



36 KW: Bario, Malaysia

For the 1200 residents of Bario, solar energy is making a difference by supporting much needed public services and enhancing their quality of life. The village of Bario lies 3280 feet above sea level in the Kelabit Highlands of Sarawak.

Without a centralized electricity supply in the village, most schools, offices and private houses use portable diesel generators, kerosene lamps or candles. But for some government facilities, such as street lights and public telephones, solar photovoltaic systems are being used. Taking off from this success of using solar energy in facilitating the delivery of public services, the Sarawak State Public Works Dept (JKR Sarawak) turned to solar energy for the new government-run health clinic, by catering for a hybrid solar PV and hot water system to supply the clinic's power requirements.

The Bario Medical Clinic, a joint initiative between the Malaysian ministries of Health & Public Works is the first GREEN CLINIC in Malaysia. The new solar rooftop installation has a capacity of 36 kWp and is powered by equipment and services from Conergy. Energy generated by the system is being used by the clinic and covers between 80- 90% of its energy requirements. In the daytime, electricity produced from the panels is directly used by the clinic while the surplus energy generated is stored in the batteries that supply electricity at night and enables the clinic to operate for 24 hours. In addition, back-up generators are provided as a precautionary measure in the event of a power shortfall.

While Conergy provided the system's design and engineering services, local partner UTAI Engineering & Electrical (EM) Sdn. Bhd., an approved photovoltaic service provider (APVSP) certified by both KeTTHA and SEDA Malaysia, looked after the project's installation and local engineering. The PV system became operational in the first quarter of 2012 and delivers over 45 MWh of electricity per year, equivalent to the power requirement of 20 Malaysian households and saves over 25 Mtons of CO2 emissions annually.



Project Highlights



Date	January 2012
Location	Bario, Sarawak, Malaysia
Installed Capacity	36 kWp
MWh produced annually	45 MWh annually
Modules	180 Conergy STM 200 PME Modules
Inverters	2 Conergy ISA 30 inverters
Mounting System	Conergy Suntop III
Size of Plant	265 square meters
CO ₂ emissions saved	25 tons / year

