DOCKET NO. 104 - An application of SNET Cellular, Inc., for a Certificate of Environmental Compatibility and Public Need for cellular telephone antenna and associated equipment in the Town of Killingworth, Connecticut.

Connecticut Siting Council

May 15, 1989

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

1. SNET Cellular, Inc., (SNET) in accordance with the provisions of Section 16-50g to 16-50z of the Connecticut General Statutes (CGS) applied to the Connecticut Siting Council (Council) on December 9, 1988, for a Certificate of Environmental Compatibility and Public Need (Certificate) for the construction, operation, and maintenance of a telecommunications facility and associated equipment building to provide domestic public cellular radio telecommunication service (cellular service) in the Town of Killingworth within the Hartford New England County Metropolitan Area (Hartford NECMA). (Record)
2. The fee as prescribed by Section 16-50v-1a of the Regulations of State Agencies (RSA) accompanied the application. (Record).
3. The Council and its staff made an inspection of the proposed and alternative tower sites on March 7, 1989, at 2:30 P.M. (Record).
4. Pursuant to Section 16-50m of the CGS, the Council, after giving due notice thereof, held a public hearing on the proposed site on March 7, 1989, beginning at 3:30 P.M. and continuing at 6:30 P.M., the same day in the gymnasium of the Killingworth Elementary School, Killingworth, Connecticut. (Record).

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

6. 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 Federal Communications Commission (FCC) to no more than 100 watts effective radiated power per channel. Each cell has a central switching point containing electronic equipment uniting the cells into a system. (SNET 1, Section II, p.2)

7. The proposed site would have 22 voice channels initially, with the capacity to expand to 45 voice channels. (SNET 3, Q. 15)

8. The FCC determined that a need existed to relieve the congestion on conventional two-way mobile systems throughout the United States. (SNET 1, Section IV, p.10)

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

10. The FCC 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. (SNET 1, Section III, p.4)

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

12. The FCC granted SNET cellular radio authorization for the Hartford NECMA on December 8, 1983. (SNET 1, Testimony, p.3)

13. SNET considered three potential tower sites in the Killingworth area: an existing 370-foot Storer Cable Television tower in Killingworth; an existing 160-foot Metro Mobile CTS tower in Killingworth; and an existing 140-foot tower owned by Valley Shore Emergency Communications, Inc. (Valley Shore) located next to the Killingworth Volunteer Fire Department building. (SNET 1, Section VI, p. 1, pp.5-6)

14. SNET rejected the Storer Cable Television site because it would not provide coverage along Route 81 to Route I-95. SNET rejected the Metro Mobile site because it would not provide needed coverage along Route 80, Route 81, or Route I-95. SNET then entered into an option to lease space on the existing Valley Shore tower. (SNET 1, Section VI, p. 1, pp.5-6)

15. SNET proposed to increase the height of the existing Valley Shore tower from its present 140 feet to a proposed height of 185 feet. SNET then proposed to lease space from Valley Shore at the 155-foot to 180-foot levels of this tower. (SNET 1, Section VI, p.1)

16. SNET applied to the Federal Aviation Administration (FAA) on October 31, 1988, to increase the height of the existing Valley Shore tower to 185 feet. On January 27, 1989, the FAA advised SNET that this request for an increase in height would be denied, as this tower is in the direct VHF Omni Range instrument approach landing path for airplanes traveling between the Madison and Chester airports. (SNET 3, pp.1-2)
17. An alternative acceptable to the FAA would be a tower of the proposed height located 7100 feet north or 8000 feet south of the proposed site. Such locations would not provide acceptable coverage for the SNET system. (SNET 3, pp 2-3)
18. On February 17, 1989, SNET modified its application with a proposal to not increase the height of the existing tower and to mount its antennas at the 104-foot and 121-foot levels of the tower. (SNET 3, pp 1-3)
19. The proposed site is a 50-foot by 60-foot parcel of land owned by the Town of Killingworth adjacent to the Killingworth Town Hall and Killingworth Volunteer Fire Department, 180 feet east of Route 81. The proposed site has an elevation of 466 feet. (SNET 1, Section VI, p.17)
20. The proposed site is paved, and within a 43-acre parcel of land zoned two-acre residential. No new access roadway would be required. Utilities would be brought into the site underground. (SNET 1, Section VI, p.17)

21. The existing tower is a self-supporting lattice style Rohn tower owned by Valley Shore, a regional dispatch network of seven area towns. Valley Shore leases the land on which the tower is situated from the Town of Killingworth. The tower was built in 1980. (SNET 1, Section VI, p.3, p.22)

22. SNET's proposed antennas are 13-foot whip antennas. Two transmit and two receive antennas would be attached to the tower. The tower is capable of supporting the additional antennas. Two Valley Shore antennas now on the tower would remain in place, while the remainder of the Valley Shore antennas would be consolidated at the top of the tower. (Tr., pp.14-15)

23. SNET would construct a 47-foot by 22-foot single-story equipment building near the base of the existing tower. The proposed building would include space for equipment owned by SNET, Valley Shore, and the Town of Killingworth. (Tr., p.17, p.27; SNET 1, Section VI, p.13)

24. The equipment building would be constructed as far to the east as possible on the site to preserve as much paved area for the Killingworth Fire Department as possible. Some fill may be required on the south side of the building site. (Tr., pp.28-29)

25. An eight-foot fence would surround the proposed equipment building and existing tower. (SNET 1, Section VI, p.13, p.34)

26. The only building within the fall zone of the existing tower other than the proposed equipment building is the existing Killingworth Fire Department building. (SNET 3, p.8)
27. About three trees would have to be removed in the construction of the proposed equipment building. (SNET 3, p.12)
28. There are no regulated wetlands on or around the proposed site. There would be no emissions of pollutants into the air or water from the proposed site.(SNET 1, Section VI, pp. 19-20; SNET 3, p.16)
29. The addition of the proposed SNET antennas would not increase the height of the tower structure, and therefore would not add to the visibility of this tower. (SNET 3, p.5)
30. The height at which the antennas would be mounted on the existing tower would cause some areas of non-coverage in SNET's expected coverage along Route 81 and Route I-95 in Clinton, and along portions of the Clinton shoreline. These coverage gaps might result in the need for a cell site in the Clinton area. (SNET 3, pp.2-3)
31. Moving the cell site to the east or west of its proposed location would create coverage gaps along Route 81. Moving the cell site to the south would result in less coverage to northern areas of Killingworth. (SNET 3, pp.2-3)
32. The proposed Killingworth site would provide coverage to portions of the towns of Madison, Killingworth, Haddam, Chester, Deep River, Westbrook, and Clinton. (SNET 3, p.17)

33. Coverage from the proposed Killingworth site would be adequate to overlap with the existing Haddam site, as well as existing sites in Guilford and Old Saybrook. (SNET 3, p.17; Tr., p.18)

34. Based on conservative assumptions, the electromagnetic radiation power density level at the base of the existing tower would be 0.154332 mW/cm^2. The Connecticut and American National Standards Institute (ANSI) safety level for the proposed broadcast frequency is 2.933 mW/cm^2. (SNET 3, p.20)

35. Facility costs at the proposed tower site are estimated as follows:

Radio equipment	$139,500.00
Antenna equipment and mast	14,900.00
Power and common equipment	172,000.00
Land and building	197,600.00
Miscellaneous	77,000.00
TOTAL COST	$601,000.00

(SNET 3, p.21)