

# 1 MW PV REVAMPING

## PHOTOVOLTAIC REVOLUTION



### SG250HX



### REVAMPING



### PERFORMANCE

#### APPLICATION OF NEW CUTTING-EDGE TECHNOLOGIES TO AN EXISTING PV SITE

This 2011 PV installation was suffering from productivity loss and increased maintenance costs.

The cause of this were its ageing centralized 500kW inverters, and the 230Wp PV modules that were damaged by hot-spots and loss of insulation.

As a result, the revamping involved installation of the SG250HX string inverters, PV modules and components to be changed from running on 1,000 Vdc systems to be compatible with 1,500 Vdc systems. This change was made to take advantage of SG250HX smart monitoring solution.

#### Location

Alessandria, Italy

#### System

Ground-mounted PV plant (revamping)  
4x SG250HX

#### Expected yield

1,300 MWh/year

# BENEFITS

Currently the plant has a DC power of 1 MWp. The old 230Wp PV modules have been replaced by new 375Wp modules: they are oriented to the south and inclined 30°. This adjustment required fewer modules to be fitted, and at the same time improve production output.

The transition to 1,500 Vdc technology has made it possible to reduce the number of strings, making them longer.

The SG250HX inverters allowed remote monitoring of individual strings, enabling the operators to improve production output.

After the upgrade, the PV installation increased the efficiency by 18%, while reducing operation and maintenance costs.



SG250HX inverters have 12 MPPTs for a total of 24 string inputs.



Simple and intuitive commissioning via smartphone and iSolarcloud app.



The supervision of a photovoltaic system is essential to maximize its production. Along with the inverters, COM100E was also installed, Sungrow's monitoring solution. COM100E also has a built-in Logger1000 that collects and stores the data on site.

## ABOUT SUNGROW ITALY

Sungrow has been present in Italy since 2010 and currently counts about 450MW of inverters installed and still active, both centralized and string, spread throughout the country in applications ranging from small residential rooftop systems to large ground mounted "utility-scale" systems.

With a large portfolio of CEI 0-21 and CEI 0-16 certified products, Sungrow Italy is able to satisfy all installation needs both on new systems and for revamping actions, guaranteeing in all cases a fast and professional pre and post sales assistance service, also offering solutions for the BESS utility market.