

Testimony of Paul Brouha before the Senate Natural Resources and Energy Committee
Regarding the PSB process for siting renewable energy projects
March 24, 2015

My name is Paul Brouha and I live in the Town of Sutton. My property abuts the Sheffield Wind Project and the nearest turbine is about 1100 feet from my property boundary—my house is a mile downwind from the project and, as such, I am frequently aware of and annoyed by both the noise and visual impact of the project. Since November 2002 when the first MET (anemometer) tower was erected on Hardscrabble Mountain (without a PSB permit) I have participated in every Public Service Board Docket (6884, 7156, and 8167) available to me. At no time during this period has my involvement made a perceptible difference in any outcome—it has been as if I and the experts I retained to testify had not even been present in all the hearings, court proceedings, and public meetings. Further, the votes of Barton and Sutton Towns about the project were ignored and even the direction of the Northeast Vermont Development Association's (NVDA) regional plan was dismissed. In their decision at the end of the Docket 7156 proceedings the PSB ignored statutory direction (Title 30, Chapter 5, Section 218c) to provide reliably available electrical power at least cost. At that time Vermont's electric power supply relied less than 1% on fossil fuel-produced power and since then Vermont has lost major suppliers of emission-free nuclear and hydro power as it switched to expensive, unreliably available wind and solar power which must be fully backed up by coal and natural gas generation. In order to meet the state's energy goals a much better option would have been to renegotiate our long-term base load hydropower contracts at much more favorable rates with our Canadian neighbors. The current process serves merchant wind and solar power developers exceedingly well at the expense of citizens of Vermont.

In my written testimony I have inserted a Docket 8167 submission to the PSB containing specific experiences and recommendations for improving their process. Thank you for considering it.

Paul Brouha's Docket 8167 Submission to
The Vermont Public Service Board
May 13, 2014

Experience: Throughout the application process and since then during operational monitoring I have been handicapped because I did not have the technical expertise to effectively critique the developer's noise monitoring plans, filings, reports, and correspondence. I recognized this deficiency and retained Les Blomberg of the Noise Pollution Clearinghouse to assist me. Because the developer's submissions seemed to be accepted at face value, I believe the Board (and the DPS) may also have lacked the requisite technical expertise. Because we were all learning during the process we were not able to identify and to fully understand monitoring plan weaknesses (length of monitoring interval, need for monitoring at the property boundary, need to monitor low frequency vibrations) before the fact or failures of execution (outside-to-inside noise attenuation with windows open) during the monitoring.

Recommendation: A disinterested third party noise expert should have been retained by the Board and DPS to ensure objectivity, adherence to accepted scientific practice, and that all appropriate noise evaluation metrics were used throughout the application and monitoring processes.

Experience: During the application process I expressed concern when the Board permitted the developer to change the model of Clipper turbine without requiring additional noise modeling, soliciting comments, or holding hearings.

Recommendation: Rigorously follow accepted scientific practice and permit application procedures.

Experience: The noise monitoring plan was not included in the Final Order or subjected to public hearings. Its development and submission were, instead, left as one of the many conditions to be subsequently addressed.

Recommendation: In order to have a higher likelihood of effective critique, development, and review of noise monitoring plans, they should be part of the application process that is subjected to expert review for the benefit of all parties during the hearing process. In hindsight, one glaring deficiency in the monitoring plan is that no noise standard was established or monitored at property boundaries. As a result I have hundreds of acres of land that have been rendered undevelopable.

Experience: During consideration of the noise monitoring plan and its execution I submitted detailed formal comments (attached) but the Board accepted the developer's noise plan and quarterly reports at face value. My comments, critiques, and suggestions were dismissed.

Recommendation: The burden of proof should remain on the developer and regulatory bodies to prove project monitoring is comprehensive, is fully accomplished, standards continue to be met, and that the project will do/is doing no harm. As my chain of correspondence with the PSB shows, it is now the neighbors who are required to meet legal standards of evidence (at great expense and anxiety) to prove project standards are violated.

Experience: Despite my providing detailed formal comments there was no PSB oversight of locations of noise monitoring stations and background noise stations to be sure they were representative and correctly placed (as required by ASTM standards.). Two of the noise monitoring sites had terrain barriers between them and the turbines and one was located next to Interstate 91. One background noise monitoring station was within 20 feet of a noise monitoring station—just around the corner of a building.

Recommendation: Get out on the ground and look at proposed sites. Invite neighbors to collaborate in selection of monitoring sites.

Experience: I was stymied in seeking relief from noise violations because there was no Board oversight of monitoring plan execution and as a result expensive monitoring

was inconclusive. The Board permitted the developer to slide by with incomplete plan execution.

Recommendation: Hire a disinterested third party noise expert with an assigned task of oversight and ensuring developer responsibility for execution. Third party should be empowered to effectively recommend enforcement actions.

Experience: I found the Board and DPS process for responding to complaints was to simply refer them to the developer.

Recommendation: Again, there is a need for involving a disinterested third party who is tasked with rapid investigation and objective regulatory enforcement. A demonstrated objective attitude and sharing of complete data in real time on the part of the Board and DPS (“the public’s advocate”) would significantly increase trust and openness.

Experience: I find noise and visual aesthetic impacts must be considered together. People visiting me and neighbors are continuing to comment about how startlingly huge the turbines are as well as about hearing (and feeling) noise and vibrations inside homes and while outside on my and neighboring properties. There is a need to account for pre-project quiet backgrounds and peaceful night skies in adjacent neighborhoods, especially at night. For example, in the past two weeks as I have gone out turkey hunting before dawn I have once again been struck by how intrusive the turbines are—while I am listening for the first gobble in an otherwise perfectly quiet landscape, I can hear the distant roar of the turbines and see five of the collision avoidance lights blinking as the light illuminates the base of the passing blades.

Neighbors feel they have lost the peaceful use and enjoyment of their properties because of such impacts from the project.

Noise can not be somehow partitioned off from the daytime visual impacts of the turbines and from the collision avoidance lights at night. The noise and movement from the turbines together draw one’s attention.

Recommendation: Objectively apply Act 250 criteria without “balancing” away our quality of life and property values. In particular, noise and visual effects should be analyzed under Act 250 Criterion 8.

Experience: After the fact, I was distressed there was no monitoring that took into consideration atmospheric conditions—wind direction, cloud ceiling height and completeness, humidity, and the effect of terrain at neighbors’ homes (sound from ridgetop locations seems to carry into adjacent valleys with little attenuation).

Recommendation: Continuously monitor at neighboring homes within two miles of project and include atmospheric conditions. Provide complete real time data and develop rapid automatic feedback algorithms to modify project operations when standards are exceeded. Share data in real time via Internet.

Experience: I have observed that four properties listed for sale in the immediate area of our property have not sold or been seriously looked at in over two years. There is a

loss of the saleability of these properties and there appears to be a loss of value. Any development potential on these large acreages has been lost.

Recommendation: Require developers to guarantee property value to neighbors within two miles of a wind project.

Experience: Based on my observations and on deployment of remote cameras, deer on our property have largely stopped moving during daylight hours. This may be because two of their alert mechanisms (sight and sound) are compromised by turbine operations.

Recommendation: Short of shutting down the project, I don't know what might be done.

Experience: I have previously registered my complaints with the Board and the DPS that noise from the Sheffield Wind Project is audible inside my home. With a north-northwest wind, and with the windows open, the turbine noise in the second floor bedroom facing the project is frequently above the 30 dBA standard the Board set for the project. With the windows closed I can often hear and feel the low frequency vibrations from the project. The noise and vibrations, inside and outside my home interfere with my concentration and may cause the periodic dizziness, loss of balance, and vertigo I feel. The noise and vibrations are a nuisance and may be a health hazard.

Recommendations: In addition to enforcing the current noise standards, I feel the Board should shorten the duration of the dBA standard from one hour to less than ten minutes or to Lmax in order to eliminate contamination from other sources. In addition the Board should develop low frequency noise/vibration and infrasound standards. Finally the Board should develop property boundary noise standards to help protect the future development potential of neighboring properties. These standards should be retroactively applied to the project.

Experience: Finally, as a result of trying to effectively participate in the Board process and having almost no impact, I have been disenfranchised, victimized, and simply treated with disrespect by the Board and the lawyers representing the developer. I have not enjoyed equal protection under the law, have not enjoyed due process, and have not been compensated for the taking of my property as guaranteed to citizens by the Federal and Vermont Constitutions. Further, I have not been served by the agencies of the State of Vermont whose mission it is to preserve our environment and ensure the welfare of its citizens. I came home to retire and enjoy the farm and the environment where I was born. Instead, I have had to fight a losing battle against a state bureaucracy and a developer who don't seem to care if they destroy my home where I plan to live until I die.

Recommendation: Legislative oversight is desperately needed to review how the Board processes established under Section 248 and other laws have been corrupted by employees driven to hew to the renewable energy ideology of the current and recent administrations and their corporate partners. These processes need to be set right and made to comply with the constitutional protections described above and to reflect the Vermont Way of caring for and respecting everyone while treading on no one.