



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

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PETITION NO. 238  
Norwalk Substation  
Norwalk, Connecticut  
Transmission Support Equipment  
October 3, 1989

Northeast Utilities (NU) is requesting a determination from the Council that no Certificate of Environmental Compatibility and Public Need is required for the addition of a capacitor bank and associated transmission support equipment within its existing 115-kV substation in Norwalk, Connecticut.

On September 27, 1989, William H. Smith and Robert A. Pulito from the Council, and Thomas E. Fanning, Jr., staff of the Council, met with Robert Charpentier and Charles Ponte of the Connecticut Light and Power Company (CL&P) on the site of the proposed additions.

The Norwalk Substation is a terminal for five 115-kV transmission lines and acts as a major switching facility. It also serves to step down line voltage to local distribution feeders. The proposed construction would include:

- a. Installation of one 115-kV, 75.6 MVAR capacitor bank;
- b. Installation of one circuit breaker;
- c. Installation of three current-limiting reactors;
- d. Installation of two circuit switchers;
- e. Installation of one disconnect switch;
- f. Installation of associated protective relay and control equipment in an existing relay and control enclosure; and
- g. Expansion of the existing substation's fence with associated grading.

NU states that the proposed additions are needed to support proper voltage to the transmission system in the area due to the lack of sufficient generation in Southwest Connecticut.

The substation is located to the east and adjacent to the Norwalk River. It is screened from the south by established evergreen plantings. From the west, a wooded area provides screening from nearby residences. CL&P's transmission line right-of-way extends northward from the substation. Current elevated highway construction for a new Route 7 extends along the east side of the substation and screens the substation from that direction.

The new equipment would be entirely contained within the existing substation property and would blend into the general appearance of the station. The tallest new structure would not exceed 25 feet high and would be placed adjacent to existing structures of the same or greater height.

The proposed additions are located approximately 100 to 200 feet east of the Norwalk River and would be entirely contained within a 100-year flood zone. Approximately 50% of the proposed additions would fall within the floodway but would not create any rise in water surface elevation.

Clearing of the project area would be necessary since the construction area is presently covered by scattered low shrubs and several aspen trees. Some grading would be needed to improve drainage from the site towards the north and away from the Norwalk River. Erosion and sediment control would be attained through the use of straw bale dikes emplaced around the proposed project area prior to construction, in accordance with a City of Norwalk Conservation Commission directive. The dikes would be constructed in accordance with Connecticut Guidelines for Soil Erosion and Sediment Control.

The existing crushed stone surface of the substation is approximately five feet above grade and would be extended northward to accommodate the new equipment. These units would be placed on concrete pads and elevated above the 100-year flood level. No sumps would be necessary for the proposed additional equipment.

Approximately 305 linear feet would be added to the existing fenceline, which would be moved outward approximately 140 feet and configured to avoid the wetlands area.

NU contracted a certified soil scientist to provide an analysis of the project area and make specific recommendations regarding construction activities.

NU states no sound-level increases would result from the new additions, no television or radio interference would be created, and the capacitor's insulating fluid would contain no PCB's.

The City of Norwalk's Department of Public Works and Conservation Commission approved the construction of the proposed additions.

Construction would begin following Council approval and would be completed during the summer of 1990.

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Under Section 16-50k of the Connecticut General Statutes, NU contends that the proposed additions would not have a substantial environmental effect, and therefore would not require a Certificate of Environmental Compatibility and Public Need.

Thomas E. Fanning, Jr.  
Siting Analyst

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