

# **Cherry County Planning Commission Review of Cherry County Commissioner Requests**

**By Members**

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## **Abstract**

**The Cherry County Planning Commission has researched and compiled the following brief which contains an analysis of the effects of wind turbines on land values, a plan to mitigate a wind turbine fire, and a review of the Lancaster County Health Department report regarding the impact of wind farms. Also included is a brief overview of the issue and concerns of citizens raised during public hearings in the past year and what the Planning Commission has done to address these issues.**

# Effects of wind turbines on property values

Report coming soon

DRAFT

# Wind turbine fire

Individual members of the Planning Commission visited with local fire chiefs about wind turbine fires and explored what steps the Planning Commission might take to help local fire departments. Liability concerns preclude the implementation of anything but rudimentary procedure. Fire Chief Terry Engles addressed the board about these procedures on April 4<sup>th</sup>, 2017.

## **A wind turbine fire will not be extinguished by the Valentine Rural Fire Department.**

The following procedures would be implemented by the Valentine Rural Fire Department.

- Create a safe zone and secure the area.
- Control any grass fire.
- Minimize the threat to surrounding property.
- Require a MSDS for the wind turbine facility to be on file at the local fire departments.
- Require an up to date wind turbine facility site map showing roads and wind turbine locations with proper identification to be on file at the Cherry County Sherriff's Department and local fire departments.

# **Lancaster County Health Department Review**

**The Lancaster County Health Department determined that wind turbine noise is more annoying than other comparable noise such as from traffic or airports. They also conclude that there appears to be evidence that a small percentage of the population is more sensitive to wind turbine noise than the population as a whole, and that there is still uncertainty in potential health impact with the research that has been conducted to date. However, the Lancaster County Health Board felt that people exposed to noise levels above 40dBA were more likely to become very or extremely annoyed with the wind turbine noise.**

**On November 10 of 2015 Lancaster County changed their zoning ordinance for sound limits at exterior walls of dwellings to 40 dBA or 3 dBA above existing background noise from 7 am to 10 pm and 37 dBA or 3 dBA above existing background noise from 10 pm to 7 am. These standards apply for both participating and nonparticipating properties.**

**The Lancaster County zoning ordinance does not require a setback from a non-participating dwelling.**

**Materials reviewed by the Cherry County Planning Commission seemed to coalesce around several general themes.**

- 1. Noise from WECS affects different people differently. It may be most like sea sickness; some people get sea sick and some do not.**
- 2. The problematic WECS noise is created by the turbine blades moving through the air. Significant and frequent amplitude modulation may be created.**
- 3. The size and number of wind turbines affect the noise levels.**
- 4. The terrain surrounding the WECS affects the noise levels.**
- 5. The distance that WECS noise travels will be affected by the layout pattern of the turbines and the prevailing wind directions.**
- 6. Noise emitted from WECS consists of high frequency noise and low frequency noise.**
- 7. Low frequency noise may not be abated by structure walls.**
- 8. Distance from WECS may be the best protection from the ill effects on people from WECS noise.**
- 9. Noise levels below 35 dBA appear to be tolerable.**

# Conclusion

Accounting for all the variability of noise created by a WTF with zoning ordinances may be impossible. Section 613.03.17 provides a home owner affected by WTF noise with a powerful avenue to address a noise grievance. If the WTF owner is found in violation of the CC zoning regulations, the WTF owner is required to take immediate action to bring the WTF into compliance which may include ceasing operation.

In addition to Section 613.03.17, setbacks of ?? from non-participant dwellings should be required.

A setback of ?? from nonparticipating property lines should be required.

Section 613.03.13 dealing with noise should require that no WTF shall exceed ??? dBA at the nearest nonparticipating dwelling.

The Cherry County Planning Commission has identified 5 other major concerns of citizens participating in public hearings and written testimony. A brief review of these issues and the action taken by the CCPC follows.

1. **Viewscope/landscape:** While Lancaster County provides that no wind turbine shall obstruct or impair an identified view corridor or scenic vista of public value as mapped on the Capital View Corridors map in the Lincoln/Lancaster County Comprehensive Plan, Cherry County has not formally identified any view corridors or scenic views.
2. **Wildlife Protection:** The CCPC believes it is up to other government entities such as the U.S. Fish and Wildlife and the Nebraska Game and Parks to provide insight on issues about wildlife.
3. **Powerline Encroachment:** The CCPC changed the Cherry County Zoning Regulations to require voluntary easements on wind turbine projects.
4. **Decommissioning of WECS:** The Zoning Regulations were modified to tighten up cost estimates for decommissioning and financial assurance. Engineer stamps will be required on all applications
5. **Property Rights:** The CCPC changed the Cherry County Zoning Regulations to require voluntary easements on wind turbine projects.

## **Other issues that have arisen and remain unresolved**

- **LB 504**
- **An interpretation of property right as they apply to Cherry County**