

Solar and Battery Energy Provide Off-Grid Power for a Non-Profit Youth Camp

FranklinWH and Strata Clean Energy donated a system to Cross Trail Outfitters in North Carolina



Challenge

Transforming the power source on an off-grid island from a generator to a more environmentally friendly solar (PV) system plus energy storage

Solution

Stage one - Deploy four new PV panels of 1.2 kW and an energy management and storage system of 40.8 kWh

Stage two (upcoming) - Add additional 12 PV panels of 4.8 kW to reach a total of 6 kW of solar power production

Result

Off-grid energy independence
Remote energy management
80% - 90% utility cost savings



" The FranklinWH system proves its effectiveness by managing the solar generation and battery storage to provide steady, reliable power on an isolated island, improving our ability to provide services in place. "

Mike Johnson,
National Director of Cross Trail Outfitters

Troubled by the low power efficiency of environmentally unfriendly diesel fuel, and the noise from the existing generator, Cross Trail Outfitters (CTO) was looking for a more stable and environmentally friendly energy source to power their youth camp on an island. FranklinWH donated a Franklin Home Power system to the non-profit organization to address those issues. Strata Clean Energy, FranklinWH's installation partner, also donated 4 brand new PV panels and installation labor to CTO as a joint effort to achieve an integrated solar system plus storage.



Offering a Better Living Environment for the Youth Camps

Every year, on the Black Duck Island, near Old House Channel in North Carolina, CTO provides mentorship, training, and assistance for kids while ensuring a wholesome and fun environment. Camp participants are primarily boys with ages between 7 and 19. They had fun during the day, but at night the experience was not as good due to the noise produced by the generator which supports the camp's electrical loads such as lights, refrigerator, and air-conditioner.

In addition, fuel is expensive, and they wanted to improve the environmental sustainability of the camp.

When the director talked about this problem with Strata Clean Energy, Strata immediately thought about the Franklin Home Power (FHP) system which supports off-grid scenarios. After hearing about the need, FranklinWH decided to donate one aGate energy management controller and three aPower batteries to fully support the camp's needs.



" Our campsite has a 3000 square foot house. It has lights, water pumps, and air-conditioners. We used to use a generator to provide power for these loads, and we frequently ran into power shortages. That's why we decided to change the power source.

" We have run the PV and energy management system for a couple of days. The result was amazing. The system is quiet, easy to use, and stable. There is no more noise at night. Due to the result being so good, we have decided to add more PV panels in the near future to achieve fully off-grid living. "

Mike Johnson,
National Director of Cross Trail Outfitters



Quality Technology Powers Quality Off-Grid Experience

The FHP integrates aGate X, an industry-leading, intelligent energy manager that can control energy from the grid, solar, battery, and generator, and aPower X, a super-robust, high-capacity AC-coupled battery. It is also possible to connect the previous existing generator as a backup power source when needed.

Generator Module: It is worth noting that the FranklinWH generator module used in this case has provided many benefits. With the generator module, the generator used by the camp can be integrated into the FHP, supplying power to loads as well as charging the aPower battery. The generator module can be remotely controlled by the FranklinWH app, which can seamlessly and automatically switch between the generator and battery power supply.

The intelligent energy manager, aGate X, has optional Smart Circuits that can connect three separate loads, including sub-panels, allowing remote control of the loads through the FranklinWH app. This function enables the island owner to manage the system remotely at any time. For instance, the air-conditioner can be turned on as a group approaches the island.

FranklinWH provides a full 12-year warranty for Cross Trail Outfitters to support them with a hassle-free user experience.

Installer's Feedback

“ The island had several old PV panels already on-site. Since the FranklinWH system can adapt to any inverters, we originally decided to only install the Franklin Home Power system. The panels were too old to use when we arrived at the site. Therefore, we donated and installed 4 new PV panels as well.

“ The Franklin Home Power is quite easy to install, even in a small wooden house in the middle of nowhere. We like its integrated design, which is very friendly to installers. ”

John Jennings,
Director of Electrical Engineering at Strata Clean Energy

Installation Summary

Client: Cross Trail Outfitters

Location: The Black Duck Island near Old House Channel, NC

Installer: Strata Clean Energy

System Allocation: 1 aGate + 3 aPower

System Size: 40.8 kWh

About FranklinWH

FranklinWH is focused on energy management solutions providing safety, reliability, and energy independence for homes. Franklin Home Power (FHP) is a whole-home energy management system integrating solar, battery, grid, and generator power sources and managing them to optimize the safety, reliability, and efficiency of home energy. The FHP is designed for simplicity and is easy to install, maintain and operate.

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