

Case study

Solar Plant Power Backup

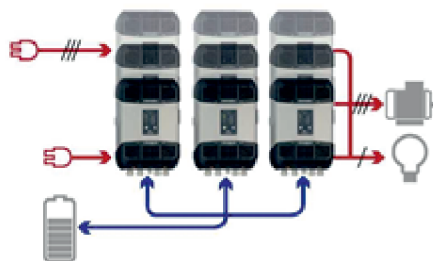
Tarlac

Philippines



The challenge

The TERASU project is a 40MWAC (60WMpDC) solar farm project in Concepcion, Tarlac built to produce renewable energy and help meet the Renewable Portfolio Standards (RPS mandate) recently implemented in the Philippines.



PowerPro Protection Supply Inc.

Owned and developed by Sindicatum Renewable Energy Company, the project is located on a 62-hectare land near Barangay Sta. Rosa in Region III, Philippines. The project needed an efficient and reliable backup system to be able to secure an uninterrupted power supply at the solar plant in an event of power failure. Moreover, the necessity for a backup system will ensure the plant's safety and reliability, so that in case of power interruptions, the control and monitoring room will remain operational until the power resumes.

Why STUDER

Robust, versatile, and adapted to the most commercial applications, the Studer Xtender series is a key player in the management of energy systems. The flagship of the series, XTM inverter-chargers are high-tech devices that allow the optimal use of available energy. The Studer units in the Xtender series are a perfect component in this installation project for their outstanding overload and power shaving capabilities, ultra-fast transfer relay, and smart-boost function.

The Solution

PowerPro, a total solution provider for electrical systems, installs a backup system consisting of Studer components and energy storage: three XTM 4000-48 Studer inverter-charger units for a UPS function, in combination with three BYD Battery-Box LVL15.4 for a total 46.2kWh battery storage capacity. The power management system secures 4-hour backup power to the MCR building (main control room) of the solar farm. In case of a power cut, the control and monitoring functions remain connected to the Studer system and use the energy stored in the batteries.

System components

The system contains the following components:

- 3 BYD Premium LVL 15.4kWh Li-ion Battery
- 3 XTM 4000-48
- 1 RCC-02
- 1 Xcom-CAN

Project outcome

After installation, the 60MW TERASU solar farm in Tarlac gets access to a total 46.2kWh power backup and uninterrupted power supply system, supplying most of the control and communication devices inside the main control room including the MVSG and SCADA. With this new energy management design, the solar farm is now equipped with a reliable backup system to guarantee safe and continuous operations, and to meet its renewable energy requirements.

The Company

PowerPro Protection Supply Inc. PowerPro's reliable products and turn-key solutions ensure the optimum working conditions for your electrical facilities. We help organize customer electrical systems and provide solutions against sudden power surges, arc flash hazards, extended maintenance shutdowns, over-stocking and machine downtime.

Our components offer more than just a safeguard for your power supply. By protecting your most valuable assets, your people and your equipment, we offer a multi-purpose defense from electrical shock, fire, and equipment degradation.

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