

DICKINSON COUNTY PLANNING AND ZONING COMMISSION

Monday, August 17, 2009

1:00 P.M.

The Dickinson County Planning and Zoning Commission met Monday, August 17, 2009 at 1:00 p.m. in the community room of the Dickinson County Courthouse.

Members present were Mike Roach, Tim Fairchild, Sally Nielsen, Tony Weber, Bob Chaffin and Jon Gunderson. Absent was Duane Moser.

Sally Nielsen called the meeting to order at 1:00 p.m.

First on the agenda was approval of the minutes of April 20, 2009. Weber moved to approve the minutes as written. Chaffin seconded. All were in favor.

Second on the agenda was discussion of small wind turbine regulations.

Dave Kohlhaase introduced Kirby Berhow of Iowa Lakes Electric Cooperative and Al Zeitz of Iowa Lakes Community College. He said that the county formed a committee to set standards for wind turbines which are allowed only in the agricultural district. The office has received 3 to 4 requests for individual turbines in residential areas. They have been told no, and we have had phone calls from suppliers wondering why. The concerns received in the office have been mostly visual impact and fall down. We've asked Mr. Zeitz to give us his experience with small turbines and Mr. Berhow knows about programs available to customers.

Al Zeitz said he doesn't work much with the small wind industry. Most of the residential applications have been designed for remote areas where there is no energy grid available. Some people object to the look. They are concerned with noise, but in his experience they are extremely quiet. The small turbines come in a variety of sizes from 400 watt to 1 kilowatt. The blades are up to 4 feet long on the smaller ones. Up to 100 kilowatt would have 18 to 20 feet blades. To be efficient over trees, the turbine would need to be 100 feet tall. With no trees, 60 to 70 feet. Utility scale is his forte, but he has some resources for small wind.

Kohlhaase asked for a normal size house, what size would a person need?

Zeitz said to offset all energy, a 10 to 20 kilowatt machine would be needed. It is not cost effective to go larger. A person could go smaller and use the turbine to charge batteries or generate energy for one room.

Nielsen asked the size of the foundation.

Zeitz said most small turbines are tilt-up structures with guy wires attached. You don't need much foundation.

Berhow said if an interested individual approaches ILEC, they send an interconnection agreement. If they have certain size requirements over 50 kilowatt, that needs more research so they have a safe interconnect. If they are interested in small wind turbines, they give them info on small wind companies.

Berhow said placement and elevation are very important. In a city, a small one won't work well without being on a mound. Interconnection within a city would have to work with the power company. He said the best payoff is to offset the electricity you use. If you spend more on a larger turbine, it would take more years to achieve payoff.

Fairchild asked if several neighbors could go together and put up a turbine and share the metering.

Zeitz said it would be too expensive. They would have to dig in a collection system and avoid all underground utilities.

Roach asked about a new development.

Zeitz said they maybe could design a collection system that would work.

Fairchild asked how different this is from a cell tower.

Berhow said similar, but a cell tower is self supporting.

Zeitz said the guy wires on a 100 feet wind turbine would extend out about 60 feet. The main issue is making sure the structure is sound.

Nielsen asked what if two neighbors 100 feet apart each want a turbine.

Zeitz said the area to be affected would be fairly small. If the turbines were 100 feet apart, they wouldn't create much turbulence.

Berhow said maintenance is accomplished by tipping the tower down or using a truck to reach the tower.

Fairchild asked what should be the fall down distance between neighbors.

Zeitz said he thought 100 feet plus 10%.

Weber asked if there are standards for which size is considered industrial versus residential.

Zeitz said 100 kilowatts and larger is typically utility scale.

Berhow said over 50 kilowatts, feasibility studies are put in place. An applicant would have to work with the utility company on interconnect.

Zeitz said small machines require little maintenance, but larger than 20 kilowatts get into gear boxes.

Chaffin asked about the cost of an individual turbine.

Zeitz said a 10 kilowatt machine is about \$50,000 installed.

Kohlhaase said there are currently programs from the government to help fund green energy.

Fairchild said he felt they should treat a small turbine the same as a cell tower, and we don't allow those just anywhere.

Zeitz said there are some other designs out there such as vertical access wind turbines that mount on rooftops. The first thing is to make sure the roof will support that. Salesmen are telling people they don't need to make adjustments to the roof.

Kohlhaase asked Berhow and Zeitz what their feeling is about allowing small wind turbines.

Zeitz said in his opinion, if it is allowed in a residential area, limit it to 400 watts to charge batteries, supplement electrical, etc. and look at fall down distance. He doesn't see 60 x 100 feet lots having turbines. Leave it to acreage settings. Noise, shadow flicker and ice are not a problem. It should be self supporting towers to get away from guy wires.

Berhow said people really need to research the feasibility. They must get above the tree line for maximum efficiency.

Weber said there are some on the lakeshore that might want one just because it is “green” and they can afford to install one.

Fairchild asked about environmental issues – bats, birds, etc.

Zeitz said that’s why no guy wires. He is not aware of any other environmental issues with small turbines.

Saunders asked if there was any zoning issue with the roof mounted models. He would assume that if considered part of the house and under the 35’ height it should be allowed.

The commission members agreed to think about it awhile and discuss further at a future meeting.

Third on the agenda was discussion of limiting the number of families in a single family dwelling. Kohlhaase said in the county, residents are allowed to rent their homes on the lake for less than 30 days, but there is no control of how many stay. There are other cultures that have many families in one house. After research he concluded it is not zoning’s job to determine, but could be handled by a covenant or restriction in the community. Northwest Iowa Planning and Development said there is nothing in any ordinance they are familiar with. Saunders said he thinks it is unconstitutional.

Fourth on the agenda was old or unknown business. Kohlhaase said the office has had a few issues with dog kennels. He got a legal opinion and a portable dog kennel that sits on a slab of cement and isn’t fastened down doesn’t need a permit. If attached to the ground or a building in any other manner, it does need a permit.

Saunders said recently the commission had received copies of a court case from Dave Stein Sr. asking them to look at this case when they look at wind towers and proximity to airports. The case had nothing to do with wind turbines or airports; it was in regard to cell towers. His opinion is they get the same notice as everyone else and we have no legal obligation to specifically notify airports on wind tower applications.

Kohlhaase reported on the status of the wind projects in the county.

Fifth on the agenda was adjournment. Fairchild moved to adjourn. Weber seconded. All were in favor. The meeting adjourned at 2:20 p.m.