Remote monitoring of 450 kWp grid-tied C&I project in Kenya

Background

The Kenyan solar market is considered to be very well developed. Due to the high electricity prices, grid-connected solar systems are usually economical for large consumers.

One business model is that operators of these solar plants supply electricity to the end consumer and receive a fixed remuneration for this, which is lower than the grid electricity tariff.

Therefore, operators depend on a high system's performance. However, various negative influences, such as the failure of individual strings, often go unnoticed for a long time and therefore lead to lower revenues.

Key facts

- ✓ C&I project in Kenya
- ✓ 450 kWp roof top installation
- ✓ Schneider inverters
- ✓ Inverter Monitoring, temperature and irradiation sensors
- ✓ Zero Export function

What EcoPhi does

EcoPhi is responsible for the remote monitoring of the system. A Pro Box was installed here, which is able to track the inverters as well as additional sensor data and handles the regulation to prevent the system from feed-ins.

EcoPhi supported the EPC from remote while the installation of the monitoring system was carried out.

The plant data is transmitted via the mobile data network as well as stored locally.

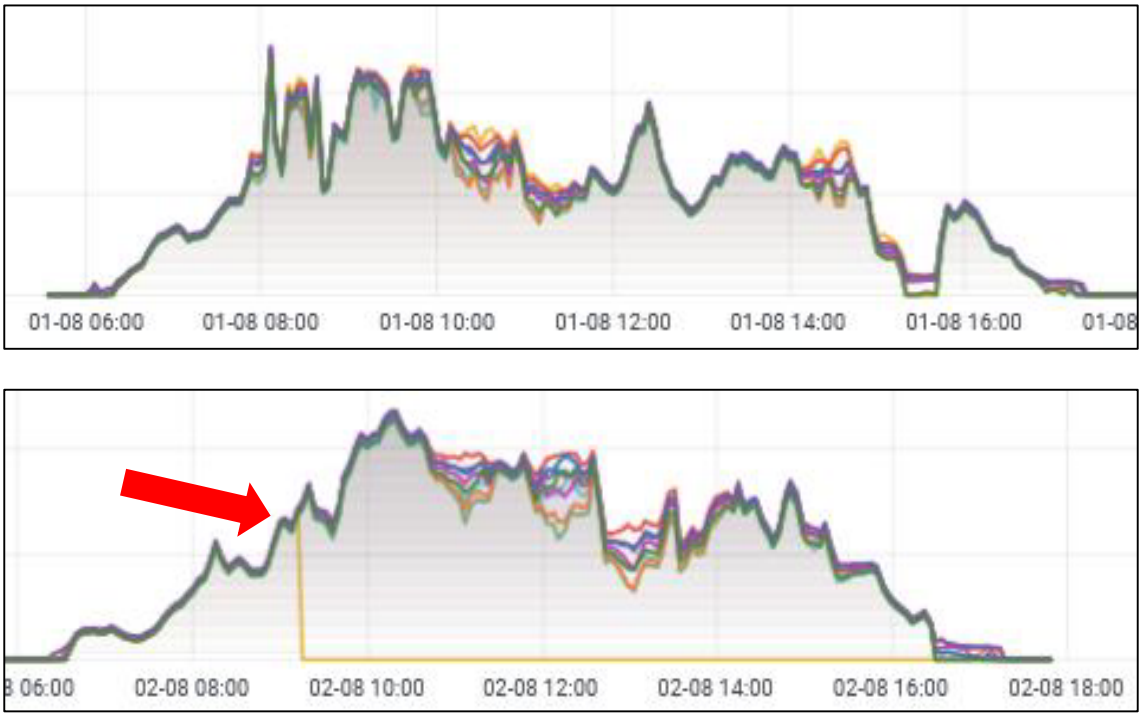
EcoPhi monitors the plants, generates reports and is available for general consultations.

How did the service help

In addition to the visualization of data and regular reporting, which the customer can use for its own accounting and management, the system is also checked for technical errors and performance problems.

Failures of individual strings are often not detected. Usually, the system is not visibly affected, so it continues to operate without taking action. This then leads to a lower overall performance. Depending on the number of strings, a failure can mean up to 25% less power.

In this case, a string failure could be detected and thus immediately corrected. Without appropriate monitoring, this could not have been done so quickly.



Both figures show the current of the respective strings of the solar system. The upper figure shows a regular pattern. The lower figure shows that the current of one string drops abruptly to zero.

Fault detection does not have to be done visually, as the continuous monitoring detects such faults automatically and alarms are then sent by email or SMS.

EcoPhi
Renewables Engineering

FIND OUT MORE NOW:

www.ecophi.io

Mobile: +49 1521 4516 598
E-Mail: contact@ecophi.de