



Case Study: Skywire Electrical Systems

OutBack Grid/Hybrid Power System Installation



Overview

Skywire Electrical Systems is a family-owned business that provides residential and commercial services to customers in Springfield and the Ozarks area of Missouri. The company offers lighting design, electrical work, and solar energy solutions, including grid-tied, grid-interactive with battery backup, and solar thermal.

Following the installation of a grid-tied solar energy system for a home, Skywire Electrical Systems was contracted to design a system for a second, neighboring house on the lot. This new construction project uses a **Grid/Hybrid system with battery backup to add the capability of providing continuous electrical power through any possible utility outages.**



OutBack Power's products make it easy for us to fine tune and customize systems, and the tech support is great. Our customers are impressed by the results, and OutBack's strong reputation in the industry gives them additional assurance as they transition to solar power."

James Bartley

Owner, Skywire Electrical Systems

System Specifications

Location: Ozark Mountains, Missouri

System Power: 24kW PV/Solar System

System Components: Radian Inverter/Chargers, FLEXmax Charge Controllers, FLEXware Combiner Boxes and MATE3 System Display and Controller





Objectives

- Design a reliable energy system with battery backup to support critical electrical loads in the event of an outage
- Install cleaner, more aesthetically pleasing systems for customers to differentiate Skywire's installations from other intrusive, surface-mounted configurations
- Offer a control panel to support remote management and monitoring of equipment
- Deploy well-respected technology to create customer confidence

Solution

Skywire Electrical Systems chose several OutBack Power products to meet the needs of its customer's new home project: FLEXmax charge controllers, Radian inverter/chargers, FLEXware combiner box for solar arrays and MATE3 system display and controller.

The customer identified numerous critical loads supported by the solar power system, including refrigerators and freezers; lighting in the master bedroom and bathroom; solar thermal water heater pump for two solar thermal water heaters; and all the sump pumps in the basement. The system can draw from a 24kW worth of solar array and a 27kW generator to back up the battery bank on a cloudy day during a grid loss.

Benefits

- OutBack Power's industry reputation for quality equipment and great customer service helped Skywire secure approval for the customer's project more quickly
- The FLEXmax charge controller provides critical system information including amp/hours in and out of the battery bank
- OutBack Power made technical support easily accessible throughout the project