Dear Senator Thompson and committee members,

My name is Don Musil and I have lived all but one of my 67 years in Marshall Count on our family farm in the Blue River valley. We live on the northernmost edge of the beautiful Flint Hills. One of the reasons I wanted to return here after college is because it is a beautiful area. People live on the coasts because they want an unobstructed view of the ocean. People live in the mountains because they want an unobstructed view of the mountains. I live here because I have one of the best views in the state of the Flint Hills.

Unfortunately our part of the Flint Hills is not being protected from industrial wind . The view and enjoyment of this area is my personal reason and maybe a selfish reason to stop industrial wind in Kansas, but below I will list some more reasons I hope you and your committee will consider.

*Industrial wind is highly inefficient. The only reason for its development is the large amount of subsidization by taxpayers. What this subsidization entails is a wealth transfer from middle class taxpayers to wealthy developers and owners of companies that manufacture and install wind turbines. Reference the famous quote of Warren Buffet stating the only reason to invest in wind is to reap the tax benefits to make money. According to an article in Newsweek March 4th of this year the industrial wind companies receive Production Tax Credits amounting to \$23 per mega watt hour through their first 10 years of production. The true cost of electricity production by wind is estimated at \$37 to \$81 per mega watt hour according to the same article. A cost estimate from Michael Giberson of the Center for Energy Commerce at Texas Tech University estimates the true cost of producing a megawatt of electricity via wind is \$149 per mega watt hour. Many of the companies being subsidized are foreign owned.

*Industrial wind and solar are highly unreliable. Wind and solar are non-dispatchable sources of electricity. If the wind is not blowing-or it is blowing too hard, or the sun is not shining alternative sources do not produce electricity. We only need to look at the disaster caused by turbine failures in Texas last month to see what a disaster it is to rely on unreliable sources of power. A similar situation happened last summer in south Australia when a period of higher than normal temperatures combined with low wind to cause a period of rolling blackouts for an extended time. Because of the unreliability of wind and solar the dispatchable sources that we can rely on such as coal, gas and nuclear must maintain their capabilities at a higher level to serve as a back up to times when wind turbines are not producing. This redundancy is inefficient for power producing resources. Coal, gas and solar do not require back ups on standby. Ask the folks at Jeffrey Energy center or any other coal or gas plant how much harder it is on their equipment and how much extra wear and tear it puts on the turbines to constantly ramp up and down depending on the wind of the day or hour. Basically we have to maintain two systems to produce reliable energy at a much higher cost to consumers when one reliable system would be sufficient.

*Wind energy is driving up costs. The extra costs associated with wind include the necessity to have two systems to produce electricity when wind is used-i.e. having enough coal, nuclear or natural gas produced electricity to cover the times when wind is not producing. Consumers must pay for both systems. It would be like having to pay for two taxis when you take a cab, one to ride in and one to follow you around in case the first one breaks down. There is also a lot of extra infrastructure being built such as power lines and roads to access turbines that are at great expense-again to those using the electricity.

*Wind turbines are not safe. According to industry statistics turbines have an accident incidence of %0.9 annually. That means in a group of 100 industrial turbines there will be an incident of fire in the nacelle, a blade breakage or some other incident about every 13 or 14 months. These behemoths are now being built 500 feet in height. Proposed turbines in north central Kansas may be as tall as 800 feet. According to one manufacturer of turbines, employees should not be within 1300 feet of a 2 Megawatt tower (300-350 feet tall) unless they are doing maintenance, and when in the vicinity should wear personal protective gear. Why would they say that if they did not have safety concerns? Because our county commissioners were intimidated by the turbine developer to initiate setbacks many of the turbines (499 feet tall) are much closer to property lines of non-participating landowners than 1300 feet. What about the safety concerns of those non-participating landowners who just want to safely enjoy their own property?

*Wind energy production is driving up energy costs. Reliance on wind energy in Kansas is driving up the cost of electricity to businesses and consumers. The extra costs and lack of reliability as noted above is driving up our costs in comparison to states not as heavily relying on wind or solar. The long range effect of this will be discouraging businesses and manufacturers from locating here due to high costs.

*Subsidized wind has an unfair advantage given by the state and federal governments to what are primarily out of state companies via tax subsidies over companies that have been loyal Kansas companies paying income and property taxes for decades. We are subsidizing out of state companies and foreign companies and encouraging them to come here to drive up our cost of electricity while underpaying taxes while hurting our homegrown Kansas companies. What is wrong with this picture?

*Wind turbines are decimating to local wildlife. Statistics show turbines kill hundreds of thousands of birds and bats every year. Our area of the northern Flint Hills has had a return of bald eagles in recent decades that weren't here in the past. Raptors such as eagles and hawks are most susceptible to being killed by turbine blades. As the native prairie has disappeared, so have the greater prairie chickens. But, we still have them here, and we still have native prairie. A number of years ago a Wildlife and Parks employee told me prairie chickens don't like to be within a half mile of a tree because of raptors. Five hundred foot tall turbines with spinning blades are much more intimidating than trees.

*Wind turbine decommissioning will one day be an economical and environmental disaster. The supervisor of the Irish Creek Wind development told me a year ago when I asked about decommissioning costs that decommissioning worn out turbines would cost less than \$100,000. I refer you to an estimate by Henry Blattner, Senior Estimator for Blattner Energy. It was sent to a Ryan Plumford of Nextera Energy in 2017. It is an estimate for decommissioning Tuscola Wind III turbines in Michigan. These are 2 megawatt GE turbines (Irish Creek's are to be 3.5megawatts and much taller). The estimate found per turbine was \$646,000 AFTER accounting for salvage value of the steel. The 130 turbines proposed for Irish Creek will have 390 blades that are each the length of a football field with a life expectancy of a bit over 10 years. What will the costs be in 15 or 20 years with inflation? They will then have to be removed and disposed of. Where will they be disposed of? Who will pay the decommissioning costs. The figure above was for a 2 megawatt turbine while we will have much larger and more expensive decommissioning expenses. Who is assuring the bond money will cover the cost of destruction? Will the LLC's that actually own the turbines even have assets when the turbines come down? Will large companies such as Nextera stand behind the LLC's to cover expenses. The last people

that should be paying for decommissioning are the taxpayers who suffered higher costs and the environmental destruction of dealing with wind turbines while a small group of people made money.

*EVERYONE on this committee should take the time to read the article found in the online journal "energies". It can be found by searching "Energies 2020, 13,4839". This is a scientific article review that shows the fallacy and danger of relying on alternative energy sources. You will find that not only is wind energy not reliable as a significant part of energy production, but it is not green as it is being touted.

Unfortunately for those of us who are concerned about the lack of direction being shown by the state and federal governments for a true comprehensive long term energy policy, not just one that is "politically correct" we have little recourse. Cities and counties cannot fight the large energy companies, and of course individuals who are non-participants have practically no rights. The large companies bully and threaten with lawsuits. Counties and cities cannot afford to fight them. It is imperative that the state protect its citizens with setbacks of at least one mile for non-participants, and even more as towers get taller. It is past time the state takes a serious look at energy policy before we are priced out of being competitive and are left with a power grid that is unsafe and unreliable.

Thank you for your time and interest.

Don Musil

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