



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

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Petition 234  
Northeast Utilities  
Transmission Line Tap  
June 5, 1989

Northeast Utilities (NU) is requesting a determination from the Council that a proposed 115-kV underground electric transmission line interconnecting the Hartford Steam Company Cogeneration Project and Connecticut Light and Power's (CL&P) existing South Meadow to Southwest Hartford underground 115-kV line, is a "Transmission Line Tap," as defined by Connecticut General Statutes (CGS), Section 16-50i(e). NU contends that such a ruling would mean that CL&P would not be required to submit a formal application for a Certificate of Environmental Compatibility and Public Need for the construction of the proposed transmission line pursuant to Public Act 89-61.

Public Act 89-61 allows the Council the discretion to exempt "Transmission Line Taps" from the Certification process. Pursuant to Public Act 89-61, an electric transmission line of a design capacity of sixty-nine kilovolts or more, including associated equipment but not including a transmission line tap, is defined as a facility. A transmission line tap is "an electrical transmission line not requested by an applicant to be treated as a facility that has the primary function, as determined by the Council, of interconnecting a private power producing or cogeneration facility to the electrical power grid serving the State, and does not have a substantial adverse environmental effect, as determined by the Council based on a review of the line's proposed purpose, the line's proposed length, the number and type of support structures, the number of manholes required for the proposed line, the necessity of entering a right-of-way including any easements or land acquisition for any construction or maintenance on the proposed line, and any other environmental, health or public safety factor considered relevant by the Council."

On February 19, 1988, the Council issued a Certificate of Environmental Compatibility and Public Need for O'Brien Energy Systems, Inc. (O'Brien) to construct a 54 MW cogeneration facility in Hartford, Connecticut. The proposed transmission line would interconnect the facility to CL&P's existing transmission grid. Without the proposed line, the cogeneration project could not transmit the electricity it produces to the grid.

On June 2, 1989, Harry Covey and Robert Pulito, of the Council, and Thomas E. Fanning, Jr. staff member of the Council, met with Michael Carlson, of NU; Michael Fox and Gregory O'Brien, of O'Brien Energy Systems; James Simmonds and Jean Kirschhoffer, of UTEC Constructors, Inc.; Anthony Mirabella, of Hartford Steam Company; and Daniel Nugent, of Energy Networks, Inc., on the site of the proposed project.

The proposed underground electric line would be 115-kV and would be approximately 3200 feet long. It would proceed from the O'Brien facility at 60 Columbus Boulevard, through Hartford city streets and sidewalks to interconnect with CL&P's existing 115-kV underground line at Stonington Street. A portion of the line, crossing the Whitehead Highway, would be installed within the understructure of the Commerce Street Bridge in such a manner that the line would not be exposed to damage by traffic. An existing conduit attached to the supporting beams would be removed from the underside of the bridge. A new sleeve and conduit would be inserted in its place and conductors threaded through the conduit.

The proposed underground transmission line would be a high pressure, oil-filled pipe-type cable system installed in a two-foot wide by five-foot deep trench. The conductor would consist of three, 750 kcmil aluminum or copper cables encased in 6 inch diameter, cathodically protected steel pipe. The 40-foot long pipe sections would be laid on six inches of compacted sand, welded, and pressure tested. The trench would be backfilled and compacted. A concrete manhole for splicing cable, measuring 22 feet by 8 feet by 9 feet, would be cast in Stonington Street. A second manhole, if required, would be installed approximately mid-way along the route for cable pulling and splicing. There would be no overhead support structures, except for the potheads and riser tubes located where the line exits the ground at the O'Brien Project.

Following the installation of the pipe and manholes, and the backfilling of the trench, the cables would be pulled through the pipe. Splices would be made, the pipe filled with insulating fluid, pressurized, and tested. The insulating fluid would contain no PCB's and is not classified by the United States Department of Transportation as a hazardous material. Excavated materials would be removed from the site and disposed in an approved area.

All construction activities, restoration of disturbed areas, mitigating actions, safety procedures, and traffic control would follow City of Hartford Department of Public Works Rules and Specifications Regulating Street Excavations. Construction would occur weekdays during day-time hours. Unspecified circumstances may require construction activities on weekends and other than normal working hours.

Construction would commence by June 1989 and be totally completed by November 1989.

Because the line would be undergrounded in Hartford's streets and sidewalks, NU contends the effects would be temporary and minimal on land use. Existing uses along the proposed route include commercial/industrial, medium residential, open space, and institutional.

No new right-of-way would be acquired by CL&P except where the proposed line proceeds through Connecticut Natural Gas Corporation and Hartford Steam Company properties, pursuant to O'Brien's long-term lease. No existing right-of-way would be widened or cleared. No other utilities existing facility would be removed.

Prior to construction, CL&P would petition the Department of Public Utility Control for approval of the method and manner of construction. All approvals from the City of Hartford, the Metropolitan District Commission and other utilities would be obtained prior to construction.

The Petition Review Team recommends that the project personnel closely coordinate the construction design with the other utilities serving the area, particularly the Metropolitan District Commission and the Connecticut Gas Company. Of particular interest, is the proposed route along Norwich Street where the proposed pipe cable would run parallel to and among gas lines and other utility lines. NU should evaluate the feasibility of routing the pipe cable on the west side of Norwich Street or closer to the middle of the street so as to avoid, as much as possible, these old utility lines.

Additionally, increased safety would be achieved if the new sleeve and conduit could be installed at a higher location on the Commerce Street Bridge.

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The Department of Environmental Protection (DEP) states the proposed transmission line siting would not pose a significant or adverse impact on wildlife. In addition DEP states that there are no known endangered or threatened species at or adjacent to the site.

The State Historic Preservation Office indicates the line would have no effect on historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places. However the State Historic Preservation Office did recommend that the responsible agency provide concerned citizens with the opportunity to review and comment upon the project in accordance with the National Historic Preservation Act of 1966.

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Siting Analyst

TEF/cp

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