

DOCKET NO 105 - An Application of : Connecticut
 The Connecticut Light and Power Company :
 for a Certificate of Environmental : Siting
 Compatibility and Public Need for the : Council
 reconstruction of the Stevenson-Newtown :
 and Newtown-Plumtree 115-kV transmission :
 lines through the Towns of Monroe, Newtown, :
 and Bethel, Connecticut. : August 30, 1989

OPINION

The Connecticut Light and Power Company (CL&P), represented by its agent, the Northeast Utilities Service Company (NU) applied to the Connecticut Siting Council on December 16, 1988, for a Certificate of Environmental Compatibility and Public Need for the reconstruction of an overhead, 115-kV electric transmission line between the Stevenson Substation in Monroe, the Newtown Substation in Newtown, and the Plumtree Substation in Bethel, Connecticut. A public hearing on the application was held in Newtown on March 28, 1989. Members of the Council made an inspection of the proposed line on March 28, 1989.

Under Section 16-50p of the General Statutes of Connecticut (CGS), the Council in deciding this application must consider and balance the public need for the proposed reconstruction of an overhead 115-kV electric transmission line with the nature of any probable environmental impacts created by the construction and operation of this line. The Council may not grant a Certificate unless it finds that these adverse effects or conflicts with State environmental policies are not sufficient to deny the application. The Findings of Fact which accompany this Opinion contain the Council's findings regarding the need for the facility, its adverse impacts, and its consistency with relevant State policies.

The proposed line is needed to relieve forecasted overloads on the 115-kV transmission system delivering electric energy through West Central Connecticut into the growing southwest

area to satisfy increasing loads. The existing Stevenson Substation to Newtown Substation and Newtown to Plumtree Substation circuits would overload under certain contingency conditions created by a simultaneous forced outage of the 345-kV Long Mountain Substation to Plumtree Substation line coupled with an overlapping outage of another facility. Although the probability of this existing line to exceed its load-carrying capacity and overload is low, this occurrence could happen by the summer of 1990, and could produce a power failure throughout the area. The reconstruction would greatly augment the reliability of the power transmission system by increasing the load-carrying capacities of the two circuits. For this reason, the proposed rebuild is consistent with State energy policy and public need for reliable electricity.

The Council is concerned with the impacts on wetland areas, removal of overgrown brush and danger trees, construction of new accessways, and possible erosion and sedimentation, particularly in steeply sloped areas, as a result of construction activities. The Council believes that erosion and sedimentation control measures to minimize the impacts, as contained within a detailed development and management (D&M) plan, would be acceptable to reduce direct impacts on water resources as well as indirect effects on wildlife if properly implemented. By imposing a strict D&M plan, the Council believes that the transmission line could be rebuilt without significant long-term effects on the natural environment.

Although the Council finds the underground alternatives visually superior to the overhead line, the Council cannot justify an additional \$32,664,200 to develop the least expensive underground alternative that would have acceptable environmental effects and reliability. While the Council believes that the utility may have a bias to propose the least

expensive option to its ratepayers, regardless of the visual effects, the Council concurs that the proposed overhead line is the only environmentally acceptable option at a reasonable cost.

The Council has compared the costs, reliability, and environmental compatibility of the proposed line, with several alternatives. Although a proposed High Pressure Oil Filled (HPOF) alternative through town roads would affect traffic, would be difficult to repair, might cause environmental damage from undetected oil leaks, and might cause habitat destruction associated with blasting and invasion of wetlands during construction, the limiting factors for development of this alternative are the excessive cost and delay needed for its construction.

In addition to being more costly and time consuming to construct, undergrounding an alternative dielectric or oil-filled cable system along the existing ROW would be impractical due to elevation changes in steep and rocky terrain, which would create greater erosion potential and damage to wetlands, necessitate blasting, and require undergrounding rights which are not currently possessed by CL&P. Although the possibility of a leak is remote, the Council is concerned that potential damage to the environment from oil leaks would be exacerbated by the nature of the steep terrain over long distances. There is no known technical means to quickly isolate the location of an oil leak, and the time to repair a damaged underground line is considerably longer than repairing an overhead line.

The Council sympathizes with the concerns of residential property owners whose homes are located near the line. However, the Council believes that the reconstructed line will not significantly increase the environmental effects of the existing line which has been operating under the existing

configuration since 1983. Although the Council believes that the involuntary risks of living nearby a source of electric and magnetic fields should be minimized, there is insufficient evidence for the Council to conclude that this proposed line or other transmission lines in the State are hazardous to human biological health. Such implications remain an open issue, still debated within the regulatory and scientific communities.

For the reasons stated in this Opinion, the Council finds that the public need for this reconstruction outweighs any potential environmental effects and concludes that a Certificate of Environmental Compatibility and Public Need should be issued, based on the need for increased reliability of the electric transmission system and the absence of significant environmental impacts sufficient to deny the application. The Council hereby directs that such Certificate be issued subject to the terms, limitations, and conditions of the Decision and Order which accompanies this Opinion.

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