

OCTOBER 30, 2024

The Board of Supervisors of Clinton County, Iowa, met at the Clinton County Satellite Building, 226 11th St, DeWitt, IA. Present were Supervisors Irwin, Srp and George.

6:00 P.M. Call to Order – Pledge of Allegiance

DISCUSSION WITH POSSIBLE ACTION

Public Discussion of the County Renewable Energy Wind Turbine Ordinance

Changes to 4.2.16 Title Wording: Jen Kutsch presented her proposal for amendments to the section. She said her proposals included more details than what is currently written in the ordinance. Tim Arnold, NextEra representative, said they did not recommend any changes to this portion of the ordinance, but said any changes to the current language is not necessary because the rest of the zoning ordinance addresses more specifics. Chairman Jim Irwin said there won't be any changes tonight, but rather a discussion of proposals. Planning and Zoning Commissioner Chris Frame said he liked the proposed amendment because it is not vague. The remainder of the Planning and Zoning Commission agreed. Supervisor George said the more explanation the better. Irwin said he agreed with that.

General Requirements 1-10: Kutsch presented her proposed amendments under color and finish. She suggested requiring one blade be painted black to help reduce the number of birds injured/killed by the turbines. Arnold said NextEra did not recommend any changes. He said the study of one black blade is very limited and had researcher, Chris Jorgenson, online to speak. Jorgenson is from an engineering and environmental consulting firm. He said the study monitored eight turbines with four having a black blade. He said the research was not consistent and too small of a survey and requires further research. Kutsch said the study followed lab research and there were improvements shown in the study. Arnold said the study is encouraging but needs more research. He said painting them white now is to decrease their visibility in the environment. He said the sample size is too small to make conclusions. He said he doesn't know of any other place where this is a requirement. Arnold said in their project areas he does not know of any. Frame said he spoke with a person from the Iowa DNR and she said studies need to be done yet. He said he's in favor of painting it and being a part of a study. He believes it would be more cost effective than finding it out later and then replacing them. Arnold said what they don't know is how it may affect other things and aren't interested in testing on the scale the size of the project in Clinton County. Arnold said the limited size of the study has not proven enough to show negative impacts. Ryan Schmitz is a biologist with Eagle Valley Nature Preserve in Wisconsin. He said he didn't know if there is a difference in the color because of the speed of the blades. He recommended the best action to preserve the birds is to have a large setback from the river. He said the migratory birds don't necessarily follow the river as they move up to 60 miles west of the river in Clinton and Jackson County. Irwin wondered if they would be noticed by residents more from further away if one blade is painted a different color. Frame said there are clearly still many questions, and he said his DNR contact said continuous research is needed as things continue to change. George said she would like to hear from the public about painting a blade black. Irwin said he was on board to painting a blade black until realizing the study size was small. Arnold said there is no evidence that painting a blade black provides any effect on deicing, but said there have not been any studies on that specific issue. He said that was the belief back when the ordinance was written. Kutsch said that language is included in many ordinances across the state. Kutsch presented changes to the tower configuration section of the general requirements. She said reinforced concrete base would cause difficulties during decommissioning. She said concrete is one of the worst carbon emitters and is not green. Arnold said they do not use any concrete reinforcement in their projects. The Planning and Zoning commissioners were generally in agreement to make the change. Kutsch reviewed her proposed changes under the lighting section. Arnold said Aircraft Detection Lighting System (ADLS) was not a technology available when the ordinance was written. He said they don't feel requiring ADLS is appropriate because the FAA would have the authority to say it cannot be used. He said the use of ADLS is part of the application for the proposed development to the FAA. Arnold said ADLS is not a standard part of their development unless the FAA requires it. His concern with the proposed language is conflicting with the FAA if ADLS is installed and not required by the FAA. Planning and Zoning Director Thomas Barnes said Floyd County, Iowa, has a good ordinance language regarding lighting. The board and commission generally agreed they would require the development apply to the FAA for use of ADLS. Kutsch reviewed her recommendations for changes to the signage section that includes language at the sites in case the location needs to be reported if there is an emergency. Arnold said they believe signage is already covered in other areas of the ordinance. Barnes said in the solar applications there was a section that included signage. Arnold said NextEra would provide coordinates and identifiers for first responders. Irwin said it appears there is some interest in having identifying information for those turbines on the gravel road near the access point for the turbines. Kutsch presented her proposed changes on feeder lines to include they should follow current utility right of ways. Irwin explained that will likely not be possible due to the utilities already in the ditches. Arnold said they work with landowners to create a voluntary easement. The depth of the lines was discussed. Arnold said there are national standards for the depth of the line minimums depending on the voltage. He said typically their minimum burial depth is three-feet, but NextEra uses four-feet. Peter Whitman, a farmer in Clinton County, said he would like to see the

lines buried at six feet considering the weight of equipment and frost heaving. Arnold said they are not aware of any frost heave issues with their four-foot burial depths. Arnold said they have had projects in Iowa for 20 years and have not had issues. Irwin said he's not in favor of four-foot and that he would like to see it either five- or six-feet deep. The consensus was that it should be a minimum of six-foot burial depth.

Add Shadow Flicker to Section 4.2.16.A: Kutsch reviewed her proposal to include shadow flicker. Her proposal includes that no shadow flicker should fall on a non-participating landowner's property and that flicker be measured by an independent third party. Arnold said the current ordinance does not address flicker and he said they have identified it in other projects in Iowa. He said a limitation of 30 hours of shadow flicker a year has been recognized as a standard across the country. He reviewed a proposed shadow flicker language that includes the 30 hours a year on non-participating landowners and other properties such as schools and hospitals. He said this language is common across the country and it allows property owners to sign a waiver to exceed that amount of flicker. Dr. Chris Olson and Rich Lampeter addressed technical aspects of what NextEra proposed. He reviewed a paper he provided. Lampeter works for an environmental consulting firm. He has been involved in shadow flicker studies for wind energy. Olson said there should be a flicker section in an ordinance and that should be set at the standard presented earlier. He defined shadow flicker as it relates to the ordinance and standard NextEra proposed. He said the shadow flicker model considers the location of the area and how the sun rises and falls in the area. He said the revolutions per minute of a wind turbine don't spin fast enough to trigger seizures and that is from a study from England. He said the 30 hours comes out of cases in Germany and determined to be acceptable. Olson said while it is theoretical to meet zero flicker, it would not be possible for a development to operate with that restriction. Olson said there are few complaints where the 30-hour standard is used. George said she's not comfortable with someone else putting something on their land that affects her property.

The Board of Supervisors adjourned to meet on Friday, November 8, 2024, at 9:00 a.m. at the Clinton County Law Center, 241 7th Ave N, Clinton, IA.

Eric Van Lancker, County Auditor

Jim Irwin, Jr., Chairperson

-APPROVED-

County Auditor

Chairperson