

CASE STUDY

Project:	Supply of solar systems
Country:	Liberia
Project value:	\$250k
Year:	2008
Product:	solar generator for clinics and learning centres



Sollatek™

Sollatek supplies Liberia's pilot solar systems

Sollatek is contracted to supply pilot solar systems to Liberia, as a major part of the country's nationwide solar installation programme.



This is a leading joint initiative of the International Resources Group (IRG); the U.S. Agency for International Development (USAID); and the Liberia Energy Assistance Program (LEAP). (LEAP aids Liberia in sourcing affordable and reliable energy services by re-installing the country's electricity service using off grid solar and diesel generators).

Supplied by Sollatek to Liberia's Clinics and Learning Resource Centres, the systems are to generate power for computer equipment, the Internet, solar vaccine fridges and security lighting.

Sollatek is experienced in carrying out projects in countries where living and working conditions are tough and Liberia is a good example of this. Africa's oldest republic, it is still recovering from the long running and ruinous civil war of the 1990s. Founded by freed American and Caribbean slaves who comprise 5% of the population, Liberia is mostly made up of indigenous Africans. The U.N. maintains

a strong presence, with 15,000 peacekeepers in the country, a fact evident to the Sollatek (and local) team as they worked.

The first location was a five hour drive north of Monrovia on rough tarmac roads for Sollatek customer support manager Ian Walker and the IRG installation team. Sollatek was tasked to provide technical support and advise local technicians on installation of a range of solar powered inverter systems and solar streetlights at these key locations.

A major benefit of the durable and extremely reliable low maintenance solar PV generator inverter systems being installed, is their use as an auxiliary nighttime power source. This means that the existing generator can be turned off when the power demand is low, thus avoiding reliance on fossil fuel burning generators with their associated noise and exhaust pollution.

continued overleaf

The solar inverter systems comprise:

- solar panels to harness the free and abundant energy of the sun,
- batteries to store the energy,
- charge controller to regulate the charge,
- inverters to convert the battery energy (DC) into mains power (AC),
- the systems supply power in 3 models 250, 500 or 1000 Watt.

Supplied in 12 or 24V configurations, the batteries are grouped in multiples of 6 or 12 and housed in secure steel boxes. The 1000W system comprises 10 x 130W panels. They are assembled in two arrays of 5 to ease installation and allow easy attachment to the roof structure of buildings. PV Solar panels require minimum maintenance - just occasional dusting or washing (with a hose) of the solar panel glass front.

The Sollatek solar array is designed for quick and safe access to mount the array of solar panels on to the tin roofs in the absence of scaffolding or lifting devices. While part of the team manually lifts the array, other team members – in soft shoes and treading carefully - position themselves on the roof to secure the solar panels in place.

Since this first skills transfer installation, IRG's professional installation team has now taken over equipping other centres with these systems. Comprising Liberian nationals, the team is proud to be involved in Liberia's IRG solar installation programme. Installation goes smoothly due to good engineering design and the team's professional and technical ability.

Sollatek managers and engineers are adept at supporting local teams of workers in these important initiatives, many of which play a vital role in improving a nation's infrastructure and, therefore, the lives of individuals.



Other Sollatek Solar products

						
Solar Energy Systems	Charge Controllers	Solar Lights	Solar Energy Kits	Batteries	Solar Modules	Solar Lantern