



COMPANY PROFILE V.3.2

COMPANY INFORMATION: AT A GLANCE

**45**  
EMPLOYEES

**5+MLN**  
IN REVENUE

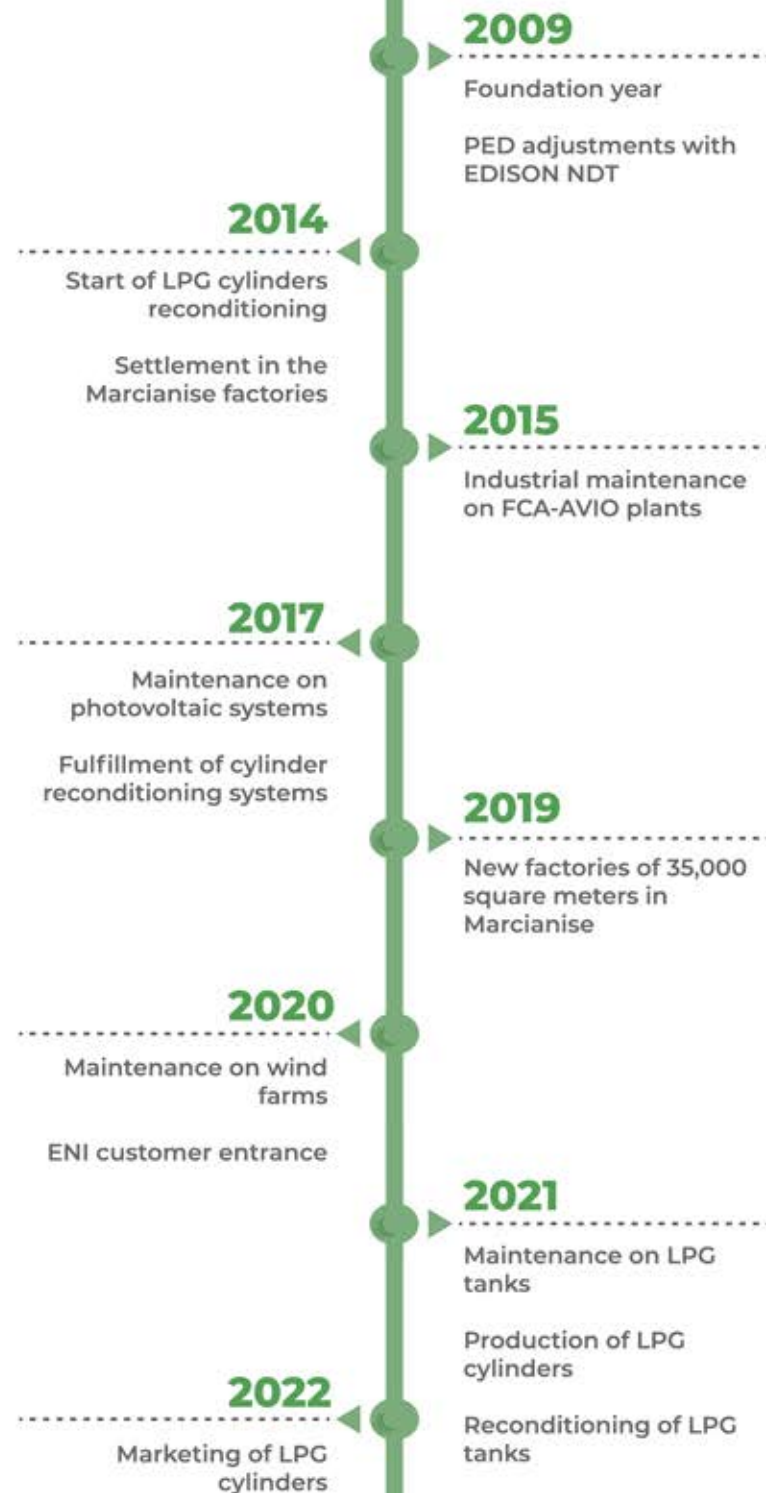
**35K**  
SQUARE METERS  
OF STRUCTURE

**70+**  
NATIONAL AND  
INTERNATIONAL CUSTOMERS



## Mission

Support the major Energy Service Companies through the energy transition, providing strategic services and components.

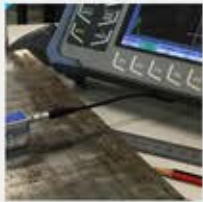


## INDUSTRIAL DIVISION



### SAFETY VALVES CALIBRATION

The calibration of the safety valves can be performed both with the shutdown and disassembly of the SV, through the certified Bench Test and on site with the system operating, using the PreVenTest hydraulic jack.



### NON-DESTRUCTIVE TESTING (NDT)

Ultrasound (US)  
Visual Testing (VT)  
Video Inspection (VI)  
Liquid Penetrate Inspection (LPI)  
Magnetoscopy  
Metallographic replica  
Radiography  
Thermography  
Guided Waves (GW)  
Acoustic emission  
Induced Currents  
Calculation of the residual life



### MAINTENANCE OF INDUSTRIAL PLANTS

The maintenance of the plants, both ordinary and extraordinary, has the purpose of keeping the performance of the plants constant over time in order to achieve:

- The basic conditions required such as temperatures, pressures, humidity, air purity, etc.;
- The basic performances required such as air flow rates for treatment units, pumping units flow rates, etc.;
- The maximum efficiency of the equipment such as boiler efficiency, COP of refrigeration units, efficiency of recuperators, efficiency of regulations, etc.

**Ordinary Maintenance** provides for periodic checks as well as monitoring of the systems in order to ensure their operation and efficiency

**Extraordinary Maintenance** includes all repairs, replacements and renovations of components or parts of the system not normally covered by periodic checks.

The implementation of a preventive intervention strategy and a program of checks and inspections allows you to maximize the life of the components by limiting and slowing down the wear effects.



### MAINTENANCE OF PHOTOVOLTAIC SYSTEMS

**Ordinary maintenance** of the photovoltaic system includes all the activities of visual inspection of the components of the photovoltaic system and verification of production through tests. Services include:

- Check and tighten the bolts for anchoring the modules to the structure;
- Check integrity of the glass of the solar modules;
- Control of cables and junction boxes;
- Functional tests of the protection switches;
- Cleaning of equipment and panels;
- Verification of system production according to instant irradiation.

**Extraordinary maintenance** of photovoltaic panels includes replacement of the main components of the system. The inverter, the electrical heart of a photovoltaic system, is the component most subject to extraordinary maintenance. Even the modernization and modification of the system are considered extraordinary maintenance, for example:

- Increase in power of the photovoltaic system;
- Addition of storage batteries;
- Relocation of the photovoltaic modules.



### SUPPLY AND INSTALLATION OF PHOTOVOLTAIC SUPPORT

The design, production and installation of metal carpentry and support structures for fixing the photovoltaic panels is carried out.



## WORKS MANAGEMENT AND SAFETY COORDINATION

Design plays a fundamental role in the maintenance and modification phases of a process, as it accurately describes the physical sequence (i.e. the interconnections) of equipment and systems. It is used in the design phase to develop process control schemes, and allows the subsequent investigation phase for operational and safety purposes.

In the design phase, the role of Safety Coordinator during design (SCD) provides for the drafting of a Safety and Coordination Plan (SCP), an Emergency Plan (EP) and a Technical File of the Work with the related inspections, updates, revisions and addenda specific costs for the construction site to be managed.

During the execution phase, as Supervisor of works/Safety Coordinator in Execution Phase (SCE), inspections and weekly coordination meetings are carried out, scheduled according to the various construction phases and according to the established time schedule.



## CHECKS ON LIFTING EQUIPMENT

The quarterly, annual and ten-year checks on lifting equipment are carried out to guarantee the integrity of the lifting equipment and the residual life over time. They are aimed at assessing the actual state of conservation and efficiency.

The periodic checks of lifting equipment established by paragraph 8 of art. 71 include:

- A first check after the appliance has been installed and before it is put into operation;
- A check after each assembly on a new site or in a new plant;
- Periodic checks on lifting equipment subject to wear, with a frequency established by the manufacturers or by good practice standards.



## INDUSTRIAL PLANTS CERTIFICATION

The CE marking of a pressure system or equipment is governed by the **PED Directive** ("Pressure Equipment Directive") 2014/68 / EU, which regulates the making available on the Community market of equipment and sets under pressure that meet certain essential requirements of safety and health; it is implemented in Italy with Legislative Decree No. 26 of 02/15/2016 in force since 07/19/2016, replacing the previous Directive 97/23 / EC.



## LPG ENERGY DIVISION

### RECONDITIONING OF CYLINDERS

STIGC GPL ENERGY srl offers the reconditioning and testing service of LPG cylinders (defined by the lpg cylinders standard) through an industrialized process with a capacity of about 2,000 cylinders per day, followed by the Certification phase. These cylinders according to the current standard (TPED) are subject to ten-year check and, therefore, to a series of checks and tests in accordance with Directive 2010/35 / EU TPED, in addition to the ex DM 18.06.2015 and DM 12.09.1995 and in compliance with 1.8.7.5 ADR. Moreover, LPG cylinders are subject to a series of checks and tests in accordance with UNI EN 1440

#### Main Activities:

- 01 Storage of the raw material to be processed;
- 02 Reclamation and cleaning of cylinders;
- 03 Certified hydraulic test, VT and UT exam;
- 04 Sandblasting both in line with biconical roller sandblaster, and offline with cluster sandblaster;
- 05 Maintenance of parts deformed over time and replacement, if necessary, of the collar or of the cylinder foot ring;
- 06 Powder coating and static oven polymerization;
- 07 Replacement of taps;
- 08 Weighing of the cylinder with disk affixing Testing according to ADR standard ;
- 09 Certification with a first level organization (CERTIFICATION EX DM 18/06/15 OR 2010/35 / UE (T-PED));
- 10 Issue of Reports and Certificates;
- 11 Storage of processed bins for delivery.

### LPG CYLINDER PRODUCTION

The plant is used for the **construction and certification of LPG** cylinders in **four formats (10 - 15 - 20 - 25 kg)**.

The cylinder production cycle is divided into two phases: the first phase concerns the processing of the raw material and the assembly of the produced components; the second phase (relating to the hydraulic test, visual testing, sandblasting, painting and installation of the valve) is carried out through the cylinder reconditioning system already installed.

The cylinders are **analyzed and tested through conformity checks** (dimensional, tolerance and thickness checks), radiographic investigations (examination of the longitudinal and circumferential welds and of the valve boss), burst tests (control on volumetric expansion, examination of the fracture and verification of leaks ), macroscopic examination (examination of the welds of the accessories and of the valve boss), fatigue tests (verification of leaks and integrity) and mechanical tests (bending and traction).



## RECONDITIONING OF LPG TANKS

The two macro-areas that characterize the LPG tanks are:

- Above ground LPG tanks;
- Underground LPG tanks;

which can be both with horizontal axis and vertical axis.

### Main activities:

- Storage of the raw material to be processed;
- Remediation / degassing;
- Certified hydraulic test, VT and US;
- Welding;
- Sandblasting;
- Powder coating;
- Equipment assembly;
- Leak test;
- Certification with Notified Body;
- Storage of semi-finished and finished products for delivery.

The choice of powder paint process (instead of liquid paint process) is driven by many factors, including the lower impact on the environment (lack of solvents) and the achievement of a better product with a high yield over time.



## MAINTENANCE ACTIVITIES ON LPG TANKS

Maintenance activity on LPG tanks consists of

- Calibration of safety valves on a certified bench and subsequent release of the certification by INAIL;
- Replacement of safety valves on the LPG tank at the user site;
- Thickness gauge checks on installed and above ground LPG tanks: a certificate will be issued with the measured values and a periodic verification report pursuant to Legislative Decree 81/2008 art. 71 paragraph 11 and Annex VII;
- Extraordinary maintenance;
- Replacement, reduction groups, level indicators, elimination of gas leaks on tanks and supply lines, etc.;
- Installation and dismantling of both above ground and underground LPG tanks;
- SCIA drafting for reporting the installation of LPG tank;
- Renewal of SCIA;
- Upgrading of LPG tanks / Decennial with issuance of INAIL exemption.

## MAINTENANCE OF WIND POWER PLANTS

The maintenance of wind power plants is necessary to preserve the components and equipment, both electrical and mechanical, from breakages and malfunctions in order to maximize energy production and ensure the planned economic return on the investment.

- Tower base maintenance;
- Inspection of blades;
- Maintenance in the basket;
- Road and pitch maintenance;
- Instrumental activities and testing;
- Cleaning of gears and moving parts and turbine blades with attached oiling;
- Maintenance of the wind turbine;
- Check electrical connections;
- Check the state of mechanical tightening, mechanical parts and sensors;
- Check oil and pressure levels inside the generators;
- Check the braking system;
- Engine lubrication;
- Procurement and storage of strategic spare parts.

The blades and rotor of a wind power plant are constantly subjected to a continuous effort which, in the long term, can prove compromising for the operation of the plant and contribute to wear out those components that prove to be more delicate.





## Our Customers





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The Company is certified ISO UNI EN 9001, ISO UNI EN 14001, ISO UNI EN 45001 and adopts the Corporate Organizational model 231/2001 in addition to the Privacy model according to GDPR 679/2016.

The Company is authorized to issue certifications of letters A, C, D, E, G of the Italian Ministerial Decree 37 of 22/01/2008