Case Study: Solamor Event Services

OutBack Hybrid/Off-Grid/Mobile Power System Installation

System Specifications

Location: Portland, Oregon

System Power: 30kW Hybrid Mobile Power System

System Components: OutBack Radian Inverter/ Charger and FLEXmax 80 Charge Controllers

Overview

Solamor Event Services, based in Portland, Oregon, and founded in 2008, uses custom-engineered units **to harness sun, wind and biodiesel energy sources to power events** such as outdoor concerts, festivals, film shoots, and sporting and community events. Solamor provides power via green temporary generators, a technology that only a handful of companies in the United States deliver, while also improving event sustainability by implementing waste-reduction strategies and localized procurement. Working with 40 to 50 clients per year, Solamor provides production services such as site operations management, procurement, production management, staff/volunteer coordination, and logistics support. Solamor also provides green power for event equipment at concerts, and power systems for food and beverage vehicles during food truck festivals.

Solamor recognized the challenges tied to providing continuous power for outdoor events, such as dust storms, rain, high winds and other situations that put event success at the mercy of the elements. Additionally, the mobile power trailers designed by Solamor and other companies took up a lot of space to meet the power demands of events, to the detriment of the overall event experience. Solamor found size to be a particularly troublesome point when it began work with the NBC television drama series, *Grimm*. While the producers of *Grimm* had increasing power demands, they also wanted a smaller system that did not require a large trailer, so transport on and off the set would not disrupt the large crew or expensive equipment.

We wanted to build a mobile renewable energy trailer that had a small footprint and wouldn't take away from the aesthetic experience of our events. We were impressed with the OutBack Power Radian inverter/charger because it produces a high power output but is also compact and modular, which is exactly in line with what we wanted to accomplish with our WhisperWing system."

Peter Clark

Founder & Production Manager, Solamor and OutBack Power customer

Objectives

- Install a renewable energy generation system to provide off-grid power
- Design a compact solar and wind trailer with a custom-engineered, aesthetically pleasing design
- Provide high power output to support unique, energy-intensive events and filming sets using a small system package

Solution

Previously, Solamor used a variety of inverters to convert solar energy for its mobile trailers. However, the company needed to use multiple inverter systems with complex connections to achieve the high power output required for energy-intensive events. Solamor decided to install OutBack Power Radian Inverters, which are compact and modular, keeping in line with the final smaller WhisperWing design. The WhisperWing is the newest addition to Solamor's generator fleet, a mobile hybrid energy trailer using solar, wind and biofuel energy sources to provide low-carbon power to Solamor events.

With OutBack's Radian Inverters, Solamor's WhisperWing can deliver 30kW from a trailer that measures 7 feet wide by 12 feet long. The project's solar arrays consist of eight 250W modules along with two wind turbines that deliver 200 watts each. The energy from the WhisperWing's solar and wind equipment is converted by an OutBack Power Radian Inverter/Charger GS8048, and uses an OutBack Power FLEXmax 80 charge controller. The on-site power capacity of the WhisperWing enables Solamor to offer a green footprint for outdoor or off-grid events, as well as build a business case for offsetting biofuel usage (reduce biofuel dependency by harnessing solar and wind energy). When the WhisperWing trailer is not in use at events and festivals, the Solamor team uses its renewable energy to power the company's office and offset electricity costs.

Benefits

- Mobile renewable power is delivered on-site to outdoor events and lowers the carbon footprint of the event
- Compact, modular trailer design is ideal for location film shoots and other entertainment production opportunities
- Energy produced by trailer during downtime offsets Solamor office energy needs
- True sine wave power from OutBack inverters ensures on-site power quality, and potentially improves audio/video equipment, sound quality and performance.

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