STATE OF CONNECTICUT, OFFICE OF CONSUMER COUNSEL
TEN FRANKLIN SQUARE, NEW BRITAIN, CT 06051-2644
PHONE: (860) 827-2900 --- FAX: (860) 827-2929 --- INTERNET: http://www.ct.gov/occ

STATE OF CONNECTICUT

CONNECTICUT SITING COUNCIL

RE: EVERSOURCE ENERGY APPLICATION FOR A CERTIFICATE OF ENVIRONMENTAL COMPATIBILITY AND PUBLIC NEED FOR THE CONSTRUCTION, MAINTENANCE, AND OPERATION OF A 115-KILOVOLT (KV) BULK SUBSTATION LOCATED AT 290 RAILROAD AVENUE, GREENWICH, CONNECTICUT, AND TWO 115-KV UNDERGROUND TRANSMISSION LINES EXTENDING APPROXIMATELY 2.3 MILES BETWEEN THE PROPOSED SUBSTATION AND THE EXISTING COS COB SUBSTATION, GREENWICH, CONNECTICUT, AND RELATED SUBSTATION IMPROVEMENTS.	:	**DOCKET NO. 461**
	:	**NOVEMBER 17, 2015**

INTERROGATORIES OF
THE OFFICE OF CONSUMER COUNSEL

The following interrogatories from the Office of Consumer Counsel ("OCC") are directed to the Connecticut Light and Power Company d/b/a Eversource Energy ("CL&P" or "Company"). Please contact the undersigned with any questions. Per the Siting Council schedule, please provide responses **on or before November 24, 2015.**

OCC-41 Reference Transcript of 10/06/2015 hearing ("Tr. of 10/06") at 172-174. Please provide the information requested at the hearing regarding: Energize CT participants; an August energy efficiency mailing; and participants in the individualized energy efficiency program.

OCC-42 Reference Tr. of 10/06 at 53-56. Explain in detail the circumstances and the resolution of the referenced cable failure that occurred in July 2015. Include the age of the failed cables, the load at the time of failure, an assessment of why the failure occurred, and any outages that occurred as a result of the failure. Regarding the resolution, include a description of repair work, and detail the replacement infrastructure/equipment and cost. Explain the referenced "emergency rating" for the feeders.

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OCC-43 Reference Response to OCC-4. Does the carrying charge factor ("CCF") of 17% account for all taxes -- federal and state, including gross earnings tax? If not, provide a CCF that is all-inclusive.

OCC-44 Reference Tr. of 10/06 at 163-164. Explain whether cost sharers, such as Western Massachusetts Electric Company and Public Service Company of New Hampshire, could object to certain aspects of this local Project, e.g., the extensive undergrounding, the indoor substation, etc., and potentially have their contribution lowered or eliminated by an ISO-NE determination or a FERC ruling. Also, does CL&P have any intention to make a filing with FERC to exempt WMECO or PSNH from any cost sharing of this proposal? If not, can CL&P commit that they will not make such a filing?

OCC-45 Reference Response to OCC-20.

Given:

(a) the 10% contingency in the Company's estimate and the very costly unknowns in the Project, e.g., potential for blasting and associated risks, blow-outs, clean-ups of various chemicals and materials, etc., and

(b) the Company's higher (than distribution) rate of return for transmission, and the estimated cost of $140 million,

Then:

(c) how would the extra cost be covered if the project went 25 or 30 percent over the estimate?

(d) would the Company be willing to commit to covering or contributing to any costs that exceed the 10% contingency?

OCC-46 For CL&P's territory as a whole, provide a table listing usage by residential, commercial and industrial customers for the past five years, and for 2015 year to date.

OCC-47 What is the maximum output for the Cos Cob substation? Provide a table showing each of the Cos Cob transformers; their nameplate values; and their forced oil/forced air capacity values. Explain in detail the Company's basis for its assessment of the maximum capacity; include an explanation of transformer

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capability for the duration of a typical summer peak load level; and detail provisions for emergency contingencies.

OCC-48 Reference Tr. of 10/06 at 36-37.

(a) Provide a detailed explanation for the scenario of transferring 20 MVA from Cos Cob to Waterside or Tomac Avenue substations.

(b) Provide a detailed explanation of how a 115-to-27.6kV transformer could be added at Cos Cob.

(c) Provide a detailed explanation for the scenario of upsizing the present 115-to-27.6kV transformers at Cos Cob.

(d) Provide a detailed explanation for the scenario of accommodating two sets of 115kV cable risers and the required circuit breakers, disconnects and arrestors in unused space at Cos Cob.

(e) Provide a detailed explanation for the scenario of adding a 27.6kV feeder to the Prospect substation. Provide a detailed explanation for upsizing transformers at Prospect.

OCC-49 Reference Application Table E-2.

(a) Provide a revised Table E-2 to include actuals for 2005 through 2013; actuals for 2014 and 2015; plus forecasts for years 2016 through 2024. Explain the basis for the forecasted numbers.

(b) Provide a second table for the same years as revised Table E-2 showing actual and projected residential, commercial and industrial customers served out of the Prospect substation.

OCC-50 Provide a single table, for the years 2010 through year-to-date 2015, listing each of the substations fed by Cos Cob; the capacity of their incoming feeders; the output capacity of their transformers; and their actual peak usage.

OCC-51 Reference Application at ES-11. The Application states that the issues of most concern to the Town of Greenwich were: the location and the façade of the proposed substation; impacts on Kinsman Lane; and the Cos Cob substation design modifications. However, in the Transcript of the 09/01 Public Hearing, pp. 14-18 and 20, the Greenwich Town Planner Katie DeLuca details major concerns about the proposed high-pressure fluid filled lines. Construction-

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related concerns expressed by the Town Planner at the hearing include: heavy machinery on town streets; traffic issues and access issues for businesses; replacement of trees removed during construction; the possibility of damage to other utilities' buried infrastructure; and a number of other safety, cost and environmental concerns. Does the Company believe that its list fairly reflects the Town's major concerns? Does the Company have the Town's agreement that the four concerns mentioned in its Application are the Town's issues of most concern?

OCC-52 Regarding the line placements under the Metro North Railroad and Interstate 95:
(a) Explain in detail the vibration stress level to which the lines will be subjected from heavy train, truck and car traffic, and how the placements will be engineered to counteract this.
(b) Detail the effect on the lines of stray DC voltage.

OCC-53 At several points in the Application, and during the 10/06 hearing, the Company makes reference to alternate routes that it described as more costly than the Company's preferred route. Provide detailed explanations and cost estimates for the rejected routes. See, e.g., Tr. of 10/06 at 93-94;103-106; 135; 149

OCC-54 Provide the following information regarding the proposed high-pressure, fluid-filled cable system: (a) the pressure per square inch; (b) the type of fluid running through the system; and (c) the gallons of fluid per linear foot.

OCC-55 Reference Tr. of 10/06 at 207-208 and 221. At one point, the Company stated that it might have to do blasting in the Park, and at another point, it stated that the underlying soil is mostly sand and gravel. Provide a detailed explanation of the proposed construction and the geology of Bruce Park. Include a map of Bruce Park, mark out the areas where borings were done, and provide the results.

OCC-56 Has the Company consulted the manufacturer(s) of the Cos Cob 115-to-27.6 kV transformers about retrofitting and upsizing the transformer(s)? If not, why not? If so, did the Company inquire whether the units could be retrofitted with additional cooling capabilities so as to increase their capacities? Did the Company inquire whether the existing units could be replaced with larger

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capacity units that fit within the same facility? Provide the recommendations/analysis the Company received from the manufacturer(s). Provide the name(s) of the manufacturer(s).

OCC-57 Does the North Greenwich substation have extra capacity in its 27.6-to-13.2kV transformers? Detail a scenario for having some of the existing Prospect substation 13.2kV load re-fed and served from the North Greenwich substation.

OCC-58 Regarding connections between the proposed substation and the Cos Cob substation and contingencies:

(a) Define/describe planned feeder ties between the two substations.

(b) Describe the impact on the Cos Cob substation and the proposed substation in the event that one or both of the 115kV circuits from Stamford failed at a location east of the Cos Cob substation.

(c) In the hypothetical scenario where the proposed substation is in operation and there is a failure of the remaining 27.6 kV feeders originating from the Cos Cob substation, how would the Cos Cob loads be re-fed from the proposed substation? Detail a scenario whereby the North Greenwich substation would be energized to handle contingencies from the proposed substation.

OCC-59 Regarding resolution of capacity issues at Cos Cob, provide studies by the Company done in years past that featured the use of overhead distribution measures that could be taken, including reconfiguration of the 13.2kV distribution circuits among the various 27.6-to-13.2kV substations in Greenwich and Stamford. Also, provide all previous studies that outlined a solution to a potential overload of the 115-to-27.6kV transformers at the Cos Cob substation.

OCC-60 Reference Application Tables E-1 and E-5. Explain why the proposed substation is designed for a load capacity rating of 134 MVA, which is nearly equal to Cos Cob's capacity rating of 135MVA. Per Application Table E-1, the Company projects a peak load of 144.2 MVA in 2023 for Cos Cob, or 9.2 MVA above the current stated limit of 135 MVA. Explain why it would be necessary to add 134MVA of additional capacity.

OCC-61 Explain how the Company estimated the trench and horizontal directional drilling costs. Provide copies of any estimates from the construction company(-

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ies) that may do the work. Explain in detail all assumptions on geologic conditions used in the estimates, and the basis for each such assumption.

OCC-62 Provide a detailed blueprint, including all dimensions of Cos Cob substation building and equipment, that identifies all used and unused space.

OCC-63 How often in the past five years has CL&P installed pipe-type cable feeders using dielectric fluid as an insulating medium within 75 feet of a school, playground, or body of water? Provide a list of all such installations, and the repairs made to these feeders since they were first put in service.

Respectfully submitted,

OFFICE OF CONSUMER COUNSEL
ELIN SWANSON KATZ,
CONSUMER COUNSEL

By: Margaret Bain
Margaret Bain
Associate Rate Specialist

I hereby certify that a copy of the foregoing has been mailed, electronically filed, and/or hand-delivered to all known parties and intervenors of record, this 17th day of November 2015.

J. A. Rosenthal
Joseph A. Rosenthal
Commissioner of the Superior Court