be limited. Most of the work would occur within the existing railroad right-of-way, which is located in a heavily developed corridor in close proximity to I-95. There are some wetlands in the vicinity of the project area, but the area that will be most directly affected is a small wetland area between the Milvon Substation and the rail corridor that UI will have to cross to do some of its project work. UI will deploy temporary wetland matting in this area to minimize any long-term impacts.

During the project, UI will deploy erosion and sedimentation control measures and will adhere to Eastern box turtle and Peregrine Falcon protection protocols prescribed by the CT DEEP Wildlife Division. Visual impact will be minimal as the completed project should look much like the rail corridor looks currently. UI submitted a preliminary archaeological assessment of its project for SHPO's review. SHPO determined that the project would have no adverse effects on historical properties.

Electric and magnetic field (EMF) levels associated with the affected lines are expected to increase slightly after completion of the project — by approximately 1 %. Resulting EMF levels would still be far below established health and safety standards.

UI notified local municipal officials and abutting property owners of its intended project. The City of Milford responded to UI's notification with a letter stating that it did not object to the project as it would strengthen the electrical system in the area.

UI would start construction of this project during the second quarter of 2015 and would anticipate it to be complete by the end of 2016.

Council staff recommends approval with the condition that UI submit a Development and Management Plan for this project.