

Speaker presents alternative energy solutions and benefits

By Renee Currington
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GreenSense invited Zeus Stark of Next Step Energy to kick off the Earth Day events of the week with a presentation on alternative energy on Wednesday, April 19 in Ballroom A.

Stark does alternative energy consulting for residential homes, and he spoke of alternative methods of powering a home using solar and wind energy.

“Renewable energy is a big market, and there’s a lot of technology going into it,” said Stark. “It’s the furthest along it’s ever been.”

According to Stark, there are two general systems for incorporating alternative energy in

a home: grid and off-grid.

A home can be connected to a power grid set up by a utility company. With this setup, power from the utility company supplements energy needs beyond the energy collected from the sun or wind.

“If you generate more energy than you use, the utility company has to pay you for it,” said Stark.

A home can also incorporate an off-grid alternative energy system in which alternative energy is stored in batteries; when the charge in the batteries runs out, the power runs out.

“When you’re using an off-grid system, you’re much more aware of your energy needs than when you’re connected to the grid,” said Stark.

Stark says the grid system is more efficient because extra energy is collected, fed into the grid and used. However, when the batteries are fully charged in an off-grid system, any surplus energy generated is not collected or used.

The batteries used, which are a type called “deep cycle batteries,” come in size increments of six volts and can be sized to accommodate for individual household energy needs.

The energy from the sun and wind is collected as direct current (DC) electricity, whereas most appliances run on alternating current (AC). Therefore, a power inverter must be used to convert the electricity from DC to AC for

it to be of any practical use. Stark says some DC appliances do exist but are not very common.



One may think that solar panels would not work as well in areas where it can get very cold, such as Menomonie. However, Stark says that solar panels are actually more efficient in cold weather than warm weather.

For most, alternative energy may not currently be a very

economical option because of the high cost of the equipment, which can range from approximately \$10,000 to \$15,000.

“It’s a long-term investment,” says Stark. “Right now, the payback time is 20 or 30 years.”

Stark said that before homeowners install an alternative energy system, they should think about how much energy they use and how much they really need.

“The first thing you have to do is conserve energy and find ways to cut down on energy,” said Stark. “There’s a lot of harvestable energy in your house that is being wasted.”