



**An integrated network of  
expertise for the energy  
and digital transition**



## **TERNA ENERGY SOLUTIONS**

We offer technological, sustainable and competitive solutions for the design, implementation and maintenance of complex, sustainable and increasingly digital energy systems.

Through our portfolio of companies and their backgrounds of specific and diverse skills, we are able to respond effectively to the needs of all types of customers.

Together with our companies we are able to offer all-round support covering the entire project lifecycle, including the supply of strategic energy transition components such as cables and electrical transformers.

## **TERNA ENERGY SOLUTIONS IS FOUNDED ON TERNA'S EXPERIENCE**

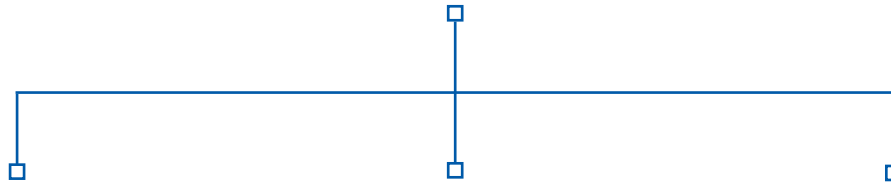
As manager of the national electricity transmission grid, Terna plays a central role in the energy transition and in promoting sustainable and digital development based on innovation.

From this vision derives the mission of Terna Energy Solutions which, through the decades of experience of the Group's companies, presents itself as the partner of excellence in the energy and digital transition of its customers in Italy.



## EXCELLENCE FOR OUR CUSTOMERS

Commercial and operational excellence generated by synergies between Group companies enables us to build a complete and integrated range of products and services to meet the requirements of any type of project in the energy and connectivity fields.



**ALTENIA**  
ENERGY THAT WORKS.

Advanced, tailor-made solutions for every stage of the life cycle of high and medium voltage infrastructures

**TAVINI**  
ENERGY TRANSFORMERS

For over 100 years Italy's leading manufacturer of industrial and power transformers

**BRUGG** **CABLES**  
Well connected.

For over 125 years Swiss tradition and innovation to ensure customers all over the world with customised and quality solutions



## ENERGY SERVICES



High Voltage



Storage



Photovoltaics



Energy  
Efficiency

## MANUFACTURING SERVICES

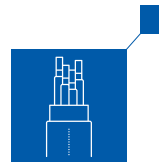


Transformers



Cables

## CONNECTIVITY SERVICES



Connectivity







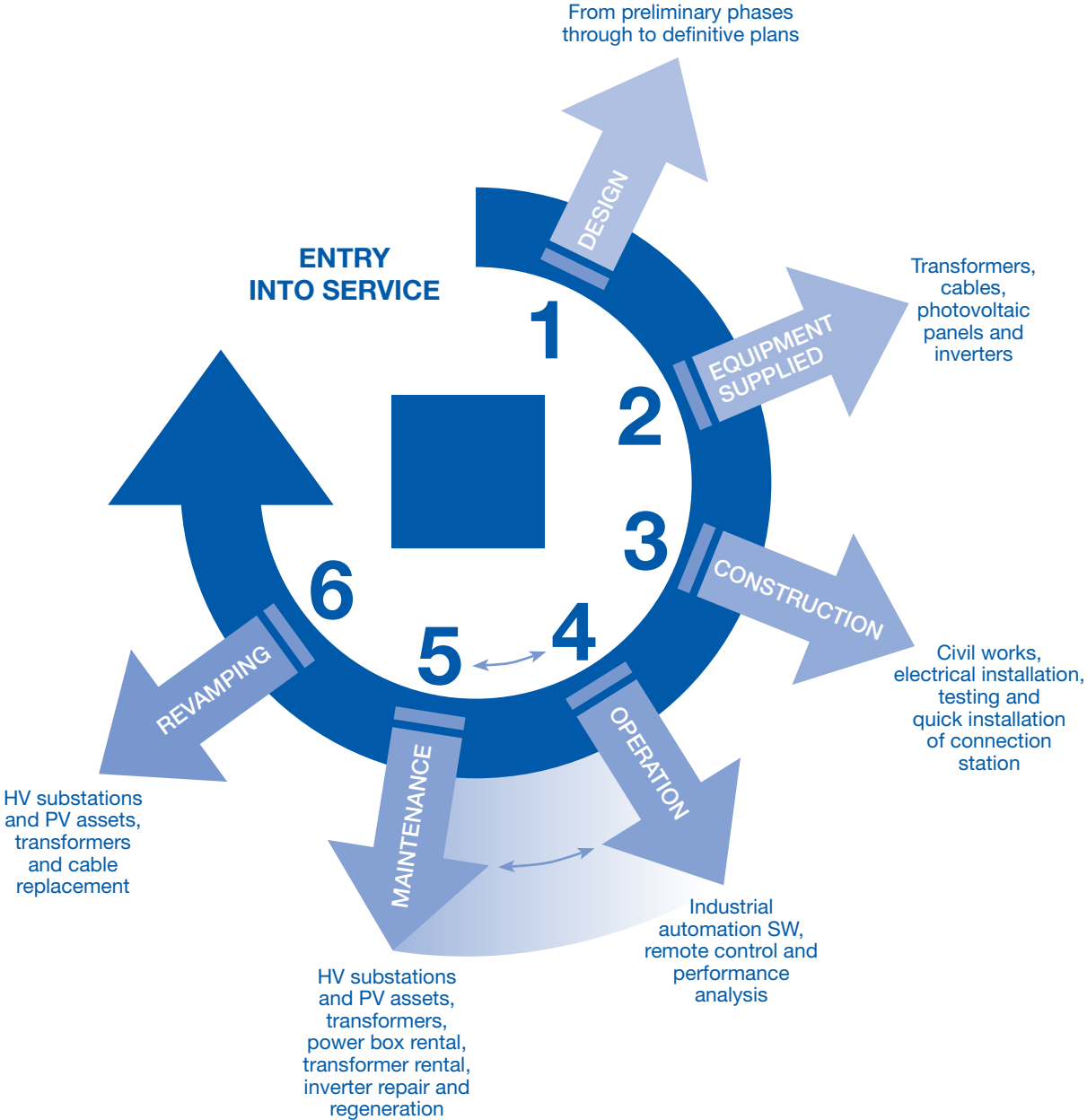


## ENERGY SERVICES



Through Altenia, we guarantee comprehensive support in the construction, operation and maintenance of photovoltaic plants, storage systems and high-voltage substations. Our services, tailor-made to the customer's needs, are based on the Terna Group's high standards of quality and safety.

Thanks to the expertise of the companies controlled by Altenia, **Half Bridge Automation (HBA) and STE Energy**, we are able to respond in a timely manner, contributing to maximum yield of energy assets. HBA offers services and products dedicated to the energy continuity of photovoltaic systems, while STE Energy has specialized know-how in high voltage systems, energy storage, hydroelectric and solar energy.





## HIGH VOLTAGE

We offer services for the construction, maintenance and monitoring of high-voltage infrastructure, providing our expertise throughout the life cycle of the asset, from design to construction and commissioning.

**>250**

high-voltage  
plants realized  
and under  
management

**>1,000**

O&M  
interventions  
per year



## ENERGY EFFICIENCY

We handle energy diagnostics and design and implement tailor-made efficiency solutions optimising production processes and minimising environmental impacts.

**>4 mln tons**

CO<sub>2</sub> equivalent  
emissions  
saved

**>250**

energy  
diagnoses  
and audits  
realized









## PHOTOVOLTAICS

We implement end-to-end engineering, procurement and construction (EPC) solutions and offer operation & maintenance (O&M) services to maximize the availability and performance of our customers' plants. We carry out inverter repairs and remanufacturing activity.

**>1.3  
GWp**

of photovoltaic  
plants under  
management

**>1  
GWp**

of photovoltaic  
plants constructed  
(EPC and  
Revamping)



## STORAGE

We offer EPC services for utility scale storage plants, including the design of plant construction drawings, procurement, logistics and site management, and the performance of tests and trials to ensure the proper functioning of the plant.

**4**

Energy Storage  
Plants built  
and under  
management



## MANUFACTURING SERVICES



Thanks to the industrial excellence of Tamini and Brugg Cables, we provide our customers with a reliable supply of strategic materials and equipment for complex energy projects.













## TRANSFORMERS

For over 100 years we design, manufacture and install transformers for industrial and power applications and we plan for the future through continuous investments to increase our production capacity.

A blue curved line graphic that starts under the "BRUGG" text and curves upwards and to the right towards the "CABLES" text.

**BRUGG**

**CABLES**  
*Well connected.*



## CABLES

We design, manufacture, install, and maintain cables, accessories, and systems solutions for energy suppliers, TSOs and industrial applications.



We design, produce and install transformers for power and industrial applications, designed to meet the specific needs of the customers, that we support throughout the whole product life cycle with personalised after-sales services.

### Our solutions:

- **Transformers for industrial applications:** we manufacture transformers for every industrial application, designed to meet a wide variety of customer needs that require high power or high currents, including transformers and reactors for metallurgy, rectifier transformers and transformers for electricity distribution;
- **Transformers for power applications:** we design power transformers for generation from both conventional and renewable sources, transmission and distribution of electricity, offering customized solutions that respond to continuous technological advances;
- **Technical assistance:** we offer our customers high-quality technical support in every phase of the transformer life cycle, with a dedicated team of specialists and a complete portfolio of after-sales and maintenance services;
- **Rental service:** we engineer used and reconditioned transformers available for customers, applying specific engineering solutions to fit their needs.



**~800**

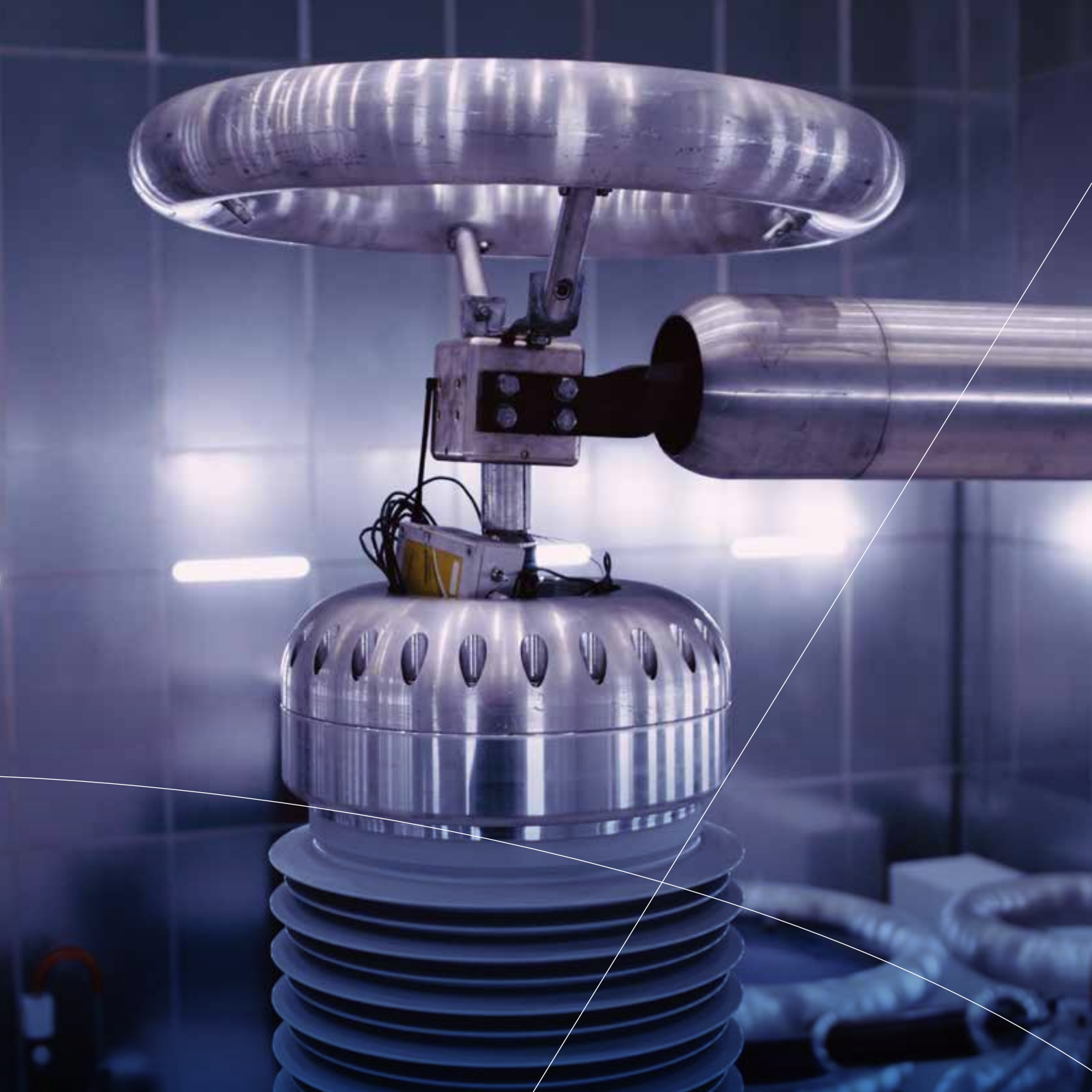
transformers  
built in the  
last 5 years



**63%**

Export Rate  
in the last  
5 years









We design, manufacture, install and maintain cables, accessories and system solutions for energy suppliers, TSOs and industrial applications. From planning to maintenance, we centralize all customers' requirements, ensuring seamless and efficient project execution.

### Our offer:

- **High-Voltage Solutions (up to 550 kV):** we produce state-of-the-art cables and accessories for the highest voltage applications;
- **Medium-Voltage Cables (up to 30 kV):** we develop reliable solutions for energy distribution in medium-voltage ranges;
- **Low-Voltage Cables (up to 1 kV):** we manufacture durable and efficient cables for low-voltage applications;
- **Asset Management & Services:** we assist our customers throughout the project life cycle with advanced monitoring solutions, offering predictive maintenance services to optimize performance and minimize downtime.

>1,000

successful  
projects all  
over the world

around

5,000

accessories  
installed  
worldwide





## CONNECTIVITY SERVICES

Through a proprietary Fibre Optic asset that is extremely widespread and knitted nationwide, together with the availability of transferable space in housing, we provide connectivity services to the market guaranteeing high levels of reliability. With our expertise, we support customers in building customised project solutions.

### Our offer:

#### □ Indefeasible Right of Use (IRU) on optical fibres


We provide our customers with primarily aerial optical fibre infrastructure with higher performance and reliability than the terrestrial one (including O&M services).

#### □ Housing

We provide housing services, consisting in outdoor and indoor spaces equipped to accommodate customers' network transmission devices.

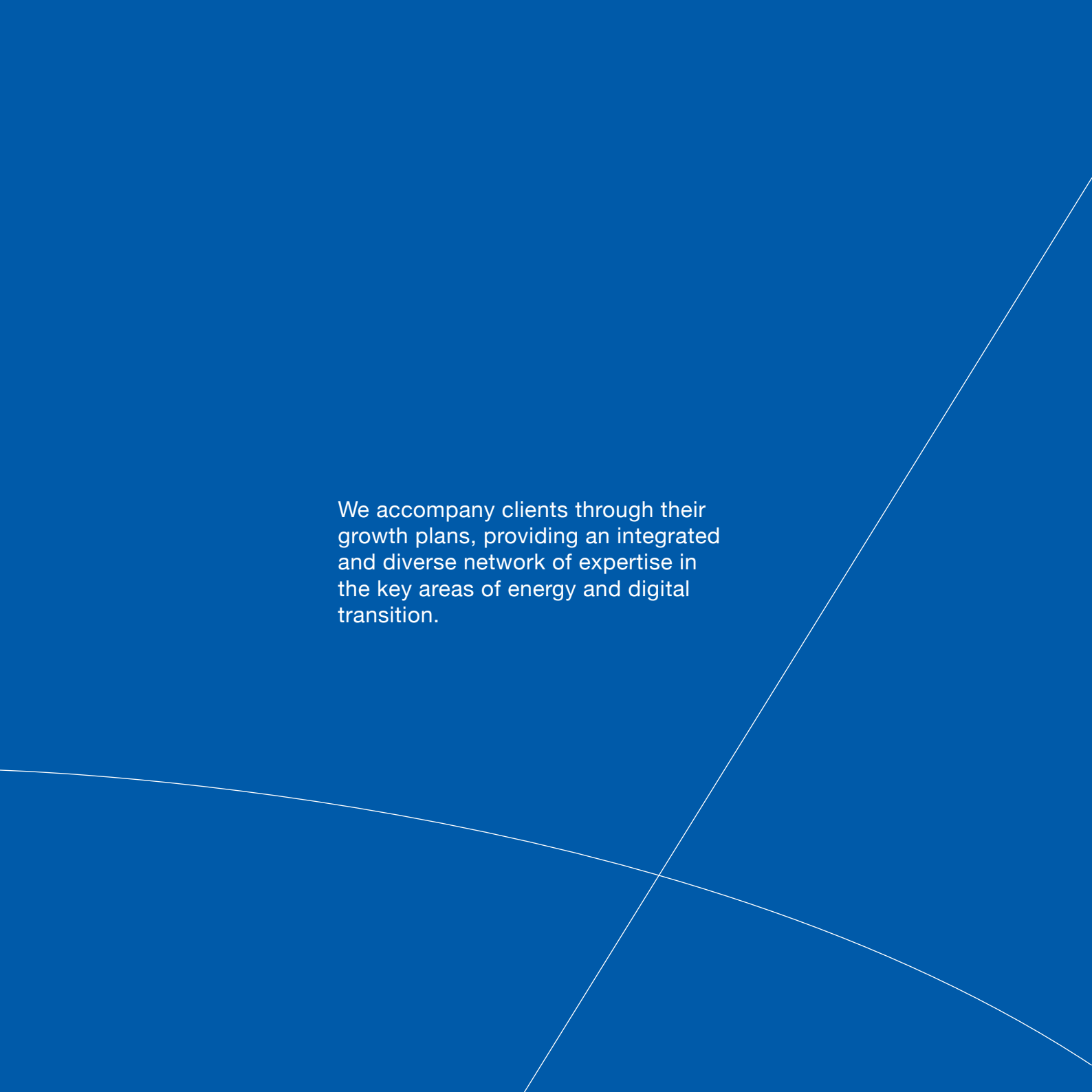


**~200**  
housing sites



**~46,000**  
km  
of dark fibres  
granted in IRU





We accompany clients through their growth plans, providing an integrated and diverse network of expertise in the key areas of energy and digital transition.







## **TERNA ENERGY SOLUTIONS**

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[energysolutions.terna.it/en](http://energysolutions.terna.it/en)