



middletown | norwalk

July 23, 2004

VIA HAND DELIVERY

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

**Re: Docket No. 272: 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 the Scovill Rock Switching Station in Middletown and the Norwalk Substation in Norwalk, including the reconstruction of portions of existing 115-kV and 345-kV electric transmission lines, the construction of 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**

Dear Chairman Katz:

The Supplemental Testimony II of Dr. William H. Bailey, filed on July 19, 2004, stated that The Connecticut Light and Power Company and The United Illuminating Company ("the Companies") were preparing a table with respect to magnetic fields associated with "buffer zone statutory facilities" adjacent to the proposed route. Testimony at Page 7. The Companies have completed the table, which has been designated Exhibit 2 to Supplemental Testimony II of Dr. Bailey. Enclosed are an original and fifteen (15) copies of Exhibit 2.

Sincerely,



Anne Bartosewicz, Project Director  
The Connecticut Light & Power Company



John J. Prete, Project Director  
The United Illuminating Company

cc: Service List



Connecticut  
Light & Power

The Northeast Utilities System



The United Illuminating Company

Exhibit 2 to Supplemental Testimony of Dr. William H. Bailey <sup>1</sup>

**Table 1. Magnetic Fields Associated with Buffer Zone Statutory Facilities Adjacent to PROPOSED ROUTE: Measurements, and Calculated Values for Existing, Proposed, and Low-Field Design Options**

Location Name				Cross Section	Measurements of Fields from Existing Transmission Lines and Other Sources		Distance to ROW <sup>3</sup> (feet)	Calculated Fields for Existing Lines, and for Proposed and Low-Field Design Options (Transmission Sources Only)									
					Measurement Distance (ft) <sup>2</sup>	Magnetic Field (mG)		Existing Magnetic Field (mG)		Proposed Magnetic Field (mG)		Low-field Option A <sup>4</sup> Magnetic Field (mG)		Low-field Option B <sup>4</sup> Magnetic Field (mG)		Low-field Option C <sup>4</sup> Magnetic Field (mG)	
ID No.	Facility	Facility Category	Town						Average Load <sup>5</sup>	Peak Load <sup>6</sup>	Average Load <sup>5</sup>	Peak Load <sup>6</sup>	Average Load <sup>5</sup>	Peak Load <sup>6</sup>	Average Load <sup>5</sup>	Peak Load <sup>6</sup>	Average Load <sup>5</sup>
R-11	Royal Oak Neighborhood	Residential Area <sup>7</sup>	Durham/Middletown <sup>8</sup>	2	0	0.8	0	13.9	22.2	17.1	22.7	12.4	4.3	6.2	9.1	12.4	18.5
R-70	Valley View Drive	Residential Area	Wallingford	2	0	5.6	0	13.9	22.2	17.1	22.7	12.4	4.3	6.2	9.1	12.4	18.5
R-01	North High Hill Road Neighborhood	Residential Area	Meriden	3	20	18.6	20	9.1	22.1	4.1	8.9	2.0	3.0	4.2	8.8	-	-
DC-09	Cathy Britton	Day Care	Meriden	4	220	1.9	110	2.5	5.6	1.8	2.5	1.7	2.5	-	-	-	-
R-02	High Hill/Sweet Birch Road Neighborhood	Residential Area	Meriden	4	180	2.2	110	2.5	5.6	1.8	2.5	1.7	2.5	-	-	-	-
R-03	High Hill Road/Whiskey Wind Rd	Residential Area	Wallingford	5	20	3.6	40	3.5	8.6	9.3	27.5	2.5	9.2	2.5	1.9	-	-
R-04	South High Hill Road Neighborhood	Residential Area	Wallingford	5	440	2.5	10	4.7	11.4	13.7	41.4	3.6	14.0	3.7	3.3	-	-
R-05	North Williams Road Neighborhood	Residential Area	Wallingford	5	100	3	30	13.9	33.8	16.4	37.3	11.6	20.6	0.9	7.9	-	-
R-13	Mulligan Drive Neighborhood	Residential Area	Wallingford	5	0	8.1	10	5.2	12.6	15.9	48.5	4.2	16.5	4.3	4.1	-	-
R-14	Mariot Circle Neighborhood	Residential Area	Wallingford	6 East	60	0.6	10	0.1	0.8	4.8	16.7	4.5	15.9	4.1	14.2	3.7	12.9
P-13	Ball Fields on South Cherry St <sup>9</sup>	Public Playground	Wallingford	6 West	Within ROW	5.3	0	0.3	1.8	5.1	19.0	-	-	-	-	-	-
R-07	Mansion Road Neighborhood	Residential Area	Wallingford	7	200	0.9	60	1.1	9.4	3.4	12.0	2.2	7.5	1.0	3.8	-	-
R-08	Old Farms Road Neighborhood	Residential Area	Cheshire	7B	0	3.5	0	0.4	4.6	6.2	21.4	5.5	19.1	1.1	3.9	-	-
R-09	Old Farms Road Neighborhood	Residential Area	Cheshire	8A	50	4	70	1.8	10.4	2.7	8.5	0.7	2.2	1.2	4.1	-	-
R-10	Darley Road Neighborhood	Residential Area	Hamden	8 North	120	0.4	30	1.4	12.1	8.8	30.5	2.7	10.6	1.7	6.8	-	-
P-19	Baseball Field at Jewish Community Center	Youth Camp	Woodbridge	8 Middle	0	9.2	100	0.5	3.4	3.3	11.0	0.7	3.0	0.6	2.5	-	-
DC-47	Jewish Community Center	Day Care	Woodbridge	8 Middle	0	10.6	60 <sup>10</sup>	1.4 <sup>11</sup>	6.5 <sup>11</sup>	3.3 <sup>11</sup>	11.1 <sup>11</sup>	1.4 <sup>11</sup>	6.3 <sup>11</sup>	0.3	1.8	-	-
S-09	Ezra Academy/Gan Hayedel Nursery School	School	Woodbridge	8 South	15	1.1	15 <sup>10</sup>	1.6 <sup>11</sup>	6.4 <sup>11</sup>	7.3 <sup>11</sup>	20.7 <sup>11</sup>	0.9 <sup>11</sup>	5.0 <sup>11</sup>	0.5	3.9	-	-
S-11	Racebrook Elementary School	School	Orange	8 South	885	0.1	850	0.0	0.1	0.1	0.4	0.0	0.0	0.0	0.0	-	-
P-48	Eisenhower Park Ball Field	Public Playground	Milford	8 South	24	4.6	175	0.1	0.7	1.5	4.6	0.1	0.6	0.1	0.6	-	-

Exhibit 2 to Supplemental Testimony of Dr. William H. Bailey <sup>1</sup>

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Location Name					Measurements of Fields from Existing Transmission Lines and Other Sources		Calculated Fields for Existing Lines, and for Proposed and Low-Field Design Options (Transmission Sources Only)											
							Distance to ROW <sup>3</sup> (feet)	Existing Magnetic Field (mG)		Proposed Magnetic Field (mG)		Low-field Option A <sup>4</sup> Magnetic Field (mG)		Low-field Option B <sup>4</sup> Magnetic Field (mG)		Low-field Option C <sup>4</sup> Magnetic Field (mG)		
					Measurement Distance (ft) <sup>2</sup>	Magnetic Field (mG)		Average Load <sup>5</sup>	Peak Load <sup>6</sup>	Average Load <sup>5</sup>	Peak Load <sup>6</sup>	Average Load <sup>5</sup>	Peak Load <sup>6</sup>	Average Load <sup>5</sup>	Peak Load <sup>6</sup>	Average Load <sup>5</sup>	Peak Load <sup>6</sup>	Average Load <sup>5</sup>
ID No.	Facility	Facility Category	Town	Cross Section														
DC-81	Orange High Plains Community Center	Public Playground	Orange	8 South	Within ROW	2.3	0	1.6	27.7	16.0	55.7	5.9	20.3	2.9	10.4	-	-	
DC-81	Orange High Plains Community Center	Day Care	Orange	8 South	Within ROW	2.3	140	0.1	2.1	2.3	7.8	0.5	1.2	0.4	1.1			
R-29	Salem Road Neighborhood	Residential Area	Woodbridge	8 South	30	0.3	0	3.9	15.8	11.2	31.0	1.7	9.0	0.6	6.0	-	-	
R-32	Bittersweet Road Neighborhood	Residential Area	Orange	8 South	10	0.9	0	1.6	27.7	16.0	55.7	5.9	20.3	2.9	10.4	-	-	
R-33	Dogwood Road Neighborhood	Residential Area	Orange	8 South	20	2.2	20	1.9	7.6	8.0	22.5	0.9	5.7	0.5	4.2	-	-	
R-34	Overland Drive Neighborhood	Residential Area	Orange	8 South	10	1.3	0	1.6	27.7	16.0	55.7	5.9	20.3	2.9	10.4	-	-	
R-35	South Racebrook Road Neighborhood	Residential Area	Orange	8 South	10	6.2	0	1.6	27.7	16.0	55.7	5.9	20.3	2.9	10.4	-	-	
R-36	Hall Drive Neighborhood	Residential Area	Orange	8 South	160	2.4	0	1.6	27.7	16.0	55.7	5.9	20.3	2.9	10.4	-	-	
R-37	Orange Center Road Neighborhood	Residential Area	Orange	8 South	140	2.5	0	1.6	27.7	16.0	55.7	5.9	20.3	2.9	10.4	-	-	
R-38	Pine Tree Neighborhood	Residential Area	Orange	8 South	20	2.8	10	2.6	10.8	9.5	26.3	1.2	7.1	0.5	5.0	-	-	
R-39	Treat Lane Neighborhood	Residential Area	Orange	8 South	50	2.2	10	2.6	10.8	9.5	26.3	1.2	7.1	0.5	5.0	-	-	
R-40	Woodruff Road Neighborhood	Residential Area	Milford	8 South	70	2.1	0	3.9	15.8	11.2	31.0	1.7	9.0	0.6	6.0	-	-	
R-47	Lookout Hill Road Neighborhood	Residential Area	Milford	8 South	170	0.6	15	1.1	19.3	11.9	41.1	4.0	13.4	2.3	7.9	-	-	
R-48	Oronoque Road Neighborhood	Residential Area	Milford	8 South	130	1.2	40	1.0	4.3	5.9	16.9	0.6	3.9	0.4	3.1	-	-	
R-49	Cornfield Road Neighborhood	Residential Area	Milford	8 South	220	0.4	10	2.6	10.8	9.5	26.3	1.2	7.1	0.5	5.0	-	-	

1 See page 7 of "Supplemental Testimony II of Dr. William H. Bailey" dated July 19, 2004

2 Approximate distance from right-of-way where measurements were taken. Frequently, these measurements could not be taken at boundaries of facilities.

3 From GIS and aerial photos. For residential areas, the distance to right-of-way is the closest structure to the right-of-way.

4 Low-field options A, B and C correspond to low-field options for each cross section listed in Exhibit 1 of "Supplemental Testimony II of Dr. William H. Bailey" dated July 19, 2004

5 Based on 15 GW New England Average Load

6 Based on 27.7 GW New England Peak Load

7 Defined as a group of houses within 300 feet of the transmission right-of-way and within a length of approximately 2,000 feet along the right-of-way

8 Neighborhood is in both Durham and Middletown

9 This facility is being abandoned because of chemical contamination

10 Distance to building

11 Reflects site-specific line configurations at this location