

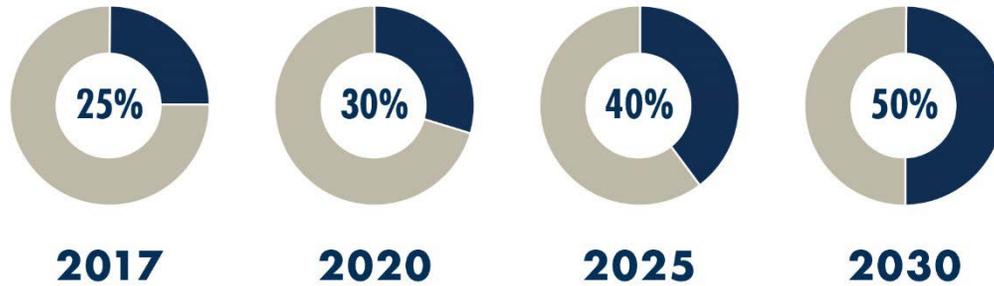


**GREAT
RIVER
ENERGY™**

50% by 2030 renewable energy

12300 Elm Creek Boulevard • Maple Grove, Minnesota 55369-4718 • 763-445-5000 • greatriverenergy.com

In May 2018, Great River Energy adopted a corporate goal to achieve 50 percent renewable energy for its 20 all-requirements member-owner cooperatives by 2030. Great River Energy also established the following interim goals to challenge itself to make continuous additions of renewable energy.



Renewable energy has been a growing segment of Great River Energy's power supply portfolio over the last two decades. In fact, the cooperative accomplished Minnesota's 25 percent renewable energy standard in 2017 – eight years ahead of the requirement.

How much more renewable energy will Great River Energy need to meet the goal?

A year before Great River Energy adopted the 50 percent renewables by 2030 goal, the cooperative filed an integrated resource plan with the Minnesota Public Utilities Commission. That filing projected Great River Energy would need to add 600 megawatts (MW) of energy beginning in 2029 and selected wind energy as the lowest-cost option.

To achieve 50 percent renewables by 2030, under the same assumptions, Great River Energy would need an additional 100 MW of wind energy. Ultimately, the amount of renewable energy needed to achieve 50 percent renewables by 2030 will depend on how much energy members need. If there is a surge in energy sales growth, Great River Energy may need to secure additional renewable resources.

How will this goal be achieved?

The goal will be achieved using methods that meet Minnesota's renewable energy standard requirements.

Isn't wind energy expensive?

Renewable energy, particularly wind, is Great River Energy's lowest-cost option for new generation resources. This goal does not change Great River Energy's mandate to provide affordable and reliable energy to its member-owner cooperatives. Great River Energy's average wholesale rates will remain flat in 2019 with projected increases below the rate of inflation for the next decade.

Will this affect other power plants?

This strategy is not expected to have any direct effect on the operations of any other Great River Energy generation facilities. Great River Energy will continue to maintain a diverse portfolio in order to best serve its member-owner cooperatives.

Will this goal lead to further electrification?

Renewable energy has contributed to dramatic reductions in carbon dioxide emission intensity in the electric sector. That progress has led to widespread support for the electrification of the economy. Reducing emissions and increasing renewables can present advantages to cooperatives for attracting and retaining businesses as well as meeting the expectations of members who value clean energy.

What renewable energy resources does Great River Energy currently have in its portfolio?

Great River Energy's portfolio currently includes 468 MW of wind energy, 200 MW of hydropower, 4 MW of solar and 30 MW of biomass (waste-to-energy).

What renewable resources are planned for the future?

Great River Energy recently signed a purchase power agreement for a new 300-MW wind project to be built in North Dakota. Construction on this wind project is slated to begin in 2019 and be completed by the end of that year. Great River Energy also signed an agreement that will add 100 MW of wind in Minnesota beginning in 2021.

Minnesota's renewable energy standard only requires 25 percent renewables by 2025. Why is Great River Energy exceeding that goal?

Voluntary and early action has proven to be an effective strategy for Great River Energy. By setting out to achieve this goal voluntarily, without a state or federal mandate, Great River Energy believes it can achieve the goal while keeping electricity as affordable as possible.

How has Great River Energy's generation portfolio changed in recent years?

Great River Energy has spent more than a decade positioning its portfolio, lowering costs and reducing dependence on coal as a fuel source, while improving the overall flexibility of its generation portfolio. Great River Energy has exited two contracts for coal-based electricity in recent years and in 2017 retired one of its coal-based North Dakota power plants. Operational adjustments at Great River Energy's Coal Creek Station power plant allow the facility to ramp down production when market conditions warrant.

Have generation portfolio changes made an environmental impact?

Portfolio changes have resulted in a 35 percent reduction in Great River Energy's carbon dioxide emissions since 2005. Improvements at Great River Energy's Coal Creek Station power plant have reduced the plant's emissions of sulfur dioxide and mercury by up to 40 percent, nitrogen oxides by 20 percent and carbon dioxide by 4 percent in recent years.

Who are Great River Energy's 20 all-requirements member-owner cooperatives?

Great River Energy's all-requirements member-owner cooperatives are: Arrowhead Cooperative, BENCO Electric Cooperative, Brown County Rural Electric Association, Connexus Energy, Cooperative Light & Power, Dakota Electric Association, East Central Energy, Goodhue County Cooperative Electric Association, Itasca-Mantrap Cooperative Electrical Association, Kandiyohi Power Cooperative, Lake Country Power, Lake Region Electric Cooperative, McLeod Cooperative Power Association, Mille Lacs Energy Cooperative, Nobles Cooperative Electric, North Itasca Electric Cooperative, Runestone Electric Association, Stearns Electric Association, Steele-Waseca Cooperative Electric and Todd-Wadena Electric Cooperative.