FILE

FAX

BEFORE

OHIO POWER SITING BOARD

In the Matter of the Application of Black Fork Wind Energy, LLC for a Certificate to Site a Wind-Powered Electric Generating Facility in Richland and Crawford Counties, Ohio.

Case No. 10-2865-EL-BGN

TESTIMONY

Thank you for the opportunity to present testimony in this case. My name is Karel Davis and I have resided at my present address in the boundary of proposed Black Fork Wind Energy for 37 years. For 3 years prior, I lived 1 mile around the corner, also on the boundary of the project. So this has been my home for 40 years. I received a BS in Pharmacy from OSU in 1969 and have been retired from that profession for 6 years.

My issues with industrial wind are personal and pragmatic. For the purpose of this testimony, I will limit myself to the personal issues and ones within the scope of O.P.S.B. jurisdiction. To be perfectly clear, I do not portend to speak for anyone other than myself and my husband, the sole occupants of my residence. All references are to the Staff Report of Investigation, unless otherwise stated.

1. Pg 6 "Project Description" describes three turbine models under consideration:

Vestas V100	1.8 MW
GE	1.6 MW
Siemens SWT2.3-101	2.3 MW

Yet, a letter mailed to all residents of the project mentions a capacity factor up to 3 MW, depending on the final turbine model selected. There was no mention of who manufactures this 3 MW turbine. Given staffs recommendation #1 (pg53) "the acceptable turbines are limited to the three indicated in Project Description". May I assume that any 3 MW turbine would therefore be unacceptable? If Black Fork Wind developers decide to use these 3 MW turbines or some other alternate, then what is the procedure? Would not all studies have to be redone based on the new model?

2. Pg 7 "Construction Lay-down Area" This mentions and all maps indicate a site for a "temporary portable concrete batch plant" which would be located with the substation, O & M Building, and Lay-down yard on German Rd. However, pg 44, paragraph 3, states that a permit is not needed because they are using an existing batch plant that already has a permit. Since there is no mention of its location, is this a local supplier who will be providing and using this batch facility? If so, whom?

3. Pg 18 "Nature of Probable Environmental Impact" ORC 4906.10(A)(2)
Item (3) indicates the average population density of this project area is 46.8 persons / Sq. Mi. How does this demographic compare to Element Power's project in Deming, New Mexico, and other projects approved in Hardin Co. and Paulding Co. OH. Population figures I have obtained from 2010 census reports show the population of Luna County, New Mexico (site of Macho Springs Wind Farm) as being 25095 for the whole county, with 8.5 people per Sq. Mi. If the population of Deming, being 11,706 or about 45% of that, is removed , the remaining area of the county would have less than 5 people per Sq. Mi. Maximum. I would like to enter into evidence a picture (exhibit C) of the New Mexico project taken from Gov. Tom Udall's website to illustrate the location of Element Power's only project in the U. S. consisting of 28 turbines. What is the setback requirement for this project? (ie. What is the closest house to turbine distance?)

4. Pg 20(14) Since citing this issue, I have obtained the most recent copy of the "detailed route analysis" and although it is not final or approved and there are numerous bridge problems, curve deficiencies and profile deficiencies to be worked out, I am satisfied to let others argue this issue and withdraw it from my list.

5. Pg 21 (19)(b)(I) Eagles:
I wish to enter into evidence pictures (exhibit A and exhibit B) of bald eagles taken April of 2009 sitting along Marsh Run at a point almost directly in what will be center between turbines 42, 43, and 44. Pg 21-22(ii) Since Department of Wildlife determined in April 2010 that E&E did not follow protocol and as of August 31, 2011 staff was unaware whether this issue had been resolved, where do we stand on "Eagles" and other Raptores?

6. Pg 22 (9)(b)(iii),(iv)
Department of Wildlife repeatedly uses language such as "recommends siting turbines away from forest stands...." and "significant impacts to these bird species are not expected if turbines are placed a sufficient distance from wood lots". There doesn't seem to be any recommended distances or standards. Then on Pg 31 the applicant suggests using a set back of at least 328 feet from turbine center and 164 feet from blade tip to forest edge". Is 164 feet from a wood lot approved by the DOW or an attempt by the applicant to set precedent for future projects?

7. Pg 25 (29)
If the Vestas V100 is the only turbine that operates within parameters of night time average Leq+5dBA, why are the others still considered, especially the GE 1.6-100 which is all but guaranteed to disturb 52 plus homes? The noise study appears to have intentionally attempted to skew the night time Leq average upward by placing 50% of sound monitors very near major highways for the area (St. Rt. 598, St. Rt. 39, and Settlement East very near St. Rt. 61). When the very quiet areas, such as ours, used to night time noise levels of 25 - 30 dBA get averaged in, the results expect us to live with 48 - 53 dBA at anytime. Is this enforceable? It is acknowledged that "certain environmental and atmospheric conditions can further propagate or amplify noise levels". Does that mean the established levels; (a) must not be exceeded, (b) can be exceeded

with atmospheric conditions or (c)can be exceeded a percentage of time or what, before mitigation can be enforced. Fuzzy standards.

8. Pg 25 (30)
Shadow flicker charts in the study of Appendix H of the application have no reference between a receptor number with survey coordinates and a residence address, making most of us clueless to find where we stand. I respectfully request that this reference between receptor number and addresses be provided by direct delivery for all affected receptors. Since an amount of 30 hours per year is the acceptable upper limit per International guidelines from Germany and Australia and also adopted by OPSB and the states of MI, NY, NH, & MN., what form of mitigation can be expected if you fall in the category of 28 homes over that limit, 17 of them are non-participating receptors. Again, without linking a receptor and address, I cannot be sure if I am one of the "Gang of 17".

9. Pg 28 "Socioeconomic Impacts" refers to ORC Sec 4906.20(B)(2) and the Board incorporating this into OAC 4906-17-8(C)(1)(c) stating: "Set back from a property line would be 1.1 times total height (base to tip of blade at highest point) so a 494' turbine = 543' set back from a property line. However, on Pg 37 under "Ice Throw", turbine manufacturer GE has safety protocol which requires a distance of 150% of (hub height + rotor diameter) from any person, object, occupied structure, business or road. This formula was derived from a study by Seifert, Westerhellweg and Kroning (2003) called "Risk Analysis of Ice Throw from Wind Turbines" and has been supported by German Wind Energy Institute. It is further recommended by staff in #45 on Pg 59 that turbines 44 & 51 need to be removed or downsized for just this reason. This formula should also apply to property lines of non-participating homeowners. A 494' turbine would need to be 989' from a property line because a property owner should be able to be anywhere on his own property and not confined to his house for safety reasons.

With relation to issues 7, 8, & 9, I feel I need to question the relevance of Dr. Mundt's direct testimony. I am in awesome respect of her list of degrees longer than my arm. However, she is not an M.D. Her field determines incidence, prevalence and distribution of disease and risk factors associated with that disease. I do not indicate wind turbines cause cancer, pneumonia, swine flu or any disease. She clearly admits on pg 7 "It should be noted that some degree of noise is consistently perceived by residents living near wind turbines depending on number of turbines, time of day, season, and level of background noise, and to a lesser extent shadow flicker, again, depending on time of day, season, and position of the turbine blades". Exposure to turbine noise or shadows is potentially distracting or annoying. And on Pg 8 she finds those annoyed by turbine noise report a higher incidence of sleep disturbance than those not annoyed. Pg 9 c-Findings include annoyance increases with increasing sound level. A significantly decreased risk of annoyance from noise was observed among those who benefit economically. She indicates "negative attitude toward wind" pg 7 is a predictor of complaints. So it must follow, that those being paid are willing to endure the annoyance for money (ie attitude). It also follows that attitude can produce a bias when being hired to prove something. On page 10 she admits shadow flicker can cause nausea and loss of balance, clearly not a disease, not life threatening because when the flicker stops, normalcy should return. In regard to inducing seizures, she admits cases

do exist but are not likely with the spin rate of large turbines. I'm glad I do not suffer from seizures.

What is being overlooked here is sound, flickering lights, and induced sleep deprivation are all legal forms of torture used by law enforcement and the military to push someone to the brink or crack. It is legal because it does no physical harm once it stops. So it doesn't cause a disease, no bodily harm but it sure as heck is annoying. When the annoyance leads to sleep deprivation, it must be addressed because lack of sleep wears down your immune system, can cause temporary rises in hypertension (note I did not say causes hypertension), and just plain lead some people to "snap". Temporary rises in BP are caused by many forms of stress....why do you think your blood pressure is usually higher in the Doctors office than it is at home. Dr. Mundt is not a medical doctor, has not worked in clinical settings and since no one indicates turbines cause disease, she seems unqualified to testify to anything except that they do not cause disease. In Q13 pg11 she testifies that BFWE has adequate setbacks. She is not qualified, in my view, to offer testimony on this fact and her answer should be removed from testimony. While Dr. Mundt's entire testimony does hold some water, her bucket is only half full when it comes to wind energy.

10. Pg 29 "Ecomomics"
What construction company has been considered or selected to build this project and where are they from? There are a lot of vague, unverifiable numbers bantered around about jobs, payroll dollars, economic advantages to counties, etc which cannot be guaranteed. These numbers all come off as definite maybe possibilities. Customarily these numbers have not panned out in other areas (e.g. construction workers on the Van Wert project lodged in Ft. Wayne, IN.)

11. Pg 44 ORC 4906.10(A)(5) "Water"
The construction phase will consume 20,000 gallons of water per turbine. Where does all this water come from if it is not pumped from within the project boundary? What service will be used to truck the water into the area?

12. Pg 50 "State and Local Tax"
This is another unverifiable figure of money as applicant "anticipates" paying the maximum annual PILOT of $9,000/MW per year. If verified, is this for the life of the project? When local and state tax departments, by their own admission, do not understand how this works, how will the monies be collected?

13. Pg 60 #50(a)(b)(c)
Applicant has been asked to supply infra-sound and low frequency sound information but has yet to do so. This is the source of noise irritability in a wind farm and should be vital information in the approval process. What standards do the staff anticipate applying to this information when it is obtained? In my view they are in Violation of OAC 4906-17-08 (A)(2)(b) if this is not provided before the application is approved.
So far, only one issue has brought forth staff recommendation for mitigation of an issue where in #57 Pg 62 they indicated degradation of TV reception should require BFWE to buy cable or satellite for the resident and even that needs to specify "until decommissioning". Is this

enforceable?

14. The general incompleteness and uncertainty of the project is exemplified by 20 items due before pre-construction meeting and another 10 items due before construction can begin. It boggles the mind that approval for an application ***could*** be given with so many loose ends and blank slates.

15. Pg 26 (37)
The applicant sees no point in considering decommissioning until the 20th year of the project. A decommissioning plan and funding were a very big issue to me but the Staff has adequately addressed this in recommendation #66 Pg 63. I sincerely hope the Board firmly supports staff on this issue.

In conclusion:
It is my view that we continue to rush head long, willy nilly into projects based on a manufactured crisis with the mentality that "we gotta get this done in 10 years or else". We are doing so with no standards or guidelines for existing homes and people concerning levels of tolerance regarding sound, flicker, or realistic setbacks, and no real vision to the future use of land. Except for funding issues, all problems result from inadequate setbacks. (Noise, Shadow Flicker, Property Devaluation, Aesthetics). I feel it behooves OPSB or state legislators to re-examine the few flimsy guidelines that do exist (750' setbacks from residence - give me a break!) And come up with more pragmatic standards which could eliminate some of the opposition to these projects. When you examine areas where no strong opposition exists, it usually correlates to population density. Perhaps Ohio is just too densely populated for this kind of energy production. All states are different. Some have great hydro resources. Some are better for coal or gas. We need to use what we have here. Our "class 2 marginal" winds just aren't that great. We are too heavily populated for the necessary setback distances.

The many issues in this application mirror the issues of the Buckeye Wind project which is now in the Ohio Supreme Court. With that in mind, I have issue with finalizing this application with so many loose ends, until the outcome of the above mentioned case is known and all the information requested is in hand.

This ends my testimony.