



STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

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Petition No. 268
Northeast Utilities
Tomac Substation
Greenwich, Connecticut
April 18, 1991

On April 11, 1991, Chairperson Gloria Dibble Pond and William H. Smith of the Siting Council and Robert K. Erling of the Council Staff met George W. Becker and Aaron Goucher of Northeast Utilities for a field review of this petition in Greenwich, Connecticut.

Northeast Utilities (NU) is petitioning the Council for a determination that no Certificate of Environmental Compatibility and Public Need would be required for proposed modifications to the Tomac Substation in Greenwich. Under the definitions in Connecticut General Statutes (CGS) Section 16-50i, the Tomac Substation is not now considered a facility because the highest operating voltage of the existing equipment at this Substation is 13.2-kV. The additions NU is proposing would be operated at 115-kV, and the Substation would then become a facility under CGS Section 16-50i.

The proposed additions would replace most of the existing substation facilities except the 4.8-kV metalclad switchgear and 4.8-kV feeders. All additions would be within the existing fenced area of the substation, except for a proposed 115-kV transmission line connection and a new driveway spur for emergency transformer access.

The first two phases of the proposed additions to the Tomac Substation would be as follows:

- o installation of one 47 MVA, 115 to 27.6-kV power transformer and foundation, (now expected to be installed in June 1992, at the earliest);
- o installation of one 6.25-MVA, 27.6- to 4.8-kV power transformer (to begin March 1992); and
- o installation of a driveway spur and new 14-foot gate, installation of 27.6-kV feeder gateway cable and underground conduits, removal of existing enclosure and one 4.8-kV overhead feeder exit (to begin March 1992).

The final phase of the project to begin in June 1992, would include the following:

- o removal of the existing 13.2 - to 4.8 kV Substation equipment except for the 4.8 kV metalclad switchgear;
- o installation of one 115-kV terminal structure;
- o installation of two 115-kV circuit switches;
- o installation of a 27.6-kV open bus structure with two 27.6-kV feeder positions;
- o installation of a 12-foot by 24-foot relay and control structure;
- o installation of a 115-kV steel pole structure to be no taller than 95 feet; and
- o installation of 1272 kcmil ACSR phase conductors and a shield wire between a new steel pole and the 115-kV terminal structure.

The new steel pole structure would be located about 50 feet outside the fenced area of the substation, but still on NU property. This structure would be about 50 feet south of an existing 95-foot steel pole structure which is adjacent to the Connecticut Department of Transportation (DOT) railroad tracks. The new steel pole would be within an area designated as inland wetlands by the Town of Greenwich. In a letter to NU dated January 21, 1991, the Town of Greenwich Inland Wetlands and Watercourses Agency stated that the installation of the new pole would not have a significant impact on the inland wetlands involved.

The substation is screened on its Tomac Avenue entrance by a stand of eastern hemlocks. These hemlocks have been attacked by hemlock adelgids, and these trees are expected to die shortly as a result of these insects. NU is proposing to plant additional trees for screening in this area, particularly eastern white pine, which are not susceptible to the adelgids.

The installation of the two power transformers would not increase the sound levels along the property line to a level greater than that experienced at this time. The oil to be used in the transformers would be non-PCB as defined by the U.S. Environmental Protection Agency. Sumps would be provided around each transformer to contain any spilled transformer oil.

The Tomac Substation is bordered on its southern, western, and eastern sides by the Innis Arden Golf Club. To the north lies the DOT railroad corridor beyond which are a group of new office buildings. The screening provided by the existing trees bordering the substation and the embankment of the railroad corridor to the north would mitigate the visibility of the highest new substation structure, which would be about 27 feet higher than the existing substation equipment. No nearby homes were visible from the substation.

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