

An integrated approach to increase the performance of PV plants



LT Renewables, leader in the maintenance of renewable energy plants with **over 500 MWp under management**, continues its path of professional growth and invests in highly specialized internal resources, supplying and developing digital tools and proprietary software platforms with high technological content.

The optimization of the performance starts from analysis, data collected and constant comparison with the needs and availability of the customer, through usable technologies and monitoring tools.

This is the reason why the **R&D-Performance Analysis** department was born. The department uses the potential of the new "web-based" monitoring platform, which is compatible with any device, to perform specialized services, such as:

- The detection, analysis and final balance of production and performance data of the PV plant
- Specialistic diagnosis of the main causes of failure
- Application of predictive algorithms in order to anticipate any breakdowns
- Development of performance improvement proposals in collaboration with the Service Manager
- Monthly production reporting
- Management of maintenance ticket progress
- Contractual KPI analysis
- H&S safety documentation management.

In particular, the activities are carried out thanks to the support of two proprietary platforms:

The monitoring portal, by continuously acquiring production and irradiation data in addition to other parameters, allows **real-time control of the performance (PR index)**, as well as the implementation of **advanced "troubleshooting" procedures** (WARNING - reporting of operational anomalies or FAULT - machine downtime / failures from the system).

The platform can be interfaced and compatible with any device in the field and does not invalidate the current management of the data-loggers by the inverter.

LT has also implemented a proprietary **"troubleshooting" management system** to improve the **planning of extraordinary maintenance interventions** and to speed up the resolution of faults ever more. The digitization of this process allows instant communication of the intervention, alarm and type of fault from the control room to the technician, as well as the automatic archiving of data and documents.

Access to the portal allows you to consult and monitor the various evolutionary steps of the generated tickets, from their opening and assignment to the relevant Service Manager, to the processing and subsequent closing phases, as well as consultation of the intervention reports produced by the Field Managers.

All recorded data can be consulted by the customer.

A next step will be to develop predictive models to prevent failures, using the huge amount of data acquired by the company over the years.

Renewable energy is part of our DNA; it is the vision and passion behind our work. We started in 2001 with the management and maintenance of photovoltaic plants and quickly specialized in O&M contracts, data monitoring and analysis, developing a particular expertise in safety issues. From the beginning, we offered our customers relationships based on trust and transparency with a strong belief that professional relationships built between real people can make all the difference.

LT offers an innovative approach to the renewable energy management market: we're an experienced company, capable of developing and implementing projects from start to finish, adept at troubleshooting and problem-solving, working closely with our clients throughout the process.

With the acquisition of LT Enerray and SamsolT, two companies that represent Italian excellence in their respective photovoltaic and biogas sectors, the LT group has established its presence throughout Italy, becoming one of the main players in the maintenance of renewable energy plants.