DOCKET NO. 67

AN APPLICATION OF THE SOUTHERN NEW ENGLAND TELEPHONE COMPANY FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF FACILITIES TO PROVIDE CELLULAR SERVICE IN THE TOWNS OF EAST LYME AND WATERFORD, CONNECTICUT.	:	CONNECTICUT SITING COUNCIL
	:	December 22, 1986

F I N D I N G S O F F A C T

1. Southern New England Telephone Cellular, Inc. (SNET), in accordance with provisions of sections 16-50g to 16-50z of the Connecticut General Statutes (CGS), applied to the Connecticut Siting Council (Council) on July 21, 1986, for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, maintenance, and operation of telecommunications towers and associated equipment buildings in the towns of East Lyme and Waterford to provide domestic public cellular radio telecommunications service (cellular service) to the New London New England County Metropolitan Area (New London NECMA). (Record)
2. The fee as prescribed by Section 16-50v-1 of the Regulations of State Agencies (RSA) accompanied the application. (Record)
3. The Council and its staff made an inspection of the proposed East Lyme site and proposed and alternative Waterford sites on October 15, 1986. (Record)
4. Pursuant to section 16-50m of the CGS, the Council, after giving due notice thereof, held a public hearing on this application in the Waterford Town Hall, Waterford, Connecticut, beginning at 7:00 P.M. on October 15, 1986. (Record)

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

6. The following state agency filed written comments with the Council pursuant to Section 16-50j of the CGS: the Department of Environmental Protection. (Record)

7. The Council took administrative notice of its record in Docket 45. (Tr., p. 11)

8. The New London NECMA consists of the towns of Colchester, Lebanon, Franklin, Sprague, Lisbon, Griswold, Voluntown, North Stonington, Preston, Norwich, Bozrah, Salem, Montville, Ledyard, Stonington, Groton, Waterford, New London, East Lyme, Lyme, and Old Lyme. (SNET 1, Section IV, p. 13)

9. SNET has filed with the Federal Communications Commission (FCC) for a total of four sites in the New London NECMA. (Tr., pp. 19-20)

10. SNET received construction permits from the FCC for cellular tower sites in the towns of East Lyme and Waterford on August 1, 1986. (SNET 3, Q. 18)

11. The FCC has determined that a public need exists nationwide to improve the present mobile telephone service, due to the current system's limited capacity, long waiting lists nationally, and poor quality service, which have created congested channels and long waiting times. (SNET 1, Section IV, p. 10)

12. Cellular service consists of small overlapping broadcast regions, two to ten miles in diameter, known as cells. Each cell is served by a transmitter limited by the FCC to no more

than 100 watts effective radiated power per channel. Each cell is connected to a central switching point containing electronic apparatus uniting the cells into a system. (SNET 1, Section II, p. 2)

13. The FCC has pre-empted the state's regulation of cellular service in three major areas: technical standards, market structure, and state certification prior to federal application for a construction permit. (Docket 45, Exhibit 3, Section III, p. 4)

14. The FCC has established the technical standards for cellular service to ensure the efficient use of the allotted frequency spectrum and to ensure nationwide compatibility. (Docket 45, Exhibit 1, Section III, p. 4)

15. SNET considered and rejected the following locations in the East Lyme area as possible tower sites: the Stone Ranch Military Reservation; property owned by the Town of East Lyme north of the Boston Post Road, and the Sheffield School property owned by Yale University off of Scott Road. (SNET 1, Section VI, p. 3)

16. The Stone Ranch Military Reservation property was unavailable. The Town of East Lyme property was rejected for low elevation and resulting unacceptable coverage. The Sheffield School property was of insufficient elevation. (SNET 1, Section VI, p. 3)

17. The proposed East Lyme tower site is a leased, 100-foot by 100-foot parcel of land on a 232 acre tract of land owned by Woodrow R. Scott and Wilson P. and Clara A. Scott, approximately 1,800 feet off of Scott Road. The proposed site is within a woodlot adjacent to an apple orchard. (SNET 1, Section VI, p. 4, p. 16)

18. The proposed East Lyme site has an elevation of 353 feet above mean sea level (AMSL) and is located within a residential (R-20) zoning district. The distance to the nearest home is 1,100 feet. (SNET 1, Section VI, p. 16; SNET 2, Q. 4)

19. The proposed East Lyme tower would be a 150-foot monopole supporting a triangular antenna platform 154 feet above ground level (AGL). Whiplike, omnidirectional antennas at the corners of this platform would extend the height an additional 13 feet for a total structure height of 167 feet. (SNET 1, Section VI, p. 30)

20. A 12-foot by 26-foot, one story, equipment building would be constructed at the base of the East Lyme tower. The proposed tower and building would be surrounded by an eight-foot chain link fence. (SNET 1, Section V., p. 6, SNET, Section VI, p. 20)

21. The proposed East Lyme tower would be painted blue-gray to blend in with the background of the sky. The Federal Aviation Administration (FAA) has determined that the proposed tower would not be a hazard to air navigation, and therefore obstruction marking and lighting would not be required. (SNET 1, Section VI, p. 20, p. 30)

22. The electromagnetic radiation power densities at the base of the proposed East Lyme tower are calculated to be 0.10002 milliwatts per square centimeter, based on conservative assumptions. The American National Standards Institute (ANSI) standard for this frequency is 2.933 milliwatts per square centimeter. (SNET 1, Section IV, p. 9)

23. Access into the proposed East Lyme site would be via an existing, dirt roadway 1,300-feet in length. A 360-foot extension of this access would be constructed through the woodlot to the proposed site. (SNET 1, Section VI, p. 16)

24. SNET determined the visibility of its proposed towers by flying meteorological balloons at the heights of the proposed towers in East Lyme and Waterford. (Tr., pp. 16-17)

25. The proposed East Lyme tower would be visible from some portions of Scott Road to the west of the proposed site, and from the high point of Route 1 southwest of the intersection of Scott Road. The proposed tower would not be visible from Sunrise Trail or Legendary Road. (Tr., p. 16)

26. The proposed East Lyme tower would provide cellular coverage along Routes 1, 85, I-95, 156, 161, and I-395. Also covered would be the towns of Old Lyme, East Lyme, and Lyme; the Connecticut River; and eastern Long Island Sound. (SNET 1, Section VI, p. 1, p. 32)

27. If the proposed East Lyme tower were reduced to a height of 130 feet, 3.5 miles of coverage would be lost along Route I-95, an 0.8 mile loss would occur on Route 395, and 0.8 mile would be lost along Route 1. (Tr., p. 18)

28. SNET considered and rejected the following locations in the Waterford area as possible tower sites: the SNET microwave tower on its Washington Street, New London, office building; a private tower on Great Neck Road, Waterford; and several properties on Miner Lane. (SNET 1, Section VII, p. 3)

29. The SNET office building was of insufficient elevation and would provide unacceptable coverage. The private tower on Great Neck Road would be structurally incapable of holding the proposed antennas. Properties on Miner Lane were of insufficient elevation. (SNET 1, Section VII, p. 3)

30. The proposed Waterford site is a leased, 50-foot by 50-foot parcel of land within the 28-acre Town of Waterford landfill, and is located in a residential (R-40) zoning district on Miner Lane. (SNET 1, Section VII, p. 4, p. 13)

31. The proposed Waterford site is 94 feet AMSL. The distance to the nearest home would be 300 feet. (SNET 1, Section VII, p. 13; SNET 2, Q. 4)

32. The Town of Waterford landfill is presently used for the storage of bulky waste. The landfill has an expected life of 20 years. (SNET 2, Q. 15)

33. The proposed Waterford site is outside of any area previously used for waste burial. Decomposition gases are therefore not expected to be a problem at this proposed site. (SNET 4, Q. 2; Tr. pp. 13-14)

34. The proposed Waterford site would contain a 150-foot monopole supporting a triangular antenna platform 154 feet AGL. Whiplike antennas at the corners of this platform would extend the height an additional 13 feet for a total structure height of 167 feet. (SNET 1, Section VII, p. 27)

35. The proposed Waterford site would contain a 20-foot, 8 3/4-inch by 20-foot, 8 3/4-inch, one-story equipment building. The equipment building and tower would be surrounded by an eight-foot chain link fence. (SNET 1, Section V, p. 6)

36. The proposed Waterford tower would be painted blue-gray to blend in with the background of the sky. The FAA has determined that this proposed tower would not be a hazard to air navigation, and therefore obstruction marking and lighting are not required. (SNET 1, Section VII, p. 17; p. 27)

37. The electromagnetic radiation power densities at the base of the proposed Waterford tower are calculated to be 0.10002 milliwatts per square centimeter, based on conservative assumptions. (SNET 1, Section VII, p. 22)

38. The access into the proposed Waterford site would be via an existing roadway presently used for landfill access. A 325-foot extension of this roadway would be constructed. (SNET Section VII, p. 13)

39. The proposed Waterford tower would be 1.4 miles from the nearest portion of Harkness Memorial State Park. (SNET 2, Q. 4)

40. The proposed Waterford tower would be visible from some portions of Miner Lane, from the intersection of Route 1 and Miner Lane, and from some portions of Laurel Crest Drive. The top 50 to 60 feet of this tower would be visible from the nearest residence. (Tr., p. 15, p. 28)

41. The proposed Waterford tower would provide coverage along Routes 1, 12, 32, 85, I-95, 156, and I-395. It would also provide coverage to the towns of Waterford, New London, Groton, portions of Ledyard and Montville, eastern Long Island Sound, and Fishers Island. (SNET 1, Section VII, p. 1, p. 29)

42. If the proposed Waterford tower were reduced to a height of 130 feet, one-half mile of coverage would be lost along Route I-95, and 1.2 miles of coverage would be lost along Route 1. (Tr., p. 19)

43. The alternative Waterford site is a 125-foot by 300-foot parcel of leased land owned by Angelo and Norma Occhionero and located in a residential (R-40) zoning district. (SNET 1, Section VIII, p. 4, p. 5)

44. The alternative Waterford site is 200 feet east of Miner Lane, and is 102 feet AMSL. The distance to the nearest home would be 320 feet. (SNET 1, Section VIII, p. 5; SNET 2, Q. 4)

45. The alternative Waterford tower site would contain a 150-foot monopole. The overall height of the structure, including antennas, would be 167 feet AGL. The monopole would be painted blue-gray to blend in with the sky. A 20-foot, 8 3/4-inch by 20-foot, 8 3/4-inch equipment building would be constructed at the base of the proposed tower. (SNET 1, Section V, pp. 2-4; SNET 1, Section VIII, p. 3)

46. Access into the alternative Waterford site would be via an existing, 175-foot, dirt roadway. A 100-foot extension of this roadway would be required. (SNET 1, Section VIII, p. 5)

47. The electromagnetic radiation power densities at the base of the proposed Waterford tower are calculated to be 0.10002 milliwatts per square centimeter, based on conservative assumptions. (SNET 1, Section VIII, p. 6)

48. The visibility of the alternative Waterford tower would be similar to that of the proposed Waterford tower, except that the alternative tower would be more visible from some of the residences on Miner Lane. (Tr., pp. 15-16; p. 28)

49. The expected coverage from the alternative Waterford site would be virtually identical to that of the proposed Waterford site. The proposed Waterford site is preferred by SNET because there would be less construction involved. (SNET 1, Section VIII, p. 1; Tr., p. 14)

50. The proposed East Lyme facility construction, equipment, and improvement costs are estimated as follows:

Radio equipment,	$ 67,900;
Antenna equipment and mast,	38,000;
Power and common equipment,	126,000;
Land and building,	167,000;
Miscellaneous,	69,100;
Total	$468,000.

(SNET 1, Section VI, p. 26)

51. The proposed Waterford facility construction, equipment, and improvement costs are estimated as follows:

Radio equipment,	$ 71,100;
Antenna equipment, and mast,	38,000;
Power and common equipment,	180,000;
Land and building,	156,000;
Miscellaneous,	65,500;
Total	$510,600.

(SNET 1, Section VII, p. 23; SNET 1, Section VIII, p. 1)

52. The State Historic Preservation Officer has determined that the proposed East Lyme and proposed and alternative Waterford tower sites would have no effect on the state's historic, architectural, or archaeological resources listed on or eligible for the National Register of Historic Places. (SNET 4, Q. 8)

53. There are no known existing or historic records of federal endangered or threatened species, or Connecticut species of special concern occurring at any of the proposed or alternative sites in this application. (SNET 2, Q. 7)

54. The proposed East Lyme and proposed and alternative Waterford sites are not classified as regulated inland wetlands. (SNET 2, Q. 6)

55. SNET would be willing to negotiate with private and public entities to share space on the proposed towers if legally, technically, economically, and environmentally feasible. (SNET 2, Q. 11)

56. Approximately 2,450 cellular radio subscribers would be expected in the New London NECMA. (SNET 2, Q. 21)