



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

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Petition No. 290  
United Illuminating Company  
Railroad Transmission Line Reconductoring  
September 9, 1992  
Staff Report

On August 24, 1992, the United Illuminating Company (UI) requested a determination that no Certificate of Environmental Compatibility and Public Need is required for reconductoring and reinsulating approximately 1.4 miles of the existing 115kV double circuit overhead transmission line extending along the Northeast Railroad Corridor from UI's Milvon Substation in Milford, Connecticut, to UI's Devon Tie Substation in Milford. In addition, the existing shield wire on the north side of the railroad right-of-way (ROW) would be replaced from Devon Tie Substation through Milvon Substation to Woodmont Substation in Milford.

On September 8, 1992, Council members Mortimer A. Gelston, Chairman, and William H. Smith, and Thomas E. Fanning, Jr., staff of the Council met Robert Silvestri and Gary Dooley, representatives of UI, at the site of the proposed project.

UI proposes to replace three existing 795 kcmil aluminum conductor steel reinforced (ACSR) conductors on each side of the railroad with three 1272 kcmil steel supported aluminum conductors (SSAC) and reinsulate each conductor support with horizontal vee porcelain insulator assemblies. The new insulator assemblies would replace the existing steel cross arms. The proposed conductors would be attached about 10 inches closer to the catenary structures for increased safety clearances above the railroad distribution conductors.

Some existing bonnets would require additional reinforcement, and four bonnets would be replaced by similar sized higher strength steel bonnets. No catenary structure would increase in overall height.

In addition, one existing 4/0 stranded copper static wire, on the north side of the railroad ROW, would be replaced by a 0.63-inch diameter, optical fiber ground wire (OPGW) from the Devon Tie facility, through Milvon Substation to Woodmont Substation in Milford, a total distance of approximately 5.7 miles. The OPGW cable would connect to the OPGW system extending from Woodmont Substation to Water Street Substation in New Haven previously Certificated by the Council (Docket 149).

In-kind replacements of switches, buswork, and conductor cables would be constructed at Devon Tie Substation and would not increase the volume of insulating oil present within the substation.

All reconstruction activities would be located within the existing ROW's and on existing structures. Environmentally sensitive areas, such as wetlands and water crossings, have been identified and would be protected from construction activities.

Construction activities would be staged so that work would progress on one side of the railroad at a time to avoid simultaneous outages of the transmission lines. Construction would begin in November 1993, and be completed in approximately eight months.

UI maintains that contingency planning load growth forecasts indicate the existing Milvon to Devon Tie circuits could overload as early as 1995 in either of two overlapping situations: one, the loss of the Grand Avenue Substation to Allings Crossing Substation transmission line when Bridgeport Harbor Unit No. 3 is off-line, and the other, the simultaneous loss of the Millstone Substation to Southington Substation and the Haddam Neck Substation to Southington Substation circuits. The proposed reconductoring would prevent overloading the Milvon Substation to Devon Tie circuits. UI stated that the Milvon to Devon circuits have not overloaded to date from the contingency situations described in the petition.

The cost to construct the proposed project is estimated at \$3.1 million.

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