STATE OF CONNECTICUT CONNECTICUT SITING COUNCIL

NORTHEAST UTILITIES SERVICE COMPANY APPLICATION TO THE CONNECTICUT SITING COUNCIL FOR A CERTIFICATE OF **ENVIRONMENTAL COMPATIBILITY** AND PUBLIC NEED ("CERTIFICATE") FOR THE CONSTRUCTION OF A **NEW 345-KV ELECTRIC TRANSMISSION** LINE FACILITY AND ASSOCIATED FACILITIES BETWEEN SCOVILL **ROCK SWITCHING STATION IN** MIDDLETOWN AND NORWALK SUBSTATION IN NORWALK, INCLUDING THE RECONSTRUCTION OF PORTIONS OF EXISTING 115-KV AND 345-KV ELECTRIC TRANSMISSION LINES. THE CONSTRUCTION OF BESECK SWITCHING STATION IN WALLINGFORD, EAST DEVON SUBSTATION IN MILFORD, AND SINGER SUBSTATION IN BRIDGEPORT, MODIFICATIONS AT SCOVILL ROCK SWITCHING STATION AND NORWALK SUBSTATION, AND THE **RECONFIGURATION OF CERTAIN INTERCONNECTIONS**

JULY 19, 2004

DOCKET NO. 272

COMMENTS OF EZRA ACADEMY, CONGREGATION B'NAI JACOB, THE JEWISH COMMUNITY CENTER OF GREATER NEW HAVEN AND THE JEWISH FEDERATION OF GREATER NEW HAVEN RE: UNDERGROUND <u>ROUTE</u>, <u>PARTIALLY OVERHEAD ROUTE AND ALL OVERHEAD ROUTE</u>

Ezra Academy, Congregation B'Nai Jacob, The Jewish Community Center of

Greater New Haven and the Jewish Federation of Greater New Haven (the

"Woodbridge Educational Organizations") submit the following comments in response to

the request of the Connecticut Siting Council for parties to provide input on preferred

underground routes, partial underground overhead routes, and all overhead routes.

1. East Shore route

The Woodbridge Educational Organizations fully support compliance with P.A. 04-246, An Act Concerning Electric Transmission Line Siting Criteria. That Act creates a statutory presumption in favor of underground high-powered transmission lines.

The Woodbridge Educational Organizations join with 16 municipalities (collectively the "Towns") in endorsing an "East Shore" route, which would serve the electrical needs of the region while minimizing environmental and health impacts, thereby meeting the goals of the new legislation as well as PUESA, <u>Conn. Gen. Stat.</u> §§ 16-50p, <u>et seq</u>. The definition of the East Shore route that is being endorsed is the route being studied by the Town of Woodbridge and described in the submission of the Town of Woodbridge dated July 19, 2004 (the "Town of Woodbridge Submission"). The Woodbridge Educational Organizations support the arguments with respect to the East Shore route in the Town of Woodbridge Submission.

2. <u>Woodbridge-only partial overhead, partial underground route</u>

The Woodbridge Educational Organizations prefer an East Shore route, as described above, as a reasonable regional solution. However, in the event that the Council does not certify this route, the Woodbridge Educational Organizations urge that the new line be sited partially underground in Woodbridge to avoid the B'Nai Jacob / Ezra Academy campus and the Jewish Community Center campus as well as the sensitive wetlands identified in the Town of Woodbridge Submission.

The Woodbridge Educational Organizations support the specific route that the Town of Woodbridge proposed for a Woodbridge - only partially overhead, partially underground route in a letter from the Town of Woodbridge to counsel for the applicants dated May 25, 2004. A copy of this letter, which has been entered into the record as a supplement to the Town of Woodbridge's municipal consultation comments, is attached to the Town of Woodbridge Submission as Exhibit A..

In addition to burying a portion of the new 345-kV line, the Woodbridge Educational Organizations also support the undergrounding of the existing 115-kV line along this route. The Applicants' recent EMF figures now show existing levels that are unacceptably high at the B'Nai Jacob / Ezra Academy campus and at The Jewish Community Center campus where children congregate for many hours a day, and often at times of peak load. The Woodbridge Educational Organizations stress that the risk to the health of the children that utilize its campuses far outweighs the relatively minimal effort involved in burying the existing 115-kV line -- as well as the new 345-kV line.

Although the Woodbridge Educational Organizations prefer the regional solution of an East Shore route, if that route is not approved, they believe that the partially underground route set forth above is absolutely necessary to protect the hundreds of children who would otherwise be exposed to the dangers of electromagnetic fields caused by a new overhead 345-kV line at the B'Nai Jacob / Ezra Academy campus and the Jewish Community Center campus.

3. <u>All overhead route</u>

The Woodbridge Educational Organizations appreciate this opportunity to respond to the Council's request for each party's preferred overhead configuration. However, the record has not yet been developed as to critical issues such as EMF mitigation techniques, and it is therefore impossible for the Woodbridge Educational Organizations to express preferences with any certainty at this time. For these reasons and notwithstanding this submission, the Woodbridge Educational Organizations explicitly reserve all of their legal and equitable rights in this proceeding, and suggest that all parties be afforded the opportunity to supplement this response at a future date, when the record is better developed.

However, in an effort to provide as much assistance to the Council as possible, the Woodbridge Educational Organizations have undertaken a thorough review of the Applicants' proposed overhead route and offer the following comments and concerns. These comments are being offered without prejudice and without taking into consideration the environmental impacts that the overhead construction would have, as detailed in the Town of Woodbridge Submission. These comments are also being offered without prejudice to any of the Woodbridge Educational Organizations' rights pursuant to P.A. 04-246, or to the Applicants' and Council's obligations under P.A. 04-246.

a. B'Nai Jacob / Ezra Academy

The B'Nai Jacob / Ezra Academy campus is located at 75 Rimmon Road. The Northern corner of Ezra Academy is <u>46 feet</u> from the edge of the right of way (with

sports fields, playgrounds and nature fields closer to the right of way or within the right of way), presenting a potentially intractable problem.

The Woodbridge Educational Organizations urge compliance with P.A. 04-246, which mandates buffer zones to protect schools from the hazards of EMF. As explained in the Woodbridge Educational Organizations' Memorandum to the Siting Council dated July 19, 2004, the appropriate buffer zone for the private school and licensed child day care facility located on the B'Nai Jacob / Ezra Academy campus, is 300 feet from the power lines to the closest school or day care facility as recommended by the Connecticut Department of Public Health. If that width of buffer is not possible, the minimum buffer permissible must be wide enough to reduce EMF to background levels (.6 mG).

To meet these standards, the overhead siting at B'Nai Jacob / Ezra Academy would have to involve a shifting of the right of way North, to create distance from the school. Although there is some room to shift away from the school and synagogue within the campus itself, the Woodbridge Educational Organizations suggest that the right of way should be designed to meet the 300 foot buffer. While there is no way to meet this buffer within the B'Nai Jacob / Ezra Academy property, if an overhead route were certified, the only way to maintain an adequate buffer would be to shift the right of way onto privately owned undeveloped land to the north of the B'Nai Jacob / Ezra Academy property. The existing right of way for the 115-kV lines already passes over this <u>undeveloped</u> land so an expansion of the right of way on this land to permit the 300 foot buffer zone would not significantly impact use of this undeveloped land. The

feasibility of using undeveloped land to permit a 300 foot buffer zone should be explored.

However, this may still not resolve the problem because there are homes to the West and Northwest of the B'Nai Jacob / Ezra Academy property, thereby limiting the ability to shift the right of way in those directions. If an overhead line is sited here, the Applicants will need to provide precise EMF calculations in each direction near the school and synagogue campus.

The record has not been developed on EMF mitigation techniques, and the Woodbridge Educational Organizations are therefore hesitant to begin to offer suggestions on the measures that the Council should require, other than avoidance. For example, it is not yet clear whether split phase design reduces EMF to a greater extent if the current 115-kV lines remain overhead. If not, the Woodbridge Educational Organizations certainly support burying the 115-kV lines to reduce EMF -- a measure which the utilities have demonstrated can be easily achieved without sacrificing reliability.

To the extent that split phase design is proven by the Applicants to be an acceptable measure to reduce EMF, the Woodbridge Educational Organizations believe split phasing should be ordered on or near the B'Nai Jacob / Ezra Academy campus as well as the exploration of the potential for EMF mitigation with higher towers to maximize reduction of EMF levels.

b. Jewish Community Center of Greater New Haven

The Jewish Community Center of Greater New Haven campus, situated at 360 Amity Road in Woodbridge, also presents a potentially intractable problem. As the record demonstrates, the right of way runs through the middle of the Center property. There are buildings on both sides of the right of way. To the East of the right of way is a playground that is used by both the licensed youth camp and the licensed child day care facility that operate at the Center. To the West of the right of way are an in-ground pool, a building and baseball fields which are used daily by the licensed youth camp. Despite ongoing discussions between the Applicants and the Center, there has not yet been a proposal that resolves the problem. The only alternate overhead routes the Applicants have presented to the Woodbridge Educational Organizations for the Center property (attached hereto as Exhibits A and B) are totally unacceptable, with one moving the power lines closer to the licensed youth camp pool and building and the other actually suggesting that the power lines be moved <u>over</u> the licensed youth camp pool. Clearly there is no way to relocate overhead transmission lines on the Center property so they are 300 feet from the licensed child day care facilities and the licensed youth camp facilities.

Under P.A. 04-246, the buffer zone must be at least as wide as the existing right of way. Therefore, a new 345-kV transmission line is <u>prohibited</u> from being sited within a right of way, where a structure such as the Jewish Community Center exists. Thus, there are two (2) possibilities if the line is to be certified: i) the line must be buried to avoid the Jewish Community Center campus, or ii) an alternative overhead route must be approved. The Woodbridge Educational Organizations respectfully state that

they have spent hours trying to locate an overhead alternative, but have been unable to do so.

The "Typical Cross Section" presented by the Applicants for a split phase 345-kV line design shows two towers, one 40 feet from the edge of the existing 165' right of way and the other 65' from the edge of the existing right of way. With such a design (even if shown to minimize EMF), one transmission line would be 85 feet from the licensed child day care facility and less than 65 feet from the licensed youth camp base camp, 100 feet from the camp's ball field and less than 200 feet from the camp pool and main building. Thus, no where near the necessary 300 foot buffer zone is possible on the Center property nor is a smaller buffer zone which is wide enough to reduce EMF to background levels (.6mG).

The transmission lines could be moved on the Center property 300 feet from the Jewish Community Center main building (housing the licensed child day care facility). However, this would put the transmission lines <u>over</u> the licensed youth camp – a situation even the Applicants have admitted (in meetings with the Woodbridge Educational Organizations) is unacceptable. The only way such a route could ever be considered is if the licensed youth camp and all its facilities (including the pool, building and athletic fields) were moved at the expense of the Applicants. CL&P owns undeveloped land contiguous to the Center property where the licensed youth camp could, in theory, be moved, but CL&P has refused to explore the feasibility or cost of such a solution.

If an overhead route over the Center property is considered (with moving of necessary facilities) and split phase design is proved by the Applicants to be an

acceptable measure to reduce EMF, the Woodbridge Educational Organizations believe split phasing should be ordered with respect to such overhead lines. The potential for EMF mitigation with towers higher than 85 feet should be explored at the Jewish Community Center, where children congregate on a daily basis, to maximize reduction of EMF levels.

The Woodbridge Educational Organizations also believe that the possibility of DC lines should be studied as a potential mechanism of reducing EMF levels, if an overhead line is approved.

Summary

In sum, the Woodbridge Educational Organizations clearly prefer an East Shore route as described in this memorandum, as the best regional solution. If an East Shore route is not certified, the Woodbridge Educational Organizations strongly believe that the Council should order the burying of the new 345-kV line, as well as the existing 115-kV line, beneath public roads as detailed in the Town of Woodbridge's partial overhead / partial underground proposal.

If the Applicants are able to meet their burden of proving that it is not possible to bury the new line, the Woodbridge Educational Organizations urge the establishment of meaningful buffer zones in accordance with P.A. 04-26, as well as EMF mitigation measures that are proven to work. At this juncture, the record is not yet developed on these mitigation measures, including split phase design, DC technology, and other techniques. Accordingly, the Woodbridge Educational Organizations respectfully

reserve the right to supplement this Memorandum at a later stage, to provide the

Council with assistance in its decision-making.

Respectfully submitted,

EZRA ACADEMY, CONGREGATION B'NAI JACOB, THE JEWISH COMMUNITY CENTER OF GREATER NEW HAVEN and THE JEWISH FEDERATION OF GREATER NEW HAVEN

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