



# STATE OF CONNECTICUT

## CONNECTICUT SITING COUNCIL

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Petition No. 303 - Staff Report  
Northeast Utilities Service Company  
Insulation Configuration Modification  
Middlebury, Connecticut  
May 6, 1993

On April 26, 1993, NU submitted a petition to the Council for a declaratory ruling that the proposed changes to insulation configurations at four pole locations between Baldwin Junction and Stevenson Substation 115-kV line in the Town of Middlebury, Connecticut, would not require a Certificate of Environmental Compatibility and Public Need.

On April 30, 1993, Mortimer A. Gelston, Chairman of the Connecticut Siting Council (Council) and Fred Cunliffe of the Council staff met Joe Russo, Jr., and Ed Witkovic of Northeast Utilities (NU) for a field review of this Petition. The proposed project consists of converting four double circuit steel towers along circuit no. 1990 from suspension (vertical) insulation configuration to strain (horizontal) insulation configuration.

Presently, the 1990 line section from Frost Bridge Substation to Baldwin Junction has a summer emergency rating of 1,440 amperes (amps), and the section from Baldwin Junction to Stevenson Substation has a summer rating of 1,190 amps. A planning contingency loss of the Long Mountain to Plumtree 345-kV line and the Frostbridge to Carmel Hill 115-kV line at the 1993 summer peak load would cause flows of 1,360 amps on the Baldwin Junction to Stevenson section of the 1990 line, well above the present emergency ratings. To meet this planning contingency load loss parameter, NU proposes to raise the conductor at three spans between Baldwin Junction and Stevenson Substation. The proposed conversion would raise the conductor height approximately five feet at the structure and approximately two to four feet at the span. This adjusted height in the conductor would allow for a full high temperature emergency operation of 266 degrees, matching that of the Frostbridge to Baldwin line section.