

**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

March 15, 2011

PRE-FILED TESTIMONY OF D. SCOTT REYNOLDS, PH.D.

Q1. Please state your name, employer and your employer’s address.

A1. My name is Dr. D. Scott Reynolds, principal of North East Ecological Services, 52 Grandview Road, Bow, New Hampshire.

Q2. Please describe your background, training and area of expertise.

A2. I am a biologist that has been working with bats for almost twenty years, and working with the impact of wind turbines on bats for seven years. By training, I am a population biologist and physiological ecologist with a Ph.D. from Boston University. I am currently a Visiting Scholar at Boston University and a Certified Senior Ecologist with the Ecological Society of America.

In addition to teaching at St. Paul's School in Concord, New Hampshire I have an ecological consulting firm named North East Ecological Services (“NEES”). NEES conducts wildlife surveys in relation to endangered species, conservation biology, or impact assessments such as wind development. NEES is contracted by a variety of customers, including state and federal agencies, non-profit organizations, and commercial developers. NEES was the first to design and implement long-term acoustic monitoring at potential wind development sites and many of the designs and methodologies developed by NEES have been incorporated into state and federal guidance documents. A copy of my current CV is attached to this testimony.

Q3. Have you testified before the Siting Council before?

A3. Yes, I submitted pre-filed testimony regarding the BNE Energy, Inc. (“BNE”) petition to site a wind project in Prospect, Connecticut in February 2011 and concurrent herewith have submitted pre-filed testimony regarding the BNE petition to site a wind project on Flagg Hill Road in Colebrook, Connecticut (“Wind Colebrook South”). I have also testified at County Commission hearings in Virginia, The Public Service Commission of West Virginia, the Public Service Commission of Maryland, and the Vermont Public Service Board. In all the above cases, I was contracted by the wind developer to provide expert testimony in regards to the impact of the proposed wind project on bats.

Q4. Please describe your involvement in this proceeding.

A4. I was retained by Reid and Riege, PC on behalf of FairwindCT, Inc., Susan Wagner and Michael and Stella Somers to provide independent expertise on the proposed BNE Wind Colebrook North turbine project, in regard to bat survey techniques and the impact of wind development on bats. I have reviewed and commented upon the Western EcoSystems Technology, Inc. (“WEST”) interim report (attached to the petition as Exhibit L) (the “Interim Report”) for the Colebrook project site.

Q5. Did your review of the WEST Interim Report establish that any data was collected at Wind Colebrook North?

A5. No, all data collected by WEST and reported in the Interim Report was collected at Wind Colebrook South.

Q6. Was the monitoring conducted by WEST at Wind Colebrook South sufficient to analyze the potential impact on bats at Wind Colebrook North without any monitoring at Wind Colebrook North?

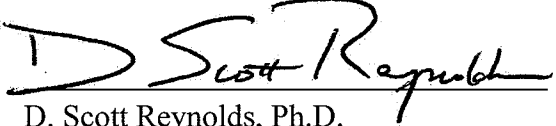
A6. Even though Wind Colebrook North is close to Wind Colebrook South, it does have some substantial differences that may influence bat activity. First, it has larger second-growth hardwoods than Wind Colebrook South that are more likely to be used as roosts by bats. Second, it has three unique habitats (second-growth northern hardwood-hemlock-white pine, forested wetlands with an active brook, and maintained lawn) that do not exist at Wind Colebrook South. Although the maintained lawn (driving range) is unlikely to support any substantial bat activity, the mixed deciduous forest is the best available roosting habitat for silver-haired bats (Campbell et al., 1996). If it is a truly riparian corridor system, the Mill Brook site is also likely to support a wide variety of bat activity. In addition to these unique habitats, Wind Colebrook North has a section of large beech snags on the eastern side of the project site that could be ideal tree-roosting habitat for multiple bat species. The lack of acoustic monitoring in any of these high-activity habitats would suggest that bat activity at Wind Colebrook North would be even higher than documented activity at Wind Colebrook South. Given that the survey protocol conducted at Wind Colebrook South does not adequately characterize bat activity at Wind Colebrook South, I think it is fair to say that it can't characterize the activity at Wind Colebrook North.

Q7. Would the Siting Council be evaluating information sufficient to establish the potential impact of Wind Colebrook North on bats in the event it accepted BNE's submission of the West Interim Report in this Petition 984?

A7. No. Further, in the event the Siting Council does accept the Interim Report as analysis of Wind Colebrook North's potential impact on bats, I incorporate herein the content of my pre-filed testimony set forth in Petition 983.

The statements above are true and accurate to the best of my knowledge.

14 March, 2011
Date


D. Scott Reynolds, Ph.D.

ATTACHMENT

Exhibit 1 CV of D. Scott Reynolds, Ph.D.

EXHIBIT 1

WIND INDUSTRY QUALIFICATIONS

North East Ecological Services, LLC

AREAS OF SPECIALIZATION

- Project Risk Assessment Analysis
 - Wind Power Bat Impact Surveys
 - Expert Witness and Testimony Development
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EDUCATION and CERTIFICATIONS

Ph.D., 1999. Physiological Ecology of Temperate Bats, Boston University; Boston, Massachusetts
B.Sc., 1991. Biology with Environmental Science minor, McGill University; Montréal, Quebec Canada.
Certified Senior Ecologist. Board of Professional Certification of the Ecological Society of America

EMPLOYMENT

North East Ecological Services: Managing Partner: 1998 - present
St. Paul's School: Faculty (Ecology, Physiology, and Molecular Biology): 2000 - present
Boston University: Visiting Scholar, Department of Biology: 2009 - present
Antioch New England: Adjunct Faculty, Graduate School of Environmental Science: 1999 - 2005

PROFESSIONAL MEMBERSHIPS

North East Working Group on Bats: 2003 - present
Ecological Society of America: 2004 - present
American Society of Mammalogists: 1992 - present
North American Bat Research Association: 1992 - present

RESEARCH EXPERIENCE

Project Risk Assessment for Bats: (partial list with completed date)

Four Mile Ridge Wind Project (Garrett County, MD): Synergics Energy, LLC (ongoing)
Fisherman's Atlantic City Wind Project (Atlantic County, NJ): Fisherman's Energy (ongoing)
Cape May Wind Project (Cape May County, NJ): US Coast Guard: (2009)
Paulding Wind Project (Paulding County, OH): Crown and Kornell, LLC: (2009)
Colley Wind Project (Sullivan County, PA): Crown and Kornell, LLC: (2009)
Mount Wachusett Wind Project (Worcester County, MA): Jacobs, Edwards, and Kelcey, LLC: (2008)
Locust Ridge II Wind Project (Schuylkill County, PA): Iberdrola Renewables: 2008
Sandy Ridge Wind Project (Centre County, PA): Gamesa Energy, USA: 2007
Cayuga Ridge Wind Project (LaSalle County, IL): PPM Energy, LLC: 2007
Grandview Wind Project (Edgar County, IL): PPM Energy, LLC: 2007
Chugwater Wind Project (Platte County, WY): Community Energy, Inc: 2007
Tarkio Wind Energy Project (Atchinson County, MO): Community Energy, Inc: 2007
Post Oak Wind Project (Shackelford County, TX): Horizon Wind Energy: 2006
Shiloh II Wind Project (Solano County, CA); enXco Development Corporation: 2006
Liberty Gap Wind Project (Pendleton County, WV): US Wind Force, LLC: 2005
Highland New Wind Development (Highland County, VA): Highland New Wind, LLC: 2005
Laurel Hill Wind Project (Lycoming County, PA): Catamount Energy, LLC: 2005
Northwest Reliability Project (Rutland County, VT): VELCO: 2004
Roth Rock Wind Project (Garrett County, MD): Synergics Energy Services, LLC: 2004
East Haven Wind Farm (Essex County, VT): EMDC, LLC: 2004

Post-Construction Bat Inventories and Migratory Surveys: (completed date)

Wethersfield Wind Project (Wyoming County, NY): Noble Environmental Power: (ongoing)
Chateaugay Wind Project (Clinton County, NY): Noble Environmental Power: (ongoing)
Bear Creek Wind Project (Luzerne County, PA): Babcock & Brown, LLC: (2009)
Ellenburg Wind Project (Clinton County, NY): Noble Environmental Power: (2009)
Maple Ridge Wind Project (Lewis County, NY): Maple Ridge Wind, LLC: 2009
Locust Ridge I Wind Project (Schuylkill County, PA): Iberdrola Wind Energy: 2007

Pre-Construction Bat Inventories and Migratory Surveys: (partial list with completed date)

Port Jersey Wind Project (Hudson County, NJ): Port Authority of NY/NJ (ongoing)
BayShore Regional Wind Project (Monmouth County, NJ): Bayshore Sewage Authority (ongoing)
Ripley-Westfield Wind Project (Chataqua County, NY): Babcock and Brown, LLC: (2009)
Mount Wachusett Wind Project (Worcester County, MA): Jacobs, Edwards, and Kelcey, LLC: (2009)
Dutch Hill Wind Project (Potter County, PA): STK Renewables: (2009)
Hounsfield Wind Project (Jefferson County, NY): Babcock and Brown, LLC: (2009)
Maple Ridge Wind Project (Lewis County, NY): Horizon Wind and NYSERDA: (2009)
Locust Ridge II Wind Project (Schuylkill County, PA): Community Energy: 2007
Sandy Ridge Wind Project (Centre County, PA): Gamesa Energy, USA: 2007
Chestnut Flats Wind Project (Blair County, PA): Gamesa Energy, USA: 2007
Laurel Hill Wind Project (Lycoming County, PA): Catamount Energy, LLC: 2007
Highland New Wind Development (Highland County, VA): 2006
Locust Ridge I Wind Project (Schuylkill County, PA): Iberdrola Renewables Energy: 2005
Flat Rock Wind Power (Lewis County, NY): Atlantic Renewables, LLC: 2005
Glebe Mountain Wind Project (Bennington County, VT): Catamount Energy, LLC: 2004

EXPERT WITNESS TESTIMONY

Liberty Gap Wind Project: West Virginia Public Service Commission on behalf of US Wind Force, LLC.
Highland New Wind Project: Virginia State Corporation Commission on behalf of Highland New Wind, LLC.
Highland New Wind Project: Pendleton County Commission on behalf of Highland New Wind, LLC.
Roth Rock Wind Project: Maryland State Corporation Commission on behalf of Synergics Energy, LLC.
East Haven Wind Project: Vermont Public Service Board on behalf of EMDC, LLC.

PROFESSIONAL PRESENTATIONS

Re-evaluating the Role for Banding in the Population Biology of Bats. North American Symposium on Bat Research, Denver, Colorado: 2010.
Banding for WNS Surveillance and Research. White Nose Syndrome Symposium, Pittsburgh, Pennsylvania: 2010.
The Impact of White-Nose Syndrome on the bats of New Hampshire: on the brink of a regional extinction? North American Symposium on Bat Research, Portland, Oregon: 2009
The Impact of White-Nose Syndrome on the bats of New Hampshire. White-Nose Syndrome Symposium, Pittsburgh, Pennsylvania: 2009.
The value of long-term mark-recapture data for determining the population dynamics of the little brown myotis *Myotis lucifugus*: North American Symposium on Bat Research, Scranton, Pennsylvania: 2008.
The potential value of pre-construction surveys for predicting bat fatality at wind facilities: North American Symposium on Bat Research, Merida, Mexico: 2007
Monitoring the potential impact of wind development for bats in the Northeast: North East Bat Working Group, East Stroudsburg, Pennsylvania: 2006.
The use of passive acoustic monitoring as a biological assessment tool for surveying migratory patterns of bats in relation to wind power development: Annual Meeting of the International Ecology Society and the Ecological Society of America, Montréal, Quebec Canada: 2005.
Pre-Construction Assessment of Habitat Use by Bats at the Flat Rock Wind Power Facility, New York: North American Symposium on Bat Research, Salt Lake City, Utah: 2004.

PUBLICATIONS (partial list of most recent or most relevant publications)

- Frick, W.F., J. Pollock, A. Hicks, K. Langwig, **D.S. Reynolds**, G. Turner, and T.H. Kunz, 2010. An emerging disease causes regional population collapse of a common North American bat species. *Science*, 329: 679-682.
- Reynolds, D.S.** and C. Korine, 2009. Body composition analysis of bats. Pp. 675-691 In: *Ecological and Behavioral Methods for the Study of Bats*, 2nd Edition (T.H. Kunz & S. Parsons, eds.) Johns Hopkins University Press, Baltimore, MD.
- Frick, W.F., **D.S. Reynolds**, and T.H. Kunz, 2009. Influence of climate and reproductive timing on demography of little brown myotis, *Myotis lucifugus*. *Journal of Animal Ecology*. Online Early 10.1111/j.1365-2656.2009.01615.x
- Reynolds, D.S.**, J. Sullivan, and T.H. Kunz. 2009. Evaluation of total body electrical conductivity to estimate body composition of a small mammal. *Journal of Wildlife Management*, 73: 1197-1206.
- Veilleux, J.P., P. R. Moosman, **D.S. Reynolds**, K.E. LaGory, and L.J. Walston, 2009. Observations of summer roosting and foraging behavior of a hoary bat (*Lasiurus cinereus*) in southern New Hampshire. *Northeastern Naturalist*, 16: 148-152.
- Arnett, E.B., M.M.P. Huso, **D. S. Reynolds**, and M. Schimacher, 2007. Patterns of pre-construction bat activity at a proposed wind facility in northwest Massachusetts. An annual report submitted to the Bats and Wind Energy Cooperative. Bat Conservation International, Austin, Texas.
- Reynolds, D.S.**, 2007. Batting 4000. *New Hampshire Wildlife Journal*, 20 (2):8-12.
- Reynolds, D.S.**, 2006. Monitoring the potential impact of a wind development site on bats in the Northeast. *Journal of Wildlife Management*, 70: 1219-1227.
- Kunz, T.H. and **D.S. Reynolds**, 2004. Bat colonies in buildings. In: *Monitoring Trends in Bat Populations of the U.S. and Territories: Problems and Prospects* (T.J. O'Shea & M.A. Bogen, eds.) U.S. Geological Survey, Biological Resources Division, Information and Technology Report, Washington D.C.

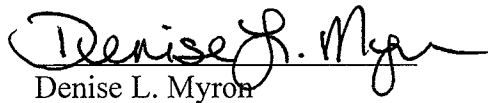
CERTIFICATION

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 15th day of March, 2011:

Carrie L. Larson
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


Denise L. Myron