

Case Study: Village Water Pumping Systems Nasarawa State, Nigeria



TerraSolar was contracted by the Nasarawa State Government in Nigeria to install photovoltaic water pumping systems in 150 rural villages as part of a program to provide greater access to clean water for health and irrigation purposes. Many of the installed systems replaced outdated pumps that were fueled by diesel generators; the balance provided the first access to clean water in the village history.

One of the greatest challenges facing Nigeria today involves extending the electrical grid. Extending the grid to outlying areas would provide light for working and safety, electricity to operate machinery and refrigerate medical supplies, and would enable operation of water pumping systems necessary for health and irrigation.

Unfortunately, extending a traditional electrical grid using copper wiring has been found to be cost prohibitive in Nigeria. As an alternative Nasarawa State determined that TerraSolar water pumping systems are more efficient and less expensive than other options. It is eager to extend this program and branch into rural electrification using photovoltaics.

- Location:** Rural Village Water Program
Nasarawa State,
Nigeria
- Construction:** Water Pumping Systems
- Completion:** December, 2002
- Peak Capacity:** 400kW total
- Product:** 150 PV village water pumping systems at 5 cubic meter/day capacity

Innovative Energy Solutions