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The cost of energy is blowing in the Kansas wind

The conflict between Kansas' energy future and the realities of present-day needs were highlighted this week when Gov. Kathleen Sebelius praised Kansas' energy wind resources at the official dedication of the Smoky Hills Wind Project. The wind farm will be the state's largest.

Sebelius said the usage of wind energy in Kansas had risen from 1 percent to almost 10 percent in the last three years. That puts Kansas ahead of her goal of having 10 percent of the state's energy come from wind by 2010.

“We'll be at 1,000 megawatts of wind—that's only the seventh state in the country to reach that threshold and the only state to do it without [a mandate from] the Legislature,” Sebelius said at the event.

Nicole Corcoran, Sebelius' spokesperson, said the governor expects to see even more of an expansion with wind energy in the future with a goal of 20 percent of Kansas energy coming from wind by 2020.

“Kansas is in a unique position to transition to a more balanced, cleaner energy portfolio,” Corcoran told Kansas Liberty. “Wind energy is a clean, abundantly available form of energy that can help to bridge the gap for cleaner technologies in the future.”

According to an April 2008 Smoky Hills Wind Project report, Kansas is the national leader for renewable energy potential, with Kansas' wind energy potential being great enough to produce one-third of the total amount of electricity needed in the U.S..

Wind energy is considered beneficial because of the reduced emissions of greenhouse gases, air pollutants and hazardous wastes as well as a decrease in the reliance of foreign energy. It's controversial however, because it's more than three times more expensive than traditional energy sources, such as coal, and far less reliable.

The wind project is located north of Interstate 70 on the north side of the Ellsworth/Lincoln County Line and is owned by Enel North America, Inc., a subsidiary of an Italian company, and was developed by Lenexa-based TradeWind Energy.

The project consists of three phases, with the final phase expected to be in working order by the end of this year. Planners hope that once all three phases are completed, the project will consist of 155 wind turbines connected with a 230,000-volt transmission line that runs along the Ellsworth-Lincoln County line.

Sunflower Electric purchased 50.4 megawatts of energy generated from the turbines in the project's first phase and 24 megawatts of energy from the second phase. The Kansas City Board of Public Utilities' MidWest Energy also purchased energy from the project.

Ten percent of the Sunflower Electric system is from wind energy.

Cynthia Hertel, spokesperson for Sunflower Electric, said Sunflower only purchased roughly half as much megawatts of energy from the second phase as they did from the first because that is all they need to meet their generation portfolio needs.

“The demand for energy continues to increase throughout the world. We know that in order to meet the energy needs of people in central and western Kansas, we must utilize all our resources,” Hertel told Kansas Liberty. “As wind technology has improved, we have been able to utilize it as a resource.”

Hertel said when you look at the cost as wholesale fuel costs, not including capital costs, wind costs 5 cents per megawatt hour, compared to 10 to 12 cents per megawatt hour for natural gas. Coal averages only 1.5 cents per megawatt hour.

“Therefore, using 2008 dollars, the cost for energy from a wind/natural gas facility is more expensive than the cost of power from coal-fired unit,” Hertel said. “If the Holcomb Expansion Project is not built, and we have to rely on wind and gas facilities, the difference in the price for energy would result in an increased cost of \$46,909,800 per year for Sunflower's customers. The annual increase in residential electric bills would be approximately \$600 per year.”

Lisa Linowes, executive director of the Industrial Wind Action Group, said wind supporters often try to pass off the misconception that wind is free when in fact there are costs to consider which fall into two main categories of redundant generation and transmission costs.

Linowes said that because wind power is intermittent and can't be depended other reliable forms of generation must still be utilized at the times when the wind is not blowing.

“If the winds diminish suddenly or act erratically, the energy the turbines would have delivered would need to be quickly replaced in order to ensure constant service,” Linowes told Kansas Liberty. “This backup generation made available at a moment's notice is very expensive and should be factored in as part of the cost of wind-powered electricity.”

Linowes said the other factor, the cost of transmission lines, is a more serious issue as energy produced from wind can't be transported the same as energy produced by natural gas or coal, and so many miles of new transmission lines may be needed to deliver the energy wind-driven units produce.

Wind also receives a disproportionate share of government subsidies. Wind receives a subsidy more than 50 times greater than that paid for coal on the basis of megawatt hours, according to the Industrial Wind Action Group, basing its conclusion on a [report](#) released by the U.S. Energy Information Administration.

“These transmission costs, which are borne by the ratepayers and in some instances by the taxpayers, easily run into the billions of dollars,” Linowes said. “Bearing in mind that ratepayers are also being asked to pay for upgrades to our existing transmission lines due to aging infrastructure, the cost to build new transmission to wind facilities is additional and could be substantial.”

Linowes said that, in the case of wind, "there may be no direct fuel cost allocations, but we do need to understand and factor in the delivery cost allocations, a factor often omitted.”

Linowes also noted that government-related incentives, such as the governor’s initiative to have 20 percent of Kansas’ energy source from wind, often cause states to try to build the quickest renewable energy projects, which she says happens to be wind power. Instead, Linowes said states should focus on other renewables such as methane gas, biomass, geothermal and solar power.

“We believe a better option would be to send price signals to the market that encourage those renewables that can produce electricity during peak demand periods and that are built closer to the urban or load centers,” she said. “If public monies pay to encourage the development of renewable energy, the public deserves a quality product in return.”

Meanwhile, natural gas may not be as plentiful in Kansas as the wind, but the state does produce its share. On Friday, for example, Saxon Oil announced it successfully drilled a shallow gas well in Harvey County.

The project is close to Saxon’s Mid Kansas Gas Gathering joint venture.

"We are pleased with the successful test of this well. The Talbot 1-23 well was efficiently drilled, tested and cased in less than 48 hours, and the test gas rates were better than expected," said Richard G. Green, president and CEO of Saxon, in a statement released Friday.

“We have a significant leasehold position around this well," he said. "Saxon plans to maximize development drilling in this area for delivery of gas to our own gathering system.”

- Holly Smith
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