



Making a difference: one healthcare centre at a time

VAYA Energy powers a community healthcare centre



Karu was a sparsely populated and sleepy village, until the Nigerian capital was relocated from Lagos to Abuja in 1991. Though a mere 20 km from the new capital, Karu's semi-urban infrastructural transformation remains challenging compared to that of the capital city.

In 1992, a maternal and child welfare clinic was constructed by the Nigerian government for Karu's rural population. Built as part of the Millennium Development Goals, the clinic currently serves 15,000 people, providing out-patient, antenatal, maternity, vaccination and family planning services. Though connected to the national grid, the Karu clinic hardly benefits from an hour power supply each day.

Powering Healthcare Infrastructure

Without electricity, healthcare workers depended on kerosene lamps at night. Refrigerated storage of vaccines and medicines was also impossible. VAYA Energy saw an opportunity to make a difference to this semi-rural healthcare clinic by providing round-the-clock electricity powered by the sun.

Our gratitude and thanks go to all those who, together with us at VAYA Energy, provided the funding to make this happen: Shell Netherlands Social Investment, staff of Shell Netherlands, the GoFundMe Corporation and several individuals—all across the globe—who identified with the aims and mission of the project.

Since August 2017, the Karu Primary Healthcare clinic has benefitted from round-the-clock power supply. A 4 kilowatt Solar Photovoltaic system with battery backup, generating in excess of 18 kilowatt-hours of electricity each day, provides sufficient power for all major equipment in the clinic. The positive impact on the clinic's operations and its host community has been immediate. Vaccines and medication are now properly refrigerated and basic lab equipment are now operational.

As with all VAYA Energy Solar Photovoltaic projects, system performance is continuously monitored online, allowing for early data gathering, fault detection and system optimisation.

The social nature of this project means that the Karu clinic is supplied with renewable electricity at no cost. VAYA Energy plans to finance the expansion of the system and provide excess electricity to small businesses over the fence at cost.

Challenge

Solving the healthcare challenge in a local community by providing sustainable electricity

Solution

A solar photovoltaic and storage system, designed and executed by VAYA Energy which includes:

Inverter: Schneider Electric Conext SW4048 4kW 48VDC battery-based inverter/charger

Charge Controller: Schneider Electric Conext MPPT 80 600 High Voltage solar charge controller

Solar Modules: (16) 4kWp Yingli Solar Modules

Monitoring System: Conext ComBox Communications Device

Batteries: Solar Photovoltaic Deep-Cycle VRLA, Gel Batteries

Accessories: Conext System Control Panel and Conext Battery Monitor



About VAYA Energy

VAYA Energy Solutions Limited Nigerian based renewable energy company focused on the deployment of solar-generated electricity solutions for Utility, Commercial, Residential and Rural Customers. VAYA Energy provides solar energy consultancy services and is involved in the design and installation of off-grid backup solutions as well as hybrid and grid tie solutions.

Contact us at <http://www.vaya-energy.com> to discuss your solar energy needs or send an email to info@vaya-energy.com