



News Release

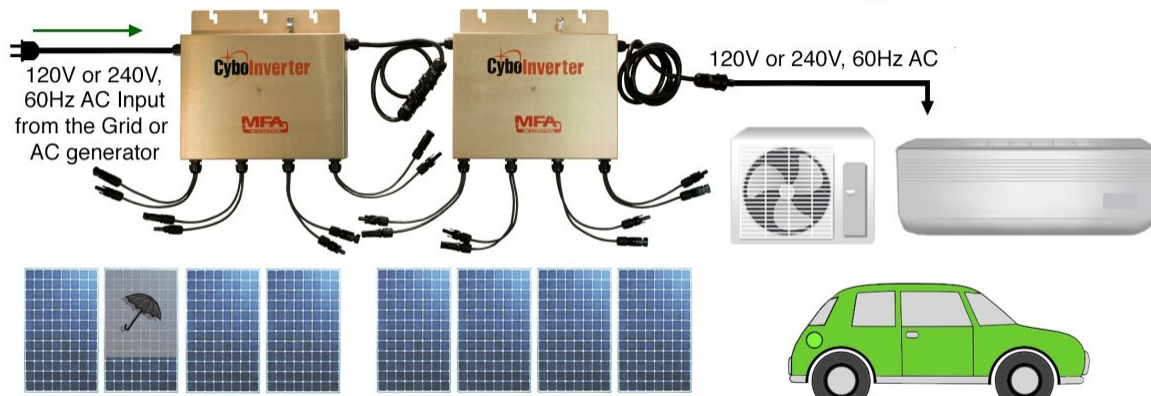
CyboEnergy Awarded a New U.S. Patent for Its AC Assisted Off-Grid Solar Inverters

April 12, 2022 – CyboEnergy, Inc. (Rancho Cordova, CA) announced today that the company has recently been awarded a U.S. patent that enhances its patent portfolio in power inverter technologies in the renewable energy industry. The awarded US Patent 11,258,267, “Off-Grid Solar System with Assisted AC Power”, has significant technical and economical benefits.

CyboEnergy CEO, Dr. George Cheng said, “The solar industry has reached a critical stage facing an inevitable obstacle. In many parts of the U.S., the electric grid has reached its capacity limitations characterized by the “Duck Curve” problem. This makes on-grid solar systems no longer welcomed or too costly to implement with large battery storage. Our strategy is to take major loads off the grid by using AC Assisted Off-Grid CyboInverters which are protected by this newly issued US patent and other issued or pending patents.”

An AC Assisted Off-Grid Solar System is illustrated in the following diagram. The electric grid or an AC generator can provide power to the CyboInverter through its AC input port so the system can run the loads 24/7 in solar only mode, AC input power mode, or combined power mode. It allows users to take major loads including air conditioners, water heaters, swimming pool pumps, and EV chargers off the grid and avoid the cost and potential curtailment of an on-grid solar system.

World’s First AC Assisted Off-Grid Solar System



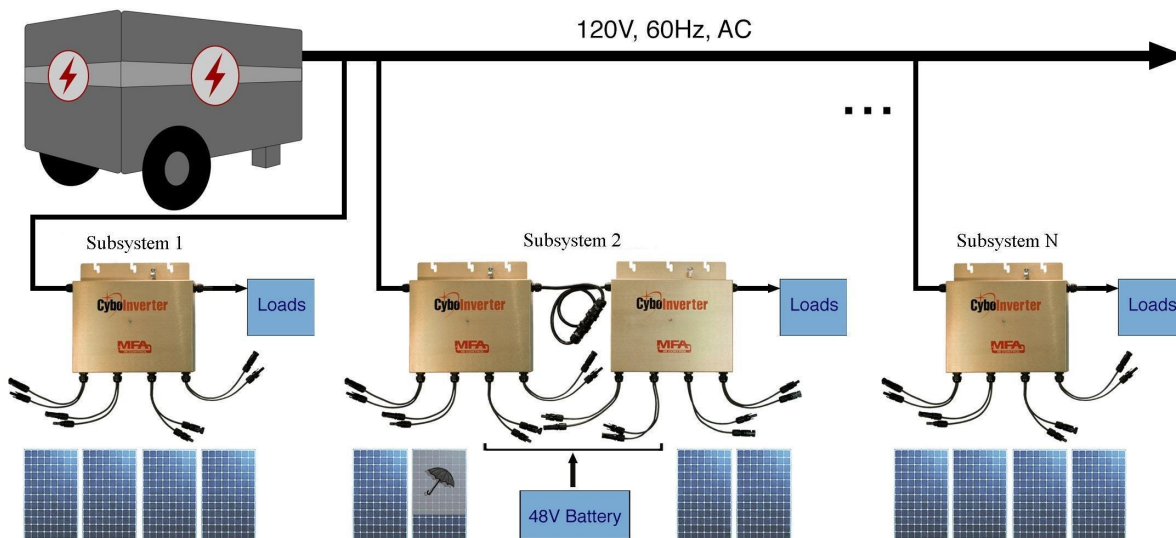
4 DC Input channels with MPPT for each solar panel to maximize solar harvest. Multiple CyboInverters can daisy-chain making installation truly “plug-and-play.”

In contrast, there are about 2 billion people in the world who have no electricity, including those living in remote and disadvantaged communities such as Native Tribal lands. The following diagram shows a smart and scalable community off-grid power system that comprises subsystem 1, 2, ..., N. A central AC power source such as a 20KW AC generator can supply needed AC power to multiple AC Assisted Off-Grid CyboInverters. Each subsystem can provide up to 2.5KW power for



each household. The Subsystem 2 shows a CyboInverter twin pack connected with a 48V battery pack as an alternative design. The battery can supply the needed DC power at night or when the AC generator is down.

This scalable community off-grid power system has many unique features and advantages including: (1) distributed power system design allowing the use of a smaller AC generator and less batteries for cost savings; (2) scalable by adding more solar panels, inverters, and batteries; and (3) “plug-and-play” installation that can be done by users themselves.



CyboEnergy’s patent portfolio includes inverter multiple input channel design, off-grid inverters, on/off-grid inverters, and AC assisted off-grid inverters. CyboEnergy offers various types of CyboInverters on the global market. To make the IP available and beneficial to the solar industry at a larger scale, CyboEnergy also offers IP licensing, assembly, and private label opportunities to its strategic partners for certain market segments and geographical areas.

About CyboEnergy

CyboEnergy Inc., located in California, USA, is an affiliate of CyboSoft, General Cybernation Group Inc., focusing on the development, marketing, and servicing of the product lines in the clean energy field. CyboEnergy received the Frost & Sullivan’s 2013 Global Product Differentiation Excellence Award for Solar Inverters and Frost & Sullivan’s 2017 Global Solar Inverter Technology Innovation Award. For more information, please contact: CyboEnergy, Tel: (916) 631-6313, e-mail: Josh Bear, JBear@cybosoft.com, Web site: www.cyboenergy.com.

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