

Growing the Rural Economy with Wind

The Benefits of Harvesting 3,519.9 MWs of Home-Grown Value-Added Wind Energy

- \$17.6 million of new annual income for Nebraska farmers and landowners.
- \$17.6 million of new local tax revenues annually for 20 years.
- 2,200 estimated direct and 7,640 Construction phase jobs in rural Nebraska.
- \$6.159 billion of new capital investment & new tax base.
- Wind energy uses no water, and generates no carbon emissions.

Wind development provides new good paying jobs, annual landowner incomes and new local tax revenues for many years to come. As long as the wind blows, wind projects will provide clean renewable energy.

Nebraska is ranked 3rd in the nation in wind energy potential but 15th in installed capacity.

Let's take a closer look at the numbers.

Through a competitive bidding process, Nebraska public power utilities have contracted with private sector companies to provide for clean burning cost effective electricity. The total amount of wind energy on line is **3,519.9 MW**.

The 2013 Baird Holm Bluestem study pegged landowner income as \$4,000 per MW in annual revenue. While royalty payments based on capacity factor premiums vary, \$1,000 per MWs is a good estimate for a total of \$5,000 per MW.

The nameplate capacity tax of \$3,518 per MW and estimated \$1,482 per MW of real property tax realized by local governments adds up to \$5,000 per MW per year for 20 years or the life of the project. Given this amount, Nebraska's wind farms will produce \$17.6 million of new local tax revenues per year for 20 years, which could lower local property tax rates or pay for new schools and roads.

Estimated 2,200 new good paying jobs with benefits helps keep rural kids who want to stay in rural communities. At an estimated cost of \$1.75 million per MW, wind represents \$6.159 billion of new capital investment.

Nebraska's wind energy capacity is ranked **3rd** best in the nation at 80 meters, yet is ranked **15th** in actual wind energy developed.

By comparison, Iowa has 13,007 MWs of wind on line, 3.69 times Nebraska's wind development. Iowa is more densely populated, with 1.6 times Nebraska's population, and has less wind energy

potential than Nebraska. If Iowa can balance the interests of wind energy development and their rural residents, so can Nebraska.

Harvesting Wind energy:

- Increases, stabilizes, and diversifies incomes for farm families. A wind turbine represents the financial equivalent to a good part time job in town, yet takes no time away from the farm. That welcome additional income helps cover family living costs.
- Creates new property tax base that benefits all property taxpayers.
- Uses no water.
- Emits no carbon emissions that drives extreme weather and climate change.
- Improves air quality compared to coal or natural gas-powered electrical generation.
- Creates new good paying jobs with benefits in rural communities.
- Is a new form of home-grown valued-added agriculture.
- Grows the farm and rural economy.

Wind energy is good for Nebraska landowners, rural communities, rate payers, and our environment. Wind energy is a win-win-win!



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Growing the Rural Economy with Ethanol

The Many Benefits of Producing 2.25 Billion Gallons of Ethanol for Nebraska

- 5-10 cents per Bu of corn for local markets with ethanol plants
- 700 million bushels of Nebraska corn utilized annually– 38% to 40% of annual corn crop
- 1,460 direct jobs in 2019 producing \$125 million of annual direct income
- 5,166 indirect jobs in 2020 producing \$370 million of annual indirect income
- \$10 million of direct local tax revenues annually
- \$20 million total indirect induced business tax revenues annually
- \$5 billion of new capital investment & property tax base
- \$356 million of direct economic impact and \$3.76 billion of total economic output
- \$584 million of additional economic activity annually
- \$217 million in cost savings for Nebraska fuel buyers in 2020 (724 million gal. X 30 cents)
- 44-52% less greenhouse gas emissions compared to gasoline, including land-use emissions
- 600 million barrels of crude oil displaced by ethanol in 2018 nationwide
- ***“Ethanol development is the most effective rural economic development program that Nebraska has ever pursued.”*** - John Hansen, Nebraska Farmers Union President

Let's take a closer look at the numbers.

\$ Nebraska workers from the 24 ethanol plants are paid \$125 million in salaries that are spent in the rural communities they live in. Ethanol produces \$584 million of additional economic annual activity in rural Nebraska.

\$ Likewise, the ethanol plants themselves buy supplies from the communities they are in and that money circulates and enables more economic activity. That activity results in \$41 million of indirect business tax revenues and \$15 million in direct business tax revenues. This new tax base helps rural Nebraska communities that need basic infrastructure like schools, roads, and property tax relief.

\$ The \$5 billion in capital investment that has built the ethanol manufacturing industry contributes to the economic health and vitality of the entire state.

\$ This industry provides a local market for 700 million bushels of corn from Nebraska farmers every year, which is a force for economic stability and farm income in the Nebraska agricultural sector.

\$ When ethanol is blended with gasoline, it lowers the price per gallon about 30 cents. In 2020, Nebraskans used about 724 million gallons of ethanol blended fuels, saving Nebraskans \$217 million in fuel costs.

Because ethanol contains 35 percent oxygen, ethanol helps gasoline fuel burn more completely. The use of ethanol in automotive fuel:

- Reduces tailpipe carbon monoxide emissions by as much as 46%.
- Reduces exhaust Volatile Organic Compounds (VOC) emissions by 12%
- Reduces particulate matter emissions, such as benzene, toluene, and xylene that are especially hazardous to children, seniors, and those with respiratory diseases.

Ethanol blended gasoline has helped dozens of American cities comply with federal clean air standards. In fact, the American Lung Association of Metropolitan Chicago credits ethanol-blended gasoline with reducing smog-forming emissions by 25 percent since 1990. **Ethanol is good for Nebraska.**

Sources: Economic Impacts of the Ethanol Industry in Nebraska, March 2015; University of Nebraska Department of Agricultural Economics, Bureau of Business Research, Department of Energy's GREET model and Nebraska Ethanol Board, Economic Impacts of the Nebraska Ethanol Industry 2015-2017; The greenhouse gas benefits of corn ethanol study, 2019. 2021 U.S. Dept. of Energy Argonne National Laboratory.



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