STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

136 Main Street, Suite 401
New Britain, Connecticut 06051
Phone: 827-7682

Petition No. 201
Staff Report
February 17, 1988

The Connecticut Light and Power Company (CL&P) is requesting a declaratory ruling that no Certificate of Environmental Compatibility and Public Need is required for modifications to its transmission lines between the Manchester Substation, the South Windsor Substation, and the Barbour Hill Substation, South Windsor, Connecticut.

Fred J. Doocy, and Colin C. Tait, members of the Siting Council (Council) and Thomas E. Fanning, Jr., staff of the Council, met with CL&P representatives Michael Carlson and John Albertson on February 11, 1988, and inspected the proposed modifications along the 1310, 1635, and 1763 lines.

The CL&P circuits requiring the proposed work are supported by several different types of structures. The majority of the lines consist of double circuit, wood pole H-frame structures with single circuit wood angle structures. The southern sections of the lines leaving the Manchester substation are supported by double circuit steel towers. All sections of the circuits identified for the proposed work, share a common right-of-way (ROW).

The proposed modifications include:

a. Converting one circuit side of seven double circuit wood H-frames from suspension to strain insulation configuration. This involves raising the conductors from a hanging position to a fixed position on the cross-arm of the structure. This procedure would reduce the sag in the conductors without raising the structure height;

b. Converting both sides of four double circuit wood H-frames from suspension to strain in a similiar manner as described above;

c. Replacing one double circuit wood H-frame (No. 6238), with two taller single circuit wood H-frames. Each proposed structure would be approximately 12 feet to 15 feet higher above ground than the existing structure. CL&P would use a four-pole configuration as an improvement to any structure presently in a strain position;

d. Resagging the conductors along one section;

e. Some brush clearing and ROW rehabilitation as needed, to permit access to structures; and

f. Access road improvement and temporary corduroy road construction, particularly near structure no. 6223.

The proposed work is necessary to reduce readily observable sag in the conductors along sections of the lines. In addition, changes in adjacent land uses require additional clearances for safety reasons. Loads along these lines are expected to exceed the present temperature-limited ratings by the summer of 1988. By raising the elevations of the conductors, higher temperature operation of the lines would be allowed. Without the proposed work, the capacity ratings of these lines would be limited. If the proposed project is not completed as planned, these lines could overload under certain conditions during the 1988 summer peak periods. Raising the conductor's elevation in certain areas, would allow these lines to meet expected load growth into the 1990's.

Construction is scheduled to begin in the second quarter of 1988.

The proposed modifications would be located entirely within CL&P's ROW. Access to most structures is readily available from public streets or existing CL&P access roads. One adjacent property owner has given permission to CL&P to access a structure from his land, thereby avoiding the necessity of traversing a low land area.

No specific locations requiring definite rehabilitation, erosion, or sedimentation controls have been identified. The need for rehabilitation would depend on actual site conditions at the time of construction.

The Review Team suggests that CL&P consider staggering the work schedule in order that work on structures located in obvious wetlands, could be completed before the ground thaws. In this way, construction of access roads would be minimal or avoided.

Thomas E. Fanning, Jr.

TEF/go

0992E