

DOCKET NO. 64

AN APPLICATION OF THE DEXTER CORPORATION FOR : CONNECTICUT SITING  
A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY :  
AND PUBLIC NEED FOR THE CONSTRUCTION, : COUNCIL  
MAINTENANCE, AND OPERATION OF A 48.5 MW  
COGENERATION FACILITY LOCATED IN  
WINDSOR LOCKS, CONNECTICUT. : January 12, 1987

O P I N I O N

The Dexter Corporation (Dexter) applied to the Connecticut Siting Council (Council) for a Certificate of Environmental Compatibility and Public Need for the construction, maintenance, and operation of a 48.5 MW cogeneration facility in Windsor Locks, Connecticut.

The Council held a public hearing for the proposal on September 29, 1986. At the hearing the applicant presented testimony and witnesses to support its contentions regarding the need for the project and its environmental impacts.

Need

The need to utilize new and efficient methods of generating electricity is state energy policy, as enunciated by the State Department of Public Utility Control (DPUC), the Energy Division of the State Office of Policy and Management, and the Connecticut Energy Advisory Board. A need for the capacity has been established by Northeast Utilities (NU), which would purchase electricity from the facility under the terms of an agreement which has been submitted to the DPUC for approval. NU projects that the facility's capacity would be needed by the mid-1990's.

NU would benefit from the diversification and decentralization of electrical generation capacity offered by a cogeneration facility located on the site of a large electrical energy user. Both NU and Dexter would experience an increase in electrical supply reliability. It is also expected that the location of the facility would reduce the need

for construction of new regional transmission facilities.

Another advantage of the project is that ratepayers would not bear many of the risks and costs associated with the construction and operation of utility-owned power stations. The costs of construction overruns, abandonment, premature retirement, and large capital improvements would be at least shared, if not completely absorbed, by the project's private investors.

The primary fuel of the facility will be natural gas, a fuel which is less vulnerable to foreign intervention than is oil. Nonetheless, natural gas is a nonrenewable resource not indigenous to Connecticut. Overall, the project will displace a significant quantity of oil, but the project will still be dependent on two nonrenewable fuels. The interruptible fuel design of the facility provides assurance that the facility will be operational and reliable. However, the Council will order the facility operator to submit an annual report documenting the types, quantities, and supply status of fuels used.

#### Visual Appearance

While the stack will be prominent, the facility will be consistent with the existing industrial development adjacent to the site. The Council will order the applicant to maintain a vegetative buffer between the Connecticut River and the facility to reduce visual impacts from the river.

### Water Pollution

The Connecticut River, by way of the Windsor Locks Canal, appears to be a suitable source of non-contact cooling water, to be returned to the river after use. However, as with any thermal discharge, there is a risk that the resulting thermal plume within the river could produce serious environmental impacts. The Council accepts the contentions supported by the applicant's modeling that the thermal impact of the discharge on the river will be minimal, but the Council will order monitoring of the thermal discharge to verify impacts to the river. The Council will also order that any significant impact be mitigated to the greatest extent possible.

### Aquatic Resources

Projections of entrainment and impingement indicate that the number of fishes harmed would be small relative to the total population in the river. Nonetheless, the Council is concerned that entrainment and impingement must be minimized. The Council will order a plan to monitor entrainment and impingement and to set standards for mitigation measures to reduce such impingement and entrainment.

### Air Quality

The applicant has demonstrated that the operation, types of fuel, and air pollution control equipment will be adequate to keep the facility's emissions within state and federal air quality standards. Moreover, the State Department of Environmental Protection will ensure compliance through its monitoring and permit procedures.

### Noise

Although the site is associated with industrial development, the Council must insist that the operation of the facility be compatible with nearby residential and commercial development. The Council will, therefore, order noise testing and additional noise control measures if necessary to maintain noise levels at or below local and state noise regulations.

### Other Considerations

Other siting factors, including historical, architectural, archeological, and recreational resources; flooding; use of existing services and infrastructure; traffic; safety; and reliability have been adequately addressed. The Council's examination found no unacceptable consequences.

### Conclusion

The proposed design, construction, and attention to environmental and community concerns are adequate. The project represents a significant contribution of cogenerated electricity to the state's energy mix and thus provides benefits to the state. When considered together, the advantages outweigh the disadvantages of implementing the proposed project.

Based on the foregoing, the Council concludes that a Certificate of Environmental Compatibility and Public Need is warranted for the Dexter Project.