

**STATE OF CONNECTICUT
CONNECTICUT SITING COUNCIL**

**Petition of BNE Energy Inc. for a
Declaratory Ruling for the Location,
Construction and Operation of a 4.8 MW
Wind Renewable Generating Project on
Winsted-Norfolk Road in Colebrook,
Connecticut (“Wind Colebrook North”)**

Petition No. 984

May 12, 2011

**POST HEARING SUPPLEMENT TO THE PRE-FILED TESTIMONY OF NOISE CONTROL
ENGINEERING, INC., BY MICHAEL BAHTIARIAN, INCE Bd. CERT.**

Affidavit of Michael Bahtiarian, INCE Bd. Cert.

I, the undersigned, Michael Bahtiarian, INCE Bd. Cert., being duly sworn, hereby depose and say:

1. I am over the age of 18, believe the obligation of an oath, and am competent to attest to the matters stated herein having direct knowledge of these matters.
2. I gave expert testimony on May 5, 2011 before the Connecticut Siting Council on the behalf of FairwindCT, Inc., Michael and Stella Somers, and Susan Wagner.
3. At the hearing on May 5, 2011, I was asked to submit the results of my calculations showing the noise level at the nearest property line to each of the wind turbines, based not on my map estimates of distances to the property line, but using the distances provided in Petitioner BNE Energy Inc.’s Interrogatory Responses to FairwindCT, Inc.’s Third Set of Interrogatories, dated April 25, 2011, as provided in response to Question and Answer 17.
4. Attached is Exhibit-9 which shows the property line evaluation of noise emitted from seven GE 1.6 MW wind turbines with a hub height of 328 feet with a sound power level of 106 dB(A), each calculated based on the horizontal distance to the nearest property line from each wind turbine.

Property Line Evaluation (NCE Exhibit #9)

WIND COLEBROOK SOUTH (Site #983) and NORTH (Site #984)

Computations Performed By:
Noise Control Engineering, Inc.

COMPUTATION OF SOUND PRESSURE LEVELS (SPL) AT SITE PROPERTY LINES

REVISED WITH NEW LOCATION N1A & REVISED LOCATION BASED ON INTERROGATORY RESPONSE DATED 04/24/11, QUESTION #17

Computational Inputs		
Hub Height (H) =	328 ft =	100 meters
Sound Power Level (Lw) =	106 dB(A)	
Absorption Coefficient (α) =	0.005 dB/m =	5 dB/km

Background SPL per VHB, dB(A)**	PL-N1A	PL-N1	PL-N2	PL-N3	PL-S1	PL-S2	PL-S3
Wind Turbine N1	38.1	38.1	38.1	38.1	38.1	38.1	38.1
Wind Turbine N2	38.1	38.1	38.1	38.1	38.1	38.1	38.1
Wind Turbine N3	38.1	38.1	38.1	38.1	38.1	38.1	38.1
Wind Turbine S1	38.1	38.1	38.1	38.1	38.1	38.1	38.1
Wind Turbine S2	38.1	38.1	38.1	38.1	38.1	38.1	38.1
Wind Turbine S3	38.1	38.1	38.1	38.1	38.1	38.1	38.1

Horiz. Distance to Property Line (feet)	PL-N1A	PL-N1	PL-N2	PL-N3	PL-S1	PL-S2	PL-S3
Wind Turbine N1A	370	370	1,815	480			
Wind Turbine N1	390	390	2,365	1,180			
Wind Turbine N2	1,700	1,700	525	990			
Wind Turbine N3	1,520	1,520	660	153			
Wind Turbine S1					216	1,498	1,188
Wind Turbine S2					1,511	141	1,496
Wind Turbine S3					1,419	1,253	406

Total Distance to Property Line, R (feet)	PL-N1A	PL-N1	PL-N2	PL-N3	PL-S1	PL-S2	PL-S3
Wind Turbine N1A	494	494	1,844	581			
Wind Turbine N1	510	510	2,388	1,225			
Wind Turbine N2	1,731	1,731	619	1,043			
Wind Turbine N3	1,555	1,555	737	362			
Wind Turbine S1					393	1,533	1,232
Wind Turbine S2					1,546	357	1,532
Wind Turbine S3					1,456	1,295	522

Total Distance to Property Line, R (meters)	PL-N1A	PL-N1	PL-N2	PL-N3	PL-S1	PL-S2	PL-S3
Wind Turbine N1A	151	151	562	177			
Wind Turbine N1	155	155	728	373			
Wind Turbine N2	528	528	189	318			
Wind Turbine N3	474	474	225	110			
Wind Turbine S1					120	467	376
Wind Turbine S2					471	109	467
Wind Turbine S3					444	395	159

Sound Pressure Level (SPL), dB(A)	PL-N1A	PL-N1	PL-N2	PL-N3	PL-S1	PL-S2	PL-S3
Wind Turbine N1A	51	51	37	49			
Wind Turbine N1	50	50	34	42			
Wind Turbine N2	38	38	49	43			
Wind Turbine N3	39	39	47	54			
Wind Turbine S1					53	39	42
Wind Turbine S2					39	54	39
Wind Turbine S3					40	41	50

Total SPL from all Turbines, dB(A)	54	54	51	55	53	54	51
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Previous Total SPL using NCE Distances	54	53	52	55	53	54	51
Difference from Previous N1 Location, dB	0.1	0.8	-0.5	0.4	0	0	0

Residence -to-Residence Limit, dB(A)	45	45	45	45	45	45	45
Excess to above limit, dB	9	9	6	10	8	9	6

Industrial-to-Residence Limit, dB(A)	51	51	51	51	51	51	51
Excess to above limit, dB	3	3	0	4	2	3	0

** Background SPL as stated by VHB in report dated November 2011

CERTIFICATION

I hereby certify that a copy of the foregoing document was delivered by first-class mail and e-mail to the following service list on the 13th day of May, 2011:

Lee D Hoffman
Bonnie L. Heiple
Paul Corey
Jeffery and Mary Stauffer
Thomas D. McKeon
David M. Cusick
Richard T. Roznoy
David R. Lawrence and Jeannie Lemelin
Walter Zima and Brandy L. Grant
Eva Villanova

and sent via e-mail only to:

John R. Morissette
Christopher R. Bernard
Joaquina Borges King



Emily A. Gianquinto