

January 12, 2004

Ms. Pamela B. Katz
Chairman
Connecticut Siting Council
10 Franklin Square
New Britain, CT 06051

Re: Docket No. 272 - Middletown-Norwalk 345kV Transmission Line

Dear Ms. Katz:

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

This filing completes all the requested information for the AG-01 set of interrogatories.

Response to AG-01 Interrogatories dated 12/19/2003
AG - 013

Very truly yours,

Anne B. Bartosewicz
Project Director - Transmission Business

ABB/tms
cc: Service List

Witness: Anne Bartosewicz; Peter T. Brandien
Request from: Office of Attorney General

Question:

Refer to the portion of page 7 of the Applicants' Supplemental Filing in this proceeding dated December 16, 2003 which states:

(a) s the Companies noted in the Application (Volume 1 and p. H-51), it would be preferable from an operating standpoint to minimize the underground construction of 345-kV transmission lines. In cases such as the portion of the Companies' proposed route between East Devon and Norwalk, operational complexity was accepted in order to accommodate significant social and land use impacts that would have been associated with overhead construction. These impacts are avoided by underground construction between East Devon and Norwalk, at minimal additional cost compared to overhead construction.

(Emphasis added)

- a. Describe the "significant social and land use impacts that would have been associated with overhead construction" from East Devon to Norwalk. Also provide all documents concerning those impacts.
- b. Provide a comprehensive comparison of the cost of overhead construction and underground construction of the proposed 345 kV line between East Devon and Norwalk. Please include in this comparison the estimated costs associated with acquiring any additional right of way that may be required for overhead construction.
- c. Define the term "operational complexity" as it is used in this portion of the Supplemental Filing.
- d. Describe whether and how the "operational complexity" associated with underground construction as described in this portion of the Supplemental Filing will impact the safe and reliable operation of the proposed 345 kV line.

Response:

a) CL&P and UI object to the scope of the term "document," as contained in this interrogatory and as defined in the "Definitions" section. Without waiving this objection, CL&P and UI respond as follows.

Social and land use impacts associated with overhead construction from East Devon to Norwalk that would be avoided by underground construction between the points are summarized below and discussed at pages H-38 and H-39 of the Application.

Construction and operation of approximately 6.0 more miles of transmission line.
Potential acquisition of a total of 29 homes in order to expand the ROW.
Acquisition of 116.7 acres of privately-owned land for the expanded ROW.
Clearing of approximately 116.7 more acres of predominantly forested areas (it is assumed that the existing vegetation on virtually all of the expanded ROW would have to be cleared).
Substantially longer alignment through residential areas.
Overhead crossings of 85 more wetlands and watercourses, including four wetlands with high potential and seven wetlands with moderate potential for productive amphibian habitat.
Additional impacts to waterbirds and other coastal/estuarine-dependent wildlife species resulting from the overhead crossing of the Housatonic River.
Minor benefits to shrubland birds and other wildlife species dependent on shrublands, but significantly greater adverse impacts to wildlife in general.

In addition, Attachment 1 identifies the number of homes, by town that would need to be acquired in Alternative B from East Devon to Norwalk.

b) The Companies have estimated the total cost for the Proposed Route with Supported Changes from East Devon to Norwalk to be \$379 Million. In comparison, the estimated total cost for Alternative B from East Devon to Norwalk is \$377 Million, of which \$35 Million is the estimated additional cost of land acquisition for right of way expansion and the Seaview transition station. A summary of the costs is contained in Attachment 2 to this response. The summary details can be found in the response to D-W-01, Q-D-W-031.

The cost information above and in D-W-01, Q-D-W-031 assume that splicing vaults for the proposed route will be constructed in streets, therefore no costs have been included in the estimates to obtain easements or to purchase land to install splicing vaults outside the Department of Transportation's property line.

c & d) Operational complexities/limitations have been described in the Application and can be found in Volume 1, Section H, pp. 8-9.



Property Impacts.xls



Alt B vs Proposed ED - NW.xls

**Attachment 1 to AG-013
Middletown to Norwalk Transmission Line Project
Abutting Property Information - Abutting by Town**

Property Abutting ROW for OH Portion of "Primary Route Under Consideration" - Scovill Rock to East Devon									
Town	Residential Developed	Residential Undeveloped	Commercial	Industrial	Agricultural	Public Use/ Open Space	OH Route Length (Miles)	Density (# Residential Developed/mile)	# Structures to be addressed
Middletown	17	12	2	0	0	2	3.1	5.5	0
Haddam	4	1	0	0	1	0	0.2	20.0	0
Durham	36	4	0	1	8	3	5	7.2	0
Middlefield	4	1	0	3	8	2	0.7	5.7	0
Wallingford	112	8	6	2	10	5	11.5	9.7	1*
Meriden	30	3	4	0	5	1	2.3	13.0	0
Cheshire	23	0	0	0	0	0	0.9	25.6	0
Hamden	27	12	0	0	0	12	3.7	7.3	0
Bethany	11	10	0	0	0	0	2.6	4.2	0
Woodbridge	48	12	0	0	2	8	6.2	7.7	0
Orange	183	2	1	1	1	3	5.9	31.0	0
West Haven	0	0	0	0	1	1	0.1	0.0	0
Milford (to East Devon)	53	10	1	7	2	5	3.5	15.1	5*
Total	548	75	14	14	38	42	45.7	12.0	6

Property Abutting ROW for Additional Portion of All Overhead "Alternative B" Route - East Devon to Norwalk									
Town	Residential Developed	Residential Undeveloped	Commercial	Industrial	Agricultural	Public Use/ Open Space	OH Route Length (Miles)	Density (# Residential Developed/mile)	# Homes or Businesses to be taken to expand ROW
Milford (from East Devon)	1	2	4	4	2	16	1.2	0.8	0
Trumbull	47	7	1	10	0	2	3.1	15.2	2
Stratford	140	3	1	1	0	1	3.8	36.8	7
Bridgeport	57	4	3	9	0	5	3.8	15.0	16
Fairfield	73	4	0	4	0	5	5.2	14.0	4
Easton	10	0	0	1	0	0	1	10.0	0
Weston	59	15	0	0	0	1	2.7	21.9	0
Wilton	67	5	2	0	0	2	3.4	19.7	0 (See Note 5)
Norwalk	7	5	2	2	0	4	2.5	2.8	0
Total	461	45	13	31	2	36	26.7	17.3	29

- NOTES:** 1) Observations based on Municipal filing 1"=400' aerial photo with AutoCAD overlay.
2) Developed and Undeveloped based on information discernable from aerial photos. Not field verified
3) Property types based on displayed zoning. When not readily available neighboring property use considered.
4) Aerial Photos for the towns of Stratford and Bridgeport did not have property line on AutoCAD overlay. Counts based on observation.
5) Assumes existing ROW is adequate from Norwalk Junction to Norwalk Sub-station. If ROW expansion is needed the number is 1 or 2.
* Existing structures encroaching onto ROW may have to be addressed

**Attachment 1 to AG-013
Middletown to Norwalk Transmission Line Project
Abutting Property Information - Abutting By Segment**

Town	Segment	Number Residential Developed
Middletown	1-3	2
	5-7	15
Total		17
Haddam	4	4
Total		4
Durham	4	7
	5	4
	6	8
	7	6
	8	0
	9	11
Total		36
Middlefield	7	1
	9	3
	10	0
Total		4
Meriden	11	5
	12	18
	13	7
Total		30
Wallingford	10	10
	13	0
	14	6
	15	20
	16	10
	17	8
	18	10
	19	20
	20	9
	21	10
	22	2
23	7	
Total		112
Cheshire	24	23
Total		23
Hamden	24	7
	25	3
	26	7
	28	10
Total		27
Bethany	28	11
	29	0
	30	0
Total		11
Woodbridge	30	0
	31	0
	32	8
	33	6
	34	24
	35	10
Total		48
Orange	35	0

**Attachment 1 to AG-013
Middletown to Norwalk Transmission Line Project
Abutting Property Information - Abutting By Segment**

Town	Segment	Number Residential Developed
	36	0
	37	18
	38	36
	39	39
	40	44
	41	43
	42	3
Total		183
West Haven	36	0
Total		0
Milford	42	9
	43	7
	44	21
	45	16
	46	1
Total		54
Stratford	47	32
	48	55
	49	0
	50	53
Total		140
Bridgeport	51	0
	52	0
	53	0
	56	40
	57	17
Total		57
Trumbull	49	10
	55	34
	56	3
Total		47
Fairfield	58	20
	59	19
	60	10
	61	5
	62	12
	63	7
Total		73
Easton	61	10
Total		10
Weston	63	7
	64	29
	65	23
Total		59
Wilton	66	38
	67	29
	68	0
Total		67
Norwalk	68	0
	69	5
	70	2
Total		7

Attachment 2 to AG-013
Middletown - Norwalk Project Cost Comparison (2003 Dollars)

Cost Summary East Devon to Norwalk Thousands of 2003 Dollars	Proposed Route w/Supp Changes Total Project w/ AFUDC	Alternative B w/Supp Changes Total Project w/ AFUDC	Difference Alt. B minus Proposed for East Devon to Norwalk
New OH 345/115-kV Lines			
East Devon to Trumbull Junction		\$14,235	\$14,235
Trumbull Junction to Seaview Transition Station		\$21,714	\$21,714
Trumbull Junction to Norwalk S/S		\$89,221	\$89,221
Removal of existing OH 115-kV Lines		\$5,768	\$5,768
Sub-Total New OH 345-115 kV Line	\$0	\$130,937	\$130,937
New UG 345-kV Line			
Seaview Transition Station to Singer S/S (XLPE)		\$48,704	\$48,704
East Devon S/S to Singer S/S (HPFF)	\$89,561		(\$89,561)
Singer S/S to Norwalk S/S (HPFF)	\$149,531		(\$149,531)
Sub-Total New UG 345-kV Line	\$239,092	\$48,704	(\$190,388)
Installation of UG 115-kV Lines			
Norwalk Jct to Norwalk S/S (XLPE)		\$14,946	\$14,946
Sub-Total Installation of UG 115-kV Lines	\$0	\$14,946	\$14,946
Substations/Switching Stations			
East Devon Substation	\$43,409	\$42,978	(\$431)
Singer Substation	\$66,542	\$66,594	\$53
Seaview Transition Station		\$8,128	\$8,128
Norwalk Substation	\$17,976	\$17,525	(\$451)
Sub-Total S/S & Switching Stations	\$127,926	\$135,225	\$7,299
ROW Easements	\$1,021	\$23,481	\$22,460
Land Acquisition	\$11,235	\$23,697	\$12,462
Sub-Total ROW/Land	\$12,256	\$47,178	\$34,922
Total	\$379,274	\$376,990	(\$2,283)