Renewable Energy Renewable Energy

What you should know before you buy Green Power

What is green power?

Green power is electricity generated from renewable, high-efficiency, or low-pollution energy sources – such as wind, solar, fuel cells, or microturbines. Electric utilities in Minnesota offer their customers the voluntary option to buy green power. In general, wind energy has been the technology of choice for green power programs.

What are the benefits?

Green power programs let electricity consumers contribute to the development and increased use of renewable and modern energy sources that result in environmental and economic benefits to Minnesota.

The purchase of green power decreases the use of more traditional fuel sources for electricity (primarily coal and nuclear energy in Minnesota), which in turn reduces the pollution caused by their use. Some technologies, such as wind turbines, also bring economic benefits to the areas that host them.

How does it work and what does it cost?

Most Minnesota utilities offer green power in "blocks" of 100 kilowatt-hours of electricity per month (kWh/month) in addition to monthly utility bill charges. Customers can purchase one or more green blocks up to the number of blocks equal to their monthly electricity consumption. Some utilities provide a percentage option, whereby you choose 25, 50, 75, or 100 percent green power, and they will then sell you the exact number of kilowatt-hours you consumed that month.

The average price of electricity in Minnesota is about 7 cents/kWh. A common additional price for a green power block is $2.00 (prices vary by utility) or 2.0 cents per kWh. For the average Minnesota household to purchase 100% green electricity it would take 7 blocks (700 kWh/month) at $2.00/block for a total of $14.00 per month. If a customer wanted 100% green electricity but reduced electricity use to 300 kWh/month, it would only take 3 blocks at an additional $6.00/month. An average customer could also choose one block for $2/month extra and be around 15% "green."

Customers may purchase fewer blocks for a lower green percentage of their total energy use. The decision of how many blocks to purchase is entirely up to the customer.

Some utilities also exempt green power participants from "fuel" or "resource" adjustments, which is a separate line item on your bill that can fluctuate if the price of the fuels for electricity was less or more than expected. Ask your utility if they offer this benefit.

Why does green power cost more?

In general, green power costs a little more because building one or two new wind turbines for a green pricing program will cost more than using existing power plants whose debt has already been paid or purchasing electricity from a large number of new wind turbines.

It is expected that the cost of green power will decline over time because:

- utilities will pay off the loans for existing green power projects,
- more efficient and lower cost technology will become available, and
- larger green power purchases will give utilities the ability to negotiate lower prices.

Does the green power I buy go to my house?

Electricity from all sources travels together over power lines to homes and businesses. No utility can direct specific electricity to a specific place. Utilities keep track of the electricity generated and sold by each other and the contracts associated with these sales. When a customer purchases green power the total amount of green electricity that travels over the entire system is increased.

Why do utilities offer green power?

Marketing surveys show that some electricity customers are willing to pay more for electricity from renewable energy sources, if the opportunity exists. A green power program is a way for utilities to meet this demand for greater consumer choice.

Some electric utilities have offered green power programs to their customers since 1997 but a 2001 Minnesota law requires all Minnesota electric utilities to offer green power to their customers at least once each year.

How are green power programs regulated?

State law says that utilities can only pass on actual program costs to participants. The Minnesota Public Utilities Commission approves the prices charged by Xcel Energy, Minnesota Power, Otter Tail Power, Alliant Energy, and Dakota Electric. All other Minnesota electric utilities set their own green power rates.

The Department of Commerce certifies that the green power technologies offered by all Minnesota utilities meet the requirements of state law and verifies the utility reporting of green power sales. The way that green power programs are structured and marketed varies from utility to utility and is not regulated by the state.

Some independent organizations offer independent accreditation of green power programs. Independent accreditation is a more rigorous process and in some cases requires a more rigorous standard than is required by state statute. It is generally up to an electric utility whether to become accredited. Customers who feel that this is important should encourage their utility to accredit their program.

How do green power programs encourage new renewable energy development?

A customer's decision to buy green power creates additional demand for clean, renewable technology installations. Utilities can meet this demand either by developing new green power generation facilities or by purchasing from an existing green power facility that has additional capacity. As the new or existing green power facilities are fully subscribed for the energy they produce, additional facilities will be built for other participants.

Various Minnesota laws and Public Utilities Commission orders direct utilities to increase their use of renewable energy in their overall generation mix. Most notably, the Renewable Energy Objective (M.S. 216.1691) directs electric utilities in Minnesota to make a "good faith effort" toward procuring 1 percent renewable energy in 2005 and 10 percent by 2015 (increasing an additional 1 percent each year). Xcel Energy also has several additional renewable energy mandates.

Renewable energy brought on line to meet the demand for green pricing programs will NOT be counted toward meeting the Renewable Energy Objective or other mandates. Some consumers would like their personal consumption to be a higher percentage of renewable energy. By opting to purchase green power they can increase the percentage of renewable energy that is generated over and above the state requirements for various utilities.

What are green tags?

Eventually, renewable energy generators and electric utilities will be able to buy and sell renewable energy certificates (RECs) in Minnesota, similar to trading stock certificates in the stock market. RECs are also known as green tags and renewable tradable credits. RECs allow renewable energy generators and electric utilities to trade the certificates rather than transmitting electricity across long distances - perhaps from windy to non-windy areas. This will likely lower the costs of complying with renewable energy policies, including green pricing, since there will be increased competition over larger geographic areas and decreased fees for transmitting the electricity.

RECs are not presently certified for trade or sale by electric utilities in Minnesota, although stakeholders are beginning to discuss the framework for such a system. Consumers can purchase green tags directly from a renewable energy generator but it is recommended that they only do so if the generator has been certified by an independent third party.

More Information

Contact your electric utility company or:

Minnesota Department of Commerce
Energy Information Center:
85 7th Place East, Suite 500
St. Paul, MN 55101
651-296-5175 (Twin Cities)
800-657-3710 (Outstate)
651-297-7891 (fax)
http://www.commerce.state.mn.us
energy.info@state.mn.us

U.S. Environmental Protection Agency
Green Power Partnership
http://www.epa.gov/greenpower/

U.S. Department of Energy Green Power Network
http://www.eere.energy.gov/greenpower/

MINNESOTA
DEPARTMENT OF
COMMERCE

02-2005