

**STATE OF CONNECTICUT
DEPARTMENT OF TRANSPORTATION**

subject: Proposed 345kV Transmission Line
Facility between Middletown and
Norwalk, Connecticut by Northeast Utilities
(NU) and United Illuminating (UI).
Connecticut Siting Council - Docket 272

Date: April 16, 2004

Testimony of Harry Harris

Bureau Chief

Bureau of Public Transportation

Connecticut Department of Transportation

The Connecticut Siting Council requested input from the Connecticut Department of Transportation on the feasibility of installing the proposed 345 kV transmission line project between Middletown and Norwalk, Connecticut by Northeast Utilities (NU) and United Illuminating (UI), as contained described in Connecticut Siting Council (CSC) Docket 272 Applicant's Volume 1, Section H.3.2 *Railroad Alternatives*.

Upon review of Section H.3.2 *Railroad Alternatives*, I concur with the recommendation made by the utility companies that aerial &/or underground installation is not feasible. I offer the following comments:

UNDERGROUND INSTALLATION

- Along the New Haven Main Line from New Haven to Greenwich, no longitudinal utility occupations are permitted by direct burial. Only transverse crossings of utilities are allowed by direct burial. The railroad dates back to the mid-1800's and Call Before You Dig (CBYD) is not applicable. There are numerous facilities within the right of way (both railroad and private) which would either interfere with or be damaged by the transmission proposal.
- The ROW area needed to accommodate 345kV would presumably necessitate burial below railroad tracks. This obviously would be very disruptive to normal railroad operations both during and after any proposed construction. Any repairs, even preventive in nature could potentially force shutdown of the railroad.
- With hundreds of bridges and elevated sections of rail ROW, direct burial would not be cost effective.
- Assuming that the rail corridor is wide enough to accommodate 345kV by direct burial, regular operation of the New Haven Line would be severely impacted during construction.
- There are a number of wetland locations along the railroad corridor that would prohibit or severely restrict direct burial.

AERIAL INSTALLATION

- The railroad presently supports 115kV lines on catenary structures approximately 30' in height. Separate utility towers align the wire 60'-70' in height. 345kV would require independent towers of 105', at minimum as the "blowout" area is greater. This factor would most likely violate zoning regulations throughout the New Haven Line service area. Catenaries cannot accept the weigh 345kV would present.
- Potential inductive interference with railroad signalization and communication systems could be prohibitively expensive to eliminate.
- Existing and newly built catenary structures are not designed to carry the weight of 345kV. It is noted by the utilities (in the docket) that foundations could be greatly undermined.

- New utility structures (i.e. foundations) would impact railroad specific drainage lines and facilities.
- The aforementioned “blowout” area would require an additional 40’-45’ ROW width – amounts that are generally not available in the corridor. This could require a significant amount of taking of adjacent properties by the utility companies.

In general, the rail corridor is too narrow and existing facilities are undersized to accommodate a 345kV transmission system either by direct burial or via aerial alignment. Significant impact to regular railroad operations is envisioned (aside from expensive upgrades and modifications) should the decision be made to utilize the ROW for this initiative.