CHALLENGE
The application’s main scope is reducing electricity cost while at the same time lowering the carbon footprint, considering the installation’s proximity to Lessinia Regional Park. Due to the presence of farm animals, all installed products required corrosion-resistance.

SOLUTION
The PV modules applied are Canadian Solar’s CS6K 270P, polycrystalline with 270-watt class, IP67 junction box optimized for long term weather endurance and heavy snow load up to 5400 Pa. The deployed inverters are Sungrow SG36KTL-M with multi-MPP trackers, improving the PV plant’s yield besides the changed roof orientation. The aluminum alloy cabinet and other key components make the IP65-protection inverters suitable for outdoor applications while maintaining the certification for corrosion-resistance.

BENEFIT
Long-term weather endurance and heavy snow load features will ensure a long-lasting installation with high yield and a forecast of about 109MWh yield. No risk of chemical hazards due to SG36KTL-M’s corrosion-resistance which is increasing overall lifetime of the PV plant.
Description

The photovoltaic generator has a DC power of 99,63kWp. It is mounted on fixed roof structures, directly connected to the metal sheets with 369 60-cell 270Wp PV modules in portrait layout with south-east-west orientation. On the external wall of the building, three SG36KTL-M inverters are installed, each with a three MPPT input used to manage different string architecture of the various roofs on the plant, managing the changed orientation of the modules.

The entire installation process took only 14 days.

SG36KTL-M is certified for IP65 and corrosion-resistance serving long-term performance.

Design and implementation of all installation activities were performed in collaboration of Sungrow and Pistorello Group.