Retirement Home
Muggiò, Italy

Optimal use of roof area, fire safety compliance and maximum yield with Trinasmart

114 kW System
42 MWh Annual energy output
409 modules Residential rooftop PV system
MP Next, an innovative start-up in the field of renewable energy and energy requalification, was founded on decades of experience in the design and construction of technological systems for residential and industrial buildings. The company has a keen awareness for energy efficiencies, and has built its reputation on its ability to design economically sustainable technology solutions which integrate renewable sources. This extensive experience is key for helping MP Next meet its customers’ needs in building compliance and regulation.

They renovated a retirement house in Muggiò, a city located 10km North of Milan, carrying out a project whose aim was to make the improve energy efficiency with the use of renewable energy sources, including solar photovoltaics (PV). MP Next selected Trina Solar to design a safe rooftop PV solution that could satisfy the complex building regulation requirements, while maximizing energy generation.

A 114kW rooftop system was installed using 409 Trinasmart modules. The modules incorporate innovative electronics to facilitate module-level diagnostics, generate a high energy yield through module-level DC power optimisation, and comply with the highest levels of fire and safety regulation.

Trina Solar TSM-DC05A.082
The Trinasmart Solution

Trinasmart enables more solar modules to be installed on any roof type thus allowing modules to be placed on small areas. The available roof space can therefore be used optimally, maximising returns. Trinasmart not only offers a significant increase in output, but also reduces the balance of system (BOS) costs and increases the safety of PV systems. Integrated smart curve technology reduces the maximum output voltage of the modules and thus enables a more flexible arrangement in longer or even asymmetrical strings. As there are fewer strings, the system requires fewer components. Since modules are already integrated into Trinasmart, the cost of installation is comparable to that of a standard system. Automatic system monitoring on module level offers complete real-time control over performance levels, and components, or, where necessary, even the entire system, are switched off automatically in the case of electric failure.

"Of all the great characteristics of Trinasmart, the fire safety feature is particularly important as it enables PV installations on properties with high fire safety requirements, like this residence for elderly people. Trina Solar’s panels comply with the local fire department rules and regulations."

Roberto Moscatelli, Managing Director at MP Next