

COVER

Feeling the energy

13

Years of energy saving for industry

Aimed at preserving and enhancing primary energy on the basis of doing business focused on:

■
SHARED
VALUES

■
RESPECT OF THE
ENVIRONMENT

■
TRANSPARENCY
AND CORRECTNESS

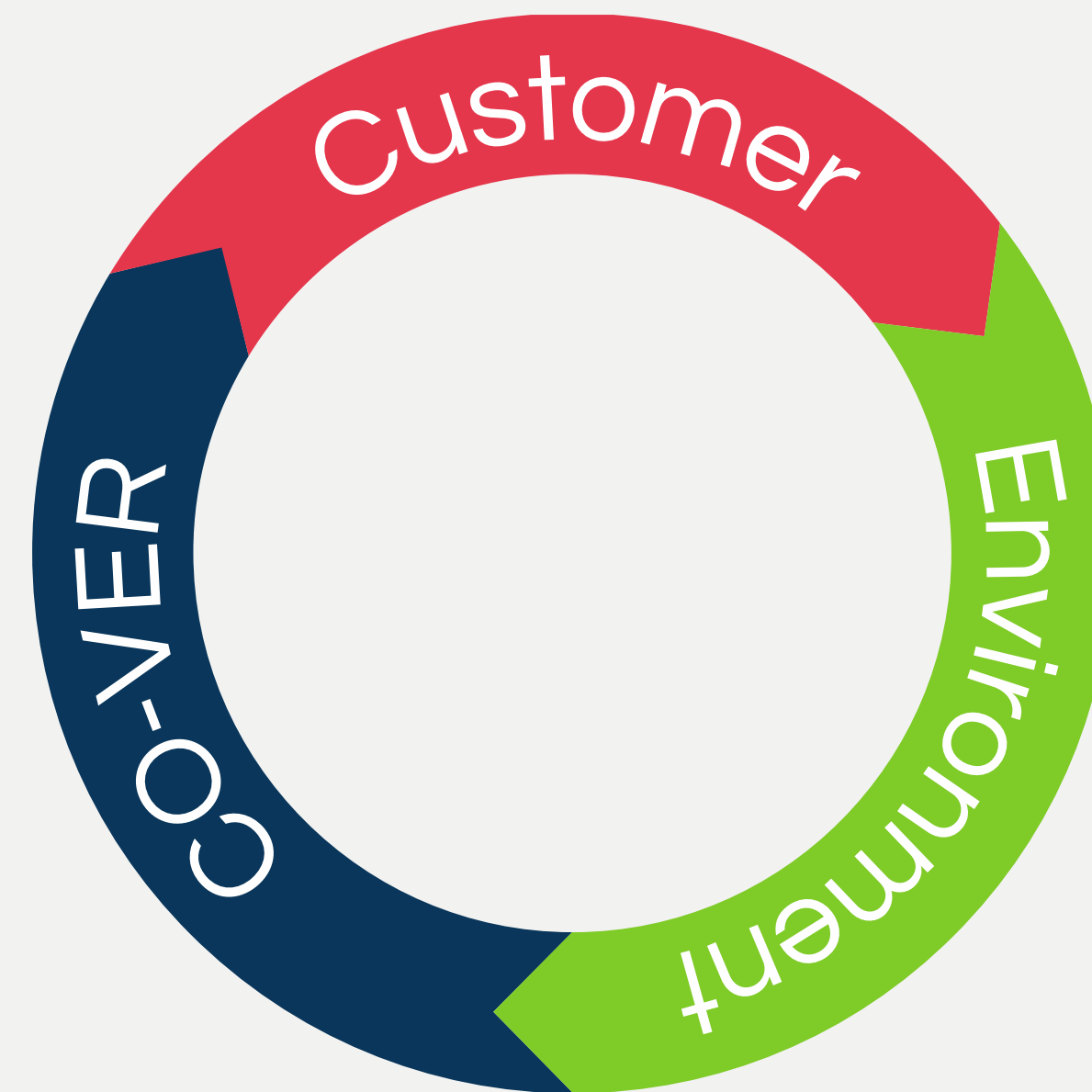
Working closely with our Clients
in order to face the real challenge for the future side by side:
to improve the world and quality of life with an
ethical, sustainable and ground-breaking
approach to energy management.

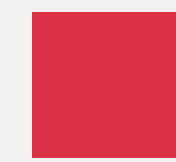


Investing time, know-how and resources to address

ENERGY EFFICIENCY

Through clear, simple and shared ideas, because we believe in their value and because our business achievements are built on the success of all three players involved:





Feeling the energy

Means listening, grasping, feeling and developing

every source of energy

to the best of our ability whether industrial or civilian or
the energy that joins people who are working towards
a common goal.

2006

CO-VER Engineering is established

Developer and constructor

2006

CO-VER Power Technology is established

ESCo under the CO-VER Group

2015

**CO-VER Engineering
CO-VER Power Technology**

unite to become an independent group

2019

CO-VER Power Technology

becomes Società per Azioni (S.p.A.)



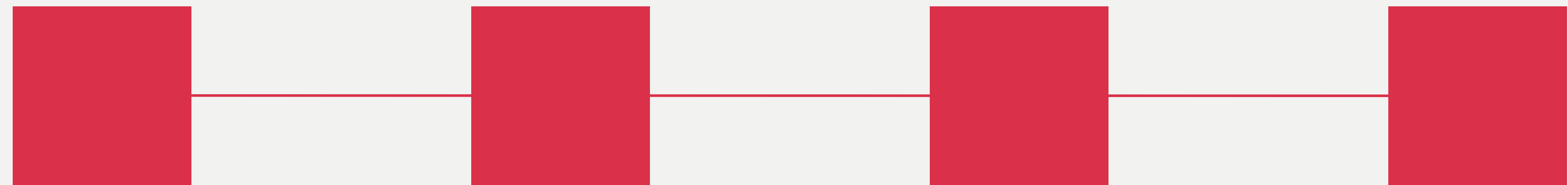
today

Developer

Constructor

Investor

Service provider



CO-VER independently supports businesses during each phase of energy management:



Engineering and consulting



Plan construction in **ESCo** mode



Running and maintenance of assets (owned or third-party)

We deal with



Cogeneration and Tri-generation



Renewable sources



Industrial and civil thermotechnics

Industrial and civil thermotechnics for energy-consuming customers operating in the industrial sector (rubber, paper, glass, plastics, pharmaceuticals) and in the tertiary sector.

Our

STRENGTH

lies in the ability

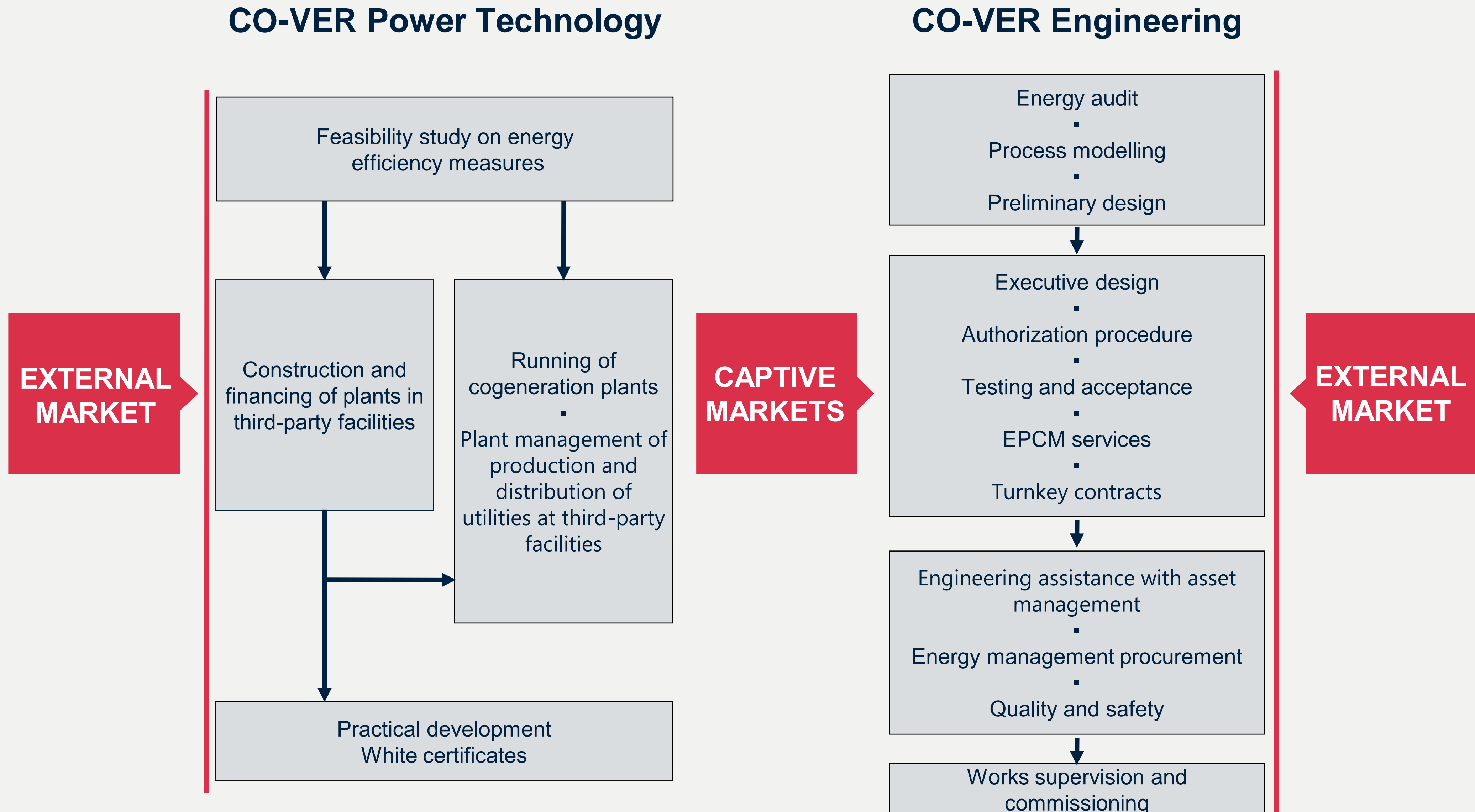
to run plants both from an operational and financial

point of view having the know-how

to go from stage to stage starting at planning level, on to a construction

level whilst maintaining and increasing our expertise from year to year

through vision, diligence, method and focus.

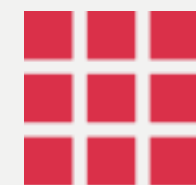


COVER

Services provided



Third-party
financing



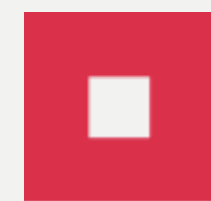
Plant design and
construction



EPCM and
owner
Engineering
(OE)



Operation and
Maintenance
(O&M)



Energy
Management



Third-party financing (ESCo mode)

CO-VER finances and implements assets for improving energy efficiency in clients' businesses.

15

Implementing and management of high-performance cogeneration and trigeneration plants (CAR)

Plants for the production of energy from renewable sources

Facilities for production and distribution of utilities (chilled water, compressed air, cooling water, hot/superheated water, steam, diathermic oil)

16

Third-party financing
(ESCo mode)

Agreements
Short and long-term
energy distribution
agreements

Operating
leasing

Energy
Performance
Contract
(EPC)

17

Third-party financing
(ESCo mode)

1	Presentation
2	Energy audits
3	Feasibility study
4	Contract
5	Saving sharing

18

Third-party financing
(ESCo mode)

**Sole
interlocutor**

A project to which CO-VER is committed and invests in:
our compensation is strictly tied to results obtained, namely
the end results of the project and its correct management.

The guarantee that both
CO-VER and its Client
reciprocally benefit from the advantages
and results brought by the project

A simple, concise and
clear offer.

19

Third-party financing
(ESCo mode)

NOVARA



Trigeneration plant

ASCOLI PICENO



Cogeneration plant

SESSA AURUNCA



Trigeneration plant

20

Third-party financing
(ESCo mode)

ASSET



CHARACTERISTICS

- 2 gas engines Jenbacher JMS 620 GS
3.180 kW electric capacity/each
- 1 gas engine Jenbacher JMS 616
2.682 kW electric capacity
- Production of 4,3 t/h of steam
recovery at 12 bar
- Production and distribution
3.000 thermal kW
of hot water at 90° C
intended for the plant's HVAC systems
- Free Cooling system for production
of cooling water,
with a capacity of 1.200 kW

CLIENT

MEMC Electronic Materials

LOCATION

Novara

21

Third-party financing
(ESCo mode)

ASSET

**CHARACTERISTICS**

- 1 reciprocating gas engine 999 kW
electric capacity
- Recovery boiler
1 t/h of steam at 20 bar
- Hot water ring
1.000 thermal kW

CLIENT

Manuli Hydraulics

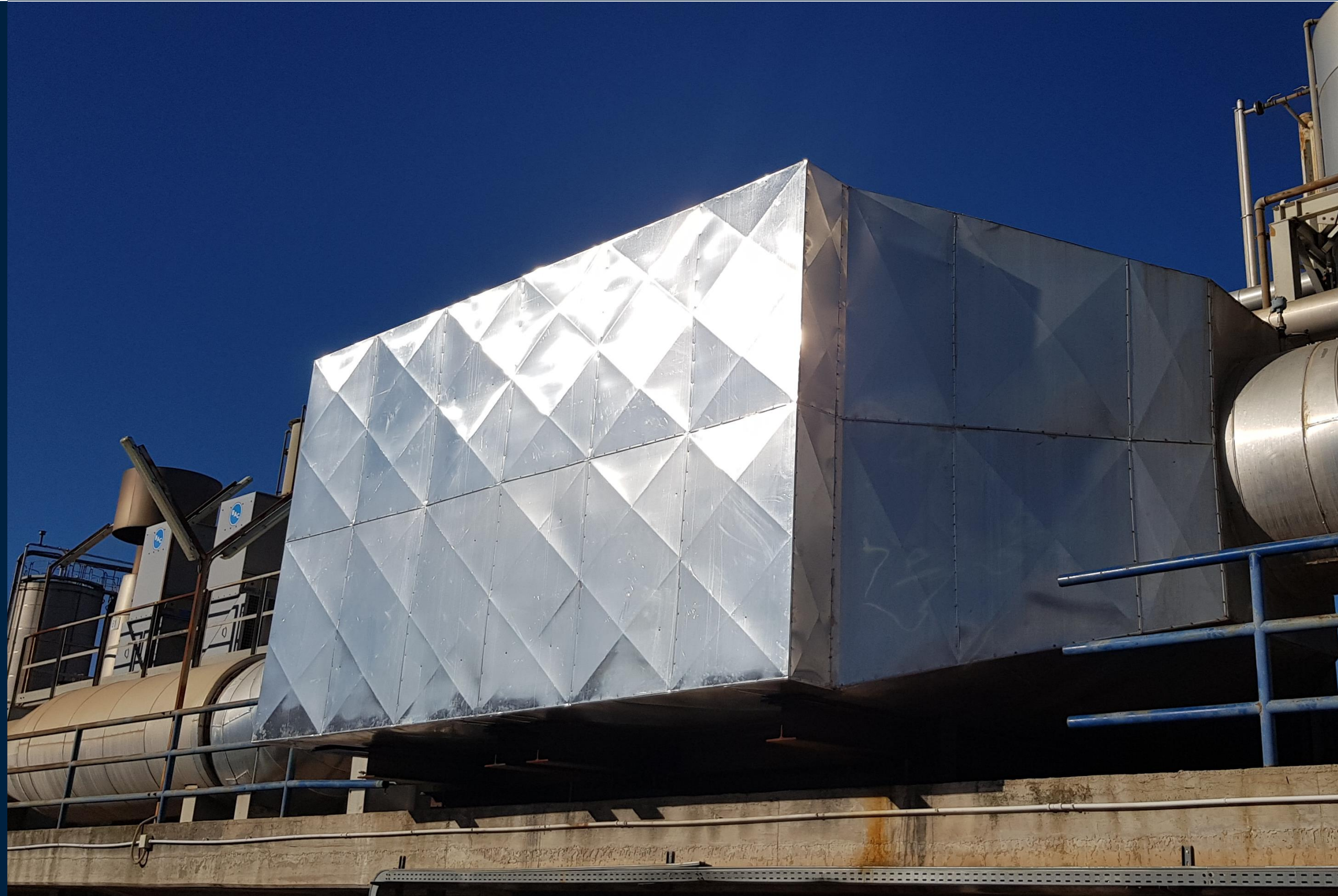
LOCATION

Ascoli Piceno

22

Third-party financing
(ESCo mode)

ASSET



CHARACTERISTICS

■
2 gas engines
7,2 MW/each

Repowering in progress by installing
a new gas engine 1,494 kW/h;
New free cooling system;
Absorption chiller machine and
compressor chiller machine
2000 kW/each.

■
Production of the following
energy sources:
Electric energy
Hot water
Chilled water
Diathermic oil.

CLIENT	Manucor
LOCATION	Sessa Aurunca (CE)



23

Third-party financing
(ESCo mode)

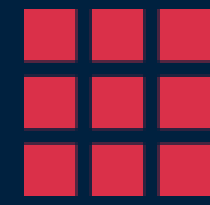
TEP Energy Solution (Loreto - AN)

Long-term rental of 1 MWe motor-generator powered by natural gas in service at a natural gas cogeneration plant

EUROGRAVURE (Treviglio - BG)

Long term contract for rental of a 315 kW compressor with variable revs and dryer

RENTAL
SERVICES



Designing and building of energy plants

CO-VER boasts over 10 years of experience in process, mechanical, electrical tools and automation engineering as well as turn-key plant construction

25

Plant to produce electricity powered by conventional and renewable sources
(Thermoelectric, biomass, etc.)

Congeneration, trigeneration and district heating plants

Civil and Industrial plants
(air conditioning, thermal power plants, fire prevention system, utilities, production and distribution)

1

Basic and detailed design

2

Purchasing and tendering

3

Construction supervision

4

Commissioning and testing

5

Training and after-sales services



27

Designing and building of
energy plants

CASE HISTORIES



CLIENT

Volta

LOCATION

Greve in Chianti (FI)

CHARACTERISTICS

“Turn-key” contract for the design, supply, installation and commissioning of the Balance of Plant of a “peak” thermoelectric plant in Combined Cycle configuration, at the Sacci cement factory.

Nominal Power

58 MW of electricity.

Electrical efficiency 52,9%.

Turbogas

GE LM6000 (46 MW_e).

Steam turbine

GE Thermodyn (12 MW_e).



28

Designing and building of
energy plants

CASE HISTORIES

BIOMASSE CROTONE
(Crotone)

Turn-key contract for the design, supply, installation and commissioning of the Balance of Plant (mechanical, electrical, instrumental, automation) inherent in the revamping of the biomass plant (nominal power 27 MW_e).

SEM
(Morbegno - SO)

Turn-key contract for the construction of a cogeneration and district heating plant with 15 MW of electricity and about 30 MW of thermal energy. PHASE I and PHASE II.

PRINOVIS
(Liverpool - UK)

Turn-key contract for a new rotogravure facility for:

- Construction of a medium voltage (11 kV) and low voltage electrical system (sub-station, power centre, MCC) and electro-instrumental plant.
- Construction of a trigeneration plant with two 11 MW gas powered turbines (utilities distribution: steam, chilled water, hot water, compressed air, vacuum).
- Construction of air conditioning, electrical lighting system and FM.



EPCM and Owner Engineering (OE)

CO-VER offers its expertise as a consultant for the construction of cogeneration and trigeneration plants, to produce energy from renewable sources and for industrial and civil thermo-technical projects.

Owner**Engineering**

for any type of energy
production plant
(renewable and
conventional)

EPCM

Engineering,
Procurement and
Construction
Management

Assistance

in supervising assembly,
testing, plant start-ups
and commissioning of
control room (DCS)

31

EPCM and
Owner Engineering
(OE)

Years of experience thanks
to building 'turn-key' plants

Construction of complex plants without having
to hire and pay for a main contractor

The client remains in control throughout the whole process
of the realization of its own asset: design, choice of
equipment, purchasing, installation, commissioning and
final testing

Reduced lead **time**, **more
flexibility**, lower
investment costs

32

EPCM e
Owner Engineering
(OE)

CASE HISTORIES

**CLIENT**

Biomasse Crotone

LOCATION

Crotone

CHARACTERISTICS

EPCM contract for the revamping of the biomass plant.

■
Rated power
27 MW electric.

■
Combustion system based on grate
technology, 2 steam generators.

■
Total production 111,2 t/h of steam
at 92 bar_a and 523°C.

■
1 steam turbine,
gross electrical output 31 MWe.

■
1 water condenser (pressure 0.085 bar_a)

■
Performance 8.000 hours/year.

33

EPCM e

Owner Engineering
(OE)

CASE HISTORIES



CHARACTERISTICS

Utilities generation and distribution centre.

- Basic and executive design for new utilities production and distribution systems serving the production process.

- Supervision of assembly, commissioning including hardware supply and development concept for the new control room (DCS).

CLIENT

Trelleborg Wheel Systems Americas Inc.

LOCATION

Spartanburg, SC (U.S.A.)

34

EPCM e
Owner Engineering
(OE)

CASE HISTORIES

TEP Energy Solution
(Aprilia - LT)

Design, engineering coordination, project management support, site supervision and commissioning for optimizing chilled water production and distribution at a pharmaceutical plant.

Nda
(Ghana)

Basic and detailed design, technical management of the project and commissioning of the control system (EPCM), including supervision of dismantling in Italy for relocation in Central Africa of 2 combined cycle plants for a total of about 100 MWe.

MANUCOR
(Sessa Aurunca - CE)

Revamping of trigeneration plant and relative thermal energy circuit of about 15,7 MW using 5 natural gas motor-generators including a diathermic oil production and distribution system.

A2L ENERGY
(Omegna - VB)

Natural gas cogeneration plant of approx. 3,7 MW using turbogas, including assistance with the drawing up of authorization procedures.



Operation and Maintenance (O&M)

CO-VER proposes medium/long-term supervision contracts for the running, management and maintenance of thermoelectric, cogeneration/trigeneration plants and industrial plants.

Management or supervision of the running of cogeneration/trigeneration plants and utilities production and distribution systems

Ordinary, mechanical and electrical-instrumental maintenance of industrial cogeneration/trigeneration plants

Maintenance of high-voltage electric substations (including periodic checks) as well as medium-voltage substations. Construction supervision, reviewing of documentation, assistance with testing.

37

Operation and
Maintenance
(O&M)

Maintenance based on the expertise CO-VER has acquired in its own facilities.

Experience in preventive and corrective maintenance of machinery (eg. Motor-generators, compressors etc)

Highly qualified personnel and specialized equipment owned by CO-VER

38

Operation and
Maintenance
(O&M)

CASE HISTORIES

**CLIENT**

Eurogravure

LOCATION

Treviglio (BG)

CHARACTERISTICS

Running and maintenance of
trigeneration plant
and plant building.

■
Long-term management (5 years) of a
trigeneration plant and utilities
generation/distribution systems.

■
Electro-instrumental maintenance, air
conditioning systems, solvent recovery
system, minor plant engineering.

■
Installed power approx. 11 Mwe
(2 gas turbines of approx.
5,5 MWe/each).

■
Rated steam recovery production
approx. 13 t/h.

■
Nominal chilled water production approx.
6,5 MW.

39

Operation and
Maintenance
(O&M)

CASE HISTORIES



CHARACTERISTICS

Management supervision contract,
multi-year – 12 years.

■
Support services for
running the
cogeneration plant
installed at a paper mill.

■
3,7 MWe gas turbine.

■
Recovery steam generator
with post combustion natural gas system,
maximum production 23 t/h of saturated
steam at 12 bar.

CLIENT

A2L Energy

LOCATION

Crusinallo (VB)

40

Operation and
Maintenance
(O&M)

CASE HISTORIES

**MEMC ELECTRONIC
MATERIALS**
(Novara)Maintenance and instrumental analyses
of MT/BT substations**WPB WATER PUMP
BEARING GMBH & CO. KG**
(Momo - NO)Maintenance and instrumental analyses
of MT/BT substations**TRELLEBORG WHEEL
SYSTEMS AMERICAS, INC.**
(Spartanburg - USA)Long-term contract for support in running
the thermal power station and utilities
in the new plant in the USA**PRINOVIS**
(Liverpool - UK)Supervision services in running
the trigeneration plant



Energy management

CO-VER, in its capacity as an ESCo, offers a complete service starting from modelling processes, to the identification of the energy efficiency measures, to the feasibility studies, as well as the paperwork required for obtaining Energy Efficiency Certificates (TEE).

42

Energy
management

Energy audits, measuring
and monitoring
campaigns to identify
measures aimed at
reducing energy
consumption

Preparation of the
documents required for
obtaining the TEE

Finding calls for
tender and funding
within the scope of
energy efficiency and
support in applying for
the assignment of
subsidies

▣ Various stages of the project

43

Energy
management

1

Energy audit

2

Processing the idea

3

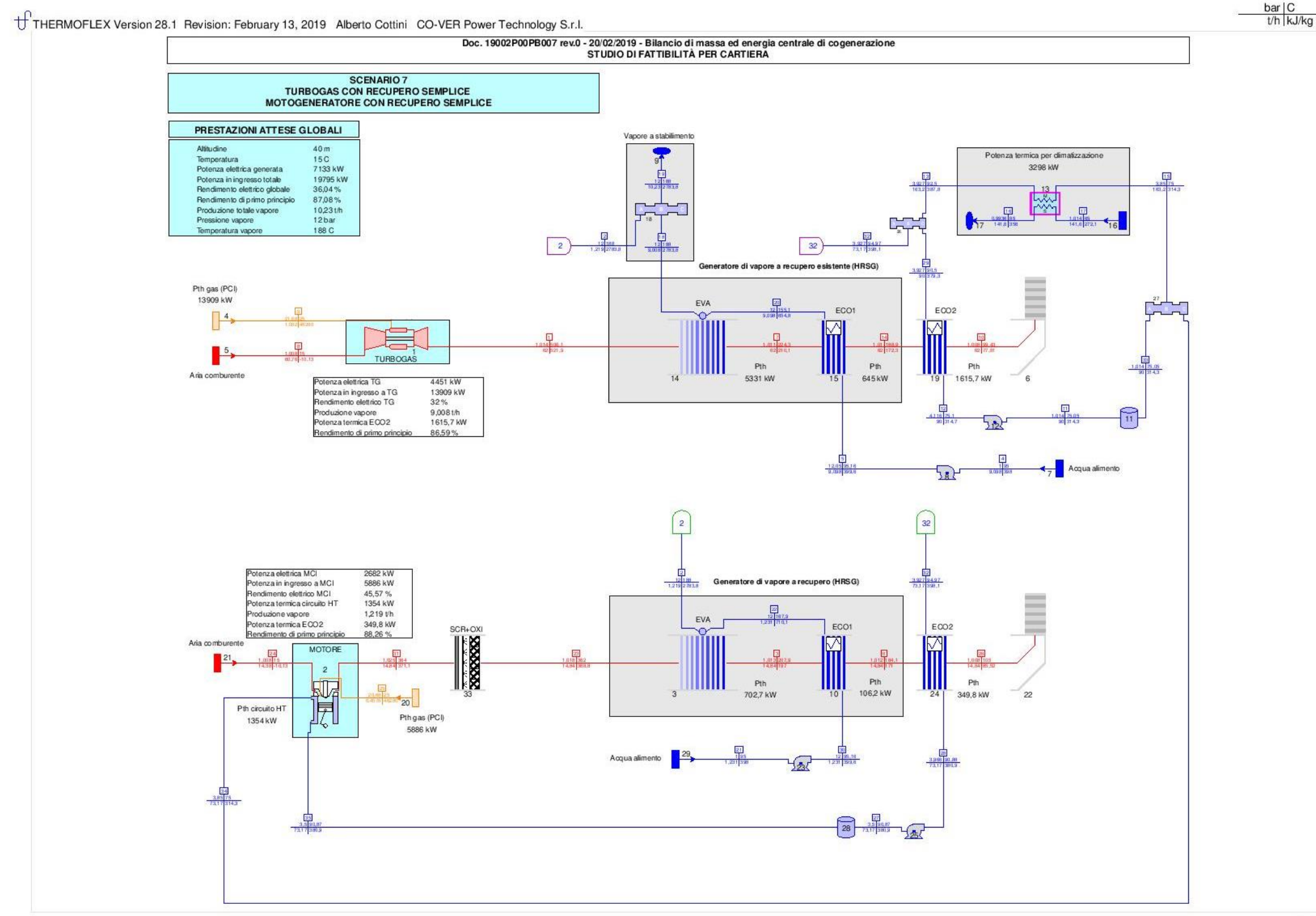
Defining the necessary measures based on technical-economic feasibility studies

4

Drafting of application for subsidies (call to tender, funding)

5

Preparation of the documentation necessary for obtaining the TEE



CHARACTERISTICS

Drawing up of mass energy balances for the feasibility study concerning the revamping of a cogeneration plant with natural gas turbine with capacity around 4,5 MWe and motor-generator of about 2,7 MWe serving a paper mill.

Creation of a business plant template with comparative solutions based on various types of turbogas.

CLIENT

TEP Energy Solution

LOCATION

Lucca

CO-VER Power Technology S.p.A.

REGISTERED OFFICE

Via Paolo da Cannobio, 33

20122 Milano - Italy

OPERATIONAL HEADQUARTERS

Via 42 Martiri , 165

28924 Verbania - Italy

CO-VER Engineering S.r.l.

Via 42 Martiri - 165

28924 Verbania - Italy

Tel. +39 0323 585594

info@co-ver.it

www.co-ver.it



We take care of our customer's "energy island".