CASE STUDY

CENTRAL TO STRING REVAMPING

SUNGROW INVERTERS
SG60KTL

Luogo
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Challenges:
The application’s main scope was to change an outdated central inverter with a new solution without exchanging the current parameter settings of the PV plant. The new system would have had similar parameters of the former one, no matter if central or string.

Solutions:
The scope of the revamping operation was to avoid changes on system configuration, like string length, transformer, protection type, etc. String inverters of the type SG60KTL fitted perfectly into the existing PV plant due to its flexibility and DC-AC parameters that were the same of the old central inverter replaced. Furthermore, replacing the central inverter with string inverters has been more cost-efficient than buying the spare parts to repair the central.

Benefits:
String inverters permit simplification in installation, commissioning and O&M. Replacing the outdated central inverter took only one working day, corresponding to only one day production stop of the PV plant, saving cost of total operation.
The photovoltaic generator has a DC power of 128.8kWp. The original installation of the PV modules have been made together with an Asbestos roof cover replacement. Now the PV generator is mounted on fixed roof structures, directly connected to the metal sheets with 560 60-cell 230Wp PV modules in portrait layout with a different 6° and 13° tilt orientation.

In a dedicated room of the building, two SG60KTL inverters are installed, each PV module string with different orientation managing the modified orientation of the modules.

The entire installation process took one day only.

Design and implementation of all installation activities were performed in collaboration of Sungrow, SEP Energia and Coenergia.