Project Overview:

In an ongoing project with PA Consulting from Washington D.C., and USAID, SunEnergy Power International is upgrading the provision of electricity throughout health centers in all nine departments of Haiti. Through this work, SEPI is increasing the local capacity to design, install, and maintain renewable energy systems.

In May of 2008, SEPI conducted a training in the southern department health facilities of Marigot and St. Michel in order to teach the proper "Real World" installation of Inverter/Battery systems. A manual was developed as part of the training, and two installations were completed as the hands-on component to the training. One installation included the electrification of a clinic including its laboratory and administration equipment. The other provided energy for a HIV clinic inside a main hospital, which has only intermittent grid supply.

Our work in November 2008 included the next step in the program: to continue the training and an installation at the large central hospital in Port-au-Prince, HUEH (Haiti's University and Educational Hospital.) The system we installed is a "no-contact" system to power all of the ARV (Antiretroviral) Clinic equipment including a computer server and workstations used to do electronic record keeping for the HIV/AIDS patients.

("No-contact" means that there is separate charging and inverting equipment so that the equipment being served never sees the AC grid or generator power available on site. Port-au-Prince is plagued with an electrical distribution system that is not reliable and has poor power quality. This has affected to a great extent the ability of the ARV clinic to do its work properly. The new system will enable them to operate independently of the existing AC power supply.)

Project Information:

Location: Haiti's University and Educational Hospital (HUEH), Port-au-Prince, Haiti

Partners: SunEnergy Power International, PA Consulting, and USAID.

Local Partner: R&P Services, Inc.

Scope of Project: Provide clean, no-contact power for the electronic records keeping and ARV clinic at the HUEH Hospital

System description: Inverter Battery System with separate battery charging. AC power for charging is obtained from grid or from the local power generator. The system includes (3) Outback Inverters a separate, smart battery charger, and (5) strings of Trojan T-105 batteries.
Project Execution:

To complete this project, we teamed up with our partner and local renewable energy company, R&P Services, run by Patrick and Roger Briere. They purchased all of the necessary equipment a few months in advance, and had everything available for installation upon our arrival in November. SunEnergy Power International’s training and installation team included Walt Ratterman and Christopher Freitas.

Over the period of a few days, all parties worked together and completed the installation of the batteries and inverter and charging system. R&P Services had completed all of the interior distribution wiring before we arrived. The interior distribution power wiring is now new to all of the equipment in the ARV clinic, and is completely isolated from any other wiring.

The system also includes a programmed alarm sequence, so that if the batteries do get low, a loud horn will sound alerting the operational staff that the batteries need charging. They can make arrangements to charge the batteries, or reduce the loads -- whichever is more appropriate.

The system is now powering approximately 20 work stations, which include patient consultation and examinations rooms -- all of which are equipped with electronic data record keeping, and refrigeration for the required treatment drugs.

The next step is to develop a plan to expand this to another 15 to 20 sites, and provide training throughout the country. These are all tasks for 2009.

For more information, please visit our website: www.sunepi.org.
To go directly to Haiti’s Project Page: http://www.sunepi.org/SunEPI/Haiti.html