STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

THE CONNECTICUT LIGHT AND POWER COMPANY AND THE UNITED ILLUMINATING COMPANY APPLICATION FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION OF A NEW 345-KV ELECTRIC TRANSMISSION LINE AND ASSOCIATED FACILITES BETWEEN THE SCOVILLE ROCK SWITCHING STATION IN MIDDLETOWN AND THE 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 WALLINFORD, 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	:	DOCKET NO. 272 MARCH 11, 2005

PROPOSED FINDINGS OF FACT OF THE TOWNS OF WOODBRIDGE, CHESHIRE, DURHAM, MILFORD AND WALLINGFORD

The Towns of Woodbridge, Cheshire, Durham, Milford and Wallingford (the "Towns") jointly submit the following proposed findings of fact in the above-captioned proceeding.[1]

P.A. 04-246

1. In enacting P.A. 04-246, the Legislature determined that high voltage overhead transmission lines pose a health concern.

[1] The undersigned has been authorized to file these proposed findings of fact jointly on behalf of the Towns.

2. The establishment of a meaningful buffer zone must be based on meaningful criteria, premised on: (1) EMF exposures, erring on the side of caution because of the potential health impacts on children, and (2) projections of loading on the proposed overhead line for its operational life consistent with the Applicants' planning projections.

3 mG is the appropriate threshold exposure level

3. There is a statistically significant increased risk to children exposed to EMF levels between 2mG and 5mG. *Tr. 1-20-05 @ 150; Pre-filed Testimony of Drs. Bell, Rabinowitz and Gerber 1-12-05 @ 4*.

4. The increased risk between 2mG and 5mg is 30% and between 3mG and 5mg is 81%. Both are statistically significant. *Id.*

5. The NIEHS evaluation concludes that among some of the epidemiological studies there is a fairly consistent pattern that links EMF exposures above 3 mG with a small increased risk of leukemia in children. … *See State Agency Comments 1 (March 15, 2004)*

6. If homes, schools, or other places where people would spend significant amounts of time are located within 300 feet of power transmission lines, average EMF levels could exceed typical background levels. *See State Agency Comments 1 (March 15, 2004)* The 300 foot buffer appears in the Bonneville Power Authority 1994 Report. *Tr. 5-13-04 @ 70.*

7. Increasing the buffer zone to potential receptors is a guaranteed way to lower EMF exposure. *Tr. 6-17-04 @ 16.*

8. Given the suggestive positive findings for exposures above 3 or 4 mG in the Greenland and Albohm meta-analyses, the Connecticut Department of Public Health ("DPH") has found that prudent avoidance is warranted in the uncertain zone above 3 mG. *See CSC Ex. 6; Tr. 6-17-04 @ 13.*

9. Per DPH, background levels are mostly 3 mG or below. *Tr. 10-14-04 @ 127*.

10. DPH advises people to limit EMF exposures to background levels, if it is feasible and reasonable to do so. *Tr. 10-14-04 @ 187-88*.

11. DPH's definition of prudent avoidance does not include economics. *Tr. 10-14-04 @ 92*.

12. The prudent course of action is to create a buffer zone where EMF exposure levels at the edge of the buffer zone are no greater than 3mG.

EMF calculations should not be based on the 15 GW case

13. 15 GW represents "average" load, that was reached in 2002.

14. In 2002, 52 percent of the hours of the year -- over 4,000 hours -- were above the 15GW level. *Tr. 2-1-05 @ 231-32.*

15. In 2002, 4 percent of the hours of the year -- 349.44 hours --were at or above 20GW. *Tr. 9-29-04 @ 149.*

16. In 2002, approximately 263 hours were at or above 21GW. *See 9-27-04 Q-W-M-O -006.*

17. The Applicants' forecast for a 30GW case shows that 1,825 hours will be at 21GW or above. *Id.*

18. The Applicants estimate that peak load growth in SWCT could be as high as 2% per year over the next 10 years, assuming normal weather. *Response to Towns 02, 036 (h).*

19. For planning purposes, the Southwest Connecticut Working Group and the ROC committee used the 27.7 GW and 30 GW cases. *Tr. 9-29-04 @ 157.*

20. The reason for studying a 30 GW case was because "the ISO had indicated a desire to look a little bit longer and determine if this 345kV loop will last through a higher load level than what is projected to be in the late 2008, 2010 time period… You want to determine how long your solution is going to last." *Tr. 9-29-04 @ 159.*

21. The proposed transmission line will have a useful life of approximately 40 years. *Tr. 10-14-04 @ 240.*

22. Under average weather conditions, there is a 50/50 chance that the 27.7 GW peak could be hit within the next 5 years. *Tr. 2-1-05 @ 226-27.*

23. Under extreme conditions, the 27.7GW peak could be hit this year. *Tr. 9-29-05 @ 161.*

24. With respect to this line, the 27.7GW peak case represents 44 percent of normal ratings for the conductor being proposed for the overhead portion of the transmission line, and could be exceeded under contingency conditions under peak loads. *Tr. 2-1-05 @ 227; Response to Towns -02, 037.* Under normal conditions, pre-contingency, the different conductors on the lines could be loaded as high as 66.2 percent of their normal ratings. *Tr. 3-25-2004 @ 271.*

25. P.A. 04-246 requires that in certifying the overhead portion of the line, the Council must be consistent with its best management practices.

26. The Council's best management practices, if properly adopted, require the Applicants to calculate EMF levels at 70% of peak load. *Section II of new BMPs, "Pre and Post Construction MF Measurements."*

27. In 2002, 431 hours were above the 19.39 GW level (70% of 27.7 GW). *See 9-27-04 Q-W-M-O -006.*

28. Under the 90/10 case, a 30GW peak could be hit in 2013 (within the first 5-6 years that this line is in service). *Tr. 2-1-05 @ 233.*

29. In 2002, approximately 263 hours were at or above 21GW (70% of 30 GW). *See 9-27-04 Q-W-M-O -006.*

30. The Applicants provided no EMF calculations at 19.39GW (70% of 27.7GW).

31. The Applicants provided no EMF calculations at 21GW (70% of 30GW).

32. The 27.7GW peak case equates to an average New England system load of 16.8 GW. *Tr. 9-29-05 @ 161-62.*

33. The Applicants provided no EMF calculations at 16.8 GW.

34. The 30GW peak case equates to an average New England system load of 18.2 GW. *Response to W-M-O-006; Tr. 9-29-04 @ 162.*

35. The Applicants provided no EMF calculations at 18.2 GW.

Split phase design is not a proven method of mitigating EMF levels

36. There is no field data demonstrating the extent to which split phasing reduces EMF exposure levels. There is a lack of actual measurement data in the Record documenting the effectiveness of split phasing in lowering EMF. *CSC Ex. 6.*

37. The EMF calculations, including the accuracy of split phasing, are dependant on the validity of the input assumptions. The calculations will vary greatly depending on many factors, including load. *Tr. 5-13-04 @ 34.* The model is very sensitive to changes or errors in the input variables. *Tr. 5-13-04@ 59.*

38. Split phasing at 345kV has never been used as a mitigation measure for the purpose of reducing EMF exposure levels in the U.S. *Tr. 5-12-04 @ 50.*

39. The only instance of split phasing being employed to reduce EMF exposure levels is in connection with a 115kV transmission line in western New York. *See Applicants Ex. 139*.

Buffer zones in other states

40. The 1999 California Department of Health requires that the following setbacks be employed for schools near transmission lines: 100 feet for 50-133kV lines, 150 feet for 220-230kV lines and 350 feet for 500-550kV lines. *Bell et al Pre-Filed Testimony, 5-11-04 @ 2*.

41. Colorado defines prudent avoidance to include, among other options, the burial of lines, and limiting exposure to schools. *Id @ 3*.

42. Michigan requires set back to achieve 2mG for sites impacted by a high power transmission line. *Id. @ 4*.

43. The Tennessee Valley Authority states that a 300 foot buffer for homes and a 1,200 foot buffer for schools is desirable. *Bell et al Pre-Filed Testimony, 5-11-04 @ 4.*

Respectfully submitted,

TOWN OF WOODBRIDGE

By:_____

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