

Renewable Energy and Economic Potential in Iowa, Kansas, Nebraska and South Dakota

The most important issue awaiting action by this Congress for rural development in Iowa, Kansas, Nebraska and South Dakota is renewable energy legislation.

In 2006, President Bush emphasized the nation's need for greater energy efficiency and a more diversified energy portfolio. This led to a collaborative effort to explore a modeled energy scenario in which wind provides 20 percent of U.S. electricity by 2030.

Jobs, Jobs, Jobs

Expanding production of renewable electricity to 20 percent of the nation's electrical generation has the potential to create a large number of new jobs in the rural Midwest and Great Plains, according to an unpublished analysis from the U.S. Department of Energy, National Renewable Energy Laboratory. The state-by-state projections were prepared in conjunction with the laboratory's report *20% Wind by 2030*, but were never formally published. Here, we will focus on Iowa, Kansas, Nebraska and South Dakota.

Table 1. Total New Jobs

State	Total Jobs Construction Phase	Total Jobs Operational Phase	Total Jobs
Iowa	63,401	9,011	72,412
Kansas	22,683	3,093	25,776
Nebraska	25,988	3,558	29,546
South Dakota	27,284	3,916	31,200
Total	139,356	19,578	158,934

Note: Includes direct, indirect and induced jobs for construction and operational phases of wind energy production.

Table 2. Total Economic Effects

State	Landowner Payments (per year)	Property Tax Revenue (per year)	Local Economy Benefit—Construction (per year)	Local Economy Benefit—Operational (per year)	Total Economic Effect (per year)
Iowa	\$ 53.0 M	\$ 89.6 M	\$3.125 B	\$ 758.6 M	\$4.026 B
Kansas	\$ 19.0 M	\$ 20.8 M	\$1.167 B	\$ 271 M	\$1.477 B
Nebraska	\$ 21.0 M	\$ 31.0 M	\$1.345 B	\$ 312 M	\$1.709 B
South Dakota	\$ 21.5 M	\$ 39.3 M	\$1.300 B	\$ 317 M	\$1.677 B
Total	\$114.5 M	\$180.7 M	\$6.937 B	\$1.658 B	\$ 8.889 B

Note: Includes direct, indirect and induced economic effects for construction and operational phases of production.

The two tables above show some of the highlights of projections made by the Department of Energy's National Renewable Energy Laboratory. Keep in mind, 1) dollars are in millions unless otherwise noted (B = billion); 2) the construction phase is one to two years, so the Local Economy Benefit from construction in column 4 of Table 2 is halved to give a per year comparison; 3) totals are rounded to the million dollar figure.

The analysis did not project jobs created in individual counties. Nevertheless, a review of the wind resource maps published in *20% Wind by 2030* demonstrates that the four states' best wind resources are widely dispersed primarily in their non-metropolitan counties.

Wind development offers a rare opportunity to reinvigorate these rural counties by creating new jobs that pay well. Long-term jobs in maintenance and operation of wind farms average over \$20 per hour, according to the Jobs and Economic Development Impact (JEDI) Model.

Making It a Reality

Whether the potential for wind energy to revitalize the rural areas of these four states is realized depends in large measure on the fate of federal renewable energy legislation, especially in the United States Senate. There, the American Clean Energy Leadership Act has stalled after being weakened to gain passage by the Energy and Natural Resources Committee.

The act would facilitate development of a national interstate electric transmission grid to move electricity from areas that have the resources for renewable production to areas with high demand. It would be tailor-made for moving wind from the wind rich Great Plains to the nation's population centers. The costs of developing the grid would be shared among all beneficiaries, including both electricity producers and consumers.

The bill also includes a critically important Renewable Electricity Standard. It would ostensibly require that 12 percent of the nation's electric generation come from renewable sources by the year 2021, including wind, solar, geothermal, new hydroelectric, biomass and landfill generation.

However, a National Renewable Energy Laboratory study, *Comparative Analysis of Three Proposed Federal Renewable Electricity Standards*, concludes that the legislation would effectively require renewable production of less than 10 percent of the nation's electricity by the year 2021. That is less renewable electricity production than the study projects in its baseline, which assumes that Congress takes no action to promote renewable production of electricity.

There is likely to be an effort to raise the standard when the American Clean Energy Leadership Act comes before the full Senate, and it will likely be described as an environmental measure. And in many respects it is. But to rural people in Iowa, Kansas, Nebraska and South Dakota, it is unprecedented once-in-a-lifetime federal legislation to create genuine economic opportunity and a better future in their communities.

For more information: Projections are available for other states by contacting the National Renewable Energy Laboratory or John Crabtree at the Center for Rural Affairs, johnc@cfra.org or 402.687.2103 x 1010. The Center for Rural Affairs has published individual fact sheets for Iowa, Kansas, Nebraska and South Dakota. They can be found on the Center's website, <http://files.cfra.org/pdf/Renewable-Energy-and-Economic-Potential.pdf> or by contacting John Crabtree.

This article is from the Center for Rural Affairs' October 2009 monthly newsletter. The authors are John Crabtree and Kim Preston. You can sign up for the free newsletter at <http://www.cfra.org>.