School Energy & Broadband Project - Haiti

Background

The Haiti Government has obtained critical funding from InterAmerican Development Bank (IDB) and the One Laptop Per Child (OLPC) Initiative to provide 13,200 OLPC XO laptops to Haitian primary schools. However, most Haitian primary schools lack the electricity and Internet connectivity required for students to fully benefit from the new devices.

Mission

To enable the use of solar energy to charge the laptops and power wireless broadband to each school. To develop local expertise required to install and maintain low-cost, solar-powered wireless broadband networks in primary schools across Haiti.

Proposition

To design and engineer a plan with students from the Illinois Institute of Technology (IIT) to enable the use of solar energy power for charging the OLPC laptops at primary schools in Haiti. To provide classroom and hands-on training for local, Haitian university students on low-cost wifi-based broadband networks as a means of creating the local expertise required to install, maintain and further expand internet connectivity within the Haitian primary school system.

Core Team

Bruce Baikie, CEO - Green WiFI, Alberic Chimon, Director General - Labomobile, Dr. Laura Hosman, Assistant Professor - Illinois Institute of Technology, Guy Serge Pompilus, OLPC Coordinator - Haitian Ministry of Education

The Project

The approach for the School Energy and Broadband Project for Haiti will be in two distinctive phases or activities.

1. The first phase entails working with members of the local student chapter of Engineers without Borders at Illinois Institute of Technology. This group of students will help in the engineering and implementation plans to use solar power to charge and run the OLPC XO laptops. They will undertake an energy site survey to a representative sample of schools in Haiti during their January 2010 trip. The goal is to create three standard solar setups for schools with 50, 100, and 200 laptops to be used across all of the 258 primary schools in the project. A secondary goal would be to create a replicable charging station design for 50 XO laptops. This design will be developed under an open source licensing agreement to provide open access and facilitate re-use.

2. The second phase of the project includes classroom and hands-on training of a group of local university students— about 60 students — on low-cost wireless broadband networks. Alberic Chimon of Senegal, an expert and professional trainer on low-cost wireless network solutions, will provide two training sessions in French on-site in Haiti. Green WiFi will provide a wireless training kit to accompany the training sessions, with the equipment necessary to enable students to install a wireless network in one primary school. Equipment in the kit includes: two wifi routers, point-to-point antennas, a wifi hot spot device, and the necessary cabling. As part of the second phase, Mr. Chimon, GreenWiFi and partners will work with interested students to develop a business plan and model to establish start-up businesses to ensure the long-term support and maintenance of these networks, as Mr. Chimon has done across Western Africa.

Status

Green WiFi is currently seeking $102,000 USD in funding to support these efforts: $24,000 USD to support the solar power site survey and engineering and solar charge station prototype, $68,000 USD for the university training program and wireless training kits, and $10,000 USD as the small business start-up funds.

Partners

www.green-wifi.org
www.iit.edu
www.labomobile.net
www.ewb-usa.org