



## Nardò (Lecce), Italy

Project Size: 10 MW

Product: Convert-1P Trackers

Conditions: Lowland area near the coast

Location: Southern Region of Apulia, Italy

# New Life: Retrofitting Solar Plants for Optimal Performance

When photovoltaic systems were in their infancy, in Italy and other locations, there were often limitations. Now that costs have fallen and technology has vastly improved, Valmont Solar™ is helping modernize plants for improved efficiency and profitability.

“The Nardò project was the first example of a fully revamped PV plant in Italy. It was completed with quality and in record-breaking time, thanks to professionals and companies involved from the beginning. Revamping and repowering represent a continuously expanding market and give new life to PV Systems – another great step toward sustainability and a growing economy.”

– Matteo D.

*Valmont Solar Business Line Manager*

As solar power becomes more viable and its benefits are realized worldwide, technological improvements and worldwide uptake have led to lower installed costs per MW for new PV plants. But an often-overlooked secondary market has emerged: solar plants that already exist, yet could be optimized with newer technology to increase their output – and profitability.

One such facility that Valmont Solar helped to upgrade was a plant with a capacity of about 10MW near Nardò. Located in the bootheel of Italy near the Ionian Sea, Nardò has hot, humid summers and long, often-cloudy winters.

The first step taken by Valmont Solar was to perform an analysis of the plant's current conditions and identify the optimal engineering solution to maximize production. Valmont Solar experts prepared a preliminary layout and performed a parametric analysis to identify the optimal angle of the trackers, the best number in the string, and the ideal space between them, to maximize the site's layout density for greater collection potential.

Once new string inverters were installed, Valmont Solar replaced the existing fixed-tilt structures with high-efficiency Convert™ trackers. Convert trackers from Valmont Solar have a modular design for simple installation and operation for a long, hassle-free life.

One of the most important aspects of such a project is to complete it as quickly as possible and minimize the plant's downtime. Our supply chain expertise allowed complete batches of material to be delivered, and aided the efforts to tackle the project efficiently, disassembling, installing and activating the trackers by series, or row by row.

The finishing touch was implementation of the Convert Control System for real-time acquisition of the tracker's performance data, alarms including remote maintenance capability and weather monitoring, and seamless integration into the SCADA system of the higher-level plant.

The retrofit of the plant was completed in less than three months, and the results were outstanding: a 22% increase in productivity. For expertise in problem solving, Valmont Solar is the ideal partner.