

ENERGYwise

FOR YOUR HOME



Wellspring® – Your Opportunity to Support Wind Power!

While the electricity delivered to your home includes increasing amounts of renewable energy, our Wellspring Renewable Wind Energy® program gives you the option to help us do even more for the environment. By participating in Wellspring, you not only help support wind energy development in Minnesota, but you also help reduce our dependency on non-renewable energy sources, like coal and other fossil fuels.

What does participating in Wellspring mean?

Wellspring Renewable Wind Energy is a voluntary program offered to our members. While the electricity delivered to all homes and businesses includes renewable energy in the mix, participating in Wellspring is an added bonus.

How does the program work?

You have two options:

- Option 1: Choose the number of 100 kWh blocks to purchase
- Option 2: Let the number of blocks you purchase each month fluctuate based on the amount of energy you use.

Each 100 kWh block costs an extra \$0.40 per month.* Call 651-463-6212 to sign up for Wellspring.

How long do I have to stay on the program?

You must remain on the program for at least 12 months. After 12 months, you may discontinue at any time.

Where is Wellspring Wind Energy produced?

Wind energy is produced with giant wind turbines in southern Minnesota.

Is the wind power supplied directly to my home?

No. The electricity generated by the wind turbines is fed into the state's electric system, called the grid. It is like pouring a pitcher of water into a pond. You can't get the exact water molecules from the pitcher back out of the pond. The same holds true for recapturing wind-generated electricity from the grid. It is available to use, but to deliver the exact electron generated by the wind turbine is not possible. Wind power you purchase replaces electricity that would have been generated by conventional fuels.

You won't be able to distinguish whether the electrons flowing into your home are generated by wind power or not. But, your commitment to purchase Wellspring Wind Energy will support the growth of wind energy and help lower reliance on coal and other fossil fuels.

Will power in my home be dependent on the wind blowing?

No. Your power will continue as usual because additional generation is built to ensure power is supplied when the wind is not blowing. This is typically natural gas powered generation.

Wind Energy - Answers to frequently asked questions

| Question | Answer |
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| How does wind energy work? | Wind spins large blades attached to a generator on top of a tall tower. This generates electricity that is transmitted over wires to homes and businesses. |
| How big are the turbines? | The wind turbines that generate electricity for Dakota Electric's members are 200 feet high and have three blades that each measure 75 feet in length. |
| How much wind is needed to generate electricity? | Turbines are designed to generate electricity at wind speeds as low as 8 mph. As wind speed increases, the turbines generate more electricity. When wind speeds reach or exceed 56 mph, the turbines lock to prevent damage caused by spinning too fast. |
| How much electricity does an average wind turbine generate? | Most large wind turbines generate 500 to 1,800 kilowatts (kW). A 1,800 kW turbine generates enough electricity to power approximately 500 homes. The turbines providing power for Dakota Electric's Well-spring Renewable Wind Energy® participants each generate 600 kW. |
| Can we generate all our electricity from wind? | No. Wind is a great way to meet some of our electricity needs and an important part of the overall mix of generation options. However, wind cannot generate all of our electricity because the wind doesn't blow all the time. Wind often doesn't blow at all on hot summer days when people use the most electricity. |
| How much energy can wind realistically supply to the U.S.? | Estimates for the total wind energy potential for the United States vary. The Battle Pacific Northwest Laboratory, a federal research lab, estimates that wind could supply 20 percent of the nation's electricity. Source: American Wind Energy Association |
| Is wind energy cheaper to produce than conventional generation options? | While wind is free, capturing it and converting it to electric power is slightly more expensive than conventional generation options. The government currently provides financial incentives to make the price of wind-generated power more competitive, and as technology advances, wind power becomes more cost competitive. Additionally, the windiest areas are often far from areas that use the most power, requiring transmission line construction and adding to the overall cost of wind energy. |
| What are the environmental impacts of wind generators? | Wind generators present minimal environmental impacts. Birds may fly into spinning turbines. However, new large turbine blades rotate relatively slowly, and animal deaths caused by turbines are minimal. More birds are killed by human-related impacts such as buildings and vehicles. Visual impact and noise are also environmental factors related to wind turbines. Proper placement and design can help the visual impact, and new turbines are quieter than older ones. |
| Does Great River Energy use any wind generation? | Great River Energy, Dakota Electric's wholesale power supplier, currently gets more than 460 megawatts (MW) of power from a variety of wind energy projects in Minnesota, North Dakota and Iowa. They are on track to reach the 25 percent renewable energy goal by 2025 set by the Minnesota Legislature. To learn more about Great River Energy's use of wind and other renewable energy sources, visit www.greatriverenergy.com . |
| Where can I learn more? | <ul style="list-style-type: none"> • American Wind Energy Association - www.awea.org • National Wind Coordinating Collaborative - www.nationalwind.org • Office of Energy Efficiency and Renewable Energy - www.energy.gov <p>Visit one of the following local projects:</p> <ul style="list-style-type: none"> • School of Environmental Studies Renewable Energy Project, 12155 Johnny Cake Ridge Road, Apple Valley, MN 55124 • Dakota County Wind Turbine at Schaar's Bluff Trail Head, 8500 127th Street East, Hastings, MN 55033 |



Contact the Energy Experts®

Dakota Electric Association
 4300 220th Street West, Farmington, MN 55024
 651-463-6212 • 800-874-3409
www.dakotaelectric.com

