

August 21, 2017

Mr. Robert Stein  
Connecticut Siting Council  
10 Franklin Square  
New Britain, CT 06051

Re: Petition No. Petition 1314 - 1555 Line Rebuild Project

Dear Mr. Stein:

This letter provides the response to requests for the information listed below.

Response to CSC-02 Interrogatories dated 08/14/2017  
CSC-001

Very truly yours,

Kathleen Shanley  
Manager  
Transmission, Siting  
As Agent for CL&P  
dba EversourceEnergy

cc: Service List

**Witness:** **NO WITNESS**  
**Request from:** **Connecticut Siting Council**

**Question:**

Has Eversource considered an underground alternative for the proposed #1555 line rebuild? Elaborate on cost and other issues associated with an underground alternative versus the proposed overhead rebuild project.

**Response:**

No, Eversource did not develop an underground design for the entire transmission line because this project is a replacement of an existing overhead transmission line.

The cost and other issues associated with the underground alternative compared to the proposed overheard line are as follows:

- Underground transmission lines cost approximately 5 to 10 times the cost of an overhead line of the same length.
- Eversource does not have underground easement rights through the rights-of-way ("ROW"). Therefore, Eversource would need to obtain additional easement rights from property owners along the ROW.
- Portions of the 1555 Line are characterized by extreme terrain (bedrock outcrops, shallow depth to bedrock, and steep slopes), water resources (including the Housatonic River), rare species and critical habitat that would pose extremely difficult obstacles in terms of underground transmission line construction. Whereas an overhead transmission line can span wetlands, watercourses, priority habitat, and extreme terrain, the installation of an underground transmission line would require the excavation of a continuous trench through these areas.
- Underground transmission lines have different electrical characteristics than overhead transmission lines. These differences often require special studies and different protection requirements and add complication sand costs to the operation and maintenance of the line.
- Most damaged overhead transmission circuits can be repaired from almost any type of damage within a few days (often within 24 hours). Underground transmission circuits require substantial time simply to locate the damage and then even longer to repair with some outages lasting for weeks at a time.
- Permanent and temporary environmental impacts would result from the continuous trenching through these resource areas. Further, the Connecticut Department of Energy and Environmental Protection's Natural Diversity Database has required use of temporary matting to minimize impacts to a particularly sensitive rare

species and critical habitat area associated with limestone ridgetops and outcroppings. Avoidance of this area would not be possible with an underground transmission line.

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