STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

RE: JOINT APPLICATION OF THE CONNECTICUT LIGHT AND POWER COMPANY AND THE UNITED ILLUMINATING COMPANY FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR A 345-KV ELECTRIC TRANSMISSION LINE FACILITY AND ASSOCIATED FACILITIES BETWEEN SCOVILL ROCK SWITCHING STATION IN MIDDLETOWN AND NORWALK SUBSTATION IN NORWALK	:	DOCKET NO. 272
	:	MARCH 10, 2005

PROPOSED FINDINGS OF FACT

The Town of Middlefield respectfully submits the following proposed findings of fact in connection with the Siting Council's consideration of this docket.

I. PROPOSED SEGMENT 1 IS BEST LOCATION FOR NEEDED ROUTE

A. Northerly Route.

1. The route of the proposed line traveling from Oxbow Junction to the Proposed Besick Switching Station is the shortest, least expensive and most reliable route for the proposed 345-kV line in Segment 1. Per the testimony of Roger Zaklukiewicz, *et al.*, dated May 25, 2004, Applicant's Exhibit 90, a "Northerly Route" was examined by the Applicants and rejected.

2. The Northerly Route would require the location of four 345-kV circuits along a common right of way ("ROW") between Chestnut Junction and Black Pond Junction and between Black Pond Junction and the proposed

Besick Switching Station. Applicant's Exhibit 90, p. 14.

3. Use of the Northerly Route would raise reliability concerns should contingencies arise, as compared to the proposed route, where there is no present 345-kV circuit.

4. The Northerly Route is 50% longer than the proposed Segment 1. It would require the addition of up to 62 acres of land in a long line across the heart of Middlefield, or, alternatively, periods of outages as the existing towers are all removed and replaced.

5. The proposed route for Segment 1 does not require the taking of any additional land. It is less expensive, more reliable and takes no houses. Applicant's Exhibit 90, 15 - 17.

6. Roger Zaklukiewicz also testified on June 2, 2004, that there were inherent reliability concerns involved with placing all of the lines in one spot. Transcript, 6/2/04, p. 36.

7. In the event of a fire, a plane crash or terrorist event along the route, there was no possibility of losing all of the 345-kV lines running from east to west across the State. Transcript, 6/2/04, p. 33, 37 - 38. Examples given included a tanker fire on I-95 in 1995, which Richard Reed recalled (Transcript, 6/2/04, p. 242) and a Lifestar Helicopter crash in 1991, as recalled by Mr. Zaklukiewicz. Transcript, 6/2/04, pp. 242 - 243. These events removed two lines, 362 and 342. Transcript, 6/2/04, p. 242 - 243. Additionally, the testimony of Anne Bartosewicz was that the ISO required the Applicants to prepare for contingencies including the loss of

one route or facility. Transcript, 6/2/04, p. 26. The placement of another line along the existing three lines would not address this planning concern.

8. Mr. Zaklukiewicz testified that if all four 345-kV lines were lost simultaneously, due to an event along this stretch of the route, it would lead to a "load shedding situation". Transcript, 6/2/04, p. 36.

9. The Northerly Route was also not listed as an alternative during the Conn. Gen. Stats. § 16-50*l* process, as a result, the residents who live along side the route have never had the opportunity to comment on this proposal.

B. Other Above-Ground Alternatives.

1. By building optimized split-phased 115 kV lines through the Royal Oaks neighborhood, the existing EMF levels in this location could be reduced. See Testimony of John Prete and Anne Bartosewicz, February 1, 2005, p. 150.

2. The alternative of placing the 115-kV line along with the 345-kV line within the 125 right-of-way designated as the "Royal Oaks By-pass" is also feasible. Testimony of John Prete and Anne Bartosewicz, February 1, 2005. p. 157.

3. Through the use of shifting height and location of poles, all structures near the right-of-way along the Durham/Middlefield border could be exposed to 6 milligauss or less of EMF radiation. Testimony of Anne Bartosewicz, February 1, 2005. pp. 159 - 160.

II. BLACK POND JUNCTION IS NOT A SUITABLE ALTERNATIVE TO THE BESICK SWITCHING STATION

A. To meet the "best strong source" requirement for designing a transmission system, the Applicants considered supply options from outside the Southwest Connecticut ("SWCT") region, specifically Southington Substation, Frost Bridge Substation and the Middletown area. See Volume 1, Section G.4.1 of the Application.

B. Middletown was selected as the strongest source "because eastern Connecticut is rich in generation resources". Applicant's Exhibit 90, p. 18.

C. While both Besick and Black Pond Junction are electrically equivalent, the Besick site is superior for several reasons:

1. To use the Black Pond Junction would require use of the Northerly Route, which is undesirable for the reasons set forth above. Applicant's Exhibit 90, p. 18.

2. There is no land available at Black Pond Junction and presently owned by the Applicants to construct the switching station. There is plenty of available at the Besick site, as Northeast Utilities has owned 52 acres there for 40 years and is presently only using 5.4 acres on the site. Applicant's Exhibit 90, p. 18.

3. The terrain at Besick is more favorable to new construction than that at Black Pond. The terrain at Black Pond would require extensive earthwork, blasting, filling and cutting. Applicant's Exhibit 90, p. 19.

4. Access to the Black Pond Junction site is limited by Route 691 on the South side and by wetlands on the East and West. The only remaining access, from the North, may conflict with the police academy. The Besick site has no access issues. Applicant's Exhibit 90, p. 19.

5. The area around Black Pond Junction is zoned for rural residential use, while the Besick site is zoned for industrial use. Applicant's Exhibit 90, p. 19.

6. The Black Pond Junction site borders the Cockaponset State Forest and is located west of and in close proximity to Mt. Higby (a trap rock ridge and recreational area). A switching station at this location would be visible from the Mattabassett Trail located on the Cockaponset State Forest property, as well as from Mt. Higby and other vista locations along the ridge top. Applicant's Exhibit 90, p. 19.

III. UNDERGROUNDING OF THE 345-kV LINE CAN BE BROKEN UP

A. The consensus opinion of the experts used by the ROC Group and the State of Connecticut now appears to hover around forty-eight (48) circuit miles of underground cable. Testimony of both KEMA and the ROC experts on February 17, 2005 seems to support this result. Transcript, 2/17/05, Testimony of Johan Enslin, p. 20, 37. Testimony of Erich Gunther, 2/17/05, p. 79 - 80.

B. Both Richard Wakefield and Johan Enslin of KEMA testified that an additional five miles of undergrounding might be possible through the use of C-type filters. Transcript, 2/17/05, Testimony of Richard Wakefield, p. 25. Testimony of Johan Enslin, p. 17.

C. Both Richard Wakefield and Johan Enslin indicated that C-type filters had not been used specifically for TOV purposes to their knowledge. Transcript, 2/17/05, Testimony of Drs. Richard Wakefield and Johan Enslin, pp. 21 - 23.

D. Neither were willing to recommend that this Docket be the first to take that step. Transcript, 2/17/05. Testimony of Johan Enslin, p. 34. Testimony of Richard Wakefield, p. 50.

E. Both Richard Wakefield and Johan Enslin agreed with the ROC group proposal to test out this theory regarding C-type filters on a small scale within the system before attempting to use it on a wider scale. Transcript, 2/17/05. Testimony of Johan Enslin, p. 17. Testimony of Richard Wakefield, pp. 17 - 18.

F. Drs. Wakefield and Enslin agreed that the further apart segments of undergrounding of the 345-kV cable were placed, the fewer problems with harmonics and temporary over-voltages (TOVs) would be anticipated. Transcript, 2/17/05, pp. 28 - 29.

G. Roger Zaklukiewicz testified on February 17, 2005, that he opposed the "porpoising" of the line, with periods of undergrounding surrounded by above-ground 345 kV towers, due to considerations regarding the grounding of the XLPE cables. Transcript, 2/17/05, pp. 96 - 97.

H. It was Mr. Zaklukiewicz's testimony that the cable should be secured to a strong grounding source such as a substation. Transcript, 2/17/05, p. 97.

I. On January 11, 2005, however, Erich Gunther indicated he could not rule out splitting or moving the 24-four mile segment. Transcript, 1/11/05, pp. 62 - 63.

J. The only difficulty suggested by Mr. John Prete was that east of Devon there would be the requirement for three lines, and, therefore, the amount of miles underground would be reduced by a factor of 50% due to the need to split the linear miles three ways instead of two. Transcript, 1/11/05, p. 63.

K. There appears to be no technical reason that an underground cable cannot be placed between Oxbow Junction and the proposed Besick Switching Station.

RESPECTFULLY SUBMITTED,
TOWN OF MIDDLEFIELD

By _____

Eric Knapp, Esq.
Branse & Willis, LLC
41-C New London Turnpike
Glastonbury, CT 06033
Telephone: (860) 659-3735
Fax: (860) 659-9368
Juris Number: 418384

CERTIFICATION

I hereby certify that a copy of the foregoing was mailed, postage prepaid, to those listed on the attached Service List, this 10th day of March, 2005.

_____
Eric Knapp

G:\WP60\MDFLD\Docket 272 proposed findings of fact.wpd