OutBack POWER™
an EnerSys company

Wildlife Conservation Network

SOLAR + STORAGE CASE STUDY

SYSTEM SPECIFICATIONS	
Location	Nissa Province, Mozambique
System Power	3.6kW PV/solar system
Components	• FLEXmax 60 charge controller • Balance-of-system components

OVERVIEW

The Niassa National Reserve in northern Mozambique spans 40 villages across more than 16,000 square miles with more than 35,000 people living within the protected area. As one of the last great wildernesses on earth, the reserve is a critical location for the conservation of African wildlife, including the African lion, wild dog and elephant. However, living with wildlife is difficult for Niassa residents. Wildlife in Niassa is generally considered either a resource, a nuisance to farming or a threat to life and livestock—sometimes all three. Families rely on extractive and consumptive use of natural resources to support their subsistence lifestyles, resulting in an exponential growth in bushmeat (meat from wild animals, particularly from endangered or protected species) and ivory poaching. Over the past two years alone, more than 2,000 elephants have been killed by poachers in Niassa.

The Niassa Lion Project (NLP) has been working in Niassa Reserve since 2003, aiming to conserve the lion and other large carnivore populations by promoting coexistence between lions and people. The snaring of bushmeat is the most serious threat to lions in the Niassa Reserve. Lions often get caught in the wire snares set to catch wild game. From 2010 to 2011, the Wildlife Conservation Network partnered with the NLP to provide electricity from solar energy to the Niassa Reserve headquarters in Mbatamila to support community outreach, conservation management and anti-poaching activities.

One of the problems identified by NLP was the lack of a reliable, sustainable and environmentally friendly electricity system in the reserve headquarters. Without a reliable energy source, equipment, such as computers, were regularly being destroyed through power surges. Scout quarters had no electricity, and there was no charging system for batteries used in radios and other electronics devices for communications.

CHALLENGE

- Deploy an off-grid renewable energy system that is rugged and reliable in both remote and extreme environmental conditions
- Power electrical processes, office equipment and communications to ensure quick response to poaching alarms
- Ensure the Reserve headquarters has minimal impact on the surrounding wilderness

OutBack Power reserves the right to make changes to the products and information contained in this document without notice.
Copyright © 2019 OutBack Power. All Rights Reserved. OutBack Power is a registered trademark of Alpha Technologies Services, Inc.

10/2019

SOLUTION

The Niassa Lion Project addresses snaring through alternative employment opportunities, skills training, improved husbandry of domestic livestock and anti-poaching activities. They work in close collaboration with the Mozambican Reserve Management authority to complement their activities. Although none of the Niassa villages have grid-provided electrical power, the Mbatamila Reserve headquarters is now powered entirely with solar energy sources, exclusively using OutBack Power's balance-of-systems equipment. The solar energy system supports the Reserve management offices with the use of an OutBack Power FLEXmax 60 charge controller in a system powering the conservation staff's computers, V-Sat Internet, essential radio communications, refrigeration and lighting. Additionally, the OutBack system supports the anti-poaching scout camps by powering the living quarters and critical electronics.

OUTCOME

- The Reserve headquarters has access to reliable off-grid electricity in a harsh, remote environment
- Solar energy powers the communication systems, which connect anti-poaching scouts to the Reserve headquarters
- The solar-powered headquarters assists the Niassa Lion Project, which supports Reserve management activities

OutBack POWER™
an EnerSys company

OutBack Power reserves the right to make changes to the products and information contained in this document without notice.
Copyright © 2019 OutBack Power. All Rights Reserved. OutBack Power is a registered trademark of Alpha Technologies Services, Inc.