



OVERVIEW

The Lumen Prophetae monastery in São Paulo, Brazil houses approximately 200 students who have committed to following and reaping the rewards of a religious life. In Brazil, the institution currently has a significant and growing number of religious benefactors. The religious association has several houses in Brazil and around the world. Because the location of this facility is in a remote area with poor power quality and consistency, the monastery decided to install a hybrid energy system to address the power problem.

CHALLENGE

- Create a continuous power supply
- Reduce the use of thermal generators (diesel), which create atmospheric and noise pollution which do not fit the monastery environment
- Provide energy independence when needed and minimize energy purchase from the utility

SOLUTION

Because of the project scope and complexity, the monastery needed a partner that could handle all aspects from equipment and design to installation and system startup. OutBack Power was the easy choice because of our quality and reliability of equipment in mission-critical applications. Alpha Innovations Brazil, the local OutBack Power distributor, installed an impressive 257kWp system. OutBack equipment supplies power for all loads including the university student rooms, monastery laundry, air conditioning system, lighting and others loads. In the event of a full grid failure, battery backup provides up to three days of energy autonomy for critical loads. If the outage extends beyond three days, OutBack's OPTICS RE monitoring and control platform is configured to automatically start their diesel generator.

OUTCOME

- 90% energy economy
- Energy stability and comfort to local residents
- Generator starting automation, start-up automation and attenuating the generator usage

SYSTEM SPECIFICATIONS

Location São Paulo, Brazil

System Power 257.4kWp hybrid solar plant

- Components**
- (42) FXR inverter/chargers
 - (27) VFXR inverter/chargers
 - (75) FLEXmax charge controllers
 - (600) EnergyCell batteries
 - (16) MATE3 controllers
 - (16) HUB managers
 - (792) PV modules

