

## Testimony in favor of SB279

To: Mike Thompson and the Kansas Utilities Committee

My name is Bryan Coover. I live at 6165 Jackson Road, Galesburg, Kansas. I advocate for the support of SB 279. My wife and I live in the Neosho Ridge Wind turbine complex currently under construction in Neosho County. The footprint of the turbine complex has over 500 rural homes inside the area affected by nuisance sound levels that exceed World Health Organization standards. The minimum setback agreed to by the county commission was 1640 feet from the center of a non-participant's home to the center of the turbine tower base. The wind turbines that surround our house are: one 3000 feet north, several 3500 feet and farther to the SW, and a group starting about 6000 feet to the east. As part of a group of impacted residents, we filed a lawsuit before construction started in an effort to stop the impending noise impact, safety and health concerns, and loss of property value and quality of life. Delaying tactics by Apex resulted in most construction being complete before a court date arrived. The lawsuit was withdrawn.

In preparation for proving the expected nuisance, we had a sound study performed. As ISO 9613-2 is the best tool available for predicting sound levels, the attached sound profile map was generated using that calculation method. ISO 9613-2 is known to do a relatively accurate job predicting sound levels from relatively constant sound emission sources. Wind turbines don't really fall in that category. Blade pass frequency results in swishing/banging cyclic noise that can exceed the average by a factor of more than 10X for a few millisecond duration. This makes measurements of averages a poor indicator of annoyance impact.

According to the study, the sound level at our home should not exceed 38DBa. This agrees with the level predicted by Apex. A lot of the sound emitted by wind turbines is in the lower frequency range and those frequencies are discounted in the DBa measurement. This is due to the fact that the human ear tends to disregard lower frequencies when part of a broad range of pitches. But since low frequency noise travels much farther due to its slow dissipation rate, the noise arriving at our house is largely lower spectrum. This is a problem because low frequencies also don't dissipate much when passing through walls. While a sound with broad spectrum including a lot of higher frequency sound pressure can expect to decrease up to 10 DBa passing through the walls of a house, wind turbine noise does not. With keeping in mind the short duration spiking nature of turbine noise, it was easy to predict that noise inside our home would regularly exceed the 30 DBa that nearly

all standards say is necessary for undisturbed sleep.

We expected to find it difficult to sleep, and that has come to pass. In fact, several studies done all over the world show wind turbines disrupt sleep. Chronically disrupted sleep results in health problems. Every major hospital has a sleep disorders clinic. Nina Pierpoint, MD, Alex Salt Phd of Washington University, St. Louis, Ben Johnson, Cardiologist MD of Des Moines and dozens of other medical professionals around the world have written extensively about the expected and witnessed problems associated with having wind turbines too close.

Lobbyists for the wind industry are going to tell you that the setbacks included in SB279 are excessive. In fact, these setbacks are the bare minimum to protect rural residents from the excessive noise generated by today's wind turbines.

If the state of Kansas determines that wind turbines must be allowed in such close proximity to homes, at least put in place regulations to condemn those homes so that home owners can be financially whole. We are fortunate enough to be able to move in order to escape the sleep disruption we are already experiencing. Most of our friends and neighbors are not so fortunate.

The decision to abandon our home of 30 years is not being made lightly. This house was built in 1894 by the forefathers of the family we bought it from. We remodeled the inside extensively, doing much of the work ourselves. I never imagined being chased out of our home by our new 'neighbors'.

The wind lobbyists are going to tell you to that very small setbacks are the industry norm. That doesn't make them adequate. You will hear that the property rights that they possess through leases entitles them to impose sound and safety impacts on unwilling neighbors. Kansas law does not grant them that right. Opponents to the bill are going to tell you to leave it to the counties to regulate. The wind companies do a very effective job of threatening legal action when the counties try.

The first wind farms built in the state were built in sparsely populated areas. The excess transmission capacity in those areas has been fully obligated. Over the last few years, wind farms have been built in more populated areas, not because of more optimal wind conditions, but because of proximity to available transmission. To build farther west would require wind developers invest in transmission upgrades. It is cheaper to build on top of rural

communities that don't have the organization or financial resolve to fight to save their health and quality of life. The Neosho Ridge Wind project will be owned by Liberty/Empire. It is Empire's stated intent to close the Asbury, Missouri coal plant and replace that capacity with wind generation. In other legislation this year, Evergy is asking for special tax treatment of coal plant debt so that its closure and replacement with federally subsidized wind can be accomplished. Interstate transmission lines are being planned specifically to export wind energy. We are at the beginning of accelerating proliferation of wind turbine construction in Kansas, this issue can't wait another year before being addressed.

Please pass SB279 so that other rural families can sleep peacefully in their homes.

Thank you for your careful consideration,

Bryan Coover