DOCKET NO. 54

AN APPLICATION OF O'BRIEN ENERGY SYSTEMS, INC., FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED TO CONSTRUCT A COGENERATION FACILITY IN THE CITY OF HARTFORD.	:	CONNECTICUT SITING COUNCIL
	:	February 19, 1986

O P I N I O N

O'Brien Energy Systems, Inc., (O'Brien), applied to the Connecticut Siting Council (Council) for a certificate of environmental compatibility and public need to construct a cogeneration facility that would generate steam and electricity.

The Council considered the public need and environmental compatibility of the facility and its related components including the district heating and cooling loop, fuel supplies, and electrical interconnections.

The need to increase the conservation and efficient use of energy has been declared by state energy policy. Both cogeneration and district heating will encourage energy-efficiency. The facility would produce two forms of useable energy: electricity for the utility grid and steam to be used for the cooling and heating needs of high density urban development. This facility would make more efficient use of fuel and allow a reduction in the use of imported oil.

The prudent design of the facility and coordination guaranteed by contract with the Northeast Utilities Company (NU) lends confidence that the facility would be highly reliable and compatible with the NU grid for customer use. Cogeneration might reduce the large capital requirements needed by the utility to support the demand for electricity, thereby reducing the risks and costs to ratepayers associated with construction overruns, abandonment, premature retirement, and capital improvements.

The project would add approximately 54 MW of capacity to the utility grid. The additional capacity would provide diversity, increased reliability of electric service, and time for utilities and regulators to assess developing technologies for future baseload generating facilities.

By reducing the utility's need to invest in electrical generation, this cogeneration facility would provide benefits to both the utility company and its ratepayers.

The Council is assured that the facility has been designed and would be constructed to meet all necessary codes and standards for safety. The Council is confident that risks due to fire, explosion, or failure are minimal and that the facility would operate as a state-of-the-art facility using proven technology.

The Council thus recognizes the project's contribution to safe, adequate, and reliable electric service at the lowest reasonable cost to the public. However, the Council must balance this need against the potential for the construction and operation of the facility to adversely affect the quality of the environment of the state. The key environmental issues before the Council include noise, air pollution, visual impacts, water pollution, and, to a lesser extent, water use, traffic congestion, and disposal of boiler discharge.

The facility would emit noise from an on-site substation, pressure relief valves, gas compressors, and gas and steam turbines. However, comprehensive noise modeling has been used to develop noise barriers and other attenuation equipment to comply with state noise code standards. The Council will order noise testing and is reasonably satisfied that the facility will not create significant noise.

New combustion units that would use low sulfur fuel and air pollution control equipment are expected to maintain safe air emissions from the project. Carbon monoxide (CO) and hydrocarbon (HC) emissions would be somewhat increased as a calculated trade off to reduce significant quantities of nitrogen oxides. Although an increase of CO and HC emissions is not desirable, their increase would be in compliance with federal and state emission standards.

The existing Hartford Steam Company (HSC) district heating plant would be raised and modified for the project, but it is anticipated that the completed facility would be compatible with the surrounding land uses.

Although the existing facility discharges non-contact cooling water into the Park River and, in turn, the Connecticut River, the proposed increase of discharge is not significant. The facility would comply with Federal water quality requirements. Other environmental impacts including water use, traffic congestion, and disposal of boiler discharge would be insignificant or normal and easily mitigated.

The project represents a contribution to efficient, diversified electric generation to the state's capacity. The Council finds that the need for this project greatly outweighs the environmental impacts associated with its development and operation. The Council therefore directs that such certificate be issued subject to the conditions of the Decision and Order that accompanies this Opinion.