December 28, 2004

VIA HAND DELIVERY

Ms. Pamela Katz
Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06501

Re: Docket No. 272

Dear Ms. Katz:

Enclosed please find an original and 20 copies of the Prefiled Testimony of Anne Bartosewicz and John Prete concerning updated project costs, filed on behalf of the applicants in advance of the hearing scheduled for January 11, 2005.

Sincerely,

Anthony M. Fitzgerald, Esq.
Carmody and Torrance LLP

Linda L. Randell, Esq.
Wiggin and Dana LLP

Enclosures
cc: Service List

SERVICE LIST

Julie Donaldson Kohler, Esq.
Hurwitz, Sagarin & Slossberg, LLC
147 North Broad Street
Milford, CT 06460
JKohler@hss-law.com

Representative Al Adinolfi
103rd District
235 Sorghum Mill Drive
Cheshire, CT 06410
Alfred.adinolfi@housegop.state.ct.us

Linda L. Randell, Esq.
Bruce L. McDermott, Esq.
Wiggin &Dana LLP
One Century Tower
New Haven, CT 06508-1832
lrandell@wiggin.com
bmcdermott@wiggin.com

Town of Middlefield
c/o Eric Knapp, Esq
Branse & Willis, LLC
41-C New London Turnpike
Glastonbury, CT 06033
eknapp@bransewillis.com

Peter G. Boucher, Esq.
Halloran & Sage, LLP
One Goodwin Square
225 Asylum Street
Hartford, CT 06103
boucher@halloran-sage.com

Louis S. Ciccarello, Esq.
Corporation Counsel
P.O. Box 798
Norwalk, CT 06856-0798
lciccarello@norwalkct.org

Representative Mary G. Fritz
90th District
43 Grove Street
Yalesville, CT 06492
mary.fritz@po.state.ct.us

Town of Westport
c/o Ira W. Bloom, Esq.
27 Imperial Avenue
Westport, CT 06880
ibloom@wsdb.com

Lawrence J. Golden, Esq.
Pullman & Comley, LLC
90 State House Square
Hartford, CT 06103
lgolden@pullcom.com

Representative Robert W. Megna
97th District
40 Foxon Hill Road, #54
New Haven, CT 06513
Robert.Megna@po.state.ct.us

Deborah L. Moore, Esq.
Legal Department
City Hall
142 East Main Street
Meriden, CT 06450
dmoore@ci.meriden.ct.us

Michael C. Wertheimer
Assistant Attorney General
Attorney General's Office
10 Franklin Square
New Britain, CT 06051
Michael.wertheimer@po.state.ct.us

Representative Raymond Kalinowski
100th District
P.O. Box 391
Durham, CT 06422
Raymond.kalinowski@housegop.state.ct.us

Melanie J. Howlett
Associate City Attorney
City of Bridgeport
999 Broad Street
Bridgeport, CT 06604-4328
Howlem0@ci.bridgeport.ct.us

Bruce C. Johnson
Litigation Attorney
Office of Consumer Counsel
Ten Franklin Square
New Britain, CT 06051
bruce.johnson@po.state.ct.us

Representative Themis Klarides
114th District
23 East Court
Derby, CT 06418
Themis.klarides@housegop.state.ct.us

Anthony M. Macleod, Esq.
Whitman, Breed, Abbott & Morgan LLC
100 Field Point Road
Greenwich, CT 06830
amacleod@wbamct.com

Trish Bradley, President
Ed Schwartz, Treasurer
Communities for Responsible Energy, Phase II
45 Ironwood Lane
Durham, CT 06422
thebradco@aol.com

Honorable Kenneth Flatto
First Selectman
Independence Hall
725 Old Post Road
Fairfield, CT 06824
firstselectmanflatto@town.fairfield.ct.us
ekennelly@town.fairfield.ct.us

Brian M. Stone, Esq.
Sousa, Stone & D'Agosto, LLC
375 Bridgeport Avenue
Shelton, CT 06484
brianstone@snet.net
Mitchgoldblatt@aol.com

Monte E. Frank, Esq.
Cohen and Wolf, P.C.
158 Deer Hill Avenue
Danbury, CT 06810
mfrank@cohenandwolf.com

David A. Ball, Esq.
Cohen and Wolf, P.C.
1115 Broad Street
Bridgeport, CT 06604
dball@cohenandwolf.com

Andrew W. Lord, Esq.
Murtha, Cullina LLP
CityPlace I, 29th Floor
185 Asylum Street
Hartford, CT 06103-3469

Janis M. Small, Esq.
Town Attorney
Wallingford Town Hall
45 South Main Street
Wallingford, CT 06492
wlfdlaw@snet.net

Maryann Boord
First Selectwoman
Durham Town Hall
30 Townhouse Road
Durham, CT 06422
mboord@townofdurhamct.org

Robert E. Earley
Connecticut Business & Industry Assoc.
350 Church Street
Hartford, CT 06103-1106
earleyr@cbia.com

Richard J. Buturla, Esq.
Berchem, Moses & Devlin, P.C.
75 Broad Street
Milford, CT 06460
rbuturla@bmdlaw.com
mmilone @ cheshirect.org

Joaquina Borges King
Assistant Town Attorney
Hamden Government Center
2750 Dixwell Avenue
Hamden, CT 06518
jborgesking@hamden.com

David A. Reif
Jane K. Warren
Joel B. Casey
McCarter & English, LLP
Cityplace I
Hartford, CT 06103
dreif@mccarter.com

Timothy P. Lynch
Deputy City Attorney
City Attorney's Office
245 deKoven Drive
P.O. Box 1300
Middletown, CT 06457-1300
timothy.lynch@cityofmiddletown.com

Honorable Derrylyn Gorski
First Selectman
Bethany Town Hall
40 Peck Road
Bethany, CT 06524-3378
Dgorski@Bethany-CT.com

William J. Kupinse, Jr.
First Selectman
Easton Town Hall
225 Center Road
P.O. Box 61
Easton, CT 06612
wkupinse@eastonct.org

Honorable William A. Aniskovich
12th District
15 Grove Avenue
Branford, CT 06405
William.A.Aniskovich@po.state.ct.us

David J. Monz
Updike, Kelly & Spellacy, P.C.
One Century Tower
265 Church Street
New Haven, CT 06510
dmonz@uks.com

David R. Schaefer, Esq.
Brenner Saltzman & Wallman LLP
271 Whitney Avenue
New Haven, CT 06511
dschaefer@bswlaw.com

Mr. Franco Chieffalo
General Supervisor
First District Water Department
P.O. Box 27
Norwalk, CT 06852
fchieffalo@norwalkfdwd.org

Senator Joseph J. Crisco, Jr.
17th District
Legislative Office Building
Room 2800
Hartford, CT 06106
Crisco@senatedems.state.ct.us

Charles H. Walsh, Esq.
Eileen M. Meskill, Esq.
55 Elm Street
P.O. Box 120
Hartford, CT 06141-0120
charles.walsh@po.state.ct.us
eileen.meskill@po.state.ct.us

Senator Leonard A. Fasano
34th District
Seven Sycamore Lane
North Haven, CT 06473
Len.Fasano@po.state.ct.us

Elizabeth P. Gilson, Esq.
383 Orange Street
New Haven, CT 06511
egilson@snet.net

Karyl Lee Hall, Esq.
Co-Chairman
Branford Conservation & Environment Commission
c/o Box 3072
Branford, CT 06405
Karylleehall1@aol.com

Honorable John E. Opie, First Selectman
Branford Town Hall
P.O. Box 150, Town Hall
Branford, CT 06405
jopie@branford-ct.gov

Sebastian N. Giuliano, Esq.
P.O. Box 820
Middletown, CT 06457-0820
sscalora@aol.com

Honorable Kevin DelGobbo
Energy and Technology Committee
Legislative Office Building
Room 3904
Hartford, CT 06106-1591
Kevin.delgobbo@housegop.state.ct.us

STATE OF CONNECTICUT

SITING COUNCIL

Re:	The Connecticut Light and Power Company and The United Illuminating Company Application for a Certificate of Environmental Compatibility and Public Need for the Construction of a New 345-kV Electric Transmission Line and Associated Facilities Between Scovill Rock Switching Station in Middletown and Norwalk Substation in Norwalk, Connecticut Including the Reconstruction of Portions of Existing 115-kV and 345-kV Electric Transmission Lines, the Construction of the Beseck Switching Station in Wallingford, East Devon Substation in Milford, and Singer Substation in Bridgeport, Modifications at Scovill Rock Switching Station and Norwalk Substation and the Reconfiguration of Certain Interconnections	)	Docket 272 December 28, 2004

TESTIMONY OF ANNE BARTOSEWICZ AND JOHN J. PRETE CONCERNING UPDATED PROJECT COSTS

Q. What are the revised cost estimates for the Project, updated to account for developments since the Application in this proceeding was filed in October of 2003?

A. The table below summarizes the cost estimates in 2004 dollars for:

- The "Proposed Route," which is the hybrid overhead / underground configuration with approximately 24 linear miles of underground cable from the proposed East Devon Substation in Milford to the Norwalk Substation and 45 miles of overhead 345-kV construction between Middletown and the East Devon Substation. This configuration involves the same overhead and underground routes proposed in the Application, but the technology has been modified as described in the Final ROC Report, in which this configuration is identified as "Case 5."

- "Alternative A," which is a hybrid overhead/underground configuration with approximately 13 linear miles of underground cable from the proposed East Devon Substation to the proposed Singer Substation in Bridgeport and from

Singer to the proposed Hawthorne Transition Station in Fairfield and 60 miles of overhead 345-kV construction between Middletown and the East Devon Substation, and from Hawthorne Transition Station (in Fairfield) to Norwalk Substation. This configuration involves the same overhead and underground routes specified for Alternative A in the Companies' Application, but the technology has been modified as described in the Final ROC Report, in which this configuration is identified as "Case 2."

- "Alternative B," a nearly all-overhead alternative identified as Alternative B in the Companies' Application, with approximately 72 miles of overhead construction and only about 4 miles of underground 345-kV construction, comprised of about 2 miles of cable in each direction between a new Singer Substation in Bridgeport and a new Seaview Transition Station in Bridgeport.

Summary of Cost Estimates
(Millions of 2004 Dollars)

MN Project Cost Summary	Proposed Route (24 Miles UG 45 Miles OH)	Alternative A (13 Miles UG 60 Miles OH)	Alternative B (4 Miles UG 72 Miles OH)
TOTAL	837 to 993	811 to 947	754 to 864

A breakdown of the estimated cost for each configuration, by route segments 1-4, corresponding to the segments identified in the Application, is attached as Appendix A. The estimates in the table above assume standard H-frame or monopole construction for all overhead segments of the new construction.

Q. Why have you stated your estimates in ranges?

A. Even though these cost estimates are the product of a detailed analysis, they are nevertheless based on preliminary or conceptual engineering, and an imperfect knowledge of field conditions. Firm cost estimates will require a detailed project design. The range of costs recognizes the uncertainties with which the Companies are presented at this point. For instance, we do not precisely know how much contaminated soil we

will encounter. Accordingly, we have assumed for the low underground construction estimate that only 10% of the soil will be classified as contaminated, requiring appropriate disposal by a licensed contractor, whereas the high range estimate assumes that 25% of the soil will be classified as contaminated. Similarly, the low range estimate for construction of underground lines assumes that 10% rock or ledge will be encountered where cables must be installed, as compared to 25% assumed in the high estimate. For both underground and overhead construction, the low estimate includes a 10% contingency, as compared to a contingency of 30% in the high estimate.

Q. Please account for the difference in the base case estimate range of $837 million to $993 million for the proposed route, and the original $604 million cost estimate.

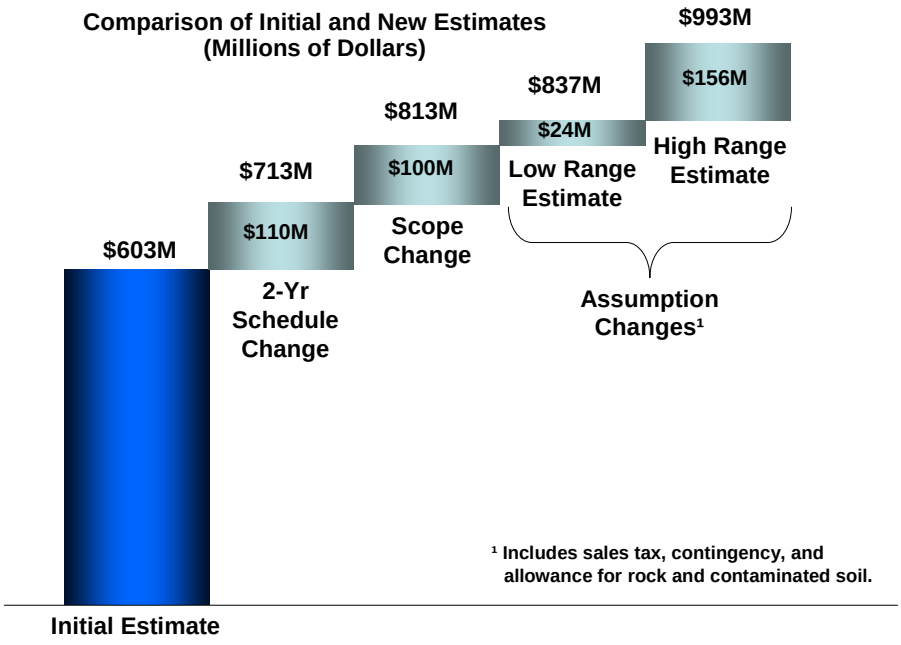
A. The chart below illustrates the difference between the estimate in the Application and the most recent estimates for the configurations provided in the Final ROC Report. These differences can be put into three categories:

- *2-Year Schedule Change*. The in-service date proposed in the Application was 2007. The Project's new in-service date is projected to be 2009. The $604 million estimate in the Application was in midyear 2003 dollars and reflected estimated material costs at that time. The new estimates are in 2004 dollars and reflect current materials costs, which have increased significantly since 2003. In addition, the deferral results in increases in project procurement and construction management costs and additional Allowance for Funds Used During Construction ("AFUDC"). These schedule change increases account for a difference of $110 million, as compared to the initial cost estimate.

- *Scope Change*. There are two significant changes in the scope of construction in order to maximize the amount of underground cable: (1) the cable technology has been changed from high pressure fluid-filled ("HPFF") to solid dielectric cross linked polyethylene ("XLPE"), which has higher material and installation costs; and (2) significant equipment upgrades are required at the proposed Singer Substation and at Norwalk Substation. These

scope changes account for an approximate $100 million increase as compared to the estimate in the Application.

- *Assumption Changes.* The estimate in the Application assumed minimal costs for removal of rock and contaminated soil, in contrast to the revised assumptions discussed above. The low range estimate includes a contingency of 10%, which is about the same level of contingency included in the estimate in the Application, whereas the high range estimate has a contingency of 30%. The new estimate also reflects a change in the sales tax rate. These changes account for approximately $24 million in the new low range estimate and approximately an additional $156 million in the new high range estimate.



Q. Are there costs associated with equipment changes that resulted from the extensive analysis conducted by the ROC group that are not included in these estimates?

A. Yes. As described in the Final ROC Report, in order to maximize the amount of underground cable, it will be necessary to upgrade existing equipment, such as surge arresters, at nearly half of the CL&P system transmission substations and at all of the UI transmission substations, as explained in the Final ROC Report. The Companies have

not yet prepared a detailed estimate of these costs, but we have made a preliminary estimate that the direct costs are likely to be $7 to $10 million.

Q. Have the Companies estimated the cost of the low magnetic field designs for the overhead portions of the Proposed Route?

A. Yes. We estimated the cost of constructing the proposed overhead portions of the line using low magnetic field designs such as split phasing of lines and increased structure heights in selected locations. The details of the line designs assumed in the estimate are presented in Appendix B.

Q. What is the estimated cost of these low magnetic field line designs?

A. The estimated incremental cost to incorporate these low magnetic field designs into the proposed overhead portion of the route is $68 to $80 million in 2004 dollars. The cost estimate by Segment is presented in the table below.

Summary of Incremental Costs to Construct Low Magnetic Field Designs (Millions of 2004 Dollars)

Segment	Incremental Cost for Building Low Magnetic Field Designs
1	20 to 23
2	48 to 57
TOTAL	**68 to 80**

Q. Does this cost estimate include the cost of any of the "bypasses" or construction on new rights of way that have been suggested in this docket, such as the bypass of the Royal Oak subdivision in Durham, or the relocation of the right of way on the properties of the Jewish Community Center and B'nai Jacob / Ezra Academy in Woodbridge?

A. Yes, it includes the cost of the Royal Oak bypass, including the acquisition of a new easement, but does not include any changes to the existing 115-kV overhead line on the existing right of way through the Royal Oak sub-division. The estimate does not include additional costs to relocate existing overhead transmission facilities at the Jewish Community Center or B'nai Jacob / Ezra Academy locations. However, the cost to construct the new line at these locations on relocated rights of way should be modest, if the organizations are willing to provide the required new right of way in exchange for a release of the existing rights.

Q. Have the Companies estimated the cost for the Voltage Source Converter High Voltage Direct Current ("VSC HVDC") proposal put forth by ABB?

A. The Companies have estimated that the cost of constructing the configuration incorporating ABB's VSC HVDC Option 1 would be between $1.73 billion and $2.0 billion.

Q. Please account for the difference between the Companies' estimate and the ABB estimate of $780 million to $830 million for its Option 1. (*See*, ABB's response to the Companies' Interrogatory 16.)

A. The principal reasons for this difference are:

- *The scope of work is different*. The ABB estimate includes only the DC elements and required interconnections to the AC system. The DC portion of the configuration is from the new Beseck Switching Station to the new East Devon Substation to the new Singer Substation to Norwalk Substation. The overhead AC facilities at and between Scovill Rock and Beseck that are included in the estimate for the proposed route must also be included as Project costs in addition to the HVDC costs, because they would still be required. AC substation work at East Devon, Singer, and Norwalk would also be required, although the scope of that construction will be reduced, as compared to the proposed project.

- *Cable installation.* The Companies accepted ABB's estimate of the capital cost of the converter stations, but found its cost estimate for the cable installation to be deficient. Our DC cable estimate is based upon an estimated 57-mile linear length of the three - 2 conductor circuits. The same trenching, pavement, river and stream crossing, traffic management, and construction assumptions used in the updated proposed route estimate for AC underground cable were used to develop this estimate. However, the cost of splicing and terminating was reduced to reflect a lower cost for DC than AC. These splicing and terminating cost estimates were provided by the consulting firm of Black & Veatch.

- *The estimate includes land acquisition costs.* The ABB estimate did not include an estimate for the cost of land for the ten converter stations. The land requirements for each of these HVDC converter stations and the AC interconnections are greater than those for a 345-kV AC substation. The estimate includes this increased land cost.

- *Project procurement and construction management.* Project overheads and AFUDC were applied to the entire configuration, on the same basis as they were applied to the Proposed Route and Alternatives A and B.

Q. Are there additional potential capital costs associated with a VSC HVDC configuration that are not included in your estimate?

A. Yes. The Companies do not know what reconstruction of the 115-kV system might be required to accommodate the VSC HVDC construction, assuming that the VSC HVDC construction were feasible. It is possible that this reconstruction and the

associated costs could be substantial, but we have no basis to estimate them, because the required construction has not been identified in the ABB proposal.

Q. In the Application, the Companies estimated the cost of Alternative B to be essentially the same as that of the proposed route. What accounts for the differential of $84 million for the low range estimates and $130 million for the high range estimates between these two configurations in the updated estimates?

A. The principal factors are the increased cost of the XLPE cable and the additional equipment required at the substations to allow for the safe and reliable operation of the 24 miles of underground cable.

Q. Does this conclude your testimony?

A. Yes.

Appendix A

Summary of Cost Estimates by Route Segment (Millions of 2004 Dollars)

Segment	Proposed Route (24 Miles UG 45 Miles OH)	Alternative A (13 Miles UG 60 Miles OH)	Alternative B (4 Miles UG 72 Miles OH)	Incremental Cost for Constructing Low Magnetic Field Designs
1 including Scovill Rock and Beseck Switching Stations	92 to 105	92 to 105	94 to 108	20 to 23
2 including East Devon Substation	241 to 275	244 to 278	247 to 281	48 to 57
3 including Singer Substation and Interconnections	229 to 275	222 to 266	149 to 170	not estimated
4 including Norwalk Substation	276 to 339	253 to 299	264 to 305	not estimated
TOTAL	837 to 993	811 to 947	754 to 864	68 to 80

Segment 1 Three separate sections: Scovill Rock Switching Station (in Middletown) to Chestnut Junction (in Middletown); Oxbow Junction (in Haddam) to a new Beseck Switching Station (in Wallingford); and Black Pond Junction (on the Meriden-Middlefield town line) to Beseck.

Segment 2 From Beseck Switching Station to a new East Devon Substation (in Milford).

Segment 3 From East Devon Substation to a new Singer Substation (in Bridgeport).

Segment 4 From Singer Substation to Norwalk Substation.

Appendix B

Description of Low Magnetic Field Designs for Segments 1 and 2

Cross Section	Low Magnetic Field Design Description	Reference to Exhibit 96 Option Number
1	345-kV Compact Delta (typical height 85')	1
2	Compact Composite 345kV/115kV with 50' additional height (typical height 155')	Proposed plus 50'
2RO	Royal Oak Bypass 125' ROW with 345-kV Compact split phase with additional 35' height (typical height 140')	N/A
3	As Proposed (vertical) plus 10' additional height (typical height 140')	Proposed plus 10'
4	As Proposed (vertical) plus 10' additional height (typical height 140')	Proposed plus 10'
5	Rebuild existing 387 line and new line standard vertical construction (typical height 130')	6
6E	Compact Split Phase 345kV / Vertical 115kV (typical height 105' / 80')	N/A
6W	As Proposed 345kV/115kV Compact composite (typical height 105')	Proposed
7	345kV standard Split Phase (typical height 130')	4
7B	345kV Vertical split phase offset in ROW (typical height 130'), both 115-kV lines UG	2
8A	345kV Compact split phase / one 115kV OH Vertical (typical height 105' / 80') and one 115kV UG	3
8	Cross Section 8 North, Middle and South: 345kV Compact Split Phase / 115kV standard vertical (typical height 105' / 80')	4