

# RURAL ELECTRIFICATION

➤ ISLA BELLAVISTA, ECUADOR



“HAVING ACCESS TO RELIABLE ELECTRICITY WAS LIFE CHANGING AND EMPOWERING. FOR EXAMPLE, THE ABILITY TO POWER THE RADIO ENABLED US TO STAY INFORMED ABOUT THE COUNTRY’S CURRENT EVENTS AND IMPROVED OUR STANDARD OF LIVING.”

QUOTES FROM COMMUNITY MEMBERS

➤ LOCATION	➤ CHALLENGE	➤ SOLUTION	➤ OUTCOME
Isla Bellavista, Ecuador	To bring electricity to an island with no access to a power grid.	Pole-mounted photovoltaic (PV) system with Trojan deep-cycle batteries for each house.	Electricity was provided to 40 homes, improving their standard of living.



40 12-VOLT DEEP-CYCLE  
TROJAN BATTERIES

99% RECYCLABLE

40 HOMES ELECTRIFIED

## LOCATION

Isla Bellavista is an island off the coast of Ecuador that's home to about 250 people, most of whom make their living fishing or working in the port.

## CHALLENGE

No homes on the island have access to grid electricity. A few may have access to a car battery that can charge a light bulb. The others see by candlelight or small fires. There is no cell phone reception, and radio is used for offshore communications.

## SOLUTION

As part of a rural electrification effort by Ecuador's Ministry of Energy, 40 houses on Isla Bellavista received a 150W–300W pole-mounted photovoltaic (PV) system. The PV modules are mounted to a galvanized steel post with a concrete base, wired through a 10-amp Morningstar charge controller, which charges one 12-volt, deep-cycle SSIG 12 230 Trojan battery. The DC electricity from the battery is then converted to AC electricity by a 12-volt, 450-watt Xantrex inverter. The system powers three 20-watt compact fluorescent light bulbs, a fan, and a radio/television unit donated to the families by AV Renewable Energy S.A.

## SYSTEM SPECIFICATIONS

- Batteries: (40) SSIG 12 230\* Trojan batteries
- Solar modules: SolarWorld 150W PV modules
- Inverter: 450W 12V Xantrex
- Controller: Morningstar 10A
- Racking: Pole-mount with galvanized steel
- System Installer: AV Renewable Energy S.A.

*\*The Solar Signature SSIG 12 230 battery was previously known as the J185P battery.*

## OUTCOME

**The batteries are performing well and improved the standard of living for the residents of Isla Bellavista. An end of life program has also been established for a local battery company to collect and pay a value for the batteries—which are 99 percent recyclable. The funds will encourage residents to recycle their batteries and help them to purchase new ones.**

## BATTERY SOLUTION



- Rugged and Durable
- Outstanding Performance
- Affordable



## PARTNER



AV Renewable Energy S.A.

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