

*This was commentary on the proposed “**Order Granting Atlantic Wind LLC’s Conditional Use Permit (CUP-11-01)**” and was solely for the use of Pasquotank Board of Commissioners and the Pasquotank county attorney.*

### **General Observations:**

I am not an attorney and the following are my personal opinions to the Pasquotank Board of Commissioners (BOC). My views are based on my background as a physicist (with energy expertise) and some thirty years in working on environmental issues. I have no financial connections to this Project other than as a resident of North Carolina. (This commentary is less detailed than it could have been since I had only 24± hours for a response.)

The burden of proof is entirely on the applicant to meet all required conditions (e.g. Section 9.03-3 of the Pasquotank Zoning Ordinance) for this Project. Regarding such requirements it is the **obligation** of the applicant to **fully** and **completely** present to the County an accurate representation of this technically complex matter. From what has been reported to me, this has not been what has transpired to this point in the process.

In all communications to date (that I am aware of) the applicant has knowingly presented only one side of the issues involved here. The applicant has world-wide experience in this matter, and is fully aware of the positions taken by other communities and experts on the issues involved here. Some examples of these exclusions are noted in the “Sample Observations” section below. Considering the significance of these omissions, no “Findings of Fact” or “Findings of Law” can be ascertained with such a limited amount of information.

*As such the conclusion is that the applicant has **not** met the standards required.*

**Note 1:** A particularly critical matter that also needs to be addressed (if this Project goes forward) is *who will Pasquotank County be dealing with as the Project owner during the lifetime (20± years) of this Project?*

Currently the owner is “Atlantic Wind, LLC”. The fact is that (due to tax and subsidy consequences) there are typically MANY transfers of ownership of these types of projects. Within a few years there will likely be a completely different owner of this Project. The property will continue to be transferred to other LLCs (Limited **Liability** Corporations).

The effect of this is that if the County is unsatisfied (e.g. a few years down the road) with any aspect of the “Owner’s” performance, the County will have very little real recourse. Even if a lawsuit (expensive) is filed, it will be against a LLC with likely no assets *and* a corporation shielded from almost all liability. As such it is paramount that the citizens of Pasquotank get full protection, and security, at the beginning of this venture.

**Note 2:** It’s interesting that the developer’s case here is basically a series of attempted refutations of wind energy issues. No genuine *benefits* for such a project are proven.

**Note 3:** The developer will likely dispute some of the critique found herein. The solution is quite simple: *the developer provide a legally meaningful written guarantee of his claims.*

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6/10/11

## **Specific Observations:**

**Item III. 3. c:** “That the use will not substantially injure the value of adjoining or abutting property, or that the use is a public necessity; and”

Even though these are the words of the Zoning Ordinance, this line item includes two completely different, and unrelated matters. As such they be on separate line items.

**Item III 14:** The wording of this item should not be “Audible sound...” but rather “Sound...” Non-audible (sub-acoustic) sounds have been shown to be problematic for some people, and the present wording arbitrarily excludes that situation.

Some independent acoustical experts have done studies of sub-acoustic noise generated by wind turbines. [Here](#) is a sample study that focuses on infrasound (by a peer-reviewed PhD).

Independent acoustical experts have also concluded that a simple 55 dBA sound limit (as written) is an inadequate standard to protect the health and welfare of citizens proximate to such an industrial project. Oregon, for example, has a 36 dBA sound [limit](#).

A particularly useful [report](#) is this “The How To Guide to Siting Wind Turbines To Prevent Health Risks from Sound” by two internationally recognized, independent acoustical experts. It includes a model sound ordinance. (These same experts did a detailed [critique](#) of wind industry supplied studies. Much of this would apply to what was provided to Pasquotank County by the wind developer.) Also see the community ordinances at the end of this document for more appropriate acoustical conditions.

**Item III 15** is about shadow flicker. What is missing from this condition is what happens when the shadow flicker DOES exceed the 30 annual hours. This needs to be spelled out in detail. Without such information, this item is of little value.

**Item III 41** is a vague and non-binding statement about birds. Note that it also does not mention bats, a substantial oversight, as bats have considerable agricultural value (See comments re item III 72, below). Due to these omissions, this item is meaningless.

**Item III 42** should have been done by an objective third party, and should also have considered bats. Since neither of these appear to have happened, this item is meaningless.

**Item III 45** is a major misrepresentation, as getting “applicable permits” will unequivocally not “ensure that the Project will not endanger wildlife or the natural environment.”

The wind developer knows this, so such a statement from them is fraudulent.

**Item III 53** is a significantly inaccurate statement.

The common (legal) meaning of a utility “providing power to a home” is based on **full** (all necessary) electrical power 24/7/365. The Desert Wind project cannot guarantee providing such power to a *single* home 24/7/365, so their claim that they will provide “Electrical output from the Project will be sufficient to power 55,000 to 70,000 North Carolina homes” is fraudulent.

**Item III 55 & 56:** Since the “Hoen Report” is a very common reference by the wind industry, the BOC should know that several independent experts have publicly faulted this report for a variety of reasons. Here are some:

- 1-“Wind Farms, Residential Property Values and Rubber Rulers” - is [commentary](#) by appraiser Albert Wilson.
- 2-“[Critique](#) of The Impact of Wind Power Projects on Residential Property Values in the United States: A Multi-Site Hedonic Analysis.”
- 3-“DOE study says wind farms don’t affect property values, but...” is a [report](#) by The Acoustical Ecology Institute.
- 4-A detailed [critique](#) of this study by appraiser Mike McCann.
- 5-“False conclusions based on flawed real estate studies” are three commentaries: [1](#), [2](#), and [3](#).

**Item III 71** makes an unsubstantiated and unguaranteed claim that the project will have no adverse effects on real estate values. Many studies done by independent appraisers and real estate experts have concluded otherwise.

- 1-[Testimony](#) of appraiser Michael McCann on property value impacts in Adams County Illinois [PDF download].
- 2-A 2011 [Report](#) by appraiser Michael McCann on property value impacts in Brewster Massachusetts.
- 3-A [study](#) done by Metropolitan Appraisal, regarding the Forward Wind Project (Wisconsin).
- 4-A “[Wind Turbine Impact Study](#)” by appraisers: Appraisal Group One, and a [later version](#).
- 5-A valuable [report](#): “Impact of Wind Turbines on Market Value of Texas Rural Land” by Gardner Appraisal Group [PDF download].
- 6-“Living with the impact of windmills” [presentation](#) by Real Estate broker Chris Luxemburger, is an analysis of some 600 sales over a three year period.
- 7-[Testimony](#) of Maturen & Associates, Real Estate Appraisers (Michigan), concerning the effects of wind projects on home values.
- 8-In addition to being an excellent noise and health effects report, this [document](#) has a twenty page appendix on property values.
- 9-“Wind Power Siting Issues: [Overview](#)” (by energy expert Tom Hewson): cites several studies.

The bottom line is that this “he says-she says” matter is extremely simple to resolve. Since the developer is confident that there will be no property value losses, then he should have no problem providing a written guarantee of such. Since he has assured the community that this is a non-event, there will be no cost for him to offer such a guarantee. By arranging this, the BOC will be protecting the property values of their citizens.

Several communities have constructed such property value guarantees. Here are some:

- 1-An [explanation](#) of the fine Property Value Agreement created in Hammond, NY, and a later [version](#).
- 2-This Real Property Value Protection Plan [agreement](#) was drafted by Illinois lawyers.
- 3-DeKalb County (Illinois) Property Value Guarantee [Agreement](#).  
(Some good [commentary](#) on the DeKalb Property Value Guarantee.)
- 4-Property Value Guarantee [Agreement](#) from Adams County, Illinois.
- 5-[This](#) is the “Fenner, NY: Canastota Wind Power LLC: Property Value Assurance Plan”.

**Item III 72** makes an unsubstantiated and unguaranteed claim that the project will have no adverse effects on agricultural values. Disputing this assertion there have been studies done by independent scientists that have concluded that agricultural output can decrease *dramatically* due to such wind development consequences as bat deaths and reduced humidity.

One [study](#) by world renown experts concluded that the ANNUAL cost of agricultural losses due to bat deaths in Pasquotank County could be as much as **\$13.5 million!** (That figure does **not** include the effects of more mosquitoes [e.g. more cases of Equine Encephalitis].)

This [study](#) by different scientists showed that wind projects can cause adverse weather consequences as much as **fifteen (15) miles** away. Those consequences (e.g. lower humidity) can result in lower agricultural output

In both of these examples, lower agricultural production will likely result in a lower agricultural value of the land.

The wind developer knows (or should know) of these consequences, so not stating them is a material misrepresentation.

**Item IV: Conclusions of Law:**

“The use will not materially endanger the public health or safety if located where proposed and approved.”

This unsubstantiated and unguaranteed assertion ignores numerous scientific studies that have concluded that there *are* material dangers to public health and safety. See above for samples. Therefore, this item is **not** a finding of fact or a “conclusion of law.”

“This use is a public necessity.”

This specific project is not a “public necessity” in any definition of the term. Furthermore, nothing presented herein establishes that this Project is a “public necessity.” Therefore, this item is **not** a finding of fact or a “conclusion of law.”

“This use will not substantially injure the value of adjoining or abutting property”

There is substantial evidence provided above (ref comments about III 55/56, 71, 72) that this assertion is false. (Note that this carefully phrased sentence is silent about properties that are not specifically “adjoining or abutting” which could include dozens of affected properties). Therefore, this item is **not** a finding of fact or a “conclusion of law.”

**Item IV 7 – c:** it should not be left to the developer to decide when and what decommissioning plan there will be, and that contradicts ¶9.04-30 a 8. Further, the Ordinance (¶9.04-30 h 4) should not deduct a salvage cost, as this puts them in the salvage business.

As stated in Note 1 (above), there are typically MANY transfers of ownership of these projects. The effect of this is that if the BOC is unsatisfied (let’s say in ten years time) with the “owner’s” decommissioning plan, the county will have few good recourses. A lawsuit will be of a LLC with no assets, which will then likely declare bankruptcy.

That's why it is **imperative** to have a full removal cost security bond established now, and have it properly maintained (through different ownership) for the life of the project. Please read this excellent [report](#) on how to properly handle decommissioning costs.

**Item IV 7 – d:** This is a vague condition that requires no studies of any kind. The county should require specific bird and bat studies, to be provided by independent experts, and paid for by the developer. The current wording leaves this undefined and optional, which is not acceptable.

**Accidents:** Here is a current [study](#) that identifies accidents and deaths related to the industrial wind industry business. What has the County done to protect itself and its citizens from such exposure?

**Ordinance:** The BOC would be well advised to update the County's wind ordinance to better protect Pasquotank citizens. Here are some samples from other communities:

[Model Wind Ordinance 1](#) from Cherry Valley, NY (PDF), and [Model Wind Ordinance 2](#) from Hartsville, NY (PDF), and [Model Wind Ordinance 3](#) from Trempealeau County, Wisconsin (PDF) and [Model Wind Ordinance 4](#) from Phillips, Maine (PDF) are excellent examples of thoughtful and sound local legislations dealing with wind power development. The people in Bethany, NY also did a *superb* [analysis](#) (PDF) of various considerations that should be written into a local ordinance. Here is a collection of Wisconsin community [ordinances](#) as well as an excellent Setback Recommendations [Report](#).

**Benefits:** As identified in the beginning of this commentary, there have been no proven net benefits for this industrial project. Independent experts have concluded that wind energy is a *high-cost, low-benefit energy option*. There are numerous articles by experts on this reality, and a [sample](#) is by this attorney and economics PhD. This reality should be seriously considered by the BOC in their determinations of appropriate conditions (9.03-4).