



The Wind Coalition

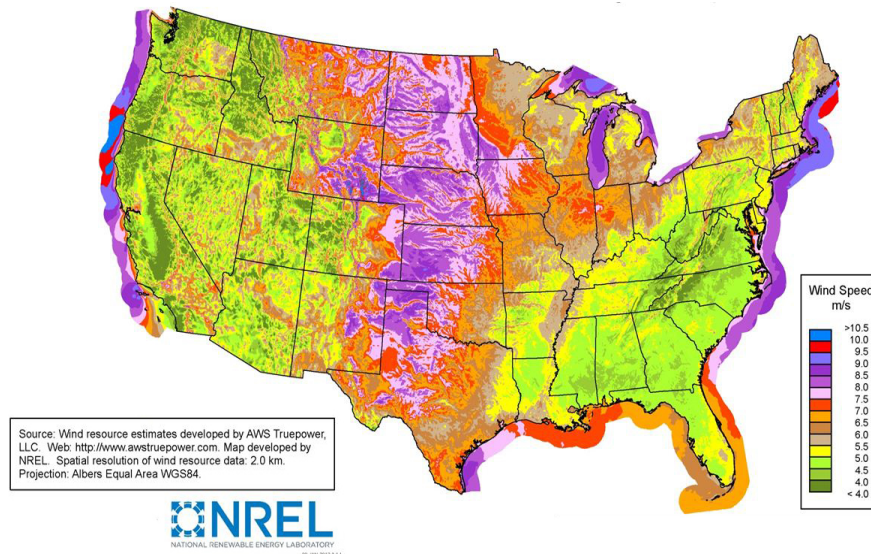
Jeffrey Clark, Executive Director
The Wind Coalition to Members of the Oklahoma Senate
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Contact Jeff Clark at Jeff@WindCoalition.org
or by telephone at 512-651-0291

Mr. Chairman, and Members of the Committee;

I am Jeff Clark, Executive Director of The Wind Coalition, a regional association representing the wind energy developers, operators, manufacturers, and service providers, who turn the power found in our wind into the electricity that powers our lives. It is my great honor to be before you today and I appreciate your interest in the future of wind development in Oklahoma.

The Wind Coalition is active across all or part of the nine states found in the Southwest Power Pool (SPP) and the Electric Reliability Council of Texas (ERCOT). These states reside in that spectacular part of our country we refer to as "The Wind Corridor." This wonderful region, which begins in South Texas and runs north all the way to Canada, is blessed with some of America's best wind energy assets. We work to help states harness that energy to create the clean, inexpensive power that drives our economies.



You all know the winds that blow across the state. Today, I would encourage you to think of those breezes as an energy resource which, when harnessed, can benefit the people of this state. I hope that you will begin to think of it as a resource in the same way you might think of a mineral deposit, a coal seam, a shale gas formation, or oil field. The energy resource found in wind is a different type of energy, kinetic energy, but it is no less valuable. This wind is an asset that can be developed as electricity and sold, bringing wealth and opportunity to those states with the vision to embrace it.

Oklahoma Incentives Have Been Successful

I appreciate the opportunity to be with you today to discuss the tax incentives that Oklahoma has used so successfully attract wind energy development to your state. These incentives have been a key contributor in delivering lower electricity prices for Oklahoma's electricity consumers, they have helped to diversify Oklahoma's energy mix, and they have been of particular economic development benefit to the often-neglected rural parts of Oklahoma.

When Americans think of Oklahoma, they think of energy and they increasingly think of wind energy as part of that story. Wind energy is now a key part of the energy economy in Oklahoma. The more than 1,700 turbines in this great state now provide nearly 15% of the state's electricity supply, enough to power more than 1,000,000 typical American homes.

As a hedge against the volatility of fuel prices, wind energy helps guarantee consumers, businesses, and manufacturers have long-term access to reliable, affordable, water-free, emission-free energy.

The incentives that brought wind to this state are under attack, primarily by individuals who want to see wind development stopped in their area. Despite the rhetoric of this very small group of wind opponents, the state has gotten a tremendous return on its investment. And, the vast majority of Oklahomans are the beneficiaries as well.

Examining the expenditure data for these incentives as provided by the Tax Commission, for the years beginning at the program's inception through 2012, the state has incentivized the wind industry less than \$60 million in Zero Emission Tax Credits. This is a cumulative total, with only \$29 million of that credit being claimed thus far.

Looking at the ad valorem exemptions and reimbursements that help school districts stay whole when they attract major wind investments through tax abatement, only \$56 million has been spent over the same time period.

All in, Oklahoma has invested roughly \$120 million in helping the state become competitive when competing for wind energy investments. And, what has Oklahoma gotten in return?

They hit a homerun.

That \$120 million investment in incentives has attracted more than \$6 billion dollars of capital investment to the state. In addition to the jobs, sales taxes, and local economic activity created by that \$6 billion investment, the inflow of capital also generates \$22 million of annual payments to rural landowners, primarily farmers and ranchers; \$15 million in wages to workers each year; and more than \$34 million in annual tax revenue to county governments and schools.

Multiply that benefit out over the 20+ year lifespans of these projects and you'll see the incredible value of these incentives to communities around the state of Oklahoma. And communities around the state of Oklahoma are relying on you to continue these incentives.

Now, these programs aren't perfect and I'll speak to that in a moment but this is a tremendous return on investment for the state, especially in a highly competitive international capital investment market.

Wind energy is paying off for Oklahoma and bringing other tangible economic benefits to the state.

The most important of these is...

Low-Cost Energy from Oklahoma.

Oklahoma has the resources to power itself, yet too much of Oklahoma electricity is generated using imported fuels. Purchasing energy from other states makes sense if you are like the many states that have no energy resources of their own, but Oklahoma is wind-rich and natural gas-rich.

In a state like Oklahoma, it makes infinitely more sense to use the natural gas and wind that God gave you before going to Wyoming, with your hat in your hand, asking if you can buy some energy.

Using wind power to great electricity keeps more of Oklahoma consumers' energy expenditures working in Oklahoma, helping to grow the economy and make this state energy independent. And, most importantly, using energy from Oklahoma can significantly save Oklahoma ratepayers money on their electric bills.

Two recent wind power purchases showcase this.

Recently, the Grand River Dam Authority (GRDA) announced the purchase of 100 megawatts of wind power. In announcing the agreement, the GRDA estimated that their ratepayers will save \$50 million over the life of that contract.

In another announcement, Public Service Oklahoma (PSO) sought to purchase 200 megawatts of wind power for their customers. Upon seeing the low prices offered by wind energy, PSO expanded that purchase to 600 megawatts and announced the savings to the public.

They estimated that their customers – thanks to Oklahoma wind – would save \$53 million in the first year, with that number growing in each year to follow. You do the math: \$53 million saved, growing over the 20 year life of the project. Even assuming no increase in annual savings, we're talking about a billion dollars saved by ratepayers, by your constituents, thanks to incentives that brought wind power to Oklahoma.

Low power prices for your consumers, whether they be homeowners, commercial users, or industrial and manufacturing users, are a key economic return for the state of Oklahoma's commitment to the incentives that grow wind power in the state.

Price Stability.

Wind energy's price is low but, even more importantly, it is stable or falling. Because our electricity is generated using the winds that swirl across this state, the price of our fuel will never go up. This helps utilities plan for the future and guarantees consumers stable and long-term price security. And, wind's price is falling as technology and efficiencies improve. According to a study by Lazard, the levelized cost of wind energy has fallen by nearly 60% in the last five years.

Job Creation.

In addition to helping keep more of consumers' money in their pockets, wind is creating jobs in Oklahoma, especially during the phases of development and construction. In the longer term, wind energy provides jobs in management, maintenance, and operations.

Where wind projects are concerned, there has been some criticism about the number of direct jobs produced. Wind farms typically keep between 8 and 12 people employed full time on an average project site. But this ignores the innovative and efficient business model of the wind energy industry.

Wind turbines are extraordinarily heavy, expensive, and technologically sophisticated pieces of machinery. Costing more than \$2 million each,

operating hundreds of feet in the air, and loaded with mechanical, electrical, electronic, and communications equipment, they require specialized skills and trained technicians for their maintenance.

In addition to the jobs created on site, wind energy companies rely on teams of technicians and suppliers deployed regionally to respond where needed. Many of these technicians are employed by turbine vendors like GE, Siemens, and Vestas for the benefit of their customers. Others are third-party contractors providing specialized services that keep wind turbines generating electricity for consumers.

A report by the Natural Resources Defense Council (NRDC) found that each “major” wind farm (250 MW) creates approximately 1,079 jobs through its 14 steps of development, including planning, manufacturing, construction, maintenance, and operations.

In the operational phase, after construction is complete, wind farms require ongoing operations and maintenance. These activities include inspecting blades and turbines, assessing energy production, routine maintenance of systems, and overall management of energy production. Operations and maintenance activities generally refer to the ongoing work once a wind farm has begun producing power. Though most performance data are monitored with technology, regular inspections and routine maintenance are necessary. With about 10,000 moving parts, there is no shortage of activities to ensure that wind turbines operate at peak performance.

Typical activities in “O&M” are oil changes, blade inspections, torque and bolt checks, seal inspections, and vibration analysis. In addition to these routine checks, O&M workers troubleshoot and repair damaged components. Because damaged parts can prevent the generation of power, speed and proximity are both important to this work. At a 250 MW wind farm, the average firm would employ approximately 27 workers to manage and maintain the facility.

And, keeping things fair, when compared to other forms of electricity generation, wind energy is more labor intensive. Megawatt for megawatt,

wind power offers more jobs than competing generation facilities of other types.

With these new wind energy jobs coming to Oklahoma, Oklahoma's academic institutions are responding to the needs for skilled workers by creating training programs for this growing industry. It's a win-win for Oklahoma and it's made possible by incentives to attract development to this state.

Wind is Oklahoma Energy Created Using No Water.

Oklahoma faces a water crisis and the state's ability to reliably generate electricity is being affected. Many people don't realize that electricity generation is the second largest use of water in our country. Using wind saves scarce water resources ensuring that they will be available for cities, for agriculture, or for industry.

The wind energy generated in Oklahoma using wind helps to save more 2.3 billion gallons of water each year. This is a direct economic benefit provided by the incentives you supported.

And, we are finding new ways to use inexpensive, clean wind energy to address water needs in other ways. We are currently the exploring the use of wind to power projects desalinating brackish water, in order to make that water available for agricultural and other uses.

Rural Economic Development.

No program has been more effective than wind energy in bringing economic development and investment to rural areas of Oklahoma.

Through 2012, more than \$6.2 billion had been invested in Oklahoma communities by wind energy developers, in large part because of the incentives you instituted.

Growing School District Tax Bases.

School districts in Oklahoma benefit from the substantial investment that wind energy brings to their communities. More often than not, these are areas of the state – and taxing jurisdictions – that cannot expect any other

type of major capital investment. For them, the size and value of wind energy investments is transformational, often compared to the arrival of the railroad in the last century.

More than \$34 million in local government and school tax revenue is generated each year in places that otherwise might have no major investment. This is taking the burden off of overstretched local taxpayers, allowing school districts to move off of state formula aid, and to become net contributors to the state's educational system.

Long-Term Investment.

And, unlike some projects that may leave after their incentive period ends, wind projects are community partners and are committed for the long haul. Our projects have an expected life of 20 to 30 years and can't be easily moved. That means these projects make a great long-term economic development partners, bringing decades of tax payments, wages for workers, and landowner payments.

Landowner Opportunities.

Wind energy development occurs on private land, letting landowners take advantage of their Landowners in rural Oklahoma receive lease payments for each turbine installed on their property. These are infusions of capital into rural Oklahoma and are helping to keep farmers and ranchers on their land, particularly during a damaging drought.

And, because 95-98% of wind farm land can still be used for agricultural purposes, farmers and ranchers to benefit from a second harvest – of wind. More than \$22 million per year flows into rural economies in direct payments to landowners.

Complementing Gas.

Wind power prices are fixed in nature, meaning that they will never go up. As long as the wind blows, wind energy will be available. But, wind has natural variability or intermittency.

When wind energy is partnered with natural gas generation, the two generation types work together in a complementary fashion. Wind

provides long-term price stability by hedging the price volatility of natural gas and gas provides reliability and additional emissions reductions while addressing the variability of wind.

And, for states like Oklahoma, the opportunity to use home-grown wind and home-grown natural gas to power the state is a tremendous economic benefit.

Leading Within SPP.

Oklahoma is part of a larger regional transmission organization called the Southwest Power Pool (SPP). Power can move within that grid freely allowing cheaper power to find consumers willing to purchase it. This is great for consumers, increases reliability, adds resilience, and facilitates a functioning market for power.

Wind power used by consumers within SPP may very well be purchased from competing generators elsewhere in the system, including in other states. Again, this guarantees consumers access to the lowest priced energy. Oklahoma wind competes within SPP and can help deliver regional emissions reductions and consumer savings to consumers in other places.

Destroying your own incentive structure in Oklahoma will not stop the use of wind power in Oklahoma. The SPP market makes low-priced wind available.

Some may be opposed to wind energy and opposed to its export but, if these opponents succeed in stopping wind development, Oklahoma consumers will still get cheap, clean power from wind. The difference? They may very well access it from wind farms elsewhere in SPP with those states reaping the economic benefits of development. Some opponents of wind energy in Oklahoma would also have you believe that large quantities of Oklahoma wind power are being delivered out of state but our research indicates that 88% of Oklahoma wind is available for use by utilities in Oklahoma.

Regardless, this issue begs the question. Does Oklahoma want to be a supplier of power in the region, or a purchaser?

I can tell you that, from an economic perspective, that importing power into this energy-rich state would be an extraordinary waste and a huge missed opportunity.

Wind Makes Oklahoma Attractive to Other Industries.

American consumers are demanding cleaner energy and American companies, particularly American manufacturers, are following their lead. The tech world is famous for its commitments to using renewable energy in data centers and to power its campuses.

Ask Iowa, now 20% wind and increasingly covered with billion dollar data centers, how much a supply of clean energy helps to attract market leaders to their state.

Wind Reduces Air Emissions/Aids Compliance with EPA Rules

Cleaner air is good for everyone, improving our health and reducing our medical expenses. And, wind is reducing the emissions that would otherwise be created generating electricity through other types of generation.

Today, wind power installed in Oklahoma will avoid 5,451,000 metric tons of carbon dioxide emissions a year, the equivalent of taking nearly 961,000 cars off the road. Those emissions reductions help Oklahoma reduce pollution that increases industry environmental compliance costs and the cost of living in non-attainment areas.

Like every state in the nation, Oklahoma is in the process of reviewing its options under the EPA's proposed Clean Power Rule. The rule creates huge new opportunities for natural gas and wind to power the country, but it also creates uncertainty and challenges for existing generation.

Oklahoma is energy rich and, by using wind and gas in a complementary fashion, the rule can be more easily complied with while bringing economic opportunities to Oklahoma communities.

Wind provides energy diversification.

Whether it's your stock portfolio, your economy, or your energy supply, the most reliable way to guarantee long-term, quality performance is through diversification. Adding more wind and gas to the state's power mix aids diversification, lowers prices, hedges against fuel price volatility, and cleans the air.

Wind shows that Oklahoma is Serious About All Forms of Energy

American companies want access to clean, reliable energy and they are investing in states that can provide it to them. Perhaps no state exemplifies this more than Iowa, where they are now 27% wind power. Mid-American Energy just announced another \$280 million investment in Iowa wind. Last year, the Governor brought the largest economic development project in the state's history to Iowa, a \$1.9 billion wind farm project. 7,000 Iowans now work in wind-related businesses. But, more importantly, Iowa's commitment to wind has made it attractive for other types of investment, particularly high tech investment. Google, Facebook, and Microsoft are building billion dollar data centers in Iowa and Governor Branstad will tell you that it's in part because of the availability of wind power.

Incentives Are Key to Compete

For our industry, incentives have allowed Oklahoma to compete favorably with other wind energy powerhouses like Texas, Nebraska, and Kansas. While these states work to improve their business climate, and to make themselves more attractive for wind energy investments, Oklahoma continues to compete well because of forward thinking policies and investment incentives. We hope that you will keep Oklahoma attractive.

Wind energy development is like most businesses. When selecting a site for investment, the decision often ultimately falls to calculations on a spreadsheet. With money to invest, developers look for sites that have good quality wind, available transmission, a market for the power. With each of those confirmed, the financial calculations are made and the site where investors can receive the greatest return on investment is made.

Kansas

Kansas is an attractive site for investment.

The State of Kansas recognizes the huge economic potential of their famous wind and they have made wind energy projects completely exempt from property tax. The state also provides a strong Renewable Portfolio Standard (20% by 2020) that has been confirmed beneficial and was upheld by the state's Republican super-majority just this year. In 2012, more than \$3.2 billion of investment was made in Kansas wind energy projects. Today, electricity produced in Kansas is being exported to other states, and Governor Sam Brownback envisions growth in this sector as a key component of the rural economic development strategy for his state.

Nebraska

Nebraska is late to join the wind energy revolution but is catching up quickly, especially after losing a much-sought \$1 billion data center to Iowa. Billions have been invested in Iowa data centers because of that state's enormous wind powered electricity supply, an attractive commodity for high-tech companies. To tap into that economic development potential, and to harness Nebraska's wind for energy export, in 2013, the Nebraska Legislature unanimously passed two new tax incentives for wind energy development. Nebraska offers a state production-based tax credit ranging from \$5.00 per MWh to \$10.00 per MWh. And the state is seeking to promote community-based wind projects, through an exemption from sales and use tax for all community-based wind projects. Additionally, Nebraska has sought to protect access to wind resources through wind easement provisions.

Texas

Texas offers a long-term tax abatement program that has attracted more than \$26 billion in wind investments to Texas. 13,000 megawatt of wind power are now operational, with another 7,000 megawatts of wind energy under construction, a \$14 billion additional investment in rural areas of that state.

Much of that investment is occurring with the SPP footprint, which extends into Texas.

To compete with the incentives offered in states like these and to reap the many benefits of wind energy investment, Oklahoma must stay the course on its own incentives.

Scrutiny Is Part of Lawmakers' Responsibility

As lawmakers, you understandably give continuous scrutiny to state tax incentives to make certain that the taxpayers of Oklahoma are being treated fairly and beneficially. You want to make sure that the state is getting a return on its investment and I applaud you for that.

Each of us wants government to work efficiently and save tax revenue where possible.

As you examine incentives, there are three major questions stick out in my mind:

First, “Does the incentive bring act economic activity that is beneficial to the state?”

In the case of wind energy development, the answer is a resounding yes. Wind energy brings economic activity and investment to rural communities that don't typically attract investment; It provides much-needed income for farmers and ranchers suffering in the grip of a rippling drought; It provides low-cost energy for consumers and industry; It reduces air and water pollution, reduces omissions, and makes states compliance with environmental mandates more readily achieved; It saves water, leaving that precious resource available for communities and agriculture; It grows the states economy, creating jobs and contributing to the manufacturing base.

Yes, wind energy development is good for Oklahoma.

A second question you might ask is, “Would economic activity have occurred but for the tax incentives?”

History tells us that, perhaps, it would not. Wind energy developers have many options, especially in a regional transmission system like SPP. It was just a short time ago that visitors to the Oklahoma Panhandle could see wind projects lined up on the Texas side while Oklahoma missed out on the benefits. You remedied that. Why go back now?

Finally, “Does the benefit of the economic activity outweigh the incentive cost?”

In the case of your current wind incentives the answer is yes. The current

incentive structure has encouraged more than \$6 billion in capital investment and is generating substantial annual economic activity in Oklahoma. All at a relatively small cost.

Incentives Need to Evolve

The wind energy industry has grown in Oklahoma thanks to visionary policies the state enacted a decade ago. We recognize that this industry is no longer in its infancy and, as the industry grows, the tax structure, and incentives available to it, must mature as well.

We look forward to working with you and other members of the legislature to refine the tax incentives related to wind and to help you meet three goals.

- First, we want Oklahoma to remain competitive as a location for capital investment and job creation.
- Second, we want to help the legislature structure incentives that add predictability to the state budgeting process, eliminating anxiety for legislative budget writers and appropriators is a primary goal.
- Third, we want to create a long-term tax structure for the state that allows wind energy to continue to contribute to the state.

Finally, I would like to invite you to join me for a visit to a wind project here in Oklahoma. I want you to see first hand the role that wind is playing in keeping rural communities alive, in attracting jobs and investment to rural school districts, to keeping young people at home growing our rural economies. I think you'll come back impressed by what incentives and wind energy are doing to help Oklahoma grow.

There is no energy source that is perfect in every respect. Each has its advantages and disadvantages. But, wind power's many positive characteristics make it a key component of Oklahoma's energy future.

Wind power – wind power that is produced in Oklahoma – should be a part of Oklahoma's energy mix in order to benefit from these many positive attributes.

Thank you again for the opportunity to visit with you today. I thank you for your time and I would be happy to answer any questions you may have.

