

21 November 2019

Posey County Area Plan Commission  
126 E Third Street Rm 223  
Mt. Vernon, IN 47620

To whom it may concern,

I am writing to offer more detailed commentary on the language in your proposed wind ordinance that we discussed at the meeting on the 20<sup>th</sup> of November. I would like to address two issues with regards to the proposed language: 1) the strength of the language with respect to setbacks, noise, flicker, etc. and 2) the lack of language that would protect the integrity of the Nexrad Doppler Radar installation in Owensville, IN.

Regarding the setback language and other issues that accompany industrial turbine installations, the ordinance as it stands is very weak relative to other ordinances in the State of Indiana. In Indiana, 84 of 92 counties currently have zoning to regulate the number and types of development in their counties. Of those 84, 31 of them have ordinances that specifically address industrial wind farms. The range of the strength of those ordinances spans from very wind friendly to outright bans of its development. Ten of the 31 counties have either banned or declared a moratorium on the construction of wind turbines.

Of those without bans, your language for setbacks of 2.5x the turbine height ranks among the weakest of setback language in Indiana. Some examples include:

Adams        Written consent required of all property owners in wind project footprint, project cannot interfere w/ emergency communications, telephone, television, etc.

DeKalb        Zero shadow flicker on non-participant property.

Delaware      150 ft. height restriction, each tower must receive a variance.

Hendricks     Setback of 5 times the height to the hub to occupied structure

Jasper        1,760 ft from property lines and 2,400 from dwellings with a "no turbine zone" north of county road 1200 south due to wildlife area and military operations area. 5/6/19

Kosciusko    Setbacks to property lines of 3,960 ft. or 6.5 X height of tower, whichever is greater, 32 dBA at property lines, zero shadow flicker on non-participants, property value guarantee for all residents within 2 miles of a wind turbine, notification to homeowners within 5 miles of project prior to leases signed, pre and post construction water well inspections, wind turbines permitted in Industrial 3 zone only. 10/16/18

Miami Setbacks ½ mile to property lines, property value guarantee for all homeowners within 2 miles of a wind turbine, notification to homeowners within 5 miles of a project prior to leases signed, wind turbines limited to industrial zones, pre and post construction well inspections, wind turbines not a utility, cables buried 10 feet deep 6/2019

Montgomery Setbacks ½ mile to property lines, property value guarantee for all homeowners within 2 miles of a wind turbine, notification to homeowners within 5 miles of a project prior to leases signed, wind turbines limited to industrial zones, pre and post construction well inspections, wind turbines not a utility, cables buried 10 feet deep 6/2019

Noble 3,960 ft. setback to property lines, 5,280 ft. setback (one mile) from a city or town, a large wind turbine system shall not generate more than forty decibels (40dbA) as measured at 1,000 feet or more from the base of the large wind turbine system, or as measured on any off-site property, whichever is less.

Rush 300 foot height restriction for towers, setback 2,300 ft. from property line setback was upheld by Indiana Court of Appeals 2/17 when BZA was sued by wind company

Tipton 2,640 ft. setbacks (setbacks were increased after public outcry over noise and shadow flicker from wind turbines installed)

Wabash 3,960 ft. setbacks to property lines, 32 dBA, zero shadow flicker

Whitley 2,640 ft. setback to property line or 6.5 X height of tower to a property line, whichever is greater, all decommissioning money up front to be put in escrow account controlled by the county since 2012

So, in comparison, your proposed setback language, along with provisions for sound levels, property value guarantees, flicker (if any), is very weak in its treatment of Posey county residents, but very favorable for a foreign investor.

What is of even more importance is the lack of any language protecting the Nexrad Doppler radar located in Owensville, IN. This radar installation provides early warning for severe thunderstorms and tornadoes for over 400,000 residents in the Tri-State.

It has been well documented by the NWS that wind turbines within 20 miles of a Doppler system will corrupt the data received by that system—in some cases actually masking existing tornadoes and in other cases causing false positives of tornadoes that don't even exist. The deputy director of the Radar Operations Center for the National Weather Service has told us the only way to assure ourselves that data from our early warning system will not be corrupted is to not locate wind turbines in a line of sight of the Doppler radar within a distance extending from 22 to 37 miles of our installation.

The location of that installation was chosen in 2000 by the NOAA/NWS to specifically address a lack of coverage of low-level scanning in the Tri-State for severe

thunderstorms and tornadoes. This particular location was determined to be the optimum location to address holes in coverage in the network of 160 doppler radar systems in the US. Since the installation of this 25-million-dollar system, Tri-State residents have been able to rest assured that they would have early warning of inclement weather, allowing time to find sufficient cover for their families in the event of a tornado or severe thunderstorm.

Left unedited, this ordinance allows for the construction of industrial windfarms within close proximity of the NEXRAD doppler radar, basically nullifying its effectiveness as an early warning system, and leaving your citizens without a critical instrument in maintaining safety for their families. This is a gross omission of some very critical language if you are concerned with the health, safety, and welfare of Posey and surrounding counties. I propose to you that language stating something to the following be added to your ordinance:

*“To ensure the viability and effectiveness of the existing Nexrad Doppler Radar system in Owensville, IN for the residents of Posey County, no wind turbine installations shall be constructed within a 20-mile radius of said radar installation.”*

I hope this letter finds you well and that you offer it serious consideration. If you have any questions, please call me at 812-215-0262, or email me at [kschelle@usi.edu](mailto:kschelle@usi.edu).

Best Regards,

A handwritten signature in black ink, appearing to read "Kent W. Scheller". The signature is fluid and cursive, with the first name "Kent" being the most prominent.

Dr. Kent W. Scheller  
Professor of Physics