

Straight talk about...

Considering a residential wind turbine?

Over the past few months Hawkeye REC has received several calls from members considering the installation of a small wind turbine. Their question: Should I install one? While Hawkeye can point you to items to consider when purchasing a wind turbine, the decision must be made by the individual.

If you are considering a renewable energy project, please contact Hawkeye and ask about our Application for Interconnection. Hawkeye follows the Iowa Association of Electric Cooperative's statewide standards for interconnection and Pat Boyle is here to help you

through the application process.

Hawkeye has experienced situations where a member purchased and installed a three-phase wind turbine before completing the Application for Interconnection and then found that single-phase service was only available at the site. This was a problem.

What Hawkeye recommends is that you do your homework before you make a decision. A great resource is the Iowa Energy Center's website at www.energy.iastate.edu or visit Hawkeye's website at www.hawkeyerec.coop and click on >Services>Renewable Energy.



Brian Krambeer, CEO
(563) 547-3801 or (800) 658-2243
bkrambeer@tec.coop

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Over the past few years I have talked to about a dozen members that have installed a residential wind turbine and witnessed systems that worked and systems that did not work. I can tell you that members are not getting rich from selling back excess energy. However, the majority of members who choose to invest in a wind turbine do so because they have great passion for generating their own electricity and as a result receive great satisfaction from their investment.

If you find yourself uncomfortable with a wind turbine investment, there are other options to consider such as a ground-source heat pump or a solar water heating system. Both are renewable energy investments and qualify for federal and state incentives. Hawkeye also has a renewable energy program call Evergreen. Participation in Evergreen supports renewable energy from wind, landfill gas-to energy and animal waste-to-energy sources.

Whatever your decision, I can assure you that Hawkeye is willing to work with you.

As always, I welcome your calls, emails and personal visits.

Listed below are a few highlights from research conducted by Cooperative Research Network (CRN):

▲ Determine if you have adequate wind speed for your area or at the location that you plan to place the wind turbine.

National averages recommend a wind speed of 15 miles-per-hour. Yet, even in good locations with the proper wind speed, a 30 percent capacity (or availability) will be realized. Put another way, you will be generating electricity about 30 percent of the time.

▲ Is the location you've selected for the wind turbine close to the existing electric distribution lines or will it be part of an existing electric service?

Our cooperative's line extension policy may require a cost to extend service to your wind generator. If the installation of the wind turbine requires modifications to the electric distribution system for interconnection, the member is responsible for those expenses. By contacting Hawkeye early in the planning process you know what to expect.

▲ Size of Project:

Under 40 kW

Renewable generation under 40kW is eligible for net-metering. This means the owner of the wind turbine can use the electricity they produce and sell the excess back to the utility at the average

retail electric rate. The retail rate is higher than Hawkeye's wholesale power cost and the difference is a subsidy that is paid out at the expense of the cooperative. Hawkeye's wholesale power supplier, Dairyland Power Cooperative, reimburses Hawkeye for a portion of the subsidy, but not at 100 percent.

The benefit of the net metering policy is the owner of the generation receives a higher rate for energy returned back to the utility and the generation and transmission utility (Dairyland Power Cooperative) receives the "green tags" associated with purchasing the renewable energy.

Over 40 kW

There are two options: avoided cost or a special distributed generation rate tariff. Avoided cost is the cost of the utility's wholesale power (which at Hawkeye is about 60 percent of the retail rate). Today the special distributed generation rate tariff is 6.5¢ per kWh.

▲ Maintenance:

Is there a plan in place for whom to contact for maintenance of the turbine?

▲ Incentives:

Be sure to discuss any potential tax credits with your accountant.