Don Bosco
Solar Training Center

Solar Installation

Provincial House

Tema / Ghana. July 2019 / April, 2021

The purpose of this installation is to provide clean and reliable electric energy for the Don Bosco Community and the offices of the PDO in the provincial House.

This installation is divided in three section:

1. An AC - Coupled system with two Fronious grid Inverter and Victron Quattro 48 / 15kVA. In addition one DC - branch with 5.1 kWp solar power and Victron MPPT charge controller 250 / 85. The energy of this system is stored in two BYD Lithium batteries with 15.4 kWh each.
2. One Fronius 8.2 Primo grid inverter is feeding into the solar grid of the Don Bosco campus.
3. The third branch of the installation is designed as a pure DC - coupled system. Three Victron MPPT charge controller (1 x 250 / 70 and 2 x 250 / 85) are charging two FZSoNick salt batteries with capacity of 9.6 kWh each.

To provide the needed 230V, we use Victron Quattro 48 / 15 kVA. This system is providing the electric energy for the offices in the Provincial House.

Facts

Location

Tema / Ashaiman, the harbor city of Ghana, about 20km east of the capital Accra in Ghana.

Installation Date

July 2019 / April 2021

End Users

The community of the Don Bosco Provincial House and the offices of the PDO are the user of this solar system.

Technical Data

- Victron Quattro 48/15kVA, 2pcs.
- Victron MPPT Charge Controller 250/70, 1pcs and 250/85, 3pcs.
- 97 modules 330Wp, 30 modules 340Wp, Total 42.2kWp.
- Smart meters, 6pcs.
- Victron Color Control GX , 2pcs.
- Victron Venus GX, 1pcs.
- BYD Batteries 15.4kWh, 2pcs, total
- FzSoNick Batteries 48/200Ah, 2pcs,

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