LT s.r.l. Company Profile Solar PV





The Model

LT, part of the Terna Group, the largest Italian transmission system operator, offers **design, procurement, installation and maintenance** services for solar PV plants.

With **over 12 years** of experience in the energy sector, the company has always focused on the realization and maintenance of medium and large photovoltaic systems, being able to guarantee a full-service contract on each type of system and full operation on the whole Italian territory.

The group, thanks to dedicated internal experts, can also offer additional services integrated to the maintenance contract, such as those relating to the **safety of the PV system**, the activation and management of **insurance policies** for direct and indirect damage and the management of **administrative procedures** towards public and private bodies.



Specialization/Integrated skills

Exclusive focus on photovoltaics and technology with a high level of digitization.

Qualified professionals and loyal staff. Concentration of internal resources on activities with greater added value.



Security

Particular attention to safety aspects. We aim to avoid any injury by adopting strict policies in this regard and using PPE and equipment equipped with all possible certifications for electrical risk and falling from above.



Know-how / Experience

Many years of experience and consolidated Track Record in EPC and O&M.

International Clients portfolio.



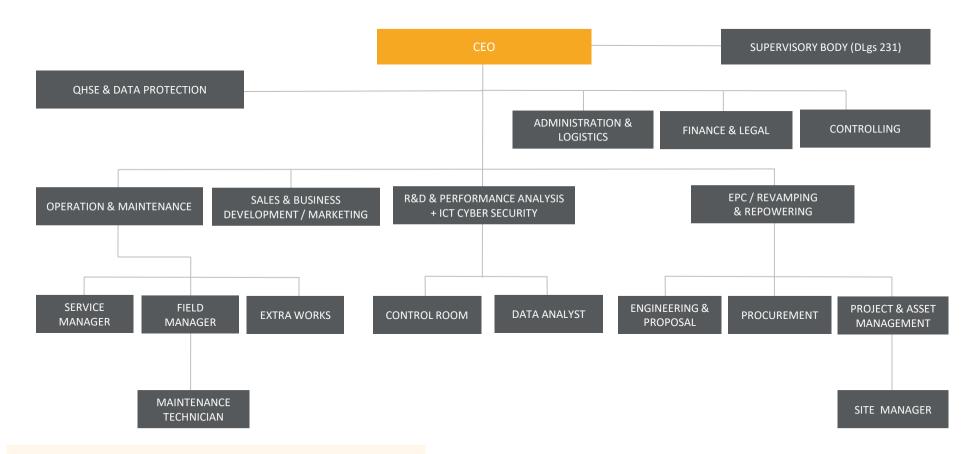
Certified Suppliers

Partnership with certified suppliers and use of top-level international freight forwarders, thus ensuring the best relationship between quality, reliability and costs.

3 Our Vision Company Profile LT | v 04-2023

The Organization

The organizational structure of LT has a staff composed of engineers, specialized technicians and administrative support figures with diversified skills.



Company certifications:



PES/PAV/PEI for works outside and under voltage in LV and MV

Injury Goal 0

The LT Group strongly believes that the **ZERO ACCIDENTS** is an achievable goal. In order to pursue our goal, we have based our security system on the following values:

workers, is responsible for their own safety and that of others.

All injuries are due to something and therefore can be predicted.

There are no activities or processes that cannot be carried out safely.

We never compromise on safety.

We never ignore
an established
dangerous act or
condition but we work
to ensure that that
condition never
occurs again.

Health and Safety

Personal Safety Devices

All of our Maintenance Technicians are equipped with Personal Protective Equipment designed to minimize the electrical risk for LV and MV work and the risk of falling from above for work at height. The equipment includes:



Electrical risk

- → Helmet complete with visor against electric arc 1000Vac, 1500Vdc CELEN 50365
- → Specific workwear:
 - · Antistatic EN 1149
 - · Against electric arc CEI EN 61482
 - · Fireproof EN 11612
 - · High visibility EN 20471
- → Dielectric gloves CEI EN 60903



Risk of falling from above

- → UNI EN 361 safety harness
- → Double fixed lanyards with UNI EN 354 absorber
- → Guided fall arrest devices
 UNLEN 353.1-2



- → Maintenance
 Technicians are
 also equipped
 with the necessary
 instrumentation
 to perform the
 operations in full
 compliance with
 the reference
 CEI standards.
- → Dielectric mat

 IEC 61111,

 Voltage detector including foil

 CEI EN 61243,
 Grounding and short circuit kit
 CEI EN 61230.

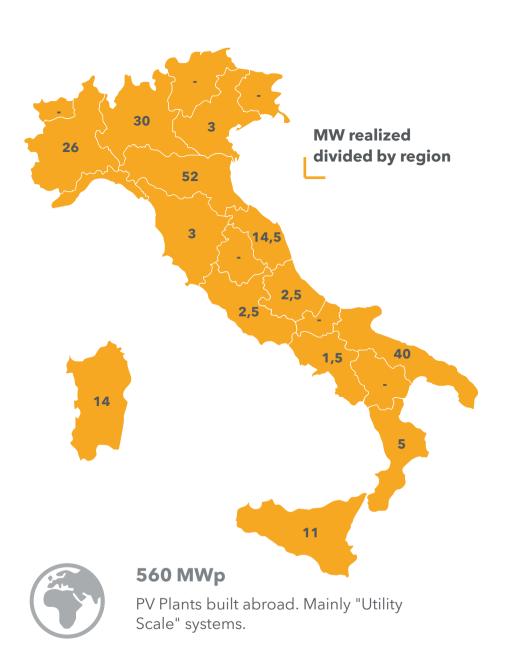
Presence in Italy



The distribution of the local operational units allows a widespread presence of technicians, auditors and field managers on the Italian territory coordinated by the figure of the service manager. Staff support is guaranteed by high digitization, especially in the field of reporting and traceability of each site intervention. The completeness and complementarity of highly specialized professional profiles with long-proven operational experience represents a solid and sustainable resource for the correct and effective execution of the activities, within the timeframe provided for in the contract.

- Headquarters (Rome)
 Operational offices and control rooms (Bologna, Taranto)
- Local operational units
 - Storage rooms (Cambiano (TO), Castel San Pietro (BO), Parma (PR), Piove di Sacco (PD) Ronciglione (VT), Montalto di Castro (VT), Latina (LT), Ruvo di Puglia (BA), Taranto (TA), Lecce (LE), Belpasso (CT), Porto Torres (CA), Oristano (OR))

Realized PV Plants



The company's customer portfolio currently has a total realized power in Italy of approximately **210 MWp** and over **100 MWp** in revamping & repowering activities.

LT is specialized in the construction of any type of photovoltaic system, having a consolidated experience both on ground systems, even with tracker technology, rooftop PV plants, greenhouses and canopies.



90 MWp

Roooftop, Carports and Greenhouses

Average power: 500 kWp



220 MWp

Ground mounted

Average Power: 2 MWp

45 MWp on Trackers

The most important projects include the photovoltaic parks of Porto Torres and Volpiano, respectively of 14 and 18 MWp built for the customer ENI New Energy, 2.7 MWp built on the Max Mara Fashion Group rooftops and the 3 MWp installed on the hypermarkets of Auchan and Leroy Merlin on behalf of Helexia (Voltalia).



To date, the group's customer portfolio has a total management capacity of **about 1 GWp**.

LT is specialized in the maintenance of each typology of photovoltaic systems, having under management both **ground** mounted PV plants, also with tracker technology, as well as rooftop PV plants, greenhouses and canopies.

AREA	Nº PV PLANTS	TOTAL POWER
North (Lombardy, Piemonte, Veneto, Friuli, Emilia Romagna)	256	303 MWp
Centre (Tuscany, Marche, Umbria, Lazio)	265	345 MWp
South (Abruzzo, Molise, Campania, Basilicata, Apulia, Calabria)	256	265 MWp
Sicily	24	36 MWp
Sardinia	31	46 MWp

Main offered EPC services



Authorization process

Management of administrative procedures with ENEL, GSE and ARERA, with particular reference to the connection process with the Network Manager (TICA). LT can support the Client for the authorization part by providing the contacts of trusted external firms.

Design

Through an internal design office equipped with technicians with consolidated experience in the sector, we can produce all the documents necessary for the construction of the system, from preliminary drawings to as built (technical reports, plans, single-line diagrams, producibility calculations using PVGIS software).





Procurement

Procurement and logistics management for the purchase of all components and services necessary for the correct completion of the photovoltaic system within the established times. We use primary suppliers on the international market in order to guarantee the best relationship between quality, reliability and costs.

Main offered EPC services

Construction

Management of all phases of plant construction through a dedicated project manager, from site management to the installation phases of all components and connection of the system to the electricity grid.

We use trusted subcontractors with all the necessary certifications for electromechanical installation operations.





Commissioning and FAC

We carry out all the tests and inspections necessary to verify the correct operation of the installed components, including in particular the commissioning of the inverter and the checks of the voltage and current levels, of the protection devices and grounding, of the insulation of the electrical circuits, switch-on, switch-off and power failure test of the distributor.

In the management of the FAC we directly carry out all the technical tests and the respective reports for the delivery of the system in a workmanlike manner.

Maintenance

Remote monitoring and 7/7 supervision from our control rooms. Scheduled activities, washing, green management and rodent control, component warranties and insurance, including even minor breakdowns / repairs. Measurement and verification activities in the field. Extraordinary activities maintenance related to the management of medium and serious events, force majeure; they also include the development and planning of specialist investigations such as the repowering and revamping of the various plant components.



Services

Main offered O&M services



Hand Over

Due diligence and technical checks through the use of specific instruments for the verification of the PR and the performance of PV modules and inverters; administrative activities; drafting of the final report with identification of improvement specifications.

Monitoring

Remote monitor-ing and supervision 7/7 from our control rooms, through a modular and customized software platform based on customer needs, which allows the control the main parameters of the PV plant.

2





Analytics

In-depth software analysis of the performance through detailed verification of the inverters behaviour and the comparison between electricity production, irradiation and clusters of other PV systems with similar characteristics.

Diagnostics

Thermographic analysis of PV modules, DC and AC switchboards and transformers, also carried out with the aid of a drone.



12 Services

Main offered O&M services



Ordinary maintenance

- → Planned activities, washing, green management and rat extermination, component guarantees and insurance, including small faults/repairs.
- → Measurement and verification activities.

Extraordinary maintenance

Activities related to the management of medium, serious and force majeure events, including the development and planning of specialized investigations such as repowering and revamping activities.





Security

- → Anti-theft and antiintrusion system design; CCTV installation/microwave perimeter system; anti-theft cable installation; camera monitoring; patrols; field guarding (last two up to technical verification in the field)
- → Maintenance and calibration of the components of the burglar alarm and CCTV systems.

Admin Management

Management of administrative practices with GSE, ENEL and public bodies, on behalf of the customer, guaranteeing assistance if specialist support is required (such as for example in the event of legislative updates or inspections/controls).



LT Care: inverter, electronics and electromechanical repairing activities



LT, through the partnership with a company specialized in the repair of electronic components, has implemented its range of services:

Repair of modular and centralized inverters, activity supported by a wide availability of forklift inverters at the owned warehouses

Repair and reconstruction of electronic boards through reverse engineering processes

Repair of electromechanical parts and automation.

The advantages for the Client are:

- Direct and internal management of the activity
- → Optimization of repair times
- → Possibility of regenerative and predictive interventions

LT has the necessary qualifications to carry out work directly on the main brands of inverters on the market, by repairing and/or procuring any spare parts.

IT Services

LT has invested many resources in its team of photovoltaic engineers and technicians, providing and developing proprietary digital tools and software platforms that could maximize their skills and experience, while offering an even more complete and transparent customer service.

The detection, analysis and final balance of the production and performance data of the PV plant The R&D-Specialist diagnosis of the main causes of failure **Performance Analysis** department uses the Application of predictive algorithms in order to anticipate any breakages potential of the monitoring Development of proposals to improve performance in platform compatible collaboration with the service manager with any device present on the PV Monthly production reporting plant, to carry out monitoring Ticket progress status management and analysis activities, including: **Contractual KPI analysis** Management of H&S safety documentation

The **Help Desk**, a department made up of experts with many years of knowledge in the photovoltaic field, provides operational support to technicians through the use of **augmented reality devices**.

The same devices can be made available to the customer or his prevention/protection service, for the organization of Virtual site Visit

The main institutional and industrial clients

































































































Company Profile LT | v 04-2023

Contacts



LT s.r.l.

Headquarters:

Viale Egidio Galbani, 70 - 00156 Rome

Operational offices:

Via del Faggiolo 1/10 - 40132 Bologna Via Cesare Battisti 127/A - 74121 Taranto

commerciale@ltrinnovabili.com