DOCKET NO. 25

AN APPLICATION SUBMITTED BY NORTHEAST UTILITIES SERVICE COMPANY, AS AGENT FOR THE CONNECTICUT LIGHT AND POWER COMPANY AND THE HARTFORD ELECTRIC LIGHT COMPANY, FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED WITH RESPECT TO THE CONSTRUCTION OF AN OVERHEAD 345 kV ELECTRIC TRANSMISSION LINE BETWEEN THE MILLSTONE POINT GENERATING STATION IN WATERFORD AND THE MANCHESTER SUBSTATION IN MANCHESTER.	:	CONNECTICUT SITING COUNCIL
	:	June 4, 1982

O P I N I O N

I. GENERAL

This application is for a certificate of environmental compatibility and public need for the construction of a 345 kV overhead electric transmission line along existing right-of-way between Applicant's Millstone Point generating facility and Manchester Substation in Manchester, Connecticut. The line will supply bulk power to the underlying 115 kV system out of the Manchester Substation.

A public hearing was held at the Manchester Town Hall on January 11, 1982. Members of the Council made a ground inspection of the proposed route on January 7, 1982.

The Applicant presented testimony and exhibits to support its claims that the transmission line is needed, that the construction of the proposed line would not cause adverse environmental effects sufficient to deny the application, and that the proposed route was preferable to several alternatives, including undergrounding.

Several persons, including adjacent landowners, and state agen-

cies were made parties or supplied written comments in the proceeding.

II. NEED

A certificate application for this facility was denied without prejudice by the Council in 1978, in large measure because of delays in the construction of the Millstone III nuclear power plant. This generating facility project is central to the issue of need for the proposed transmission line, and the Council made an explicit and detailed investigation of the power plant project schedule in its considerations here. The applicant's commitment to completion of the plant, now scheduled for 1986, was established, and the Council noted that the Department of Public Utility Control, in its decision of December 2, 1981 (Docket 810602/810604), reaffirmed its support for the project. In order to have the new line available, for the anticipated 1986 in-service date for Millstone III, construction must begin in 1983.

The record shows that the annual cost of transmission line losses and uneconomical generation which would result without the new line far exceed the annual carrying costs of the proposed project. The potential savings attributable to the new line have increased dramatically since the original application, primarily as a result of increased oil costs. Additionally, it appears that a significant economic penalty will not be incurred as a result of the delay in certification, since the actual construction would not have been required until this time in any case.

The concentration of power generation at Millstone point creates a potential situation where transmission line faults could trigger an instability condition which would shut down all three plants at once. Such potential instability problems could result from unlikely but possible combinations of transmission line problems. The new line will alleviate this situation and establish a system consistent with the stability requirements of the Northeast Power Coordinating Council and NEPOOL.

The proposed route to Manchester is the most effective means of supplying the bulk power to the underlying 115 kV system additionally, the greater environmental effects and greater costs, support the rejection of all of the possible system alternatives.

The Council notes that an alternative routing of the line along the new 0.8 miles of right-of-way, as proposed in response to Council questions, would mitigate the impact of the facility at that location, and will include this alteration in its order.

III. ENVIRONMENTAL IMPACT

The Council has considered the proposed route and several alternative routes, and the potential adverse environmental effects associated with each. Our opinion is that the proposed route from Millstone Point in Waterford to Manchester Substation in Manchester through the towns of Waterford, Montville, Bozrah, Franklin, Lebanon, Columbia, Andover, Hebron, Glastonbury, and Manchester would have the least visual, land use, and natural system impacts.

With the exception of a 0.8 mile section in Bozrah, the proposed route follows existing rights-of-way. For 4.1 miles in

Waterford and 1.8 miles in Manchester, new conductors will be suspended from existing double circuit structures. For the 4.9 miles between I-95 and Hunts Brook Junction, new H-frame structures will be placed among three existing rows of H-frame structures on a cleared right of way. Between Hunts Brook Junction and Manchester Junction wood pole H-frame structures will be constructed adjacent to a similar existing 345 kV line. Along this 36.2 mile section, the existing clearing will be widened by eighty feet. No structures must be acquired or removed, and access routes already exist along most of the route.

The proposed clearing will require the removal of approximately 270 acres of trees and tall vegetation. Most of this is suitable for cordwood, and 50 acres may contain significant amounts of saw timber.

No rare or endangered species were identified along the proposed route. Cross Bog, an important natural area, should not be significantly affected by the addition of one circuit on existing structures and the construction of an angle structure north of the bog.

Since access roads exist throughout the route, construction of new access roads should be limited. Also, this construction provides an opportunity to improve and stabilize existing access roads which should alleviate problem areas such as the access roads near Buckingham Reservoir in Glastonbury. The applicant has expressed a willingness to work with the Manchester Water Company to solve the erosion and unauthorized access problems in that area. In addition, implementation and effectiveness of erosion control tech-

niques will be monitored through the Council's Development and Management (D&M) Plan process.

Environmental impacts associated with construction of approximately forty structures in regulated wetlands can be minimized by careful location and construction techniques which are also monitored in the D&M Plan process.

Visual impacts of the proposed line will be minimal along most of the route but will be significant where the clearing removes a vegetative barrier between the line and nearby residences and at some road crossings. The addition of conductors and angle structures south of I-95, and conductors and two lattice structures near Manchester Substation, should not result in a significant change in the line's appearance in these areas. The construction of a wood pole H-frame line among three other similar lines between I-95 and Hunts Brook Junction will increase the "busy" appearance of the existing right of way resulting from the numerous poles, but the new structures will be consistent with the existing structures and will present a uniform appearance. The wood pole H-frame line added adjacent to the existing line between Hunts Brook Junction and Manchester Junction will appear harmonious with the existing line. Wood pole H-frames present a low profile and blend better with the rural nature of the surrounding wooded landscape than other transmission structures, and therefore are the appropriate structure choice here.

Clearing and construction will reduce the buffer and bring a transmission line closer to homes on Leitao Drive in Bozrah, Shallowbrook Lane and Winthrop Road in Manchester, and other areas

more specifically noted in the findings. The Council is concerned about these visual impacts, but acknowledges that they are an unavoidable consequence of line construction. Relocating segments of the line or selecting an alternate route would only result in similar or greater impacts in other locations. The visual impact can be minimized by careful selective clearing where vegetation permits, and the Development and Management Plan will be designed with this in mind.

The proposed line passes through Lebanon approximately one mile from the historic Lebanon Green area. The existing line can be seen in the distance from selected locations around the green against a backdrop of fields and woods. Any increase in visual effect created by the new line could be minimized by placing the new structures next to the existing structures. The proposed line will be sufficiently removed from Lebanon Center and the proposed structures will blend with the surrounding landscape better than other transmission structures, so the addition of the proposed line should not have an adverse visual impact on the historic nature of Lebanon Center. Furthermore, although the State Historic Preservation Officer has identified areas with potential archeological and architectural significance, no specific adverse impacts were identified, and he stated that the proposed route appears appropriate. The officer will have an opportunity to review specific details of the proposed line through the D&M Plan process.

Since all but 0.8 miles of the proposed route is to be placed on existing rights-of-way, the proposal will have minimal land use impacts. This is not to say that there will be no such impacts.

The Council is well aware of the conflicts created by locating a transmission line through agricultural land; the difficulty of plowing ground and operating equipment around the structures and the possible loss of cropland were emphasized by a party to this proceeding. However, we cannot justify the additional expense and inconsistent appearance of constructing portions of the new line on single circuit steel poles through agricultural land, particularly in visually sensitive areas. Other techniques are available and should be used to mitigate the impacts.

Several recreational and wildlife management areas are located within and adjacent to the existing right-of-way, but the presence of the new line will not affect continued enjoyment or productivity of these areas.

The proposed line requires a change in landuse from agriculture to electric transmission right of way for a 0.8 mile stretch in Bozrah, but these two uses are not mutually exclusive. The proposal calls for the acquisition of an additional 240 feet of right-of-way, which is more than is necessary for the proposed construction, and there are presently no plans to use the extra land. The easterly alternative discussed in NU Exhibits 14 and 21 will serve the same purpose and minimize landuse impacts. That alternative requires acquisition of only an additional 145 to 165 feet, or twelve fewer acres than the original proposal. It will preserve a 300 foot distance from a nearby house, retain all trees that now exist between the house and the transmission line, and require fewer poles at a visible road crossing.

The Council is mindful of and very disturbed by the

unauthorized use of this right-of-way and other rights-of-way in Connecticut by motorized vehicles. We are aware of numerous attempts to mitigate this situation and encourage the applicant to do everything within its authority to discourage such unauthorized use.

The Council has considered several alternatives to the proposed route. These alternatives would require more right-of-way acquisition, more clearing, crossings of the Connecticut River, and they would be significantly more costly. These adverse environmental effects associated with the alternate routes are substantially greater than those associated with the proposed route.

The proposed route was developed in accordance with the Federal Power Commission Guidelines for the protection of natural, historic, scenic, and recreational values in the design and location of rights-of-way and transmission facilities. Also, the record indicates that the location of the transmission line will not pose an undue hazard to persons or property along the area traversed by the line.

IV. CONCLUSION

The Council finds and determined that the proposed project will have some adverse environmental effects, but that the need for the facility outweighs those effects. In determining that the environmental effects of the proposed facility are not sufficient to deny this application, the Council recognizes that the applicant will minimize those effects through careful construction practices and adherence to a Development and Management (D&M) Plan. Specifically, but not exclusively, the D&M Plan will assure that removal of visual buffers

will be minimized; that structures will be aligned to minimize visual impact, particularly from historic sites; that structure alignment will mitigate disruption of agricultural practices; and that clearing methods will attempt to improve or enhance wildlife habitat where appropriate.

Additionally, the Council determines that the entire facility should be placed overhead, that it is consistent with long range plans for expansion of the power grid, that it is consistent with the Federal Power Commission guidelines, and that it will not pose undue hazard to persons or property.

Therefore, the Council will order that a certificate of environmental compatibility and public need be granted for the proposed facility.