North Dakota Rides the Winds of Change

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Renewable energy brings great change and opportunity to the electrical grid and the communities benefitting from it. The Midwest is being powered by wind and solar energy in the home, as well as in the economy and job market. As generation increases, North Dakota reaps the benefits in both rural and urban areas.

At the end of 2021, North Dakota ranked 7th in the country for installed wind capacity and has embraced wind energy as an asset to its livelihood. Wind power generation in North Dakota doubled between 2015 and 2021 and continues to grow. Total wind capacity now stands at almost 4,800 megawatts (MW) with an additional 400 MW in advanced development. Its wind manufacturing facility in Grand Forks makes turbine blades for the wind industry that are exported across the country. The wind industry in North Dakota employs more than 1,700 North Dakotans.

North Dakota's power sector has created opportunities for the state's economy, as well as its environment. According to the American Clean Power Association (ACP) capital investments have reached a record $8 billion, and state and local taxes contribute $20.7 million annually. Another $22.1 million in annual land lease payments flow to rural landowners. Wind power generation creates no emissions and uses virtually no water. North Dakota's wind sector has helped to save 5 billion gallons of water and avoided 11.7 million metric tons of CO_2 -- the equivalent of taking 2,550,000 cars off the road.

North Dakota's solar sector is just getting started, and there's plenty of potential for growth. Although it does not currently have any installed utility-scale solar, North Dakota is projected to add nearly 606 MW over the next five years. Solar is one of the cheapest sources of electricity. Prices have dropped 53 percent in the last 10 years. North Dakota's solar industry employs 262 people through its eight solar companies, three manufacturers, two installers and developers, and three other related companies. The solar industry has invested $4 million in the state, and this is likely to increase.

As the state welcomes more clean energy projects, ratepayers will continue to benefit from low-cost clean energy, new jobs will emerge in urban and rural communities, and businesses will continue to grow. North Dakota is a leader in clean energy jobs, with over 8,600 jobs. In 2021, clean energy jobs grew 4 percent year over year and 25 percent faster than the overall economy. Renewable energy is the second largest employer in North Dakota with 2,177 workers.

As America's energy sector transitions to a clean energy economy, states are implementing new strategies so that everyone can access these resources. North Dakota was one of the first states to implement net metering. This gives residential properties and small businesses small renewable energy and combined heat and power systems up to 100 kilowatts, and the ability to sell any excess electricity to investor-owned utilities.

States are also setting carbon-reduction goals. North Dakota adopted a goal to gather at least 10 percent of in-state electricity from renewables by 2015, which was exceeded. Today, about 37 percent of North Dakota's power supply comes from clean energy. Wind energy accounted for about one third of the state's generation in 2021, which was North Dakota's second-largest source of clean energy generation

that year.

As a net exporter when it comes to energy, North Dakota abides by an "all of the above" policy. Wind is a growing portion of that energy. By 2030, property tax revenues from wind energy could reach more than [$37 million every year](#). This revenue would allow communities to maintain and repair infrastructures, improve schools and invest in better emergency and public safety measures. More renewable energy also means fewer costs for consumers. North Dakota's future is being powered by renewable energy, and that's just smart.