DOCKET NO. 7	:	
AN APPLICATION SUBMITTED BY NORTHEAST UTILITIES SERVICE COMPANY, AS AGENT FOR THE CONNECTICUT LIGHT AND POWER COMPANY, FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED WITH RESPECT TO A NEW 115 KV TRANSMISSION LINE ALONG A ROUTE THROUGH THE TOWNS OF MANSFIELD, WILLINGTON AND STAFFORD, WITH AN ALTERNATE ROUTE THROUGH THE TOWNS OF VERNON, ELLINGTON, TOLLAND AND STAFFORD	:	POWER FACILITY EVALUATION COUNCIL NOVEMBER 18, 1975

FINDINGS

1. The Connecticut Light and Power Company (CL&P), acting by its agent, the Northeast Utilities Service Company, in accordance with the provisions of 16-501 of the General Statutes of Connecticut, Revision of 1958, revised to 1975, as amended applied to the Power Facility Evaluation Council on November 20, 1974, for a certificate of environmental compatibility and public need for the construction of a double circuit 115 KV overhead electric transmission line between its existing Mansfield substation in the town of Storrs and a proposed new Blair substation to be constructed on Willington Avenue in the town of Stafford Springs. The fee prescribed in 16-50v-1(b) of the regulation of Connecticut State Agencies accompanied the application. (TR p. 14)

2. The application, which included a one volume report, was accompanied by proof of service as required by section 16-501(b) of said General Statutes of Connecticut. (TR p. 14)

3. Affidavits of newspaper notice as required by statute and section 16-501-1 of the regulations of Connecticut State Agencies were also filed with the application. (Record)

4. Pursuant to section 16-50m of said General Statutes of Connecticut, the Power Facility Evaluation Council, after giving due notice thereof, held a public hearing at the Willington Town Hall, Town of Willington on May 6, 7, 8, 13 and June 12, 1975. (Record)

5. The parties to the proceeding are the applicant, the Connecticut Light and Power Company and those other persons and organizations whose names are listed in the Decision and Order which accompanies these findings. (Record)

6. Upon receipt of the application the Council retained Mueller Engineering Corporation consulting engineers of West Hartford, Connecticut. The corporation studied the consequences of the proposed line on the environment and provided the Council with technical data pertaining to the routing of the line and overhead versus underground construction, as well as other information the council deemed necessary, pursuant to section 16-50n(c) of said General Statutes. (TR p. 786, Council Exhibit No. 2)

7. Several persons and agencies made a limited appearance pursuant to section 16-50j-15 of the Regulations of Connecticut State Agencies for the purpose of filing statements in writing, which statements were made a part of the Record. (Record)

8. On April 29, 1975, and October 1, 1975, members of the Council made a ground inspection of the proposed route and alternates for the proposed line. (Record)

9. The applicant proposes the construction of two 115 KV circuits suspended from a row of single column steel poles with upswept arms normally spaced about 600 feet apart and averaging about 87 feet in height, except that at some angles each circuit will be suspended from a separate wood or steel pole. The line will be constructed on an existing 150 foot wide right-of-way which extends 10.1 miles between the terminal points, about 60% of which is presently occupied by one of the two 27.6 KV subtransmission lines referred to in paragraph 11 below. (NUSCO's Exhibit No. A2, pp. 4, 7, 8, 9, 18, 40, 41, 42; TR p. 74, 86; TR p. 820, 821)

10. The proposed transmission line will supply the four town area of Ashford, Stafford, Union and Willington and easterly portions of the Towns of Ellington and Tolland. (NUSCO's Exhibit No. A2, p. 4; TR p. 21)

11. The area is presently served by two 27.6 KV subtransmission lines, one running from Mansfield Substation to Stafford and one running from

Rockville Substation to Stafford. Together the subtransmission lines serve five distribution substations from which primary distribution lines carry electric power to customers in the area. (NUSCO's Exhibit No. A2, p. 18; TR p. 61)

12. The maximum reliable capacity of the (existing) system is about 27 MVA. When the area load exceeds this level, a single contingency outage, which is the loss of any one particular facility, will result in a loss of load until the faulted facility can be repaired or replaced. (NUSCO's Exhibit No. A2, pp. 20-21; TR p. 61-62)

13. When peak loads exceed 27 MVA, the ability of the existing system to serve the area reliably will be exceeded. (TR p. 56)

14. Loads above 29 MVA on the existing system would overload the line even without a contingency. Such overloading could cause a major outage of service in the area. (NUSCO's Exhibit A2, p. 21; TR p. 65)

15. Peak loads in the area have increased from 11.0 MVA in 1965 to 19.8 MVA in 1974 at an average annual rate of 6.7 percent for the nine year period. A maximum peak of 22.6 MVA was attained in 1972. (NUSCO's Exhibit A2, p. 16; TR p. 24)

16. The annual peak loads for the area occur either in December or in January of the following year and have been recently reduced by the energy conservation measures initiated by consumers following the oil embargo of October 1973, the warmer than normal winters of 1973-1974 and 1974-1975, and the current recession which has affected the peak loads in the four town study area as well as the entire State of Connecticut. (TR p. 24)

17. It can reasonably be anticipated that the peak load will increase in the winter of 1975-1976, assuming normal weather and the abatement of the current recession. Future peak growth at an average annual rate of about 6.6 percent from the winter 1974 level of 19.8 MVA, to approximately 40 MVA in the winter of 1985, seem probable. (TR p. 24-27)

18. It can reasonably be anticipated that an annual growth rate in

electric sales of around 6.2 percent and in peak loads of around 6.6 percent will be realized over the next decade, not withstanding the impact of 1973 oil embargo and the higher cost of electricity. (TR p. 23, 634)

19. The actual growth rate of sales from 1955 to 1973 was 11.6 percent. The actual growth in peak loads was 9.0 percent. (TR p. 713)

20. The 1974-75 winter peak load of 19.8 MVA when adjusted to normal weather conditions would increase to 20.9 MVA. If adjusted to the cold weather conditions experienced in the winter of 1960-1961, this peak would be increased to 22.0 MVA. (TR p. 55)

21. A level of 27 MVA could be exceeded in 1978 assuming normal weather patterns. If weather trends are colder than normal, a level of 27 MVA could be exceeded as early as 1977. (NUSCO's Exhibit B1 - B10; TR pp. 57, 67)

22. Right-of-way clearing and construction must be commenced 18-24 months before the line is to be placed in service. Should it appear that the 27 MVA load level will not be reached as soon as expected, the applicant would adjust the scheduled in-service date to meet the revised forecast. (TR pp. 67-68)

23. Consumption of electrical energy by consumers in this area has grown rapidly from a level of 34,376 MWH in 1965 to 82,147 MWH in 1974. This represents an average annual rate of growth of 10.2 percent and is significantly higher than the average annual rate of growth of consumption by customers throughout the Northeast Utilities System which was approximately 6.9 percent for the same period. (TR p. 22)

24. The areas population grew from 12,757 persons in 1965 to an estimated 17,900 persons in 1974 representing an historic rate of growth of 3.8 percent annually. (TR p. 30)

25. It can reasonably be anticipated that a population growth rate of about 2.9 percent per year will occur between 1975-1984, for the area, yielding a population figure of around 24,530 in 1985. This is below the previously attained growth rate of 3.8 percent annually. (TR p. 30)

26. The number of residential customers can reasonably be expected to increase at an annual rate of about 3.5 percent per year from 1974-1985 reflecting a decrease in family size. From 1965-1974 the growth rate was 4.5 percent per year. (TR p. 32)

27. Commercial sales can reasonably be expected to grow at a rate of about 10.5 percent per year from 1974-1985, a lower rate than the actual growth rate of 13.4 percent per year from 1965-1974. (TR p. 43)

28. Industrial sales can reasonably be expected to increase about 3.8 percent per year from 1974-1985, a lower rate than the actual growth rate of 4.5 percent per year from 1965-1974. (TR p. 45)

29. The towns of Willington and Stafford are actively planning for industrial growth and have unoccupied land zoned for industry. (TR pp. 44-47)

30. The four town area has had in the past, and is likely during the next ten years to have, a higher rate of population increase than the state overall. (TR pp. 27-29)

31. The town of Willington, which did prohibit apartments, has recently changed the ordinance so that once again for the first time since 1972, apartments are now allowed although the land requirements per unit are greater at this time than they were in the past for such construction. (TR p. 517)

32. Stafford, in its 1972-1990 Plan of Development, anticipated an annual rate of population growth ranging from 2.3 percent to 3 percent in the 1970's and increasing during the 1980's to a rate of 3.5 percent to 4.0 percent. (TR p. 27)

33. In a 1970 planning report, Willington projected average annual population growth rates of 5 percent and 4 percent respectively in the 1970's and 1980's. However, between 1970 and 1974 the population of Stafford and Willington grew at annual rates of 3.1 percent and 6.3 percent respectively, exceeding the towns' own projections and contributing heavily to the overall 4.5 percent average annual growth rate experienced in the four town area. (TR pp. 27-28)

34. The size of the average family decreased from its 1965 level of 3.15 to its 1974 level of 2.97 and it is reasonable to expect a continued decline during the forecast period. For a given population, the number of residential customers increases as the number of persons in the family decreases. (TR p. 31)

35. At the proposed new Blair Substation the applicant would install two 47 MVA transformers with provision for a third transformer, to transform electric power from transmission voltages to a distribution voltage of 23 KV. (NUSCO's Exhibit No. A2, p. 23; TR p. 66)

36. As a result of the construction of the proposed transmission line and new Blair Substation the firm capability of the supply to the area would be increased from about 27 MVA to at least 63 MVA; the addition of a third transformer at Blair Substation would increase the firm capability to at least 126 MVA. (NUSCO's Exhibit No. A2, p. 23; TR p. 66)

37. The proposed transmission line would be operated initially at 69 KV, the voltage of the supply at Mansfield Substation; in the early 1980's, when the supply at Mansfield Substation is changed to 115 KV, the Mansfield-Blair Line would be operated at 115 KV. (NUSCO's Exhibit No. A2, pp. 21-23; TR pp. 64, 66, 217, 218)

38. Transmission at 115 KV is a standard of the electric utility industry. (TR p. 221)

39. The existing 27.6 KV subtransmission lines would, over a period of time, be changed to operate as 23 KV distribution feeders from the Blair Substation. (NUSCO's Exhibit No. A2, p. 21; TR pp. 65, 667, 668)

40. In the late 1970's a portion of the existing 27.6 KV subtransmission line in the northern part of Mansfield and southern part of Willington would be removed from the right-of-way. (NUSCO's Exhibit No. A2, pp. 21, 22; TR pp. 9, 852, 853)

41. The estimated cost, in 1978 dollars, of the proposed transmission line is $2,643,000, and the estimated cost of the new Blair Substation is $2,060,000, making a total estimated cost for the line and substation of about $4,703,000. (TR p. 68)

42. Expansion of the existing 27.6 KV subtransmission system could be carried out to increase the firm capability of the supply to the area. However, the total present worth cost of such a program would be about $10,400,000, or about 37% more than the total present worth cost of the proposed construction; it would eventually be necessary to build a 115 KV transmission line and to establish a new substation at Blair; and the continued use of the subtransmission system would result in much higher system losses. (TR pp. 68-70, 219, 672-674, 795)

43. Underground construction of the proposed circuits along the proposed route between Mansfield and Blair would cost about $10,100,000 or about $7,500,000 more than the cost of overhead construction; underground construction principally along town and state roads would cost about $10,870,000. (TR pp. 71, 78, 237)

44. The area between Mansfield Substation and Blair Substation includes four generally east-west highways (Routes 44A, 195, 44 and I-86) and two essentially north-south highways (Routes 32 and 320). The Willimantic River and the Central Vermont Railroad also run generally north-south in the westerly portion of the area; the applicant's existing 150 foot right-of-way runs generally north-south somewhat to their east; and the Fenton River runs generally north-south to the east of Route 320. (NUSCO's Exhibit No. A2, p. 30; TR p. 85)

45. The area is primarily rural with scattered settlements reflecting, in large measure, growth of the University of Connecticut. The area contains a number of scenic attractions, particularly the upper portion of the Willimantic River Valley, Hall's Pond and the Conat Brook Gorge. (NUSCO's Exhibit No. A2, pp. 31-34; TR p. 85)

46. Route 32 in the area is a part of the State's Charter Oak Trail and has been designated as suitable for scenic highway status. (NUSCO's Exhibit A2, p. 32)

47. From Mansfield Substation northerly to an angle north of Navratil Road near South Willington, a distance of 3.9 miles, the existing 27.6 KV subtransmission line to Stafford is located on the 150 foot wide

right-of-way, 25 feet west of its easterly edge, except at several locations where the line follows an older 50 foot wide right-of-way that departs from the 150 foot wide right-of-way, and the right-of-way has been cleared generally to a width of 50 feet from its easterly edge. Where the existing line is located on the 150 foot wide right-of-way the proposed transmission line would be located 35 feet to the west of the subtransmission line, and the existing clearing would need to be widened to a total of 100 feet from the easterly edge of the right-of-way. (NUSCO's Exhibit No. A2, pp. 39, 43-45; TR p. 88)

48. From the angle north of Navratil Road to a point about a mile south of Route I-86, a distance of 2.4 miles, the existing subtransmission line is located 25 feet east of the west edge of the 150 foot wide right-of-way, and the proposed transmission line would be constructed 35 feet to the east of the subtransmission line. The existing 50 foot cleared width would need to be widened to 100 feet from the westerly edge. (NUSCO's Exhibit No. A2, pp. 39, 43-45; TR pp. 88,89)

49. At a point about a mile south of Route I-86 the subtransmission line departs from the 150 foot wide right-of-way; from this point to Blair Substation, a distance of 3.8 miles, the existing right-of-way is unoccupied, and the proposed transmission line would be constructed 40 feet easterly of the westerly edge of the right-of-way, which would be cleared to a width of 80 feet from the westerly edge. (NUSCO's Exhibit No. A2, pp. 40, 43-45; TR p. 89)

50. Construction of the facility along the proposed route would have no significant effects upon existing or proposed land uses in the area, since it would only be necessary to acquire property for guying areas. (NUSCO's Exhibit No. A2, pp. 38, 39, 50-72; TR pp. 87, 88, 114)

51. Except at road crossings there would be very limited visibility of the proposed line because of the topography and vegetation along the proposed route and the generally sparse development of the area. (NUSCO's Exhibit No. A2, pp. 36-39, 50-73)

52. The wooded areas crossed by the proposed route are generally second growth forests consisting mostly of mixed hardwoods, with

occasional stands of white pine and intermixed hemlock, the hemlock being found primarily along the southern part of the route between Route 195 in Mansfield and South Willington. (NUSCO's Exhibit No. A2, p. 46; TR p. 85)

53. The total additional clearing required along the proposed route would be approximately 75 acres. (NUSCO's Exhibit No. A2, p. 46; TR p. 420)

54. Widening to 100 feet the existing clearing along the southerly portion of the proposed route and clearing the northerly portion to a width of 80 feet will encourage the growth of lower vegetation, which will provide food and shelter for wildlife. (NUSCO's Exhibit No. A2, p. 46; TR pp. 305, 368)

55. In limited areas clearing may require some songbirds to readjust to new nesting sites. (TR pp. 305, 332, 333)

56. The proposed route crosses generally flat or gentle terrain which will not require significant grading or filling for accessways to structures locations, and the surface and ground cover will remain essentially undisturbed except where access to structures locations must be provided. (NUSCO's Exhibit No. A2, p. 46; TR pp. 74, 75)

57. Accessways already exist along the southerly part of the proposed route occupied by the subtransmission line, and there should be little necessity to construct new accessways. (NUSCO's Exhibit No. A2, p. 46; TR p. 75)

58. Where new accessways are required, no preparation is necessary if the ground is sufficiently firm; otherwise gravel would be laid along the accessways only in sufficient quantities to support equipment; in wetter areas wood slabs or logs may be laid first and gravel placed on top, and these can be removed after line construction. (TR p. 75)

59. Wetland soils appear to exist for a total length of roughly 12,000 feet along the proposed route, or less than 25 percent of the distance between Mansfield and Blair. Accessways have already been established for about 9,000 feet of that distance, which is partly cleared and occupied by the subtransmission line. (NUSCO's Exhibit A2, p. 46; TR p. 90)

60. Access directly to structures locations can often be gained from adjoining property owners, thus avoiding the necessity of constructing accessways in wetlands. (TR pp. 503, 505)

61. When it is necessary to cross some of the narrow brooks which cut through the proposed route, trap rock or riprap would be placed in the streambeds in order to ford equipment and to reduce sedimentation and siltation downstream. (TR p. 76)

62. Erosion which could be associated with the construction and use of accessways would be controlled by the construction of accessways wherever possible along contours rather than on steeper slopes and by the use of water bars, woodchips, baled hay or other means to provide stabilization. (NUSCO's Exhibit No. A2, p. 46; TR p. 76)

63. Upon completion of construction there will be no remaining significant disturbance to the indigenous character of the land, other than the clearing of the taller vegetation and the existence of the supporting structures, and construction will not cause any alterations to, or obstructions of, water flows or add pollutants to any wetlands or water courses. (TR p. 75)

64. A portion of the proposed route passes through a mobile home park and across Route 44A; some of that area has been cleared by the owner of the mobile home park; the remainder would require widening of the existing 50 foot clearing to 100 feet. However, the crossing of Route 44A would be well screened from view and visibility of the mobile home park from Route 44A will not be significantly increased. (NUSCO's Exhibit No. A2, pp. 52, 53; TR p. 103)

65. Relocation of the existing subtransmission line through the mobile home park in order to reduce the required cleared width of right-of-way from 100 feet to 80 feet would require the relocation of two existing circuits to other locations, which would result in visual effects considerably greater than leaving them in the mobile home park. (TR pp. 853, 854)

66. The crossing of Route 195 will require a structure on the south side of the highway in an open area which is now cleared and filled and

becoming commercially developed. After construction planting can be carried out to soften the appearance of the structure if deemed necessary in the light of other then existing structures and development. (NUSCO's Exhibit No. A2, p. 52; TR pp. 854, 855, 857, 876, 877)

67. Removal in the late 1970's of the existing subtransmission line crossing Route 195 will reduce the visual effects at the crossing. (NUSCO Exhibit No. A2, pp. 21, 22; TR pp. 852, 853)

68. Where the proposed line passes through the Mansfield Heights Subdivision it would be necessary to clear about 50 feet of vegetation; however, about 50 feet of vegetation would be left to the west of the transmission line and between it and lots developed to the west. (NUSCO's Exhibit No. A2, p. 54; TR pp. 104, 105)

69. The proposed route does cross the Conat Brook Gorge northeasterly of Hall's Pond; however, visibility of the line to drivers on Route 32 about a mile to the southwest would be very limited or non-existent; visibility from the southerly portions of Hall's Pond would be limited to the upper 10 or 15 feet of one supporting structure, which will be approximately a mile distant and viewed against the background of hills. (NUSCO's Exhibit No. A2, p. 60; TR pp. 107, 108, 748, 749, 836, 837)

70. Although one structure would need to be erected in Conat Brook Gorge, the tower would be about 105 feet high and vegetation along Conat Brook would not have to be cleared. (NUSCO's Exhibit No. A2, pp. 60, 61; TR pp. 660-663)

71. The proposed route passes immediately to the west of thirteen houses which have been constructed along St. Moritz Circle, in Willington; however, construction of the transmission line 40 feet from the westerly edge of the pre-existing right-of-way will leave 70 feet of uncleared area between the line and the thirteen houses. (NUSCO's Exhibit No. A2, p. 68; TR p. 326)

72. Four supporting structures, single column double circuit poles, would be placed along the approximately 2000 feet of right-of-way in the vicinity of St. Moritz Circle, and the transmission line will

twice cross the brook which lies within the portion of the right-of-way to be cleared on the three lots of the development. (NUSCO's Exhibit No. A2, p. 79; TR pp. 274, 321, 396)

73. If the transmission line were constructed westerly of the proposed location, but on the St. Moritz Circle lots, construction would take place closer to the brook and the clearing of more vegetation along the brook would be necessary. (TR pp. 272, 273, 275, 278)

74. The relocation of the right-of-way to the rear 150 feet of the St. Moritz Circle lots would reduce the visual impact of the line for the majority of these property owners; however, it would require additional construction costs of approximately $80,000, and would necessitate the use of three angle structures. The acquisition of such a new right-of-way would require agreement by all the property owners and others with a legal interest in the properties, resulting in potentially substantial delays and expense. (TR p. 119)

75. The St. Moritz area property owners, who were represented by counsel, did not express an opinion on this particular relocation. (TR p. 562)

76. Relocation of the route easterly of Village Hill Road would require a longer route and would result in conflicts with existing and planned housing and recreational development which would be far greater than any along the proposed route. (NUSCO's Exhibit No. A2, p. 80)

77. A relocation westerly of the Willimantic River through the Towns of Tolland and Ellington would involve three to four miles of new right-of-way, two crossings of the Willimantic River, conflicts with planned developments in Tolland and incremental costs of from $500,000 to $600,000. (NUSCO's Exhibit No. A2, p. 80)

78. The Board of Selectment of the Town of Tolland has objected to the relocation of the route through that town. (Record)

79. A relocation to the west of Schofield Road would involve about 1.8 miles of new right-of-way and from $150,000 to $200,000 in incremental costs. In addition it would result in the line being closer to more

dwelling units than those on the St. Moritz Circle lots. (NUSCO's Exhibit No. A2, pp. 80, 81)

80. The cost of right-of-way acquisition to locate the proposed 115 KV line on the alternate route basically followed by the present 27 KV line would approximate $207,000. (TR p. 439)

81. The Willimantic River Valley northerly from Route I-86 to the Borough of Stafford Springs is a scenic and recreational area which has been classified on the land use policy plan of the State Plan of Conservation and Development as proposed permanently open space and recreation area and on the water use policy plan as a major recreation stream. (NUSCO's Exhibit No. A2, p. 32; TR pp. 336, 342, 659, 660)

82. In the area of the existing subtransmission line the river valley is relatively undeveloped except for Route 32 and a railroad track with communication lines. (TR pp. 280, 281, 659)

83. Construction of the proposed transmission line along the route of the subtransmission line in the Willimantic River Valley would result in visibility of the line southerly of Route I-86 to traffic on I-86; a crossing of Route I-86 at a location far more visible to traffic than is the proposed crossing location and at the location of a possible new interchange; the construction of the transmission line along the base of the hills to the west of the river; a substantial risk of erosion of the thin soils in the area; high visibility of the line to traffic traveling for several miles along Route 32; the probable necessity to relocate the existing subtranmission line to Route 32; and the probable necessity to remove trees adjacent to the river now screening the subtransmission line. (NUSCO's Exhibit No. A2, p. 80; TR pp. 118, 262, 264, 270, 271, 338, 339, 414-425, 427, 428, 658-660, 742-745)

84. Construction along the subtransmission route in the Willimantic River Valley would also entail unavoidable ecological impacts resulting from construction in shallow rocky soil on steep slopes and from the necessity to cut mature 80 year old hemlocks in a scenic and sensitive location. (TR. pp. 424, 425)

85. The incremental cost of construction along a Willimantic River route is estimated to be from $400,000 to $500,000. (NUSCO's Exhibit No. A2, p. 80; TR p. 450)

86. Construction along the existing proposed route north of Route I-86 would not cause any significant ecological damage. (TR p. 419)

87. The supply of the proposed Blair Substation by construction of a double circuit 115 KV transmission line from Rockville Substation, rather than from Mansfield Substation, would involve a distance slightly longer than the Mansfield-Stafford route, the widening of a right-of-way which is narrow and averages about 50 feet in width, and greater visibility of the line. (TR p. 70; Council Exhibit 2, Question 10)

88. Construction along such an alternative route would cost approximately $4,825,000 more than construction from Mansfield to Blair. (Council Exhibit 2, Question 10)

89. The alternate proposed route along the subtransmission line from Route 44 following the Willimantic River to the Blair Substation, would considerably increase the cost of the transmission line. (TR pp. 439-445)

90. An alternative to the 87 foot tall single column double circuit steel poles proposed for the line would be a double row of wood H-frame structures averaging about 65 feet in height, each carrying one circuit. Use of H-frame structures would require clearing of the entire 150 foot width of the existing right-of-way; in addition, the right-of-way would have to be widened to provide room for the 27.6 KV subtransmission line, where it is now located on the right-of-way, or that line would have to be rebuilt elsewhere. Clearing and construction costs for such wood H-frame structures would exceed clearing and construction costs for the proposed single column poles by a minimum of $63,000. (NUSCO's Exhibit No. A2, p. 42; TR p. 250; Council Exhibit 2, Question 12)

91. While single column double circuit steel poles are higher than H-frame wooden structures, the use of H-frame wooden structures would increase the number of poles required from 1 to 4 at each placement point and increase the visual impact upon nearby residents. (NUSCO's Exhibit No. A2, p. 42)

92. The proposed transmission line will not cause interference with AM or FM radio or TV reception. (TR pp. 239, 240, 450, 451)

93. The proposed construction can be expected to conform in all respects to the applicable requirements of the Connecticut Public Utilities Commission and of the National Electrical Safety Code and will not pose a hazard to persons or property along the area traversed by the line. (TR pp. 76, 242, 243)

94. Underground construction of the proposed line between Mansfield and Blair Substations would cost approximately $10 million, some $7.5 million more than the cost of overhead construction. The environmental impact of overhead construction is insufficient to warrant undergrounding. (TR p. 237)

95. It is the plan for the applicant to continue to support research and development of underground transmission materials and techniques which will make it economically justifiable to underground at least 115 KV lines and to continue to propose overhead transmission lines except in congested urban areas until the cost of underground transmission more nearly approaches that of overhead transmission. (TR pp. 76, 77)

96. The proposed transmission line conforms to a long range plan for expansion of the electric power grid of the electric system serving the State and interconnected utility systems and will serve the electric system economy and reliability. (NUSCO's Exhibit No. A2, pp. 23, 91; TR p. 63; Council Exhibit 2, P. 1, 36)

97. The proposed overhead transmission line conforms to the Federal Power Commission "Guidelines for the Protection of Natural, Historic, Scenic and Recreational Values in the Design and Location of Rights-of-Way and Transmission Facilities". (NUSCO's Exhibit A2, pp. 34, 37, 38, 44-46, 83-86)

98. The proposed facilities will have no significant adverse effects upon air, water purity or fish and wildlife. (Record)

99. The Council has consulted with and obtained the written comments of the Department of Environmental Protection, the State Department of

Health, the Council on Environmental Quality, the Public Utilities Commission, the Office of State Planning and the Department of Commerce, as required by Section 16-50j(f) of the General Statutes. (Record)

100. The State Department of Health states that the transmission line does not cross any public water supply reservoir or watershed and therefore from a public health standpoint the proposal should be satisfactory. (Record)

101. The Planning and Budgeting Division of the Department of Finance and Control reviewed the proposal and found it in general agreement with the land use and water resource policies contained in the "Plan of Conservation and Development for Connecticut". (Record)

102. The Department of Environmental Protection has expressed concerns with respect to the utilization of the herbicide 2-4-5-T, with respect to the visual impact of the line at three locations, and with respect to the management of the right-of-way. In addition the Department has found that the proposed route along the existing right-of-way from Route 44 northerly to the Blair Substation represents less of an environmental impact than the alternative proposed route along the subtransmission line which partially follows the Willimantic River from Route 32 to the Blair Substation. The proposed transmission line presents no real threat to fish or wildlife as long as reasonable care is taken at all stream crossings to prevent erosion and siltation. (Record)

103. The Council on Environmental Quality has recommended approval of the proposed line. (Record)

104. The Department of Commerce has recommended approval of the proposed line. (Record)

105. The Public Utilities Commission has recommended approval of the proposed line. (Record)

106. No identifiable historic values will be affected by the proposed facilities. (Record)