

CASE STUDY

VIMERCATE, MAY 18th, 2023

FIMER AND ESSE SOLAR: NEW 860 kWp PHOTOVOLTAIC PLANT IN MODENA, ITALY

The new **860.52 kWp** photovoltaic plant is equipped with inverters supplied by **FIMER**, leading Company in terms of development, production and sales of renewable energy and e-mobility solutions.

The plant will produce about **1,100 MWh/year** of renewable energy, which means a saving in terms of fossil fuel consumption of **210 TOE/year**. The emission of CO₂ into the atmosphere are reduced by **330 t/year**.

Nine inverters (**8 PVS-100-TL-B2** and **1 PVS-50-TL**) have been supplied by our Partner **Esse Solar Srl**, an Italian Company providing solar solutions to solar professionals, businesses, and individuals who want to improve their energy efficiency. They have been installed in Modena - Italy, at **ZADI SpA**, a Company designing and manufacturing electromechanical components for the automotive, agricultural and industrial sectors.

Project data:

- Installed capacity: 860 kWp
- Number of PV modules: 1704
- Number of inverters: 9
- Model of inverters: 8 PVS-100-TL-B2 - 1 PVS-50-TL
- Project Management and Coordinator of the work in progress (CSE): Esse Solar S.r.l.
- Committee: Zadi S.p.A.

Energy production data:

- Calculated consumption of Zadi: about 2.868.222 kWh/year
- Estimated energy production of the installed system: around 1.023,350 MWh/year
- Saving on consumption after the installation of the solar plant: around 35% compared to ante-operam conditions



Francesco Feletti, Sales Manager at Esse Solar, states: *“Currently, considering the increase in energy costs, Entrepreneurs and Energy Managers surely have the priority to streamline production processes to optimize costs and improve their business competitiveness, as well as reducing the environmental impact to make the company as sustainable as possible. The best way to start such process of change is to self-produce renewable energy with a photovoltaic system. As always, we approached this project accurately, analyzing the energy profile of the customer, carrying out simulations on the energy production of the photovoltaic system and weaving it with the load profile to ensure an optimal sizing of the plant, maximizing the self-consumption of the energy produced by the plant and allowing to reach a good percentage of independence from the national electricity grid.”*

PVS-100/120-TL is FIMER’s cloud connected three-phase string inverter solution for cost efficient decentralized photovoltaic systems for both ground mounted and rooftop applications. This high-power platform with power ratings up to 120 kW, maximizes the ROI for decentralized C&I solar plants. With up to six MPPTs, energy harvesting is optimized even in shading situations.

This best-selling inverter also allows savings on installation resources as less units are required and, thanks to its compact size, further savings are generated from a logistics and maintenance point of view.

Moreover, the integrated DC/AC disconnection, 24 string connections, fuses and surge protection, remove the need for additional boxes. Standard wireless access from any mobile device makes the configuration of inverter and plant easier and faster. The improved user experience thanks to a built-in User Interface (UI) enables access to advanced inverter configuration settings. The Installer for Solar Inverters mobile app, available for Android/iOS devices, further simplifies multi-inverter installations.



PVS-50/60-TL is FIMER’s cloud connected three-phase string solution enabling cost efficient large decentralized photovoltaic systems for both commercial and utility applications.

This model belonging to the PVS string inverter family, with 3 independent MPPTs and power ratings of up to 60 kW, has been designed with the objective to maximize the ROI in large systems with all the advantages of a decentralized configuration for both rooftop and ground-mounted installations.

Thanks to technological choices aimed at optimizing installation times and costs, the product design features the power module and wiring box enclosed in a single compact chassis, thus saving installation resources and costs.

Monitoring your assets is made easy, as every inverter is capable to connect to the Aurora Vision cloud platform to secure your assets and long term profitability.





About FIMER

FIMER is one of the largest, tier one, renewable energy equipment supplier in the world. Specializing in solar inverters and electric mobility systems, it has over 1000 employees worldwide and offers a comprehensive solar solutions portfolio across all applications. FIMER's skills are further strengthened by its bold and agile approach that sees it consistently invest in R&D. With a presence in over 20 countries together with local training centers and manufacturing hubs, FIMER remains close to its customers and the ever-evolving dynamics of the energy industry.

For further details, visit our website www.fimer.com and follow our social channels:



About Esse Solar

Esse solar is an Italian company that provides solar solutions to solar professionals, businesses, and individuals who want to improve their energy efficiency. The company offers the Italian and European markets the expertise of Sices Solar, which we acquired in 2013. We believe solar energy is the most beautiful, powerful, and user-friendly renewable energy source.

For further details: www.s-solar.it

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