

BOONE COUNTY PLANNING & ZONING COMMISSION
WIND FARM REGULATIONS PUBLIC HEARING
SOUTHERN BOONE COUNTY SCHOOLS, CENTRAL BOARD OFFICE
5275 W. REDTAIL DRIVE, ASHLAND, MISSOURI
(573) 886-4330

Minutes

6:30 P.M.

Thursday, April 29, 2021

Commissioners present: Rhonda Proctor, Bill Lloyd

Attending by video: Jeff McCann

Absent: Boyd Harris, Eric Kurzejeski, Greg Martin, Steve Koirtyohann Michael Poehlman, Fred Furlong, Daniel Mings, Randal Trecha

Staff: Bill Florea, Thad Yonke, Uriah Mach, Cece Riley, Paula Evans

The third public hearing to receive comments and questions regarding the proposed Wind Farm regulations was called to order at 6:30 PM.

Commissioner Proctor read the following statement:

Good evening and welcome to tonight's hearing regarding the proposed Boone County Wind Farm Regulations. An informational presentation will be given which will explain elements of the proposed regulations. After the presentation, the Commission will call upon those who have pre-registered to speak, after those who have pre-registered have spoken, anyone present who wishes to make comments may do so. In the interest of time, responses to questions may not be given this evening. However, a record of all questions and comments will be kept and responses may be made directly to the individual, by posting on our website, or both. Forms have been made available for those who prefer to submit their questions in writing.

If you choose to provide testimony this evening and have not pre-registered, please complete the "Request to Speak" form and place in the box on the table. Please be concise and we ask that you not be repetitious with your remarks, we also ask that you restrict your comments to the proposed regulations. We recognize that this issue can be quite emotional, in that regard we ask that you refrain from applause, cheers or other signs of support or displeasure. Please be considerate of everyone here.

In order to give everyone an opportunity, speakers will be limited to five minutes each. Time limits may be changed depending on how the hearing progresses. If you feel that your allotted time is not enough, you are welcome to submit your additional comments in writing. Comments and questions can be submitted in writing and by email until April 30, 2021, to: WECOD@boonecountymo.org.

This is the last of three public hearings to be held by the Planning and Zoning Commission. No decision will be made tonight. After the public hearings are completed, Resource Management will review and organize the comments and questions and forward them to the Planning and Zoning Commission. The Commission may make changes to the proposed regulations as a result of the comments received, or they may make a recommendation for approval or denial to the County Commission. The County Commission will hold another public hearing regarding the final draft. The County Commission may approve or deny the regulations, or they may refer them back to the Planning and Zoning Commission for further consideration.

The progress of the proposed regulations will be updated regularly on our website at: www.showmeboone.com/resource-management/WECOD

Director, Bill Florea gave a power point presentation which included a brief summary of the requirements for establishing a wind farm in Boone County. This power point is available on the previously mentioned website.

The floor was open for comments:

Speaking by video:

Hilary Clark, 1501 M St NW, Ste 900, Washington, DC

Hilary Clark: I am the Social License Director at American Clean Power Association. We represent a broad range of businesses into energy, including wind energy. Wind energy development provides a significant economical benefit to Missouri and to the community. In 2020 clean energy provided an estimated \$8.2 million in property taxes. The restrictive nature to the proposed update to the wind energy conversion overlay district will create business uncertainty placing development opportunities in jeopardy for Boone County farmers and small businesses. We sent a letter to the Planning and Zoning Commission on April 28, 2021. Wind energy developers have good success in being responsible to community members and business partners throughout the United States. Our members recognize the importance of engaging with the host community to site and safely operate their projects. There is currently no evidence to support any additional public safety benefit from longer setbacks. Longer setback requirements, like the 1750' proposed, would impede wind energy development and unnecessarily restrict landowners who wish to install wind turbines on their property. The setback equal to or slightly greater than the tower height is sufficient to protect public health and safety from the rare event of equipment failures. Wind companies manage risks through detailed study and analysis, careful engineering and cautious standard operating procedures. To date, there has not been one report of injury to a member of the public from a wind turbine failure. Most jurisdictions across the US have a setback requirement of 1.1 to 1.5 times the total turbine height from a non-participating property owner's property line and also from public right of ways.

With regard to regulations and sound limits there is some ambiguity. It appears the intent is to establish a limit at the property line and that limit is reduced if a (inaudible) is present, however c-weighted criteria is introduced which is substantially less than the a-weighted level. A wind turbine study concluded that there was no additional gain by analyzing the data using c-weighted levels. The proposed regulations impose a maximum turbine height restriction of 400-feet, however since 2012 the median turbine height has been 420-feet. As of 2019 utility scale wind turbines were closer to 499-feet with many commercial wind turbines reaching 695-feet by this year. Taller wind turbines are more efficient making it possible to cost effectively capture the stronger wind resources at higher levels, therefore fewer turbines are needed on the landscape. As technology advances and the industry innovation grows it is important that regulatory frameworks allow for flexibility and height. A maximum height restriction of 400 feet is not consistent with current industry growth and would restrict wind development in the county. We urge the Commission to work with the wind industry to understand the types of requirements that allow development to move forward while still protecting the interests of the community.

Carolyn Amparan, 4804 Shale Oaks Ave, Columbia

Carolyn Amparan: The input I am providing is on behalf of the Osage Group Executive Committee. I have submitted a more detailed version of our remarks and input to the WECOD address. The Sierra Club recognizes that all forms of power generation entail environmental tradeoffs and that there are drawbacks to wind development. The most contentious issues include visual and wildlife impacts. Still the Sierra Club believes that in most instances many of the negative impacts of wind can be managed and we believe that with adequate site planning the benefits of wind power, in reducing the threat of global warming and pollution will substantially outweigh those negative impacts. However, we feel that the proposed regulations are too limiting and are likely to restrict wind development in viable areas of Boone County.

To summarize a few specific inputs regarding the permit process we feel that the property owners should not be the only ones who can instigate the initiative of the overlay district, we feel the wind energy companies should be able to do this on behalf of the owners with their permission; this would be a cost burden for individual land owners. Additionally we feel like with the application process it would be more cost effective if the applications were allowed to include more than 2 to 6 wind turbines at a time and that would be able to give everyone a bigger view of the scope of the project. Regarding the primary district and buffer area requirements, we would like to see the primary district be less than 640 acres and not require four contiguous quarter-sections, we feel like this is potentially unequitable to smaller landowners and we would like the buffer requirements to be based more on the presence of building structures or public roads and associated to the height of the towers.

Regarding property values, most of the regulations that we were able to reference in other states don't include any such regulation on property values. Although we feel that basing the analysis of property values are statistically valid, comparable studies is reasonable, we really couldn't find much research that offered this kind of information. In our detailed input we do include two studies that we found that might offer some information on this, but it seems that this is going to be something that would be difficult to comply with. Under natural and biological resources, the Sierra Club supports the projection and preservation of natural and biological resources as identified in Section 29.7.1. We would like to add the request that developers should carefully record the methodology used for wildlife studies so that procedures resulting in problems sites can be accurately identified and modified in the future. Regarding visual uniformity and impact, we too feel that the regulations should allow for turbines of taller height than what is specified given that technology has already changed, and the median height of turbines is already higher.

Regarding setbacks we would suggest a setback based on turbine height. We have provided a sample ordinance from the state of Pennsylvania that bases the setbacks on the turbine height at 1.5 to 5 times the turbine, or hub height depending on if it is an occupied building on the landowners property or the neighbor's property, whether it is a property line or a public road. We encourage the Boone County Commissioners to realize that wind power represents an advantageous and necessary enterprise for our state, and we applaud the Commission on the advanced planning on this area of regulations on a growing industry. We all face a dire threat of extreme weather and climate change and a balance needs to be struck.

Tom Weislocher, 11581 N Trimble Road, Harrisburg.

Tom Weislocher: I am glad the height question has been brought up. A wind company representative told me in 2018 that they were planning 499-foot vestas turbines for Boone County, although they would prefer 600 foot plus if they could deal with the extra FAA regulations. Fast-forward three years the newest generation of wind turbines are 820 feet, considerably higher than the St. Louis Arch which is only 630-feet. In general, communities are free to regulate the height of structures on the basis of appearance, that is why many zoning ordinances restrict new homes to only two or three stories, even though four or five story homes could safely be built. Wind turbines are no different than any other lawful use, you may restrict their size on the basis of appearance. An 820-foot turbine is the height equivalent of a 59-story building; I am pleased with the proposed turbine height limit for Boone County at 355-feet, the equivalent of 25-stories but I have reservations. We have all seen the videos of flaming wind turbines on YouTube with no one even attempting to put the fire out. That is because traditional firefighting equipment can't reach that high. Aesthetics aside, does the Boone County Fire Protection District have equipment to reach wind turbine heights in the event of a nacelle or rotor fire? They haven't yet responded to my question which I entered on their website, but I doubt that they have it since the tallest building in Boone County is currently Jesse Hall at 180-feet. Will it be possible to purchase equipment reaching twice that height or more and if so, who will foot the bill?

Nordex, one of the world's largest wind turbine manufacturers states in their safety manual that during a storm event their employees are to remain 3280 feet from a wind turbine and inside a vehicle. That is for people already trained to deal with wind turbine emergencies. Should we put them only 1750-feet from a landowner who has no

training in how to handle that? Just because 1750-foot setbacks may have been adopted elsewhere with mixed perception, that doesn't make them appropriate here, particularly when the population density of Boone County is ten times that of more rural counties. That said, I think individual property owners should retain the right to encumber their own property by waiving or shortening the setback requirement as it applies to them as long as it doesn't violate the safeguards protecting other property owners. I am concerned about where power generated by local wind might be sold. Being in talks with local utilities is not the same as having regulations mandating the sale of power to them at pre-negotiated, discounted, competitive prices; that should be required.

The energy policy institute at the University of Chicago released a 2019 paper on the cost-effectiveness of renewable mandates. It examined the effects of renewable portfolio standards programs adopted by 29 states and found that they raised retail electricity prices considerably while reducing Co2 emissions only modestly. April 21, 2021, US Special Presidential Envoy for Climate, John Kerry, told Washington Post Live that even if both the US and China could go to zero emissions it still wouldn't solve the climate problem. That being the case there is no reason to sacrifice Boone County under the illusion that we are changing the world for the better. All we will be doing is hurting people by lowering their property values, decreasing their quality of life, and simultaneously increasing the cost of electricity for all. I am concerned that the company that has already leased 15,000 acres of land in Boone and Howard Counties is German. Germany is currently our ally but that was not always the case, in today's fast-paced world, global loyalties can change a lot during the 30-year lease lockup period. In the event we ever end up on the wrong side of the table from our German friends would we want foreign nationals tied into our grid and power systems and the accompanying communication systems that operate them? That presents a risk to the availability of local power at the time when we would need it most as well as a national security risk. Permits should be limited to US-based wind companies. It is tempting to look at the upfront lure of a few dollars in a few pockets now but let's not mortgage our future for the short-term gain of a few when the unexpected fallout from this could have us all licking our wounds because once these things go up they are up there for a long time and our land and our lives are changed forever.

Commissioner Proctor called Jack Meinzenbach, attending by video. Mr. Meinzenbach did not wish to speak.

Commissioner Proctor called Skylar Laird, attending by video. Ms. Laird did not wish to speak.

Terrie Nagel, 5501 W Tracy Ct, Columbia

Terrie Nagel: Regarding the definition of cluster on the first page. I believe you mean for it to match the information on page 14, changing the wording from "less than 1.25 times the minimum spacing distance from the least one other WECS in the group" to "no greater than 1.25 times the minimum spacing distance.."

Regarding the section on page 14 about unacceptable noise levels, what are the consequences if unacceptable noise levels continue? Should those turbines causing issues be turned off until they are fixed? Several of the requirements in the regulations do not list any consequences if requirements are not followed. Should a statement be added to the regulations indicating what the consequences should be, including a county-initiated shutdown or permanent shutdown, especially when issues affect health and safety? Concerning avoiding important wildlife migratory corridors and staging areas, do we already have information on migratory corridors in Boone County, particularly for migrating birds? In just the past few years we have seen bald eagles visiting our lake and an increase of migrating birds such as trumpeter swans and Canadian geese following migratory paths that will be disrupted by the turbines with many birds killed. The American Bird Conservancy estimates 1.4 million bird deaths per year if the US expands wind-energy generation facilities to produce just 20% of the electricity demand. Wind turbines also kill more bats than any other human industry or activity.

Regarding the height of the wind turbines proposed, in order to provide some scale for those, they are taller than the Statue of Liberty and twice as tall as Jesse Hall. Wind turbines this size weigh 267 tons, mostly steel and concrete, and rest 6 to 30 feet in the ground. Foundations are even more massive and weigh several thousand tons.

Regarding section 29.9.2 abandonment, the 4-foot removal of underground equipment and foundation systems does not seem adequate accordingly so you might want to change that to say take it all out when it is time. I was worried about that when I read that it goes 6 to 30 feet in the ground. I know that others are proposing that the turbines be bigger and I brought a picture of a 500' wind turbine in relation to a property. (attached at the end of these minutes)

Commissioner Proctor called Margaret Gray attending by video. Ms. Gray chose not to speak.

Susan Goodman, 11581 N Trimble Rd, Harrisburg

Susan Goodman read the following invitation which was posted on Facebook:

Hey all, my name is Carrie March and I am your Missouri neighbor to the north. I live in Schuyler County, Missouri in the middle of the new High Prairie wind project. This is my personal invitation to come sit on my porch for a day if you are questioning signing a lease or wondering how bad it really is. Message me and I will give you directions, you are more than welcome. The closest turbine to us is 2100 feet, we have 16 within 1.8 miles on all sides. I provided a few videos here but have many more if you'd like to view entire Google drives. Even with almost no wind they still aren't silent. The noise is every single day. Our roads are destroyed, our newly built home is destroyed, relationships in our county are destroyed, our peaceful, quiet rural life is gone. I would challenge you to answer the question, what is the health, safety and well-being of Boone & Howard County residents worth? Should it be for sale?

Susan Goodman: I would like to thank the committee for their work on the regulations, you have obviously studied and made a deep dive in to the realities, people who are advocating wind turbines for financial gain or because they still believe they are green and renewable and have not been motivated to study so deeply. Organizations like the Sierra Club are standing with who have names that sound like environmentalists are admittedly just lawyers and lobbyists for big wind companies, so they aren't motivated to tell the whole story, but people who live around them are. There is much regret all over the world from people who believed the consistently promoted untruths about industrial wind turbines. I am sending the link to a leaseholder story titled "What have I done", it is an ad that was put in a Wisconsin newspaper to share experiences (attached at the end of these minutes). If we run out of fossil fuel, then why do we use so very much of what we have left to build giant machines that depend on fossil fuels for every stage? Germany world renewable leaders shut down a number of its coal plants in January only to find eight days later they had to reopen them in order to meet demand because of low wind. Their setbacks are 5280 feet. Too bad wind turbines don't work without drawing a large amount of electricity from the grid.

Why should it be the resident's responsibility to wait for the noise that we know happens then make complaints, wait for noise studies and some kind of mitigation. In Kirksville their response to Carrie March was "they are built now there is nothing we can do". Wind turbine companies must have the responsibility to provide each home with a noise box in advance that it is tested as soon as they turn the turbines on and the turbines are turned off whenever they go over the limit. There must be a county representative with the ability to turn them off 24-hours a day. Numerous stories are being told of turbines making bad and unusual noises being reported and not fixed for many months and then having a runaway event such as fire or blade throw, these can be life or death situations and the County is responsible for it if we do not insist on the ability to turn them off when we need to. The wind companies have not demonstrated that they will necessarily do it in a timely manner. There is a turbine near Carrie March's home that must have something bad like a warped bearing and it makes noise when it is not even running. When it is running it sounds really bad and Carrie is fearful for the life of her family. Should she have to live like this? Should we?

Greg Toul, 9515 N Route E, Harrisburg

Greg Toul: Everyone is saying the regulations are too restrictive, but they need to be restrictive because the regulations are in place to protect the people just like building inspections. They are there to protect the people, not special interest groups. One thing I saw in the regulations that seemed to be open-ended was not to put any of the turbines in scenic areas and wildlife refuges. I am not sure what is considered a scenic area, but I live on Route E and it is a very scenic area. There is no specification on what a scenic area is. Something missing from the regulations is the accountability factor. Who is accountable for all of these negative, detrimental effects on people's health? No one is being held accountable and someone needs to be.

No one else wished to speak.

Commissioner Proctor stated that no decision will be made tonight. This is the last public hearing regarding the regulations to be held by the Planning and Zoning Commission. Now, staff will compile the comments and bring them to the Planning and Zoning Commission. The commission will consider all the comments may make changes based on the comments or they may make a motion to recommend or deny the regulations to the County Commission, the County Commission will hold another public hearing and either approve the regulations or refer them back to the Planning and Zoning Commission for additional changes. This is not the end of the process.

The meeting adjourned at 7:22 PM.

Meeting notes prepared by Paula Evans, Administrative Coordinator, Boone County Resource Management

Terrie Nagel Submittal
4/29/21



500-ft wind turbine

WHAT HAVE I DONE?

Susan Goodman Submitted 4/29/21

Now each morning when I awake, I pray and then ask myself, "What have I done?"

I am involved with the BlueSky/GreenField wind turbine project in N.E. Fond du Lac County. I am also a successful farmer who cherishes his land. My father taught me how to farm, to be a steward of my fields, and by doing so, produce far better crop production. As I view this year's crops, my eyes feast on a most bountiful supply of corn and soybeans. And then my eyes focus again on the trenches and road scars leading to the turbine foundations. What have I done?

In 2003, the wind energy company made their first contacts with us. A \$2000 "incentive" started the process of winning us over, a few of us at a time. The city salesman would throw out their nets, like fishermen trawling for fish. Their incentive "gift" lured some of us in at first. Then the salesmen would leave and let us talk with other farmers. When the corporate salesmen returned, there would be more of us ready to sign up; farmers had heard about the money to be made. Perhaps because we were successful farmers, we were the leaders and their best salesman. What have I done?

Sometime in 2004 or 2005, we signed \$4000.00 turbine contracts allowing them to lease our land for their needs. Our leases favored the company, but what did we know back then? Nobody knew what we were doing. Nobody realized all the changes that would occur over which we would have no control. How often my friends and I have made that statement! What have I done?

I watched stakes being driven in the fields and men using GPS monitors to place markers here and there. When the cats and graders started tearing 22 foot wide roads into my fields, the physical changes started to impact not only me and my family, but unfortunately, my dear friends and neighbors. Later, a 4 foot deep by 2 foot wide trench started diagonally across my field. A field already divided by their road was now being divided again by the cables running to a substation. It was now making one large field into 4 smaller, irregularly shaped plots. Other turbine hosts also complained about their fields being subdivided or multi cable trenches requiring more land. Roads were cut in using anywhere from 1000 feet to over a 1/2 mile of land to connect necessary locations. We soon realized that the company places roads and trenches where they will benefit the company most, not the land owner. One neighbor's access road is right next to some of his out buildings. Another right next to his fence line. What have I done?

At a wind company dinner presented for the farmers hosting the turbines, we were repeatedly told - nicely and indirectly - to stay away from the company work sites once they start. I watch as my friends faces showed the same concern as I had, but none of us spoke out. Months later, when I approached a crew putting in lines where they promised me they would definitely would not go, a representative told me I could not be here. He insisted that I leave. The line went in. The company had the right. I had signed the lease. What have I done?

Grumbling started almost immediately after we agreed to a 2% yearly increase on our 30 year lease contracts. Some felt we should have held out for 10%. What farmer would lock in the price of corn over the next 5 years, yet alone lock one in at 2% yearly for 30 years? Then rumors leaked that other farmers had received higher yearly rates, so ~~some~~ contracts varied. The fast talking city sales folk had successfully delivered their plan. Without regard for our land, we were allowing them to come in and spoil it. All of the rocks we labored so hard to pick in our youth were replaced in a few hours by miles of roads packed hard with 10 inches of large breaker rock. Costly tiling we installed to improve drainage has now been cut into pieces by company trenching machines. What have I done?

Each night, a security team rides down our roads checking the foundation sites. They are checking for vandals and thieves. Once, when I had ventured with guests to show them foundation work, security stopped us and asked me, standing on my own property, what I was doing there. What have I done?

Now, at social functions, we can clearly see the huge division this has created among community members. Suddenly, there are strong-sided discussions and heated words between friends and, yes, between relatives about wind turbines. Perhaps this is of greater consequence than the harm caused to my land! Life is short and my friendships precious. What have I done?

I tried, as did some of the other farmers, to get out of our contracts, but we had signed a binding contract and a contract is a contract. If you are considering placing wind turbines on your property, I strongly recommend that you please reconsider. Study the issues. Think of all the harm versus benefits to your land and, in the future, to your children's land by allowing companies to lease your land for turbines.

WHAT HAVE I DONE?

PLEASE DO NOT DO WHAT I HAVE DONE!



This was written by Don Bangert of Chilton, Wisconsin after he interviewed a landowner in Northeast Fond du Lac County for two hours. Don wrote this story and then agreed it to the landowner who wishes to remain anonymous. The landowner approved this for publication.