DOCKET NO. 59

AN APPLICATION OF CAPITOL DISTRICT ENERGY CENTER COGENERATION ASSOCIATES FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF A 55 MW COGENERATION FACILITY IN HARTFORD, CONNECTICUT.	:	CONNECTICUT SITING COUNCIL
	:	July 11, 1986

O P I N I O N

ANR Venture Management Company applied to the Connecticut Siting Council (Council) for a certificate of environmental compatibility and public need to construct a cogeneration facility known as the Capitol District Energy Center.

The facility would produce two forms of usable energy: electricity from the combustion of natural gas or oil, and steam and electricity from the recovery of waste heat. The facility and the associated district heating system would meet the declared energy policy of the state by conserving fuel and reducing the consumption of foreign oil. The facility would offer efficiency benefits greater than conventional electrical generation. Due to the inherent variability of steam loads associated with the district heating and cooling loop and to design options chosen so not to preclude reliable service to future customers of the heating and cooling loop, the facility's efficiency ratings will vary.

The project would add approximately 45 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.

The incremental addition of privately-produced cogeneration capacity would reduce the large capital requirements needed by Northeast Utilities (NU) to support the demand for electricity and thereby reduce the risks and costs to ratepayers associated with construction cost overruns, abandonment, premature retirement, and capital improvements. 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 proven design of the facility and coordination guaranteed by contract with NU lend confidence that the facility would be highly reliable and compatible with the NU grid. The Council is also assured that the facility would meet all necessary design, construction, and operation codes and standards for safety, thus minimizing risks due to fire, explosion, or facility failure.

The key environmental issues before the Council include noise, air pollution, visual impacts, water usage, and to a lesser extent, water pollution, traffic congestion, and waste disposal.

The Council recognizes that the existing ambient noise levels about the facility are typical of a noisy urban area; however, the Council believes that the facility should not cause a significant increase of ambient noise levels. Although the Council is reasonably satisfied with the noise modeling and proposed noise mitigation features of the facility, it will order a final sound level survey and additional noise control measures if shown to be necessary to ensure that existing ambient noise levels would not be significantly exceeded.

The Council is satisfied that air pollution emissions would be adequately controlled by the use of low sulfur fuel, modern combustion technology, and a steam injection system. Although State of Connecticut Department of Environmental Protection emissions modeling has not been completed, the Council expects that the facility will meet all air compliance regulations and standards without substantial changes to the proposal. Ongoing compliance by emission monitoring will be required by the State Air Pollution Control Permit to operate.

The aesthetic effect of the most prominent visual feature of the facility, a 197' high exhaust stack, is uncertain. The facility is designed as a highlighted focal point for the area. The Council is receptive to new concepts in urban design and feels that the outward design of the facility has a substantial degree of credibility; however, the Council is still obliged to minimize potential asthetic intrusions by limiting this stack to the lowest height that can meet state air pollution control dispersion model criteria. In addition, the Council assumes that the necessity of the stack would be reassessed and removed or efficiently reused if any significant changes were to occur at the end of the facility's service life.

The Council is concerned with the water supply for the facility as it relates to the long-term supply of public drinking water to the community. While it is clear that the Metropolitan District Commission (MDC) would have the capacity to meet the facility's daily water needs, it is less clear if a large commitment of potable water for an industrial use is a wise long-term decision. The record suggests that the MDC

system is very close to its capacity and might not have an adequate supply of water during severe drought situations. Although the Council recognizes the conservative nature of long-term (safe-yield) water supply planning, the Council must choose a conservative route when dealing with the fate of public water supplies and thus will require detailed long-term water supply conservation and drought contingency plans for the facility. The Council will also order a study of alternative cooling water sources including the potential for tapping the Park River for make-up water, which study shall form the basis of a plan to be coordinated with the MDC to be activated in the event of extended water supply shortages.

There is some concern for the potential of fogging from the facility during certain meterological conditions which might create a safety hazard due to the facility's close proximity to I-84. The Council is confident such conditions could be readily remedied, if they occur, and will so order.

Other environmental effects, including water pollution, traffic congestion, and waste disposal, are not expected to impose a burden on the public.

With the safeguards and planning required by the Council's orders, the Council finds that the public need for this facility outweighs the environmental consequences associated with the project. The Council therefore directs that a certificate of environmental compatibility and public need be issued subject to the conditions of the decision and order that accompanies this opinion.