CR TECHNOLOGY
SYSTEMS

CONNECTING THE POWER

COMPANY PROFILE

We work in the **energy sector** from1985, and we are over 70 employees across the Treviglio headquarters, Zanica Production Hub and commercial quarters in Viterbo and Tunisia.

Our company keeps investing in research and development, driven by our **Innovation Engineering Hub**, to provide turn-key and tailor-made products and solutions, for the production, transformation, and distribution of energy. This has allowed us to gain a long experience to enter and to face international markets such as **Europe**, South America, Africa, the Middle East, thanks to our local project management and qualified personnel.

Our values are rooted in our history and driven by our purpose and they can be summed up as follows:

PIONEERING: since 1985 we work in developing countries.
QUALITY: we offer highly efficient and reliable products.
INNOVATION: we design and adopt advanced technologies.
ENGINEERING KNOW-HOW: our Innovation Engineering Hub is fully dedicated to R&D and the development of projects in the field of renewable energies.
SUSTAINABILITY: we have adopted 4 of the 17 SDGs in line with our #GreenAttitude.

OUR NUMBERS

- 400 INSTALLED E-HOUSES
- 220 LOCATIONS
- +1300 PROJECTS
- 4 GW PV CONNECTED
- 4.5 GW BESS CONNECTED

OUR PURPOSE

Facilitating access to green energy through technologically advanced projects. This is the driving force behind our company and the guiding star that shows us the direction to follow.

OUR MISSION

Supporting our clients in the choice of renewable and technologically advanced solutions.
This is our DNA's essence that daily drives and determines the company actions and decisions; the reference map guides the company's choices and path.

40
Years of activity

+400 plug-in eHouses installed

30
Nations

4GW PV + 4.5 GW BESS connected

RENEWABLE ENERGY PLANTS

We develop projects mainly for photovoltaic plants, designing equipment for the manufacture and installation of the primary substation and its connection to the electricity transmission grid. Our projects have involved different types of photovoltaic systems: ground PV plants, rooftop, floating, photovoltaic greenhouses and agriphotovoltaic.

C.R. Technology Systems' Team has the skills and motivation to develop new projects for renewable energy plants, including hydropower, bioenergy, and wind farms.

Plant operation is supported by commercial software recognized internationally, designed for the measurement, supervision, and control of the main data, such as drives, temperature, humidity sensors, and general alarms.

BATTERY ENERGY STORAGE SYSTEM (BESS)

BESS systems (Battery Energy Storage Systems) guarantee a storage process with the aim of having continuous availability, day and night time, also in critical situations: emergency, plant failures, and maintenance. These systems represent an important step forward to the energy autonomy from fossil sources. BESSs are also fundamental in situations when renewable energy plants are able to produce beyond the request at a specific moment of input, thus giving the possibility and the advantage of not loosing overproduction in the network or avoiding disabling circuits in production, but ensuring that the overproduced energy is stored in the BESS ITE and then fed into the grid when necessary (during dark hours or days with lack of sun/wind).

C.R. Technology Systems promotes plug-in solutions for the battery control and distribution of energy produced by BESS. This solution consists of the "turnkey" supply of a prefabricated metal eHouse which includes all the equipment necessary to be able to interconnect the BESS field to national networks.

PLUG-IN SOLUTIONS

STC-BOX EHOUSE

C.R. Technology Systems compact solutions are turn-key projects, completely developed, manufactured and assembled at the factory prior to delivery, that supplies electricity to wherever it is required. Thanks to these features, they reduce overall lead time by up to 50%, compared with conventional site-built construction.

The eHouse is a plug-in modular structure that can be set up according to the customer's needs. It can be used as substation delivery point, in the case of a decentralized HV/MV substation, or implemented as a conversion unit, where the centralized inverters are installed inside the box.

STC-KIOSK TRANSFORMATION CABIN

The Kiosk solution is a prefabricated plug-in compact substation, equipped with power distribution components:

- Medium voltage switchgear - up to 40.5 kV
- Dry-type transformer - up to 5000kVA
- Low voltage switchboard
- Automation system for the control and supervision
- Inverter, bus duct, auxiliary equipment

SMART EQUIPMENT

SCADA SYSTEM

Automation is a necessary and essential solution that ensures greater control over the data collected by monitoring platforms, enabling rapid and efficient processing for different and more targeted intervention operations.

One of the major components of an automation system is SCADA (Supervisory, Control And Data Acquisition) software, which allows monitoring and supervision of plants, through remote control. Furthermore, it reduces the plant's footprint and saves up to 80% of copper wiring with digitalization, minimizing the need for on–site visits.

SENSORS

PR.E.SE. (PRedictive Electrical SEnsors) enable constant wireless monitoring of the temperature in electrical equipment, based on RFID (Radio Frequency Identification) technology in UHF band. C.R. Technology Systems has developed this solution in collaboration with Radio6ense, an innovative start-up of the University of Rome.

They help prevent and anticipate the trend of overheating of electrical equipment (critical temperature >120°C) and support predictive maintenance of the electrical insulation, whose aging is particularly influenced by the increase in temperature. The sensors allow improving the performance of the system and extend its life cycle.

OPTIONAL FEATURES:

- ☑ FIRE DETECTION SYSTEMS
- ☑ INTRUDER ALARM SYSTEM
- ☑ ANTI-RODENT PROTECTION

MEDIUM VOLTAGE ELECTRICAL SWITCHGEARS

SF$_6$-FREE

NORMAL CLAD SWITCHGEAR

It is an AIS switchgear, fitted with metallic segregated compartments and withdrawable main components (circuit breaker, voltage transformers, protection relays). It is designed for primary distribution grids and can be supplied either in standard configuration, or as an Internal Arc-Classfied IAC AFLR version. It may include the following features:

- Withdrawable breakers and voltage transformers
- Protection and control relay, with customized digital counters
- Standard or digital synoptic
- Digital option to reduce wiring in order to maximize performance
- SCADA system integration

NORMAL CLAD SPECIAL APPLICATION

- IP 65 NORMAL CLAD

Suitable for mining applications, it offers enhanced protection against water and dust infiltration.

- DOUBLE BUSBARS NORMAL CLAD

It allows continuity of service and is suitable for large substations and heavy industrial applications.

- NORMAL CLAD 40.5kV

Suitable for elevating substations and for steelwork. It is a low-maintenance solution designed to cope with high mechanical and electrical stresses.

- DUPLEX NORMAL CLAD

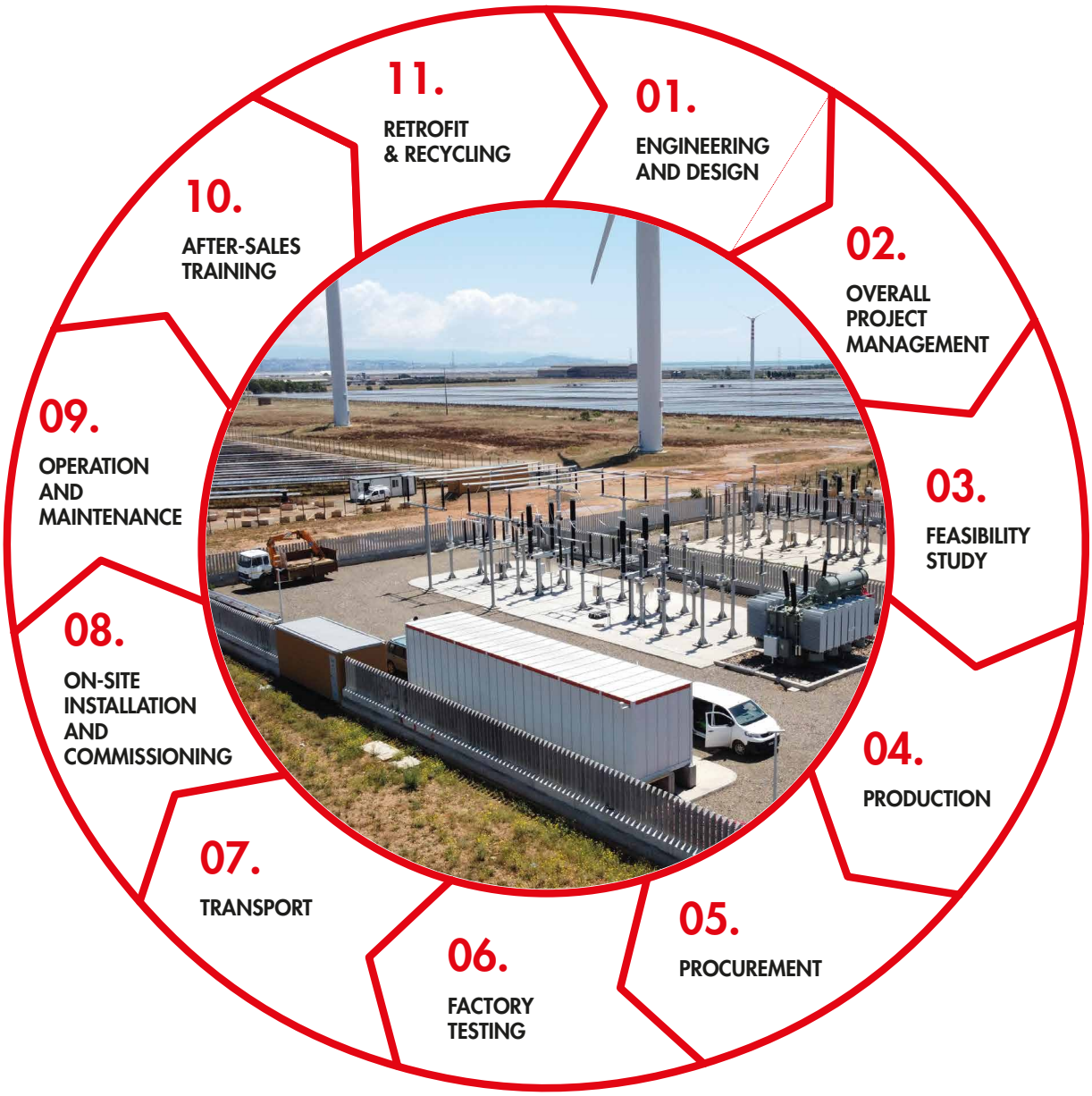
This solution is technically ideal in applications where spaces are limited, such as on off-shore platforms and/or naval applications.

ATR SWITCHGEAR

It is air-insulated, metal enclosed medium-voltage switchgear, mainly used for secondary distribution power systems. However, it is also used in special configurations for primary distribution power systems, thanks to the high rating it reaches.
It is designed and standardized for indoor installations. Switch panels can be fitted either with SF6 gas-insulated load-break switch, or with an air-insulated disconnector. **ATR up to 40.5kV soon available.**

CUSTOMIZED TURN-KEY PROJECTS

We oversee the entire project lifecycle — from concept to completion. With one dedicated point of contact responsible for coordination, clients benefit from streamlined communication, reduced costs, and maximized efficiency



NOTES

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