Industrial Wind Development Concerns

FINANCIAL VIABILITY - Windfarms are NOT financially viable without large government subsidies.



WHO PROFITS?

Windfarms are the new gold rush, but not because they are great at producing affordable, "Green" energy. Large government subsidies are propping up an otherwise unprofitable business, and out of state (often non-U.S.) corporations are the ones profiting off of tax-payer dollars and government handouts.

In addition, the energy produced locally, does not stay local. Instead, it is connected to the greater power grid. Energy produced will primarily be sent out of state. "Green credits", for energy produced here, are sold to businesses in other states, to meet their "renewable energy" requirements.

NOT CLEAN, NOT GREEN:

Large quantities of resources (renewable and non-renewable) are required to build and operate these facilities: Concrete, Steal, Oil & Gas, Rare Earth Elements (Uranium & Thorium), Copper, Cobalt, Fiberglass, Carbon & Plastic.

Resources used for transportation of the materials and parts are also not insignificant, due to the size and quantities needed. Enormous cranes are required for both installation and dismantling the turbines. Each blade has to be transported individually to the build site, initially, then to the landfill, at the end of its life.



The useful life of wind turbines is, on average, about 20 years, after which they must be dismantled and disposed of. This is a major issue, both logistically and financially. Large quantities of concrete and steel structure must be removed and transported off-site. Blades, made typically of fiberglass, carbon fibers and plastics, require massive amounts of landfill space.



Discarded wind turbine blades fill thirty acres on the west side of Sweetwater.



UNRELIABLE ENERGY PRODUCTION:

Variable wind speeds are not conducive to steady energy production. Wind turbines may operate at full capacity only a very few days out of the year. There are no batteries to store the energy produced. A 10-12 mph wind is required to produce energy, and turbines must be shut down when wind speed become too high.

BACKUP POWER REQUIRED:

The turbines cannot be left standing still for long periods of time or they will be damaged. To combat this, outside sources of energy are used to keep the blades moving, during lulls.

PROPERTY LEINS:

Decommissioning requirements are usually covered in the building and/or conditional use permits for these facilities. However, due to the possibility of financial insolvency or future reduction in government subsidies, even bonds are no guarantee that decommissioning will be completed as expected. **Participating land owners risk financial liability** and liens on their properties if the wind companies do not come through on their promises. They may also be liable for damages to neighboring properties.

REAL ESTATE VALUES & TAXES:

The presence of windfarms significantly reduces real estate value and makes homes more difficult to sell. On the other hand, property taxes may go up due to an increase in assessed value, because of the new wind tower "ASSET?".

INCREASED ELECTRIC RATES:

Regulatory mandates, which require that "Green" energy be used first, force other steady sources of power to be shut down or throttled back when wind power kicks in, then brought back online, when the wind wanes. This can happen multiple times a day. This inefficient manipulation of otherwise steady sources of energy drives up utility costs.

HAZARDS: oil leaks, fires, ice throws, and pieces flying off. VISUAL IMPACTS: towering structures, flashing lights destroy rural character.











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8/13/2024

NOISE POLLUTION:

Wind turbines produce constant, repetitive noise, that can be heard for several miles at decibel levels high enough to disturb sleep. Animals, such as dogs, who can hear sounds outside of the human range, can be adversely affected by the frequencies emitted.

GROUND VIBRATION:

Ground vibrations drive wildlife from the areas around wind farms. Effects on livestock and wildlife have not been sufficiently evaluated.

SHADOW FLICKER:

Shadow flicker occurs from the turbine blades passing in front of the sun. Much like the flickering of fluorescent tubes, the resulting disturbance of light can adversely affect some individuals. How will it affect livestock and pets?

ELECTRO-MAGNETIC FIELDS:

EMF's may have negative effects on health of humans and animals. Anecdotal evidence suggests that people with Parkinson's Disease and other health conditions may be strongly affected.

INCOMPATIBLE USE:

Commercial Wind **should be classified as Industrial use and zoned accordingly**. The combination of noise pollution, vibration, and EMF generation; along with the towering structures and massive power transmission infrastructure, make these developments incompatible with Residential and Agricultural land use. **Ag land should remain Ag land.**

WIND TURBINE SYNDROME IN HUMANS & ANIMALS:

A quick search on the internet finds reports from around the world, in areas with commercial wind development, where people and animals have been adversely affected. Reported issues include: <u>Fertility</u> issues, *Miscarriages, Birth defects, Improper egg development, Mutations and malformations, Decreased milk production, Aggression in mothers – biting and even eating their babies, Decreased milk production, Failure to thrive, and Death.* Additional reports in humans include *Anxiety, Headaches and Heart issues*.

In Texas, <u>hoof damage in foals</u> has been linked to wind turbine vibrations. An extensive study in Lisbon, Spain, corroborates these findings. This elevates concerns that the **local livestock industry could suffer significant** adverse impacts. <u>https://www.windturbinesyndrome.com/2013/horses-get-wind-turbine-syndrome-portugal/</u>





CROPS: Changes to air currents alter near-ground air temperatures, which interferes with the normal formation of dew that is essential to produce corn.

WILDLIFE:

Studies and anecdote report that wildlife vacate their native habitat when invaded by windfarms, resulting in ecological imbalance. Burrowing animals may be significantly affected by the vibrations of the wind turbines. **Deer and pheasant hunting could be affected.**

BIRD DEATHS:

Turbine-related causes of avian deaths include **direct hits** with the blades as well as **wake-turbulence**, which can injure wings and/or collapse the birds' lungs. Wind vortices may extend for distances over 1 mile behind each blade. Blade tips are moving at 200+ mph. Estimates of annual bird deaths caused by turbines vary widely. However, most indicate significant numbers (in the hundreds of thousands) of birds are killed annually. With the current, rapid growth of windfarms, these numbers will rise significantly.



PROTECTED BIRDS:

Duke Energy paid fines in excess of \$1 million, for killing 14 eagles and 149 other protected birds at 2 wind farms in south eastern Wyoming, between 2009 and 2013. In 2014, PacifiCorp was fined \$2.5 million for killing 38 golden eagles and hundreds of other protected birds at its wind farms in Wyoming. (*Desert News, July 28, 2022*)

MIGRATORY BIRDS & MONARCH BUTTERFLIES:

Turner and Yankton Counties are directly in the migratory paths of many bird species, including: *Canadian Geese, Snow Geese, Red-Winged Blackbirds, Ruby-Throated Humming Birds and various water fowl.* Multiple,

federal, wildlife protection areas are found in the footprint of the proposed Swan Lake windfarm project. Yankton and Turner Counties are important resting areas for these migrating birds. **The Audubon Society recommends not siting windfarms within migration pathways.**

Another migratory species observed annually, in Yankton County, are Monarch Butterflies. Far more delicate than birds, they are likely to be more susceptible to injury and death from wind turbine wake-turbulence, than the birds.





CONCERNS FOR COUNTIES AS WELL AS INDIVIDUALS:

- POTENTIAL HARM TO HUMANS & ANIMALS PARTICULARLY IN BABIES, PREGNANT MOMS AND PERSONS WITH DISABILITIES OR FRAGILE HEALTH
- COULD SEVERELY HANDICAP OR BANKRUPT LOCAL AG INDUSTRIES & COULD HAVE MAJOR ADVERSE EFFECT ON LOCAL FOOD SUPPLY
- UNFORESEEN FINANCIAL COSTS & DAMAGE TO INFRASTRUCTURE