



## News Release

## CyboEnergy Releases an Off-Grid CyboInverter to Power Electric Water Heaters with Solar Energy

January 23, 2014 – CyboEnergy, Inc. (Rancho Cordova, CA), announced today that it has released the off-grid CyboInverter H model, which is specially designed to power electric water heaters or electric heating elements.

CyboEnergy CEO, Dr. George Cheng said, "For people who use electric water heaters and pay high electricity bills but do not want to go through the hassle of connecting to the power grid, the CyboInverter H model provides an easy and cost-effective solar power solution to save monthly electricity bills."

Most electric water heaters on the market have 2 heating elements, called dual-element or double-element water heaters. Popular and well priced, GE 40 and 50 gallon water heaters are sold below \$300. In the U.S., AC from a standard 30A branch circuit with 240V is connected to the water heater to supply power. The following picture illustrates that an off-grid CyboInverter is connected to deliver solar energy to the lower heating element. The temperature setpoint for the lower element can be purposely set much higher than the upper element. This way, the upper element that consumes grid power does not turn on unless a lot of hot water is used within a short period of time. Since the grid power can heat the water quickly from the upper heating element, hot water will always be available. Connecting the CyboInverter output to the lower heating element is easy and the steps are well documented in the CyboInverter H Model Installation Guide.







CyboInverter is a patent-pending solar power Mini-Inverter possessing the key merits of both central inverters and microinverters. The CyboInverter H Model can connect to 4 solar panels and generate up to 1150W AC power. Each CyboInverter's input channel has its own control and maximum power point tracking (MPPT) mechanism so that power production is maximized and the partial shading problem is eliminated. The off-grid CyboInverter H model has the following unique features and benefits:

- Specially designed for powering dual or double element electric water heaters,
- Reduces electricity bills, avoids high tier rates, and provides quick ROI,
- Has no high-voltage or high-current DC so that it is intrinsically safe,
- Ideal for battery-less off-grid solar systems,
- Easy installation and great price,
- High efficiency and long life, and
- Offers a much simpler solution than solar thermal water heaters.

A simple 1.2KW off-grid solar power system includes one CyboInverter H model and four 250W to 300W solar panels. In most areas, it can generate about 6KWh to 8KWh usable solar energy daily for electric water heaters with heating elements ranging from 1000W to 5000W. Depending on the installation site and local electricity rates, return-on-investment (ROI) can be achieved in 2 to 4 years. To purchase CyboInverters or request an Installation Guide, please contact CyboEnergy at <a href="https://www.cyboenergy.com">www.cyboenergy.com</a>.

## About CyboEnergy and CyboSoft

CyboEnergy is a subsidiary of CyboSoft, General Cybernation Group Inc., focusing on the development, manufacturing, marketing, and services of product lines in the energy and clean energy field. CyboEnergy received the Frost & Sullivan's 2013 Global Product Differentiation Excellence Award in Solar Inverters. Founded in 1994, CyboSoft is the leader in control technology serving the worldwide process control, building control, and equipment control markets.

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