My name is Kent Rowe and I am here in opposition to HB2273. I am speaking on behalf of the Faculty Green Group of Wichita State University. We have met regularly for just over eight years and are comprised of Wind Turbine & Mechanical Engineers, Geologists, Mathematicians, Statisticians, Economists, psychologists, artists, and members of the student & public populace. I am formerly with the Dept. of Electrical Engineering where I coordinated development of an on-campus experimental wind turbine synchronized to the electrical grid. More recently, I was Professor of Aeronautical Science for Graduate & Undergraduate academics for the US Air Force. Originally from rural Elk & Greenwood Counties who rebuilt old Windchargers bought from farm auctions, I am a former refinery operator, pipeline inspector, drilling rig accident investigator and industrial hygienist. I have been involved with fighting multiple fires, and have experienced having three coworkers burned to death in separate mishaps in the oil patch.

Increasingly, over the last 20 years, we have been exposed to myths about "wind turbine maladies" of sleep disturbances, headaches, triggered epileptic episodes, and so on. Investigative Science is always poised for new ways of gathering evidence, empirical measurements, and determinations of cause-effect. To date, the barrage continues with a seemingly concerted effort taking place simultaneously by a surge of activities from coal & fossil fuel lobbying, media, videos, etc. that wind turbines are morally evil, cause cancer and produce more CO2 than they conserve. These groups appear to be Americans for Affordable Energy, Protect Our Pocketbooks, Americans for Prosperity, Renewable Arkansas, Renewable Louisiana, Entergy, Murray Energy, and a cast of names employed or funded by Oil, Natural Gas and Coal interests. I am naming these organizations so that they become recognizable to County Commissions throughout our State. By misleading members of the general public with concerted dis-information networking of using trolls, bots, and target audiences they seek to sway public opinion, regarding public safety and protection---but to their own self-interest.

If one wishes to experience a 'natural prairie' vista, consider the grain silos, oil pumpers, irrigation pivots, refineries, gas plants, even churches that block the contour of landscape. The turbines, as towering and kinetic as they are, add to the mix. However, they were developed to produce the lowest cost, cleaner, and non-polluting source of utility-scale electrical production. They are comparatively safer to build, operate, and maintain than anything technology has to offer with the lowest risk and cost to workers, operators as well as to the environment and wildlife. If you still cannot get beyond the prejudice and bias against wind turbines, consider this: The Chinese Space Agency has just announced their intent to build an orbiting solar platform in space---low-earth orbit. It is designed to microwave its energy to focal points on the earth's surface. This is not hardly unexpected new but is a continuation of Peter Glaser's work through the Space Studies Institute since 1995.

As it turns out, wind & solar electrical generation are a good fit for battery storage. Stationary batteries in large facilities are coming online rapidly as are the electric vehicles being produced in increasing rates, which in turn, charge [or] discharge their voltages depending on time-of-day which their owners receive credits from the Utility: V2Grid, V2Home, V2School. The armed forces are already utilizing on-base, on-post wind & solar generation coupled to microgrid architecture and are deploying this technology for emergency preparedness and enhanced electrical quality (less harmonic distortion).

In conclusion, wind turbines presently offer the best method to benefit Society and its electrical demands while minimizing threats to wildlife and avian populations at a ratio of 1:700 compared to the fossil fuel activities (prairie chicken populations increased in the K-State study). In other words, 0.01% of all avian deaths caused by human activity are attributable to wind turbine motion. Judicious siting of wind farms and consideration of flight behavior habits is a serious concern for evaluation. By observing the prevalence of native grass and domestic livestock dwelling underneath the wind turbines, I don't think the bison would have a problem with it, nor the antelope, or the prairie grizzly, or the wolves, or big cats......thank you!