STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL
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VIA ELECTRONIC MAIL

August 21, 2023

TO: Service List, dated July 20, 2023

FROM: Melanie Bachman, Executive Director MPB

RE: **DOCKET NO. 516** – The United Illuminating Company (UI) application for a Certificate of Environmental Compatibility and Public Need for the Fairfield to Congress Railroad Transmission Line 115-kV Rebuild Project that consists of the relocation and rebuild of its existing 115- kilovolt (kV) electric transmission lines from the railroad catenary structures to new steel monopole structures and related modifications along approximately 7.3 miles of the Connecticut Department of Transportation's Metro-North Railroad corridor between Structure B648S located east of Sasco Creek in Fairfield and UI's Congress Street Substation in Bridgeport, and the rebuild of two existing 115-kV transmission lines along 0.23 mile of existing UI right-of-way to facilitate interconnection of the rebuilt 115-kV electric transmission lines at UI's existing Ash Creek, Resco, Pequonnock and Congress Street Substations traversing the municipalities of Bridgeport and Fairfield, Connecticut.

Comments have been received from the Department of Transportation on August 18, 2023. A copy of the comments is attached for your review.

MB/MP/laf

c: Council Members

STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION
2800 BERLIN TURNPIKE, P.O. BOX 317546
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Office of the
Commissioner

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August 15, 2023

Melanie Bachman, Executive Director
Connecticut Siting Council
Ten Franklin Square
New Britain, CT 06051

DOCKET NO. 516 – The United Illuminating Company (UI) (Applicant) application for a Certificate of Environmental Compatibility and Public Need for the Fairfield to Congress Railroad Transmission Line 115-kV Rebuild Project that consists of the relocation and rebuild of its existing 115- kilovolt (kV) electric transmission lines from the railroad catenary structures to new steel monopole structures and related modifications along approximately 7.3 miles of the Connecticut Department of Transportation's Metro-North Railroad corridor between Structure B648S located east of Sasco Creek in Fairfield and UI's Congress Street Substation in Bridgeport, and the rebuild of two existing 115-kV transmission lines along 0.23 mile of existing UI right-of-way to facilitate interconnection of the rebuilt 115-kV electric transmission lines at UI's existing Ash Creek, Resco, Pequonnock and Congress Street Substations traversing the municipalities of Bridgeport and Fairfield, Connecticut.

Dear Attorney Bachman:

The Connecticut Siting Council requested input from the Connecticut Department of Transportation (CTDOT) on the feasibility of rebuilding the existing 115kV electric transmission lines between the Fairfield and Congress UI Substations. The proposal would rebuild the existing line that runs approximately 7.3 miles along the State Owned Metro-North Railroad corridor, commonly referred to as the New Haven Line, which traverses Southport, Fairfield, Bridgeport, and New Haven, Connecticut. The proposal also includes rebuilding two 115-kV lines along a 0.23-mile UI right-of-way (ROW) that extends from the CTDOT corridor to UI's Ash Creek Substation and will connect the rebuilt 115-kV lines to UI's Ash Creek, Resco, Pequonnock, and Congress Street substations, all in Bridgeport.

The proposal is part of UI's long-term plan for relocating its electric transmission facilities off the railroad catenary structures along the CTDOT corridor in Fairfield and New Haven counties and is consistent with recent Federal commitments to modernize the nation's power grid to facilitate the transmission and delivery of clean and resilient energy to consumers.

Upon review of Application Section 2.1 *Proposed 115-kV Transmission Line Rebuild Facilities,* CTDOT concurs with the proposal to remove the existing 115-kV lines from the bonnets on top

of both the north and south railroad catenary columns as well as the removal of the abandoned bonnets from the catenary structures.

With regard to other modifications to the transmission line that UI is proposing such as the installation of new monopoles as outlined in Tables 2-2 and 2-3, CTDOT offers the following comments:

As a general comment, CTDOT is currently engaged in several efforts to improve customer experience through shorter trip times, enhancing station amenities, and improved service along the entire New Haven Line. Part of this effort requires increasing train speeds and will require us to add catenary structures, track sidings, additional bridge spans and wayside equipment to support this high-speed rail initiative.

PROPOSED 115-kV STRUCTURES

The Application indicates a total of 102 new 115-kV monopole structures are being proposed. Of the 102 new monopoles, 98 will be located along the CTDOT corridor: 63 single-circuit monopoles in Fairfield and 35 new monopoles in Bridgeport (21 double-circuit and 14 single-circuit). Along the 0.23-mile UI ROW to Ash Creek Substation, two new single-circuit monopoles will be located in Fairfield and two will be located in Bridgeport.

The State takes no objection to this proposal and while the Application mentions the offsets of these new monopole will average 25 feet from the existing catenary portals, the State would recommend UI look to move the transmission lines to the maximum extent possible to the railroad ROW line. Jumping to Application Section 9.3 *Overhead Transmission Line Rebuild Alternatives*, the CTDOT concurs with the selection of a hybrid alternative of Alternative 1 and 2 as the preferred solution because of system concerns under certain operating conditions causing issues on the cables out of the New Pequonnock Substation and agrees that Alternatives 3 and 4 should not be undertaken.

Application Section 9.3.1 *Alternatives 3 and 4: Eliminated from Consideration,* considered "extensive structural modifications to upgrade the existing railroad catenary structures" but were ultimately eliminated and CTDOT concurs with that determination dues to inconsistencies with CTDOT and UI objectives, as well as the significant cost and constructability issues. Compared to Alternatives 1 and 2, either of these options would involve significantly higher costs (on a 200% order-of-magnitude), as well as an extensive construction program, which would have to be scheduled and coordinated with CTDOT / Metro-North Railroad (MNR).

Moreover, maintaining the 115-kV lines on the railroad catenary structures would be inconsistent with CTDOT's current plans to improve railroad service and would continue to hamper CTDOT's maintenance of its railroad lines and equipment, which requires coordination with UI for transmission line outages. Likewise, maintaining the 115-kV lines on the catenary structures affects UI's line maintenance, which requires coordination with CTDOT to assure that the work does not interfere with rail operations.

The recommended aerial rebuild of Alternative 1 & 2 (Hybrid) solution addresses many of the comments that follow:

Under Section 2.2 *Land Requirements,* outlines the proposal to favor the north side of the railroad, having the most available free space and distance from existing catenary. There is no objection from the Department and as noted above, we encourage designing the transmission alignments to the maximum extent possible to the railroad ROW line or on private property altogether such that the CTDOT maintains property for expansion and placement of wayside equipment. The Application mentions, property is less available on the south side of the railroad and CTDOT agrees. The Application contains references to several private easements that UI would need to obtain under the proposal and as mentioned previously, we encourage that to afford CTDOT, the maximum flexibility with our service improvement designs.

Under Section 2.3.2 *Proposed Overhead Line Design, Appearance and Height,* CTDOT comments that the planned high-speed upgrades to the railroad will require the addition of new catenary portals. Current tangent line spacing between portals is approximately 300 feet, the future configuration will require a portal every 150 feet to support higher speeds. This means the mid-points for the new spans will be 75' from the cantenary structures. Since we do not yet have a design for new portal locations, use 75' from existing catenary structures. UI should anticipate that coming change for any of the rebuild alternative that remains in-line with the current catenary columns.

Under Section 3.6.5 *Blasting*, the State and Railroad typically do not allow blasting of any kind be performed within the railroad ROW. All means of mechanical rock removal shall be explored and utilized first before considering the blasting method. Should blasting become the only method to remove ledge or obstructions, UI is to immediately contact CTDOT and MNR for additional guidance and securing approvals before any blasting is permitted.

Under Section 3.8 *Operation and Maintenance Procedures,* UI shall design the rebuild of the 115kV system such that there is sufficient separation from the State's Overhead Catenary System (OCS) and any wayside infrastructure to afford MNR the ablility to access those systems freely and without the need to request outages of UI's transmission lines, to the maximum extent possible.

FACILITIES TO BE MODIFIED

There is no objection to the removal of UI's lines from the existing catenary structure, in fact, CTDOT would prefer that, as it aids in our maintenance of the traction power system and wayside equipment, by not having to request UI transmission line outages.

Under no circumstance are the railroad's traction power feeders to be left without protection from the static wire during the UI rebuild.

Any general comments related to all sections of the Application dealing with wetlands, flood plains, sedimentation controls, groundwater resources, biologic resources etc. are deferred to DEEP for their review and comment. Another general comment related to the placement of off-

set transmission structures is that no structure shall be placed with an existing drainage swale carrying stormwater run-off from the MNR railbed. Many items such as this have been reviewed as outlined under Section 6.9.2 *CTDOT and MNR* as part of on-going reviews and coordination meetings.

Lastly, the New Haven Line corridor is one of the busiest railroads in the nation and CTDOT supports and encourages our utility partners when undertaking such a proposal as this. We envision this will lessen future impacts on railroad operations as we both go about the business of maintaining and improving the service to our respective customers.

This memorandum is based on the 70% design comments.

Sincerely,

Garrett T. Eucalitto
Commissioner

cc: Correne Auer (c.auer@uinet.com)