

# Great New Advances in Energy Technology

## One Ready for Your Home Today

We're seeing some outstanding advances in the efficiencies of appliances and in the efficiencies of renewable energy, particularly solar power.



**Illinois Rural Electric Cooperative**

P.O. Box 80, Two South Main Street  
Winchester, Illinois 62694

[www.e-co-op.com](http://www.e-co-op.com)  
1-800-468-4732

Your Touchstone Energy® Partner



## GE Hybrid Water Heater

We thought that the efficiency gains in water heating with the new GE Hybrid Water Heater were too good not to share.

We've bought a few, and we're making them available to members at our cost: \$1,147 plus tax. We'll buy more if members buy all of the first shipment, and we'll continue to have them in stock so long as we can provide a value to members. With no mark up, we're naturally only selling them to members.

These heaters can reduce electricity used for water heating by 60%! Water heating is the second largest household use of energy, so a 60% savings is outstanding. Savings could be up to \$300 a year. If you're fortunate enough to have geothermal heat, you will not realize the same savings.



These Energy Star water heaters are eligible for a 30% Federal Income Tax Credit, and there may be additional Federal and State incentives this year.

With a 30% tax credit, these water heaters will pay for themselves in three to four years.

They come with a ten year GE warranty.

If you want one, you or your plumber can pick it up at our office in Winchester (call to be sure we have some in stock), or we'll deliver one to you for \$25. Delivery time will be at our convenience.

To get the tax credits and to keep the warranty, the heater must be installed by a licensed plumber.

If you haven't been late paying your bill for the past 12 months, with a \$250 down payment, you can pay the balance with your electric payment over 12 months.

These heaters use heat pump technology for most of the work in providing hot water. The heat pump is at the top of the tank. There's an almost astonishing array of features. You could use the vacation option, for instance. It lets you set the number of days you're going to be away, takes the temperature down to 50° and brings it back up on the last day.

The 50 gallon heaters have the same "foot print" as a standard 50 gallon heater.

"If you have a standard water heater that's over 12 years old or if your water heater fails, this heater makes a lot of sense, says Bruce Giffin, the co-op's general manager. "That's why we're making them available to our members.

"They aren't in the "big box" stores yet, and we'll have them available at our cost to members for as long as its a good value."

On page 16d, there's information on Morgan Solar. It's one of scores of solar power innovators making remarkable progress.



## Multiple Settings

**eHeat™ mode** – Maximize your savings. In this mode, the water heater only operates the heat pump to heat the water. This is the most efficient mode, and allows for the greatest amount of savings.

**Hybrid mode** – Use less energy while still experiencing fast recovery times. While the unit uses the heat pump as its primary means to heat the water, the standard electric elements may activate if a faster water temperature recovery time is needed.

**High Demand mode** – This is a great feature if you need increased amounts of hot water. High Demand mode operates very similar to Hybrid mode, but lets the system know in advance that it will be experiencing a larger water demand than usual.

**Standard mode** – This mode shuts off the heat pump and only uses the electric elements to heat the water, just like a standard electric water heater. Standard mode allows for operation in extremely cold situations (less than 45°F) where heat pump functionality would not be ideal.

**Vacation setting** – With this setting, the system will drop the temperature to save energy, while also preventing the water from freezing. Simply set how many days you will be away, with a minimum of 3 and a maximum of 90. The unit automatically heats the water to the previous set temperature the day before you are expected to return.





With computers, we used to talk about "Moore's Law," which described the fact that computers were getting twice as fast with twice the computing power every 18 months. Pretty soon we'll need a similar law for solar power.

As an illustration, Morgan Solar has achieved results with its concentrating technology that gets efficiencies twice the levels we saw about a year ago. Its products are expected to be on the market later this year or next year.

The co-op has one solar array on the office building in Winchester, and we're looking forward to another one. Morgan Solar's technology may be just the one.

With the older solar photovoltaic panels, we get about 14% of the nameplate capacity of the panels. If we double that two times in the next few years, it would be very exciting.

You can see more information at [MorganSolar.com](http://MorganSolar.com), and if we put up another solar array, we'll share the operating results with our members.

In the early 1900s, America's oldest cities –

Boston, New York and Philadelphia – faced an ecological crisis: horse manure. There was concern that the cities, which relied on horses for transportation and deliveries, would become unlivable because of the ever accumulating horse manure.

That problem was solved by technology in the form of internal combustion engines in cars and trucks.

Right now, however, cars and trucks, power plants, factories, refineries, homes and businesses all contribute to an ever increasing amount of Carbon Dioxide in the atmosphere. We're now at 380 to 390 parts per million. If we get to 500 parts per million, we risk environmental havoc as a result of climate change.

It looks as though technology may once again play a critical role in making our environment livable by making it possible to use less energy.

## Who's Who?

This is a picture of Youth Day taken in 1972. We have the names of a few people present in this picture. Can you help us name the others? Is it you, your wife, your husband or a friend? If one of them is you, what do you remember about the day? Did it change your life? Let us know.

Please email us at:

[david@e-co-op.com](mailto:david@e-co-op.com)

