



## SunEPI Project Profile: Boucancarre, Haiti



Aug - Sept 2009

### Project Overview:

In late 2008, representatives of SolarWorld contacted SunEnergy Power International (SunEPI) to let us know about their corporate Solar2World program. The Solar2World program is a humanitarian outreach initiative of SolarWorld's where they identify projects to support in the developing world that are in need of solar panels and equipment. Many Solar2World projects in Africa have been supplied from the SolarWorld AG holding in Bonn and in 2008, CEO Frank Asbeck asked the US manufacturing arm to bring the program to Latin America.

When SolarWorld contacted SunEPI, they asked us if there were projects we were trying to implement in Latin America that could benefit from a donation of solar panels and solar equipment. We proposed that we focus on a hospital project for Partners in Health (PIH) in Haiti and after carefully reviewing our organization and technical proposal, SolarWorld accepted.



SunEPI has been active in Haiti since 2007, exclusively working to upgrade the electricity supply to the health sector. We invited Solar Electric Light Fund (SELF) to partner with us on this project based on their long history of working to provide solar power solutions to Partners in Health (PIH) hospitals worldwide. The Boucancarre hospital is one of the PIH facilities in Haiti, and the first to be electrified with solar power.

SunEnergy Power International has participated with SELF in much of the implementation activities at the PIH sites in Africa. And recently, SunEPI has been participating in a USAID program to improve the electrical infrastructure at health facilities throughout Haiti and other developing countries.

The resulting team, initiated by the Solar2World program, included SolarWorld, SunEPI, USAID, and SELF. SolarWorld's Haitian distributor, Green Energy Solutions also provided many of the balance of plant components and assisted with the installation. All partners worked together to bring this highly needed project to successful fruition.

Through its affiliation with USAID and PA Consulting, SunEPI also conducted a hands-on training for technicians throughout the Central Plateau area of Haiti in proper installation practices for inverter / battery systems and solar power systems.

### Project Information:

**Location:** Boucancarre - Central Plateau, Haiti

**Partners:** SolarWorld, SunEnergy Power International (SunEPI), Solar Electric Light Fund (SELF), USAID / PA Consulting

**Donors:** Good Energies, SolarWorld, USAID

**Scope of Project:** Two weeks hands-on training for real world installations of inverter / battery / PV systems. Implementation of a 10Kw solar / inverter/ battery / generator system, with connection to the existing AC distribution system.

**System description:** The system includes 10,000 watts of SolarWorld solar panels, (4) OutBack 3600 watt inverter / chargers, (4) MPPT solar charge controllers, and a Rolls 1766 Ah, 48V battery bank.

**Donors:** Sunmodule® Solar panels and OutBack Power inverters and charge controllers donated by SolarWorld; anti-theft rack systems and Rolls batteries donated by Good Energies, all of the training costs were underwritten by USAID



## Project Execution:

The installation in Boucancarre took three weeks. We had to cross a river every day to get to the site. When it was impassable by car, we waded through it on foot or on horseback. When it rained, which was nearly every day, the mud made the roads generally impassable, except for the sturdy 4WD drive vehicle that we used.

During the first week, we installed the theft-resistant solar panel racks and started the conduit work. Over the following two weeks, we conducted classroom trainings (in a tent with a mud floor) followed by hands-on work on the PIH clinic rooftop. This method has proven to be the best for teaching the principles of good design and installation practices.

Some of the finest PV and Inverter minds in the industry helped us conduct the training. Christopher Freitas of OutBack Power provided in depth training for specifying, installing and programming inverters. Carol Weis, a long time instructor for Solar Energy International, conducted the PV system-level training and oversaw the actual installation on



the roof.

The trainees and crew were comprised of (a) technicians maintaining the electrical systems at health facilities throughout the Central Plains area, and (b) employees of two of the premier renewable energy companies in Haiti.

Following the installation training, the staff was trained in the proper use and maintenance of the system. The local operators will keep daily logs to track system performance.

## Going Forward:

The successful training and project execution at Boucancarre demonstrated the effectiveness of our team's approach and will serve as a model for similar collaborative projects in the future. Solar2World, SunEPI, SELF, and USAID / PA Consulting are currently evaluating additional opportunities to bring solar PV systems to remote health care facilities in the developing world.

