

STATE OF CONNECTICUT

SITING COUNCIL

Docket 370A: The Connecticut Light and Power Company application for a Certificate of Environmental Compatibility and Public Need for (1) The Greater Springfield Reliability Project consisting of a new 345-kV electric transmission line and associated facilities from the North Bloomfield Substation in Bloomfield to the Connecticut/Massachusetts border, together with associated improvements to the North Bloomfield Substation, and potentially including portions of a new 345-kV electric transmission line between Ludlow and Agawam, Massachusetts that would be located in the Towns of Suffield and Enfield, Connecticut; and (2) the Manchester Substation to Meekville Junction Circuit Separation Project in Manchester, Connecticut.

Docket 370B: 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

DOCKET 370

November 4, 2009

**APPLICANT'S OBJECTION TO PORTIONS OF THE
TESTIMONY OF RICHARD LEGERE**

The applicant, the Connecticut Light & Power Company, Inc., ("CL&P"), submits this objection to portions of the proposed pre-filed testimony of Richard Legere, ARM, on behalf of Citizens Against Overhead Power Line Construction, ("CAOPLC"). The specific testimony to which objection is made is designated herein by page and line. The objection to each portion of the testimony is stated immediately following its designation. For clarity, attached to this Objection is a copy of Mr. Legere's proposed testimony. Those portions objected to on the basis that Mr. Legere is giving an unqualified expert

opinion on a subject requiring specialized knowledge are highlighted in yellow. Those portions objected to on the ground that it is irrelevant, prejudicial, unreliable or relies on inadmissible hearsay, are highlighted in green. And, those portions objected to on a combination of the above mentioned grounds are highlighted in red. A memorandum of law in support of CL&P's objections is attached and submitted herewith.

SUMMARY OF OBJECTIONS

CL&P objects to Mr. Legere's testimony in that it attempts to provide the panel with opinion evidence that is scientific and/or technical in nature. Such testimony requires certain expert qualifications of the witness; qualifications that Mr. Legere does not possess. In addition, Mr. Legere attempts to testify to various irrelevant subjects based solely on unreliable hearsay. Additionally, CL&P objects to this testimony because a proper foundation has not been laid for it. For these reasons, as more specifically set forth below, CL&P objects to the testimony submitted by CAOPLC designated below.

SPECIFIC OBJECTIONS

1) Page 8

223 I also asked a question in the Realtors forum on Zillow.com about overhead power lines, home value
224 and desirability. Here is the link. You will see that I am identified as the person asking the question
and
225 that various Realtors have provided their opinions. [http://www.zillow.com/advice-thread/Do-high](http://www.zillow.com/advice-thread/Do-high-voltage-power-lines-near-a-house-about-300-feet-have-an-impact-on-property-value/178204/)
226 [voltage-power-lines-near-a-house-about-300-feet-have-an-impact-on-property-value/178204/](http://www.zillow.com/advice-thread/Do-high-voltage-power-lines-near-a-house-about-300-feet-have-an-impact-on-property-value/178204/)
228 Having a transmission line near a home impacts its ability to have FHA financing if there are fall zone
229 concerns and also diminishes the pool of potential buyers. This will be discussed in depth later on in
the
230 testimony.

OBJECTION:

The alleged out of court opinions of “Realtors” on a Web site are inadmissible hearsay. The witness has not provided the proper foundation for the admission of this information and also has not demonstrated that he has personal knowledge regarding the real estate valuations at issue. Nor has the witness established that he is knowledgeable in the lending practices of the FHA as described in lines 228 through 230. Therefore, CL&P objects.

2) **Page 11**

353 The scientific community seems to be split on this issue. The BioInitiative Report’s scientists and
many
354 other scientists feel that EMFs are harmful and harmful to the point of being deadly. Of particular

³ Here is the web site for the BioInitiative report: <http://www.bioinitiative.org/> On page 4 of the Summary for the Public, the BioInitiative report’s scientists say:

“Not everything is known yet about this subject; but what is clear is that the existing public safety standards limiting these (EMF) radiation levels in nearly every country of the world look to be thousands of times too lenient. Changes are needed. New approaches are needed to educate decision-makers and the public about sources of exposure and to find alternatives that do not pose the same level of possible health risks, while there is still time to make changes.”

The BioInitiative Report also offered what I believe to be the most cogent reason as to why there is not agreement among scientists on EMFs and why we have included information for the CSC on Toxicogenomics. Again, I do not think I have to be an expert to introduce what is “informational content” about this new field which may prove to be of value in being able to measure EMF’s effects on a living system. If I were presenting research data to support a position I wanted to establish and offer as evidence, that would be expert testimony:

BioInitiative Report : Main Reasons for Disagreement among Experts:

1) Scientists and public health policy experts use very different definitions of the standard of evidence used to judge the science, so they come to different conclusions about what to do. ***Scientists do have a role, but it is not exclusive and other opinions matter.*** [emphasis added]

- 2) We are all talking about essentially the same scientific studies, but use a different way of measuring when enough is enough" or "proof exists".
- 3) Some experts keep saying that all studies have to be consistent (turn out the same way every time) before they are comfortable saying an effect exists.
- 4) Some experts think that it is enough to look only at short-term, acute effects.
- 5) Other experts say that it is imperative we have studies over longer time (showing the effects of chronic exposures) since that is what kind of world we live in.
- 6) Some experts say that everyone, including the very young, the elderly, pregnant women, and people with illnesses have to be considered – others say only the average person (or in the case of RF, a six-foot tall man) matter.
- 7) There is no unexposed population, making it harder to see increased risk of diseases.
- 8) The lack of consensus about a single biological mechanism of action.
- 9) The strength of human epidemiological studies reporting risks from ELF and RF exposures, but animal studies don't show a strong toxic effect.
- 10) *Vested interests have a substantial influence on the health debate. (CAOPLC Emphasis)*

OBJECTION:

Evaluation of the claims cited in the Bioinitiative Report requires specialized scientific and technical knowledge on the part of the witness introducing it.

This witness is admittedly not qualified to evaluate claims that are scientific or technical in nature. Further, this report is not an official government document and it is not an authoritative scientific publication and is therefore not capable of being administratively noticed by the Siting Council in this matter absent a proper foundation.

3) Page 12, Line 1 Through Page 21, Line 761

This testimony concerns alleged potential health effects of exposure to electric and magnetic fields.

OBJECTION:

All of the information and proposed testimony contained in these pages is scientific, technical and/or requires specialized knowledge on the part of the witness introducing it. This witness has not demonstrated a specialized knowledge in EMF, health toxicology, pharmacology, gene mutation, toxicogenomics, measures of exposure, dose effect relationships, dose effect response, or electrical engineering. In addition, the proposed testimony is unduly prejudicial. It contains numerous unsupported propositions linking EMF to various proven toxic substances. Further, this entire section of testimony is founded on hearsay.

- 4) a) Page 21, Line 773 Through Page 24, Line 862
b) Page 24, Line 888 through Page 26, Line 933
c) Page 26, Line 946 through Page 31, Line 1144

This testimony concerns alleged advantages of HVDC technology over AC technology.

OBJECTION:

CL&P objects to this testimony on the ground that all of the information and proposed testimony contained in these pages is scientific, technical and/or requires specialized knowledge on the part of the witness introducing it. This witness has not introduced a foundation to demonstrate that he is qualified in the technology of High Voltage Direct Current (“HVDC”). He is therefore incompetent to testify on the information. In addition, CL&P objects on the ground that all of the testimony objected to herein relies exclusively on

hearsay. The material proffered is a compilation from various hearsay sources, of which the witness has no personal knowledge.

5) Page 31

1162 I am also providing commentary on the issues of diminished property values that result from the
1163 construction of power towers adjacent to residential properties.

OBJECTION:

The real estate devaluation testimony proposed in these lines requires specialized knowledge on the part of the witness introducing it. The witness has failed to provide any foundation that he is qualified in the area of valuation, real estate appraisals or statistics, all of which are implicated by the above referenced testimony.

6) Page 34

1260 So if we can present this in the most general way possible so that we avoid making it a personal
issue and
1261 make it a concern that we have about how the construction process will be documented and
monitored, we
1262 want to bring to the CSC's attention that we found that one of CL&P's panel of experts ran into
legal
1263 difficulties for work that was done on a prior energy project. The senior executives of the firm that
this
1264 person worked with as a consultant were indicted by the federal government and eventually pled
guilty to
1265 civil and criminal charges and paid fines of \$22 million.
1266
1267 The CL&P panel expert we are referring to was also personally indicted by the federal government
but after
1268 the settlement was reached with the corporation and senior management plead guilty, the district
court
1269 dismissed the charges against the consultant. To be fair, the individual and the firm were not found
guilty
1270 or personally liable but neither were they found by a court to be innocent.
1271
1272 Our concern does not relate to innocence or guilt and it is not about professional ability or
competence.
1273 It is about what assurance do we have that the situation that occurred in this federal lawsuit will not
1274 occur on the GSRP? We would be willing to let CL&P address this issue in private before any
response is
1275 offered. But we do feel it is a valid question to ask and a concern about what environmental
safeguards
1276 will be in place.
1277

OBJECTION:

The quoted material is irrelevant to the current proceedings, unfairly prejudicial and inflammatory.

7) Page 34:

1278 CAOPLC also discussed the issues of water runoff and the right of way clearing on Phelps Road.
Our
1279 ideal solution is the undergrounding of the power lines and the use of HVDC power lines because
the
1280 construction process is much less invasive, less land need to be cleared and there is of course the
very
1281 big benefit that HVDC power lines do not emit EMF radiation.

OBJECTION:

All of the information and proposed testimony propose in these lines requires specialized knowledge on the part of the witness introducing it. The witness has failed to provide any foundation that he is qualified in the area of environmental studies or construction management, specifically with respect to surface drainage issues.

8) Page 35, Line 1292 Through Page 36, Line 1337

1292
1293 Our property owner's rights to easement land, according to CL&P, were given up when we bought
our
1294 properties "BECAUSE THE EXISTING POWER LINES CAUSED A REDUCTION IN PROPERTY
VALUE," a
1295 benefit we enjoyed in the form of a reduced price at the time of purchase. That reduction in value
1296 balances giving up, apparently as CL&P views it, all of our rights to the land save for paying
property
1297 taxes on it on behalf of CL&P,
1298
1299 It goes without saying, other than in CL&P's world view, that it can't work both ways:
1300
1301 • There can't be a "loss of property value" when it is favorable and supportive to CL&P;
1302
1303 • and there cannot be a "no loss of property value" situation when the reverse is true, when it is

1304 unfavorable and unsupportive to CL&P.
1305
1306 There have been numerous academic studies done to try to qualify and quantify the effects of high
1307 voltage power lines on home values. All of the studies use statistical modeling. An often cited study
of
1308 how to model and calculate the diminution of value of stigmatized properties is the Chalmers and
Rohr
1309 study²⁷, In one paper on EMF valuation, the authors wrote:
1310
1311 "EMFs have already been identified as one type of "stigma" that can influence the value of
1312 the property negatively (Chalmers and Roehr, 1993). However, using the expectation of
1313 future health problems as the basis of "fear" is new to our literature. A correct definition
1314 and measurement of this new concept is critical as it can be a part of the future evidence in
1315 any stigmatized property, This is the purpose of this article.
1316
1317 Although the measurement tool for stigmatized income properties has been presented in
1318 the recent literature as the discounted loss of adjusted net operating income (Chalmers and
1319 Roehr, 1993), little agreement exists on the best estimation technique for residential
1320 properties. This article examines the issues that have been covered in a number of current
1321 cases to estimate the loss in residential value from fear. This information is critical to
1322 residential valuation in future appraisal assignments near a power line and to lenders who
1323 have loans on these properties."²⁸
1324
1325 Because an in depth discussion of statistics and survey techniques are beyond the scope of our
1326 testimony, it is accurate to say any discussion of whether or nor HVOL (high voltage overhead
lines) is
1327 much like a discussion of EMFs. We do however want the CSC to note that the academic studies
that
1328 say EMFs are a stigma to real property were authored by CL&P's expert Dr. Chalmers who is now
1329 apparently arguing against himself. It seems that Dr. Chalmers was for EMFs being a cause of
1330 diminished property values before he was against them.
1331
1332 There are too many variables to account for such as if in new housing developments whether or not
a
1333 developer has increased the lot size or improved the amenities of a home near a HVOL power line,
or
1334 one that has a view of a transmission tower to help sell it. And are those variables and differences
1335 accounted for in the data and statistical modeling? Some studies show that HVOL power lines do
cause
1336 diminished property values to varying degrees and some studies show no loss of value.
1337

²⁷ James A Chalmers and Scott Roehr, "Issues in the Valuation of Contaminated Property," *The Appraisal Journal* (January 1993): 28-41.

²⁸ Cancerphobia: Electromagnetic Fields and Their Impact In Residential Loan Values *James A. Bryant & Donald R. Epley Journal of Real Estate Research*, Volume 15, Numbers 1/2, 1998.

OBJECTION:

The proposed testimony concerning real estate appraisal require specialized knowledge and qualifications on the part of the witness introducing it. The witness has failed to provide any foundation that he is qualified in the area of

valuation, real estate appraisals or statistics, all of which are implicated by the above referenced testimony.

9) Page 43

1514 I am offering a few examples that seem to me to be indicative of a situation important beyond a
1515 seemingly trivial first appearance. In the EMF section in Volume 1 of 11, Section O, page O-4,
CL&P
1516 makes reference to a 1985 study from Gauger that says people are exposed to high EMF levels in
their
1517 daily lives and "reports the maximum AC magnetic fields from a sampling of (household)
appliances as
1518 3,000 mG from a can opener, 2,000 mG from a hair dryer, 5 mG from an oven ..."
1519

OBJECTION:

The proposed testimony is scientific, technical and/or requires specialized knowledge on the part of the witness introducing it. This witness has not demonstrated a specialized knowledge with respect to the health effects on engineering aspects of EMF. CL&P further objects in that this entire section of testimony is dependant on hearsay.

10) Page 43

1520 Is that the best data that CL&P has available, a study that is 24 years old? My professional training
is in
1521 underwriting risk and hazard information. I have found that after 30 years that the key element to
1522 analyze is not so much what is said but why information is said. It is those odd bits of information
that
1523 appears as "outliers" or "omissions" that are often critically important. My professional curiosity
piqued
1524 I got my EMF meter³⁰ and performed a "field test." The results are shown on the next page. Again,
1525 please ignore the picture date, and I discovered it after this material was put together too late to
1526 reshoot the pictures and still make our deadline.
1527
1528 The first set of pictures show that on the "High" setting an EMF reading of 72. 7 to 82.3 mG is
obtained
1529 right next to the motor running on the high setting.
1530
1531 The next images show that 4.4 mG is obtained at a close distance to the dryer end again running
on the
1532 high setting. This reading which would be next to the person's head is 4.4 mG not 2,000 mG. A
reading

1533 of 1.0 mG is at a distance that where one might actually use for the hair dyer to avoid scorching
1534 your head. The last picture shows the dryer at low setting at 33.6 mG right next to the electric motor.
1535
1536 Here is why I think this is important and how it ties back to the dose-response curve. If you
understand
1527 the theory behind dose-response³¹, it becomes clear that after the point where a lethal dose is
reached
1538 (LD) it really does not matter if as a regulatory bureaucrat such as the EPA, you set a the
maximum LD
1539 limit to avoid at LDx + 100 or LDx + 10,000 or LDx+1,000,000 because at LDx+10, most people are
dead.
1540 X is the unit of hazardous substance. My point is if EMFs are proven to be a cancer causing agent,
if the
1541 WHO or the ICRNIP says today that the acceptable time weighted 24 hour exposure limit for EMF
is
1542 1,500 mG to make up a number, if it turns out the LD number is 30mG again to make up a number,
the
1543 old incorrect limit of 1,500 could have been 150 mG or 150,000 mG wrong it is still wrong until the
1544 precise LD threshold is known.
1545
1546 But orders of magnitude can be telling. If the vast majority of scientific studies are analyzing
exposure
1547 rates at 3 mG, 4mG, and only single digit mG levels when we are being told that our EMF mG
exposure
1548 as we travel under the GSRP power lines is in the 200 to 300 Mg range, it is troubling. It is
distressing. It
1549 is of great concern when you are the person about to be exposed.
1550
1551 I hope that CL&P is just recycling 24 year old information. I hope that CL&P is not trying in a subtle
way
1552 to influence the CSC'S perception of EMF exposures to counter what CT DPH says in their
EMF brochure,
1553 that EMFs of above 4 mG may a critical threshold of exposure for childhood leukemia
by saying that
1554 CL&P's hair dryer produces 2,000 mG and that hasn't been a problem to anyone. It hasn't because
it
1555 appears that my hair dryer only produces 1.0 to 4.4 mG depending on how much heat you can
tolerate
1556 at your scalp as you dry your hair.

³⁰ The certificate of laboratory calibration for this instrument is included in this testimony.

³¹ And to avoid an objection from the Applicant's counsel, I will state as a part of this testimony that
my mentor at Harvard
Medical School Dr. Keichline was as specialist in pharmacology, so I did learn quite a bit about the
subject of dose and
response and how to structure credible experiments.

OBJECTION:

CL&P incorporates by reference its objection to the EMF testimony stated in

Objection (9).

11) Page 47, Line 1628 Through Page 48, Line 1656

1628 The testimony of Julia Frayer on behalf of CL&P did not include modeling any adverse economic
impacts
1629 of the GSRP. The scope of the LEI work product and testimony as directed by NU and CL&P was
to
1630 determine if there were positive economic benefits to ratepayers as a whole from constructing this
1631 specific transmission power line in this specific way,
1632
1633 With regard to a competitive energy market, given what we learned from ISQ-NE's testimony and
the
1634 testimony of Mr. Chernick, the economics and the design of ISQ-NE's local market pricing if it
were
1635 applied to the automobile industry would work like this: Hyundai, Ford, Honda, and Toyota are all
1636 producers of quality small sedans. Hyundai (representing Millstone Nuclear) charges \$13,000 for
its
1637 economy vehicles. Ford, Honda, and Toyota charge \$15,500 on average for their vehicle.
Whenever
1638 BMW and Volvo sell cars at \$45,000, all car manufactures including Hyundai as the first tier
producer
1639 and Ford, Honda, and Toyota as the second tier of economy manufactures all get to sell their cars
at
1640 \$45,000 even though in the case of the lowest cost producers their production cost are less and
they can
1641 and do enter the market and sell their products at a lower cost.
1642
1643 Now Rolls Royce, Bentley and Ferrari (the RMR producers) each sell a luxury convertible car
because it is
1644 summer time and that is when convertibles are purchased, According to our ISO-NE locational
electric
1645 energy market pricing, all car manufacturers now get to sell their cars at \$275,000 because that is
the
1646 cost at the highest tier of production. Try explaining that to someone. Try explaining that to
someone
1647 on a fixed income.
1648
1649 Would it not make more sense if protecting the consumer and having reliable low cost energy is
the real
1650 goal, if making certain that our Connecticut business environment is a competitive and attractive
1651 environment to encourage start-up entrepreneurship is a goal, if another goal is that we are
provide real
1652 solutions to combat global warming and create energy independence, if those are our goals why
don't
1653 we instead of building more and more transmission lines look at doing something that actually
reduces
1654 peak demand. That takes the Rolls Royces and Bentleys out of the equation not just to lower our
high
1655 marginal energy costs but actually drive down the marginal energy cost threshold.
1656

³² In case the Applicant's counsel objects to this last statement as hearsay, we understand that
Hearsay evidence may be admitted in a contested administrative hearing as long as it is reliable
and probative. 47 CS 228.

OBJECTION:

**To the extent this proposed testimony purports to express an evaluation of
economic testimony, it requires expert qualifications. To the extent it is a
commentary of the evidence, it is argumentative rather than factual. While it**

may be appropriate for a post trial brief, it adds nothing of substance to the record.

12) Page 48

1682 And with regard to reliability, we are proposing to build the Greater Springfield Reliability Project in
the
1683 least reliable way. Underground lines according to various utilities are 50% to 70% more reliable
on
1684 average than overhead power lines. If the initial triggering event for the 2003 blackout was a
sagging
1685 power line contacting a tree limb, or a squirrel as Chairman Caruso said, if that power line were
1686 underground there would have been no 2003 blackout. Eleven more people would be living and
billions
1687 would not have been lost.
1688
1689 But we can't build HVAC lines for long distances. True. But you can build HVDC lines for long
distances
1690 and their underground construction is easy and low cost. See the Murray Link project in Australia.
But
1691 HVDC have short term overvoltage problems says Mr. Ashton. True, but that is only a part of the
story
1692 because there is HVDC technology to mitigate over voltage events and HVDC does work well with
1693 asynchronous systems.

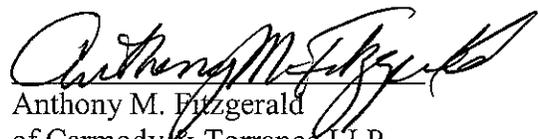
OBJECTION:

**CL&P incorporates by reference its objections to the HVDC testimony stated
in Objection No. 4.**

Respectfully submitted,

**THE CONNECTICUT LIGHT AND
POWER COMPANY**

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CERTIFICATION

This is to certify that a copy of the foregoing has been served on this 4th day of November, 2009 upon all parties and intervenors as referenced in the Connecticut Siting Council's Service List dated October 20, 2009.


Anthony M. Fitzgerald