

STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL

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October 9, 2009

TO: Parties and Intervenors

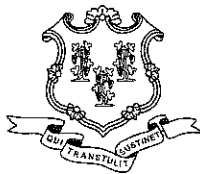
FROM: S. Derek Phelps, Executive Director

RE: **DOCKET NO. 370** – Consolidated proceeding pursuant to the Connecticut Energy Advisory Board (CEAB) Request for Proposal (RFP) process under C.G.S. §16a-7c. **Original application:** The Connecticut Light & Power Company application for Certificates of Environmental Compatibility and Public Need for the Connecticut Valley Electric Transmission Reliability Projects which consist of (1) The Connecticut portion of the Greater Springfield Reliability Project that traverses the municipalities of Bloomfield, East Granby, and Suffield, or potentially including an alternate portion that traverses the municipalities of Suffield and Enfield, terminating at the North Bloomfield Substation; and (2) the Manchester Substation to Meekville Junction Circuit Separation Project in Manchester, Connecticut. **Competing application:** NRG Energy, Inc. application pursuant to C.G.S. §16-50l(a)(3) for consideration of a 530 MW combined cycle generating plant in Meriden, Connecticut.

Comments have been received from the State of Connecticut Department of Public Health, dated October 8, 2009. Copies are attached for your review.

SDP/laf

c: Council Members



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NOTICE OF SERVICE

I hereby affirm that a photocopy of this document was sent to each Party and Intervenor on the service list dated September 18, 2009 with method of service to each party and intervenor listed via either e-mail or hard-copy on October 9, 2009.

Dated: October 9, 2009

A handwritten signature in black ink, appearing to read "Lisa Fontaine", written over a horizontal line.

Lisa Fontaine
Custodian of Docket No. 370

**Comments of the Connecticut Department of Public Health
Re: Connecticut Siting Council Docket No. 370
October 8, 2009**

DPH Contacts: Suzanne Blancaflor, Chief, Environmental Health Section, CT DPH
Gary Ginsberg, Toxicologist, Environmental Health Section, CT DPH

The Connecticut Dept of Public Health (CT DPH) has reviewed the record regarding the Greater Springfield Reliability Project with respect to potential changes in electric and magnetic field (EMF) exposures to those living in or otherwise occupying “statutory facilities.” We have reviewed the record in light of the Siting Council’s December 2007 Best Management Practices (BMPs) for siting new electrical transmission lines. CTDPH assisted the Siting Council in developing these BMPs.

CT DPH finds that most of the proposed 345 kv transmission line upgrade will not occur in areas in close enough proximity to existing statutory facilities to raise a potential public health concern. However, there is an area of concern where the proposed line runs from Suffield to East Granby along Newgate and Phelps roads. There are a number of homes on these roads that are very close to the western edge of the right of way (ROW) for the existing 115 kv line. Estimated EMF levels are substantially higher at the ROW edge (and therefore at these homes) due to the 345 kv line.

Appendix L of the Connecticut Light and Power application describes homes along Newgate and Phelps roads as possibly not being statutory facilities and that the new 345 kv line will not be “adjacent to” these homes. CT DPH visited these roads and found this characterization misleading. As mentioned above, there a number of homes within the segment between 192 Newgate and 3035 Phelps which are very close to the existing ROW, with the 115 kv line clearly visible from these residences. It would appear that there is sufficient density and proximity to consider these homes as statutory facilities. CT DPH acknowledges that not all of the homes on this stretch of Newgate and Phelps Roads are equally close to these lines and so there is likely to be considerable variability in household EMF levels along these roads.

CT DPH has also reviewed the proposed alternatives for mitigating EMF along this segment as described in Section O of the CL&P application. The western edge of the ROW is currently projected to have 8.7 mG stemming from the 115 kv line under annual average loading assumptions. Addition of the proposed 345 kv line is estimated to increase that EMF to 23.5 mG. Table 7 of Section O shows the mitigative effects and costs of various options. The leading option presented in the submission (Delta configuration) and most of the other options have a modest mitigative effect, lowering the field strength to between 13 and 19 mG at the edge of the ROW. Given how close some of these homes are to the ROW, we would anticipate that the modeled mG levels for these homes would be similar to what is projected on Table 7 for the western ROW.

The leading option would not spend the full 4% of project costs for EMF mitigation as described in the BMPs. Rather it would use only 1.6%. Therefore, there may be more that can be done to mitigate EMF. One option is a split phase configuration. Table 7 predicts that it would lower the field strength to 2.4 mG at this western edge of the ROW but would supercede the mitigation cost target, leading to 10.1% increase in project cost. CTDPH questions the manner in which this cost increase was calculated given that the the base cost only considered the 11 miles in Connecticut and not the entire project (Springfield to Bloomfield). If mitigative costs were expressed as a percentage of the total project (as per the BMPs), split phasing would likely be less than 5% and within spending guidelines.

Another option that might be considered is an increased buffer zone for the homes closest to the ROW. The ROW is 305 feet wide with the 115 kv line only 50 feet in from the western edge and the proposed 345 kv line displaced only 75 feet to the east from the existing line. That leaves 180 feet of ROW that is unoccupied. Further, there are very few structures to the east of this ROW. Therefore it might be feasible to combine Delta configuration (as already proposed) with extra buffer to lower EMF levels for the homes most affected due to their proximity.

In summary, CT DPH finds the leading option (Delta configuration) to be less than adequate to address the increase in field strength for the homes closest to the existing ROW on Newgate and Phelps Roads. A reasonable objective is for the design of these new lines to minimize the increase above current field estimates to the greatest extent possible. Split phasing appears to be quite effective and the costs may be within the BMP spending guidelines depending upon how the percentage is calculated. In any case, it appears to represent the state-of-the-art to achieve maximal EMF reduction. Split phasing in the vicinity of the closest homes rather than along the entire 3.2 mile section may help reduce costs. As an alternative, it may be possible for increased buffer to play a role for select homes. CTDPH urges the Siting Council to explore these and any other options that would yield a greater EMF mitigative effect than the leading option (Delta configuration) for those homes closest to the ROW.

We have no comments at the present time on the possible increase in EMF for statutory facilities in Enfield along the proposed Southern Route Alternative. Our understanding is that this is not the primary plan at the current time. If that alternative becomes more likely CTDPH may have additional comments as there are a number of homes that are directly adjacent to the existing ROW in Enfield and this may create the need to consider additional EMF mitigation.

If the Council has questions related to these comments, CTDPH would be willing to provide additional written testimony or appear in front of the Council. In any case, please keep CTDPH abreast of the latest deliberations, meeting times and agenda for this docket.