

1 MW ROOFTOP PV PLANT



HIGH VOLTAGE ROOF



SG250HX



1.500 V_{DC}



INCENTIVES

A NEW SYSTEM BUILT WITH A 1,500 VDC SYSTEM THAT BENEFITS FROM THE INCENTIVES OF D.M. 04/07/2019.

A roof renovation was the starting point of this project. The old Eternit roof was replaced while a state-of-the-art PV system was installed at the same time. This project could be realized thanks to the FER decree of the Italian government.

Circumstances called for a versatile string inverter to be installed on the roof. Other requirements were that the inverter was fully remotely manageable and compatible with 535 Wp modules.

This new 1 MW plant built with Sungrow SG250HX inverter uses the maximum voltage of 1,500 V_{DC} to optimize and make the most of photovoltaic production, a technology usually relegated to ground mounted PV installations.

Location

Osimo (AN), Italia

System

Rooftop PV plant
4x SG250HX

EPC

Green Energy
Service s.r.l.

Annual yield

1,080,800 kWh/year

BENEFITS

The PV plant has a DC power of 904 MWp. The PV system was fixed on the new corrugated sheet, which replaced the old asbestos containing cement sheets that made up the 16 ° inclined roof of an industrial facility.

1,691 modules of 535 Wp each have been installed, inclined by 30 ° with South-East orientation. These modules have high I_{mpp} current ratings which are well tolerated by Sungrow SG250HX inverters, which allow input currents up to 30A for each MPPT.



View of the underside of the SG250HX inverters with the MC4-Evo2 string connectors and the four DC disconnectors



"We thought of the Sungrow SG250HX, a inverter with an excellent degree of protection, IP66, integrated DC and AC dischargers and 24 input channels with a very wide admissible range of 500 - 1500VDC.

The output voltage level of the inverter, 800V, guaranteed us a reduction in system losses and a decrease in cable and labor costs. For the auxiliaries a dedicated single-phase LV meter was simply requested, in order to avoid the installation of a dedicated transformer and ensure better continuity of service.

What have we achieved with Sungrow? A reduction in contract costs, greater efficiency in plant management and a satisfied customer!"

Oscar Severini

Project Manager - GES s.r.l.

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 a fast and professional pre and post sales assistance service in all cases and also offering solutions for the BESS utility market.

ABOUT GES S.R.L.

Green Energy Service s.r.l. (GES) deals with the design, installation, maintenance and supervision of photovoltaic electricity production plants, Asset Management and O&M. Their know-how derives from decades of experience in developmen, construction and management of numerous PV-plants. GES operates throughout the national territory ensuring the best standards to ensure maximum efficiency, effectiveness and transparency of the services offered.