

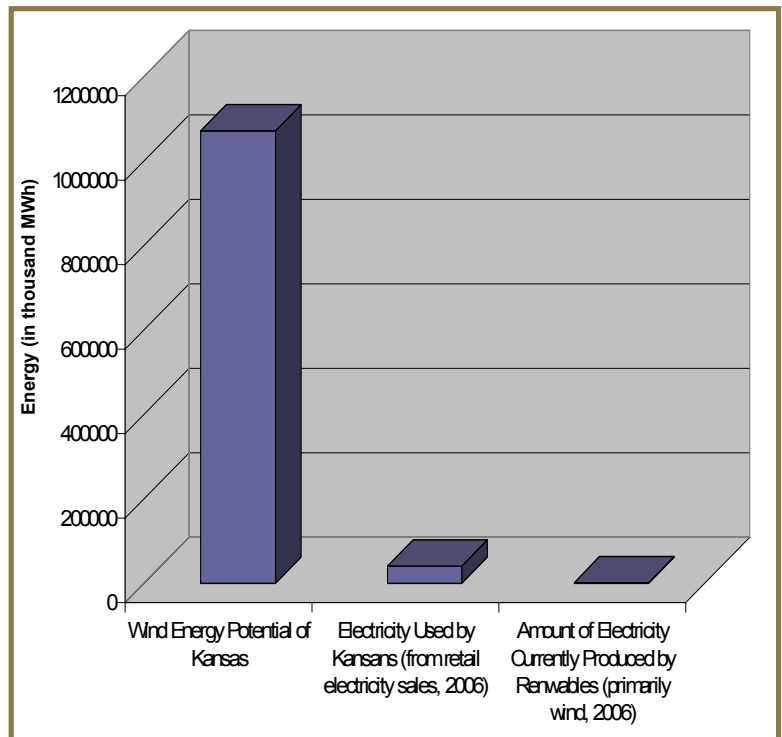
The Difference Wind Makes: *Kansas*

*Kansas has a unique, abundant natural resource: **wind**.*

Kansas wind can be captured to provide a clean, reliable, renewable, and secure source of energy. Developing our state's wind energy potential will also strengthen our economy and provide opportunities for Kansans today and well into the future.

Kansas Wind Potential:

- Kansas ranks 3rd among states with wind energy potential.
- The National Renewable Energy Laboratory of the U.S. Dept. of Energy found that Kansas has 122,000 MW of average wind energy potential capable of producing 1,070 Billion kWh.
- Developing just 10% of the state's Class 5 and 6 wind resources (just over 1,600 square miles) could provide over **twice** Kansas' current annual electricity consumption.
- Currently, Kansas is producing only 364 MW (nameplate capacity) of electricity from wind.



In President Bush's 2006 Advanced Energy Initiative, he stated that by 2030, "Areas with good wind resources have the potential to supply up to 20% of the electricity consumption of the United States."

Meeting this target of 20% by 2030 with Kansas wind energy, an *inexhaustible, affordable, domestic resource* would:

1. Strengthen our state's economy.
2. Revitalize our rural communities.
3. Avoid negative impacts on our air and water resources.
4. Contribute to energy security and reliability.

Sources:

<http://www.eia.doe.gov/>
<http://www.nrel.gov/>
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www.eere.energy.gov
<http://www.kcc.state.ks.us/energy/>
<http://www.whitehouse.gov>

To meet President Bush's goal of 20% by 2030, the National Renewable Energy Laboratory projects that Kansas would need to develop 7158 MW of wind energy. This development would:

1. Strengthen our state's economy.

Kansas, with its abundant wind resources, could become an exporter of this clean, renewable energy source.

Benefits of development of 7158 MW of wind energy:

Total economic benefit (including economic multiplier effects) = \$7.8 billion

New local jobs during construction = over 23,000

New long-term jobs for Kansans = over 3,000

2. Revitalize our rural communities.

■ Wind energy's economic development benefits are distributed across Kansas counties and towns, often with substantial direct payments to farmers. The 20% scenario would result in payments of \$20.8 million/year to landowners, and \$19 million/year in payments in lieu of taxes for those communities.

■ Not all wind energy development must be in the form of large wind farms. Community Wind Farms (locally-owned commercial wind projects, often less than 20 MW) can keep economic benefits close to home.



Kansas Examples:

The **Smoky Hills Wind Project** (in the 100 MW phase I of construction) has provided:

- 150 construction jobs (at peak)
- \$14 million in local spending during construction phase
- Over \$16 million to county government and local land owners

The **Elk River Wind Project** (150 MW) in Butler County created:

- Enough electricity to serve 42,000 homes.
- Up to 200 construction jobs and 8-10 full-time, permanent employees

The **Gray County Wind Farm** (112 MW) near Montezuma, when compared to the emissions from 110 megawatts of coal-fired generation, reduces carbon dioxide (CO₂) emissions by 600,000 tons annually. This is the CO₂ emission absorption equivalent of having a 120-square mile forest on the southwest Kansas plains.

3. Avoid negative impacts on our air and water resources.

- Wind energy requires no water, therefore conserving our precious water resources for human use and irrigation.
- Wind energy doesn't create air pollution or CO₂, a known greenhouse gas.

4. Contribute to energy security and reliability.

- Wind energy requires no transportation of fuel or hazardous waste, which are susceptible to disruption by weather or by terrorism.
- Wind energy allows us to rely less upon fossil fuels which are subject to rapid price fluctuations and supply problems.
- Wind energy also helps us to diversify and re-balance our energy portfolio. Currently, Kansas relies on coal for more than 73% of our power.