SIMECO
ENGINEERS & CONTRACTORS

STATEMENT OF QUALIFICATIONS

(MAY 2021)

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STATEMENT OF QUALIFICATIONS

i. Core Business

SIMECO is an engineering and contracting firm established in 1984, having their headquarters at Via Romilli, 22 - Milano, Italy.

Other SIMECO operating offices are SIMECO Systems d.o.o. (Gradacacka 29B, 71000 Sarajevo -Bosnia i Herzegovina) and SIMECO GCC Regional Office (Suite 32, Petrodar Tower, Seed District, Kingdom of Bahrain).

SIMECO provide multidiscipline engineering and project management services for Oil & Gas plants (On-shore/Off-shore, Upstream, Downstream/Refining), Pipelines, Petrochemical & Chemical plants, Power plants).

The engineering services provided by SIMECO include:

- Feasibility Studies and Cost Estimates
- Conceptual Design
- Basic Engineering Design
- Front End Engineering and Design (FEED)
- Project Management
- Project Management Consultancy
- Owner's Engineering Services
- Risk Analysis and HSE Reports
- Detail Engineering
- Procurement Services
- Expediting and Inspections
- Construction Management & Site Supervision
- Commissioning
- Assistance to Plant Start-up and Operation
- Operative Maintenance

SIMECO present workforce is approx. 300,000 manhours/year (175 engineers and technicians operating on a full-time equivalent basis). Sub-contracting agreements with qualified engineering firms account for additional 100,000 manhours/year managed by SIMECO for a total capacity of approx. 400,000 manhours/year.

SIMECO present workforce in the specific area of Process Technologies is approx. 50,000 engineering manhours/year performed through a staff of more than 30 engineers and consultants.

SIMECO provides specific expertise, know-how and solutions in brownfield projects. For instance, SIMECO has frame agreements with Eni Spa to provide process engineering service – with the main focus on feasibility studies, process optimization studies, technical assessment, preparation of extended Basic Design Package (BEDP) and cost estimates, … -

to all Eni group plants in Italy and worldwide. Most of the projects deal with troubleshooting and debottlenecking of existing process units, energy savings, and identification of technical solutions for operational improvements (see following par. ii.).

Frame Agreements for process engineering services and project management services are presently in force with Eni (all Italian refineries and petrochemical complex), SARLUX (Sarroch Refinery), MATRICA (Porto Torres, renewable bioplastics plant), RAM (Milazzo Refinery), LUKOIL (ISAB, Priolo Refinery), Italgas Storage (Underground Gas Storage of Cornegliano Laudense).

SIMECO has recently carried out several feasibility studies and basic/FEED for projects dealing with energy transition topics such as: production of green and blue hydrogen, CO2 capture and usage, production of second-generation biofuels, energy storage systems (see following par. vi) as well as in the conventional power sector (see following viii).

In the midstream sector, Simeco is presently involved with SAIPEM in the engineering design of world-scale LNG plants such as Bonny LNG (Train 7) and Mozambique LNG (see following par. vi). Frame agreements for engineering services, including operative maintenance, have been in force with URS (now AECOM) for Adriatic LNG (a JV between Exxon Mobil, Qatar Gas and Edison) for the offshore LNG Regasification Terminal in the Northern Adriatic Sea (Italy) (see following par. vii) and with Trans Mediterranean Pipeline Company (TMPC) for the Transmed Pipeline between Cape Bon (Tunisia) and Mazara del Vallo (Italy) (see following v).

Further to be a provider of engineering services, SIMECO is a Main Contractor for EPC projects boasting extensive experience in revamping and debottlenecking of refinery units (see following par. x). Services provided covers up to construction management and supervision, commissioning and assistance to plant start-up and operation (see following par. xi).

SIMECO's affiliate company **Streamline Engineering Srl** specializes in pipeline design (see following par. vii).

SIMECO has a solid partnership with **JFWyatt Consulting,** former PARPINELLI TECNON[1].

JFWYATT Services Ltd. is a company established in UK (1 Picton Road, Swansea) by JFWyatt Consulting and SIMECO, specializing for Refinery Market Analyses, Economic - Financial Analyses and Feasibility Studies, Basic Design Packages & FEED, Engineering & Procurement Services and Construction Management Services.

[1] Parpinelli TECNON became active as a marketing and technical consulting company to the oil, gas, processing, refining, petrochemical & polymer industries in 1958. During 2011, the data and information business was acquired by Reed Business Information (ICIS). Consulting Services of Parpinelli TECNON continued as JF Wyatt Consulting (JFWC).

ii. Recent references on Refining (Engineering Services)

Please find here below a list of selected recent reference relevant to pre-feasibility/feasibility studies, process studies, basic engineering design, FEED and detail design of refinery units.

Client: RAM (Raffineria di Milazzo)

- Basic Design for revamping of desalter T4, including new mud washing system, 2020
- FEED for New PSA Unit for Hydrogen Recovery, 2018 – 2019.

  The Scope of Work includes Licensor Selection, preparation of FEED and Bid Book for EPC for the installation of a new PSA unit for recovery of Hydrogen from a stream of Refinery Fuel Gas.

- FEED for FODS Project Site Preparation, 2017 – 2018

  The Scope of Work includes the preparation of FEED for site preparation works (including flare relocation, tanks dismantling, design and construction of a new electrical substation, …) for the FODS Project. FODS is large investment project, consisting in the installation a new Solvent Deasphalting Unit, n.1 Asphalt Gasification Unit and n.1 Air Separation Unit, with the purpose to convert the Fuel Oil produced at the refinery into hydrogen and distillates.

- Project Management Consultancy Services for FODS Project, 2016-2019

  The scope of the PMC services is to provide consultancy to RaM for project management and process design related to FODS (Fuel Oil Destruction) Project. The FODS Project include the installation of n.1 new Solvent Deasphalting Unit, n.1 Asphalt Gasification Unit, n.1 Air Separation Unit, as well as the revamping of the existing utilities and offsites systems (i.e. blow down, tank farm, electrical substation, …).

- Feasibility Study and Basic Design Package for a New Flare, 2016

  The scope of the project was the identification of a suitable location for the installation of a new refinery flare to replace the existing one and to develop the relevant Basic Design.

- Basic Design Package for a new 10,000 BPSD Naphtha Hydrotreating Unit (HDT-3), 2015

  The scope of the Basic Design Package is a new naphtha hydrotreating unit named HDT-3. HDT-3 will produce 450,000 tons per year of hydrotreated Naphtha containing

less than 0.5 ppmw of sulphur and 24,000 tons per year of olefin saturated LPG with target specification Pro Isomerization.
The plant will include an existing refurbished hydrotreating reactor, new feed pumps, heat exchangers in the preheating trains, fired heater, tree-phase separators, reboiled stripper distillation tower, associated utilities, LPG and off-gas amine gas treating packages, recycle / make-up gas compressor package and control systems.

- Front End Engineering Design for the Revamping (from 2400 to 4000 t/day) of the existing Kerosene Hydrodesulphurization Unit (HDS-1), 2013.

Client: SARLUX, Sarroch Refinery, Italy

- Feasibility Study for Used Cooking Oil (UCO) and Palm Mill Oil Effluent (POME) pre-treatment plant, 2021-in progress.
- Detail design and construction management services for replacement of n.4 reactors at Continuos Catalytic Reforming (CCR) Unit, 2018-2020.
- Detail design for Alkylation Unit revamping, 2018-2019.
- Detail design and construction management services for FCC revamping (4^{th} stage cyclon separator and new catalyst discharge system, 2018-2020.
- FEED, detail design and construction management services for revamping of crude pipelines from marine jetty to storage tanks, 2018-2020.
- FEED, detail design and construction management services for the New Vapour Recovery Unit (VRU), 2017-2020.
- Feasibility Study, Basic Design and Detail Design for Replacement of Air-Preheaters at Power Generation Plant (CTE), 2017-2018.
- Basic Design for Upgrading of Mercaptan Removal from Fuel Gas at Visbreaking Plant, 2017.
- Basic Design Package & FEED, New H2S Scrubber for Continuous Catalytic Reforming, 2016.
- Assessment of the whole refinery Blow Down Network, 2015-2017.
- Basic Design Package, FEED and Detail Design for various energy recovery projects, 2013 – 2017:
    - Energy integration between Mild Hydrocracking Unit (MHC) and Gasoline Etherification Unit (TAME)

- Energy integration between Mild Hydrocracking Unit (MHC) and New Sea Water Desalination Plant (DAM)
- Energy efficiency improvement (replacement of Medium Pressure Steam with Low Pressure Steam) at Topping Unit (RT-2) and Sour Water Stripping Unit (SWS-3).

- FEED and Detail Design of the new oxygen line (6" x 600 m) to the FCC unit for Oxygen Enrichment System, 2014.

- Feasibility Study for a new scrubber for FCC flue gas desulphurization, 2014.

- Detail Design for the new Lean/Rich Amine transfer lines to Versalis petrochemical site, 2014.

Client: ORLEN Group

- Technical Advisory Services during Licensor Selection for new TAEE (tert-amyl-ethyl-ether) Plant at PKN ORLEN, Plock Refinery (Poland), 2020-in progress.

- Technical Advisory Services during Licensor Selection for new Methanol Plant at ORLEN Poludnie, Jedlicze (Poland), 2020.

- Feasibility Study for new plant for metal recovery from spent catalysts at ORLEN Poludnie, Jedlicze (Poland), 2020.

- Technical Advisory Services during Licensor selection for the new HVO (Hydrotreated Vegetable Oil) Plant at PKN ORLEN, Plock Refinery (Poland), 2018-2019.

  The Scope of Work includes the execution of technical advisory services aimed at Licensor Selection for a new Hydrotreated Vegetable Oil production Unit. Hydrotreated Vegetable Oil is a high-cetane renewable blendstock for refinery diesel pool.

- Feasibility Study for a new 100,000 MTPY TAEE Unit at PKN Orlen, Plock Refinery, 2018.

  The Scope of Work includes Licensor Selection and preparation of Feasibility Study for a new unit to produce 100,000 MTPY of tert-amyl-ethyl ether (TAEE). TAEE is a high-octane renewable blendstock for refinery gasoline pool.

Client: Pacific Future Energy Co., Canada

- Pre-Feasibility Study for a 200,000 BPSD Greenfield Refinery, British Columbia, 2014.

Pacific Future Energy is committed to build and operate the world's greenest refinery on British Columbia's north coast. PFEC believes it's in Canada's national strategic interest to gain access to international markets for Alberta's oil, especially the growing Asian market; the company believes it should not be done at the sacrifice of BC's coast or broader environment and must be done in full partnership with First Nations.
The facility will process bitumen from Alberta's oil sands into refinery fuels such as gasoline, kerosene, diesel and other distillates.
The Study addressed the implementation of the first train/module of the Refinery, processing 200,000 BPSD of Raw Bitumen.
The $ 10 Billion Refinery will be built in modules, with each phase having a process capacity of 200,000 BPSD. The Refinery has the potential to increase the capacity to 1 MBPSD, if needed.

The main project bases/constraints driving the overall configuration of the refinery were:

- Greenest Refinery Ever: the complex will produce exclusively white products, i.e. no fuel oil nor coke will be produced. Effluents will be minimized through extensive water reuse and flue gas treatments.
- Target Market: the fast growing Far East countries (China, South Korea, ….) are the target market for the new Refinery.
- Near Zero Net Greenhouse Gas Emissions: CO_2 capture was foreseen to reduce greenhouse gas emissions and to comply with the most demanding BC's environmental requirements.
- No Diluted bitumen shipping: as the coast of British Columbia is one of the Canadian most vulnerable areas to marine oil spills any shipment of Dilbit will be avoided.

Client: United Petrochem, UAE

- Pre-Feasibility Study for a New Condensate Refinery, 2014.

The refinery feedstock is 100,000 BPSD of Sour Condensate containing high concentration of very highly odorous sulphur compounds (S content 2,500 ppmwt.), mainly mercaptans.
Condensate must be treated for removing sulphur compounds up to a maximum S content of 500 ppmwt.
The refinery scheme includes the following units:

- Condensate Hydrotreating
- Condensate Splitter
- H_2S Removal Unit
- Amine Regeneration Unit
- Sulphur Recovery Unit & Tail Gas Treatment

- Hydrogen production

Client: SAIPEM

- Detail Design activities for Mozambique LNG Project (Mozambique), 2020-in progress.
- Detail Design activities for Bonny Island Train 7 LNG Project (Nigeria), 2020-in progress.
- FEED for n.2 process units (Diesel Hydrotreating + RFCC Gasoline Hydrotreatment) + Basic Design of Tank Farm and other offsites unit (Albertine Graben Refinery Project, Uganda), 2019-2020.
- Detail Design activities for Thai Oil Refinery Project (Thailandia), 2019-2020
- FEED activities for the New Residue Hydrocracking Unit (LC Finer), Alberta, Canada, 2013- 2014. (Final client: North West Redwater Partnership).
- Technology Advisory Services for the 350,000 BPSD heavy oil grass root refinery, 2013-2014. (Final client: Petrobicentenario S.A, JV between Eni Spa and PdVSA)

  Petrobicentenario is a grass root refinery desgine to convert 8°API Extra Heavy Crude Oil EHO (Zuata type), produced in the Orinoco Oil Belt, into light products such as LPG, Naphtha and Euro 5 Diesel.
  Refinery configuration was selected to maximize production of ultra low sulphur diesel, compliant with European grade EN 590 diesel specification. No residual fuel is produced. Delayed Coking technology is used to maximize conversion of vacuum residue.

- Detail Engineering and Design of EST (Eni Slurry Technology) Plant at Eni's Sannazzaro Refinery (23,000 BPSD residue hydrocracker based on Eni's proprietary technology), 2009-2012.

Client: Dynergy (Final Client: Al-Mashael Markmore, Bahrain

- Feasibility Study for Sohar Bitumen Refinery, Sohar (Oman), 2010
  The refinery is designed to convert 30,000 BPSD of Extra-Heavy/Heavy Crude Oil into bitumens of different grades.

Client: Eni Angola, Sonaref Luanda Refinery, Angola

- Detail Design of New HP Fuel Gas Pipeline from Refinery to Power Station, 2020
- Assessment of the existing LP Fuel Gas Network, 2020

- Basic Design for Water Recovery and Reuse Project, 2020
- Basic Design for VDU off-gas recovery, 2019
- Feasibility Study for Fired Heaters Combustion Improvement and Optimization, 2019
- Feasibiity Study for revamping of Waste Water Treatment Plant, 2019-in progress
- Feasibility Study for Debottlenecking of UN-150 Topping Unit, 2018
- Feasibility Study for Debottlenecking of Refinery Cooling Water Supply, 2018

Client: Eni Refining & Marketing Division, Livorno Refinery, Italy

- Root Cause Analysis of corrosion problems on topping overhead circuit, 2020
- Process Study for optimization of emissions of topping fired heater, 2019
- Front End Engineering Design for the revamping of the existing jetty LPG, gasoline, gasoil, and bitumen loading/unloading and transfer facilities, 2013
- Basic and Detail Design for Revamping of existing Furfural Plant to produce Treated Distillate Aromatic Extract (TDAE), 2014.
- Front End Engineering Design for the revamping of the Waste Water Treatment Plant, 2013 -2014
- Feasibility Study and FEED for TDAE (Treated Distillate Aromatic Extract) Plant, 2012-2013
- Feasibility Study for Implementation of Bitumen Production, 2011
- Study for VOC (Volatile Organic Compounds) recovery from Bitumen Plant, 2011
- Energy Saving Analysis of the Motor Fuel Plant, 2011
- Feasibility Study for Flare Gas Recovery, 2011
- Assessment of the combustion efficiency of the refinery flare, 2011

Client: Eni Refining & Marketing Division, Sannazzaro Refinery, Italy

- Basic Design for installation of a new Fog Cooling System on the overhead condenser of the C3 Splitter, 2021
- Feasibility Study for a new CO_2 removal plant (300 MTPD), 2020.
- Basic Design for new water inejction system to prevent ammonium salt corrosion in gasoline hydrotreating unit, 2019.
- Hydraulic Study of the Cooling Water Network for debottlenecking, 2014
- Front End & Detail Engineering Design of the new Hydrogen Plant based on Eni's proprietary SCR-CPO technology, 2012-2014
- Front End and Detail Engineering Design of the new Waste Water Treatment System for Water Reuse, 2011- 2013
- Feasibility Studies for the removal of SOx from the FCC regenerator flue gas, 2012-2013
- Process study for Energy Saving by optimization of the FCC unit feed preheating, 2012
- Feasibity Study for the replacement of existing Hot Oil System furnace, 2012
- Process Study for the optimization of the existing Condensate Recovery System, 2011
- Assessment of the Combustion Efficiency of the refinery flare, 2011

Client: Eni Refining & Marketing Division, Taranto Refinery (Italy)

- Basic Design for co-feeding system of Palm Oil to Diesel Hydrotreating Unit (HDS-2), 2021
- Basic Design for improvement of Merox Unit Offgas Treatment, 2021
- Basic Engineering Design for revamping of existing Desalter with new mud washing system, 2018.
- Basic Engineering Design for the optimization of Light Gas Oil recovery, 2012
- Basic Engineering Design for the new natural gas compressor of the existing Steam Reforming Unit, 2012
- Assessment of the combustion efficiency of the refinery flares, 2012
- Process Study for the optimization of the condenser of the existing Deisopentanizer tower, 2012

Client: Eni Refining & Marketing Division, Venezia Refinery (Italy)

- Basic Design for the pre-treatment unit for Used Cooking Oil (UCO) and other unconventional feedstocks (tallow, POME, …) at Eni's Ecofining Plant (Hydrotreated Vegetable Oil, i.e. biodiesel production plant), 2019.
- Basic Design of a new subsea hydrogen pipeline from Versalis Porto Marghera Petrochemical Complex to Venice Refinery, 2019.
- Basic Engineering Design for the optimization of the Light Gas Oil recovery, 2012
- Green Refinery Project – Technical Assessment of the existing Tank Farm for storage of raw vegetable oils and biodiesel and FEED of the relevant revamping, 2013-2014.
- FEED for the revamping of logistic assets, 2013-2014.

Client: Raffineria di Gela (Gela Refinery), Gela (Italy)

- Process Study for improving the quality of the LPG stream produced in the Gas Recovery Unit, 2021-in progress.
- Basic Design and Detailed Design for the installation of new Ultra Low NOx Burners on all refinery fired heaters, 2013.

Client: ISAB Lukoil, Raffineria di Priolo (Priolo Refinery) (Italy)

- Basic Design for energy integration between Gofiner Plant and Isomerization Plant, 2020
- Basic Design of Balance of Plant of FCC Slurry Oil Filtration System, 2020
- Basic Design for revamping of Waste Water Treatment Plant, 2017

Client: IES Italiana – MOL group, Mantua Refinery (Italy)

- Feasibility Study for the revamping of the refinery Railway Unloading Terminal, 2014.

Client: Sigemi/Kuwait Italiana Petroli (Italy)

- Basic Design for revamping of Arquata Scrivia Hub, 2021.

iii. Recent references on Oil & Gas Upstream Projects (Engineering Services)

Client: ABB (Final Client: Sonatrach)

- FEED for revamping of production satellites at Hassi Messaoud Field, Algeria, 2014-2015

  Existing installations at Hassi Messaoud dates back to the early '70s. An extensive revamping is required to replace old equipment and to improve the oil and gas recovery efficiency. The project scope includes the revamping of the flowlines, installation of new equipment for gas/oil/water separation and new export lines to the processing facilities.

Client: Eniprogetti (former Tecnomare)/Eni SpA

- Detail Design activities (piping and stress analysis) for Sabratha Platform, Libya, 2017.
- Process Study for debottlenecking Acid Gas Removal Unit, Sulphur Recovery Unit and Tail Gas Treatment, Zohr Project, Egypt, 2017.
- FEED activities (Electrical & Instrumentation), Sour Gas Liquids Treatment Project, Karachaganak, Kazakhstan, 2016.
- FEED activities (Electrical & Instrumentation) for Early Production Platform, Nenè Project, Congo, 2014.

Client: Saipem

- Detailed Design activities for Instrumentation, Automation and Telecommunication Systems for EPC2, EPC3, EPC4 (Offshore Drilling/Production Clusters), Kashagan Field, Caspian Sea, Kazakhstan, 2013-2014.
- FEED of Zubair Degassing Station (DGS) at Zubair Field, Iraq, 2011.

  Zubair DGS is one of n. 5 Degassing Stations included in the Zubair Oil Field Development Project (the others being: Zubair Mishrif, Hammar, Hammar Mishrif and Rafidya-Safwan).
  The Zubair field - being developed by Eni with Occidental Oil Co., Korean Gas and Missan Oil Company has an estimated production capacity of 1,200,000 BOPD.

Zubair is a “brown field” project involving the realization of new plants as well as the revamping of existing unit.
The FEED developed by Simeco has been used as the base case for the development of the other n.4 DGS FEED.

Client: Eni Spa E&P Div.

- FEED and Cost Estimate (+/- 15%) for n.3 Gas Platforms, Offshore Adriatic Sea, Italy, 2010-2011.

  The platforms characteristics are as follows:

  FAUZIA PLATFORM: 12” export sealine; n° 2 wellheads double completion; 3-legs jacket

  ELETTRA PLATFORM: 8” export sealine; n° 1 wellhead double completion; 3-legs jacket

  BENEDETTA PLATFORM: 8” export sealine; n° 1 wellhead single completion; monopode.

Client: SACBO

- Basic, Detail Design and Construction Management Services of the new Jet Fuel Depot at Bergamo Orio al Serio International Airport, 2019 – in progress.

Client: Saipem Energy Services/Eni Spa E&P Div.

- Review of Basic Engineering Design Package of the Gas Oil Separation Plant (GOSP), Burun Oil Field, Turkmenistan, 2009.

  The GOSP at Burun Oil Field had some trouble operations, i.e. sand carry over, clogging of filters by paraffines contained in the crude oil and HSE issues. Simeco Scope of Work was to carry out, on a very tight schedule, a review of the existing BDP developed by the previous Owner of the Oil Field in order to solve the operating problems. Each document of the BDP was reviewed. Several inconsistencies were identified and for each document a Comment Sheet was produced. Eventually, recommendations were provided to Company regarding the possibility to use the BDP as a basis for an EPC bid to de-bottleneck the Plant.

Client: Eni Oil Co. Ltd (Libyan Branch)

- FEED of the Water Injection and Power Generation systems at El Feel Field, Libya, 2006-2007.

  The Water Injection Plant (275,000 BWPD) consists of:

- Water Supply System, including Oil / Water separation by induced gas flotation, Filtration and Chemicals Injection Systems;
- Injection Water System, consisting of: Buffer Tank, Injection Water Booster Pumps, Injection Water Pump;
- Gathering System, consisting of n. 5 Trunk-lines up to 24''x 38 km.

The Power Generation Systems (50 MWe) consisists of:

- n. 3+1 Heavy Duty Gas Turbines GE FR5-1 fed with either with Crude Oil (chemically treated for V inhibition) or Natural Gas;
- New dedicated Control Room;
- New dedicated Electrical Sub-Stations.

iv. Recent references on Chemical, Petrochemical, Fertilizers (Engineering Services)

Client: Matrica (Italy)

- FEED design for the new bio-monomer packing plant, Porto Torres, Italy, 2020
- Basic Design and Detail Design for debottlenecking of Unit 2100 & 2200 of renewable plastics monomer production plant, Porto Torres, Italy, 2018-2019.
- Basic Design and Detail Design for New Steam Generation Unit, Porto Torres, Italy, 2018-2019.

Client: Tecnimont

- Detail Design (instrumentation & automation, static equipment) for RAPID Polyethylene Project, Pengerang, Malaysia, 2016.
- Detail Design (instrumentation and F&G systems) for Kingisepp Ammonia Project, Indonesia 2016.

Client: Saipem

- FEED activities (piping design) for Spiritwood Nitrogen Plant and associated units, North Dakota, USA, 2014.

  Spiritwood is a fertilizer factory producing 2,200 MTPD of Ammonia and 3,850 MTPD of Urea (3,850 MTPD) from Natural Gas.
- Detail Design for Dangote Ammonia/Urea/Granulation Plant, Nigeria, 2013.

  Dangote plant will produce 7,700 MTPD of Granulated Urea from Natural Gas.

The ISBL consist of n.2 x 2,200 MTPD Ammonia Synthesis Units, n. 2 x 3850 MTPD Urea Synthesis Unit, n.2 x 3,850 MTPD Urea Granulation Units, Utilities (i.e. Steam, Power Generatio, Cooling Water System, Natural Gas System, Waste Water System, Instrument & Plant Air System, Nitrogen System, Ammonia Storage, Bulk Urea Storage & Handling, Product Bagging and Truck Loading System, Administrative/maintenance buildings).

The OSBL include:

River Water Intake, Natural Gas Pipeline, Raw Water Pipeline and Temporary Jetty.

Client: Versalis, Sarroch Petrochemical Complex, Italy

- Process Study and Assessment of the Blow Down system after the installation of new process unit, 2013-2014.
- Basic Design of the New Flare Gas Recovery Unit, 2013.

Client: Versalis, Porto Marghera Petrochemical Complex, Italy

- Basic Design, FEED and Cost Estimate for the installation of n.2 x 150 t/h HP Steam Generators, 2011-2012.

Client: Versalis, Ravenna Petrochemical Complex, Italy

- Owner Engineering Services during construction pahse of the revamping of the ETBE/Butene-1 Plant, 2014.

Client: Versalis

- Owner's Engineering Services during the FEED of the Elastomers Plants of Refinery and Petrochemical Integrated Development (RAPID) Project, Pengerang, Malaysia, 2012-2013
- Feasibility Study and Basic Design for a Commercial Demonstration Plant for production of Tackifying Resins, Italy.

Client: Danieli Far East

- Detail Design of a Carbon Dioxide Removal Unit, Far East, 2011-2012.

  Project scope was the implementation of the Detail Design, Procurement Services for Equipment & Bulk Material and the Home Office Project Management Services for the 10,000 Nm^3/h Carbon Dioxide Removal Unit at a new iron ore reduction

plant. The Unit, based on the Giammarco-Vetrocoke Hot Carbonate process technology, was extensively modularized in order to facilitate the erection activities by local labour.

Client: Saipem

- Detail Design for QAFCO 5 Fertilizer Plant, Mesaieed, Qatar, 2008-2009.

  Simeco's project scope was the execution Multidiscipline Detail Engineering and Design services including CAD3D Model, TBE for Instrumentation, Analyzers and Electrical Materials.

  The Plant consists of n. 2 complete Ammonia Plants (Licensor Haldor Topsoe A/S - design capacity 2 x 2,200 t/d) based on Steam Reforming of Natural Gas consisting of the following process systems:

  Natural gas desulphurization; Process Air Compression; Steam Reforming of Natural Gas and Waste Heat Recovery; HT & LT Shift Converters; CO2 removal by MDEA; Methanation; Syngas Compression; Ammonia Synthesis Loop; Ammonia Refrigeration; Purge Gas Scrubbing & Hydrogen Recovery; Process Condensate Stripper; Deaerator & BFW pumps;

  along with the following infrastructure and site facilities:

  Urea Storage (Capacity 160,000 t), Urea Product Handling System (Capacity 195 t/h), 132 kV Substation, Cogeneration Plant, Sea-water Multi-Cell Cooling Unit, Electro-chlorination Unit & Chemical Dosing System, Closed Cooling Water System, Potable Water System, Desalination Plant by TC/MED, Utility and Fire Fighting Water Systems, Waste Water Treatment Plant. Client: Saipem

- Detail Design for Enven 1.3 Project ar Engro Fertilizers Co. (Daharki, Pakistan), 2007-2008.

  Multidiscipline Detail Engineering Services including: CAD 3D Model, TBE of Ammonia Reciprocating Compressors & Pumps, Centrifugal Pumps.

  The Plant consists of:

  N.1 complete Ammonia Plant (Licensor Haldor Topsoe A/S; 2184 MTPD) based on Steam Reforming of Natural Gas consisting of the following process systems:

  Natural gas desulphurization; Process Air Compression; Steam Reforming of Natural Gas and Waste Heat Recovery; HT & LT Shift Converters; CO2 removal by MDEA; Methanation; Syngas Compression; Ammonia Synthesis Loop; Ammonia Refrigeration; Purge Gas Scrubbing & Hydrogen Recovery; Process Condensate Stripper; Deaerator & BFW pumps.

N.1 Urea Plant (Licensor Snamprogetti; 3835 MTPD) connected to existing facilities, such as Instrument Air, Plant Air, Steam Generation, Power Generation, Raw Water, Potable Water, Natural Gas Treatment and New Utilities Systems, i.e. Cooling Water Package, Process and Steam Condensate Recovery & Polishing, BFW, Raw Water Prefiltration, Steam Distribution, Power Distribution, Chemical Dosing and Unloading, Flares.

Client: Tecnimont

- Detail Engineering and Design services for NKNK Polyethylene Plant, Nizhnekhamsk, Russia, 2006-2007.

  NKNK is a Polyethylene Plant based on the BASELL Spherilene Process Technology. The plant annual capacity is 230,000 MTPY of HDPE, MDPE and LLDPR type. The units concerned by the performance of the engineering activities were: Polymerization Area, Extrusion Area, Alkyl Area, Homogenization, Bagging, Palletizing, Warehouse, Interconnecting & Pipe Racks, Effluent Basin, Purification, Propane Storage, Control Room and Substation, Valve House, Flare Area, Underground.

v. Recent references on gas plants (engineering services)

Client: Italgas Storage

Frame Agreement for Engineering and PMC Services 2021-in progress

The IGS Underground Gas Storage at Cornegliano Laudense (Italy) is in operation since 2019. The plant consists of n.2 clusters, named “A” and “B” with an overall storage capacity (including cushion gas) of 2.2 million cubic meters of natural gas (net capacity 1.3 million cubic meters).

During summer months natural gas is injected into the storage while during wintertime the gas is withdrawn. The Frame Agreement cover engineering activities and PMC services for projects dealing with improvements of the operation of the plant.

The projects presently under execution include:

- Detail engineering for a new Nitrogen Generation Unit
- Detail engineering for replacement of still lines on TEG dehydration units.
- Detail engineering for new filtering system upstream of the HP gas compressors.

Client: Saipem/Eni SpA

- FEED activities for Zohr Development Project at Port Said, Egypt, 2015-2016

Zohr Development Project consists of new Greenfield gas processing facilities with nominal 2700 MMSCFD of Feed Gas capacity at Zohr site in Port Said Governorate.

The Zohr Development Project will be developed into four (4) Phases:

- Phase 01, Zohr Onshore – Phase 01, nominal 1400 MMSCFD Feed Gas at 80 barg;
- Phase 02, Zohr Onshore – Phase 02, nominal 2700 MMSCFD Feed Gas at 80 barg;
- Phase 03, Zohr Onshore – Phase 03, nominal 2700 MMSCFD Feed Gas at 80 barg, testing at 24 barg;
- Phase 04, Zohr Onshore – Phase 04, nominal 2700 MMSCFD Feed Gas at 24 barg.

Scope of Work includes all the processing units, utilities, offsites and infrastructure necessary to develop the ZOHR Onshore - Phase 01 along with the required pre-investments for future expansion phases.
The sales gas from the Plant will be sent to the Egyptian distribution sales network of the near El Gamil Plant. The stabilized condensate will be sent to the storage facilities of the near El Gamil Plant. The sulphur will be produced in pastilles; the warehouse is designed for n.1 year storage. The regenerated MEG (i.e. the Lean MEG), is recycled back to offshore facilities.

Client: ABB (Final Client: ETAP & OMV Tunisie)

- Multidisciplinary Detail Design for Nawara Gas Treatment Plant, Tunisia, 2015-2016

ABB is responsible for the turnkey delivery of the Nawara Gas Treatment Plant (GTP) including gas separation and Liquefied Petroleum Gas (LPG) extraction units. The GTP will separate commercial natural gas from propane, butane and LPG used in many industrial, commercial and manufacturing applications. The overall project includes Central Processing Facilities at the Nawara well site, a 370 km long pipeline and a Gas Treatment Plant with a design capacity of 2.7 million standard cubic meters per day. Plant design philosophy is based on extensive modularization in order to save on construction time.

Client: Bonatti

- FEED & Detailed Engineering activities (P&ID, Equipment sizing, D/S and Specification issue) Bordolano Early Iniection Project, Compression System Design, DN6”/8” pipeline, Italy, 2009.

Bordolano is a depleted gas field, 50 km from Milan, owned by STOGIT (Stoccaggi Gas Italia – SNAM Rete Gas).

STOGIT converted the existing reservoir into an Underground Gas Storage. The Plant designed by Simeco consisted of a temporary gas compression and Injection station, called Early Injection Station, withdrawing natural gas from the national pipeline network owned by Snam Rete Gas. Natural Gas is collected and delivered to the

reservoir though 2 new pipelines. The Early Injection Station was dismantled once completed the injection phase of the cushion gas in the reservoirs.

Client: Trans Mediterranean Pipeline Company (TMPC)

- Frame Agreement for Operations Support at Transmed Pipeline Terminals in Cap Bon (Tunisia) and Mazaro del Vallo (Italy) started in 2010-2014:

  - Engineering support for day-to-day maintenance
  - Engineering support for trouble shooting operational problems
  - Engineering and Project Management for small-to medium modifications
  - Execution of specialized activities as measurement, controls, tests
  - Supervision, control and certification of services and supply provided by third parties
  - Risk assessments

  Projects related to day-by-day maintenance and troubleshooting operational problems carried out include, for instance, design and supervision to the installation of a new methanol injection plant for inhibition of hydrates and installation of bypass on control valves to allow a greater operational flexibility.

Client: Eni Oil Co. Ltd (Libyan Branch)

- Risk Analysis/Assessment Study for the Out of Service (Decommissioning and Dismantling) of Gas Sweetening Unit at DP4 Platform – Bouri Field, Libya, 2008-2009.

  DP4 Platform produces oil and associated gas which is partially used as fuel (5mmscfd), the excess being flared.
  The Fuel Gas Sweetening Unit located on DP4 platform was designed to produce the required fuel gas free from Hydrogen Sulphide. Since its commissioning the unit did not run properly resulting in high operation and maintenance cost. Since the materials of the Fuel Gas System were compatible with sour gas materials specifications, the issue to remove the unit to recover space for other Field's development installations was raised.
  Therefore, to allow an effective and rational decision about re-commissioning or decommissioning and dismantling the Gas Sweetening Unit, a thorough Risk Assessment Study (including HAZID, HAZOP, Risk Analysis, Consequence Analysis, Toxic Gas Dispersion Study, Explosion Consequence Assessment, Fire Consequence Assessment and Environmental Assessment) was awarded to SIMECO. The study addressed the possible impact of untreated of gas with high concentration of H_2S on:
  - the operation of the equipment of the fuel gas system, i.e. heaters and Gas Turbines
  - the environment

- personnel safety

An extensive constructability review was carried out to identify the most appropriate dismantling sequence of the existing unit to allow the simultaneous operation of the production platform.

vi. Recent references on energy transition projects (hydrogen, CO2 capture and storage, waste to power, power to gas, second generation biofuels, energy storage, ….)

Hydrogen

Client: SAPIO/Enel Green Power, Carlentini, Italy

- Green Hydrogen Plant, Hydrogen compression and truck loading system, engineering for permitting, 2021-in progress.

  Carlentini plant is a facility for testing technologies for green hydrogen generation and storage being developed by Enel Green Power in order to validate the technologies before their commercial deployement. Produced hydrogen is loaded on tank trucks at 300 barg for distribution to final users.

Client: Eniprogetti

- Feasibility Study for new Blue Hydrogen Plant (50,000/100,000 Nm^3/h), Italy, 2020-2021.

  The Blue Hydrogen Plant is based on Autothermal Reforming of Natural Gas. The plant includes: a Air Separation Unit, to produce the Oxygen required for the Autothermal Reformer, a CO2 removal unit downstream of the Authothermal Reformer and a PSA unit for final Hydrogen purification.

Client: Enipower

- Feasibility Study for Green Hydrogen production (40 t/h) by electrolysis from renewable electric power, 2020.

  The Study analysed the cost of production of hydrogen produced with different electrolysis technologies, i.e. alkaline cells and PEM (Proton Exchange Membrane). Electrolysis allows to convert fatal production of wind and solar energy in excess to the quantity that can be dispatched through the national grid, into hydrogen that can be injected in the natural gas national pipeline network.

Biomethane

Client: Versalis

- Basic Design of new bio-methane production plant from waste waters of bio-ethanol production plant, Crescentino, Italy, 2020.

  Project scope was the development of the basic and the Front-End Engineering Design for a new plant producing 12'000 Nm^3/day of biomethane starting from the biogas obtained by the anaerobic digestion of the biomass contained in the waste water of the bio-ethanol plant.

  CO_2 is removed from biogas by selective membranes. Produced biomethane is partially used as fuel gas at site and partially injected into nearby natural gas grid.

Waste to X / Circular Economy

Client: Eniprogetti

- FEED for new W2Fuel (Waste to Fuel) plant, Eni Rewind, Porto Marghera, Italy, 2020.

  Project scope was the development of the process design package and the execution of the Front-End Engineering Design for a new plant - based on Eni's proprietary W2F - producing Bio-Oil (LHV = 35 MJ/kg) by thermo-liquefaction of 150 ktpy of organic fraction of Municipal Solid Wastes (FORSU) (dry matter 35% wt.).
  Bio-Oil target yield is approx. 40% on dry matter. Residual solid LHV is 22 MJ/kg, therefore it can be used as a fuel for production of electricity.
  W2F technology has been extensively tested by Eni on a demo plant at Gela Refinery.

- Feasibility Study for Green Methanol production from biogas produced from the Organic Fraction of Municipal Solid Wastes, 2019.

  The Plant includes the following units: purification of the biogas produced from the organic fraction of Municipal Solid Wastes to bio-methane, syngas production by Eni's CPO-SCT (Short Contact Time – Catalytic Partial Oxydation), hydrogen production by a water electrolysis unit fed by green E.E., methanol synthesis (90 MTPD AA Grade).
  The main features of the proposed scheme is the conversion of all the CO2 contained in the biogas as well of the oxygen co-produced by the electrolyser.

Client: ORLEN Poludnie

- Feasibility Study for new plant for metal recovery from spent catalysts at ORLEN Poludnie, Poland, 2020.

  Objective of the Study was the assessment of the technical feasibility and profitability to realize a metal recovery plant from industrial catalysts in Orlen Poludnie's Jedlicze or Trzebinia sites, selecting the most appropriate technology for the plant.
  The Study addressed the following aspects:
  1. Market analysis of recovered products
  2. Recommendation of the technology for recovery metals from spent refinery catalysts containing Ni, Mo, V, Co on alumina support
  3. Financial analysis including required concessions and legal aspects of leading a recovery of metals from spent catalysts business.

Power to Gas (PtG) / Power to Liquids (PtL) / Carbon Capture and Usage (CCU)

Client: Eniprogetti

- Feasibility Study for production of Green Substitute Natural Gas production plant by reaction of captured CO_2 with Green Hydrogen, Italy, 2021.

  Project scope is the evaluation of different technologies for the conversion of 40,000 MTPY of CO2 captured at Centro Olio Val D'Agri (COVA), into Synthethic Natural Gas (PtG) or Methanol by reaction with green hydrogen produced by electrolysis.
  Demi-water for the electrolyzers is obtained by re-using the water co-produced with the crude oil.

Client: Eni, Sannazzaro Refinery, Italy

- Feasibility Study for a new CO_2 removal plant (300 MTPD), 2020.

  Project scope is the feasibility study for a 300 MTPD CO2 removal unit to be installed downstream of the Steam Reforming plant. Comparison of chemical asbsorption technologies and membrane technologies have been carried out and recommendation about the preferred technology for the application have been issued.

Second Generation Biofuels

Client: SARLUX, Sarroch Refinery, Italy

- Feasibility Study for Used Cooking Oil (UCO) and Palm Mill Oil Effluent (POME) Pre-Treatment Plant, 2021.

  Used Cooking Oils (UCO), Palm Oil Mill Effluent (POME) and Tallow are increasingly required as feedstocks for production of advanced renewable fuels.
  However, these unconventional oils and fats require a careful pre-treatment to remove impurities (P, Metals, organic Cl, N, FFA, …) that may cause catalyst deactivation or equipment corrosion in processing plants.
  Simeco, through the technical partnership with Technoilogy-CBM Italy, selects the most suitable technical solution for pre-treatment in order to make UCO and/or POME suitable co-feedstocks for diesel hydrotreaters.

Client: RAM, Milazzo Refinery, Italy

- FEED for vegetable oil co-feeding system to Gasoil Hydrotreating Unit (HDS-2), 2020.

Client: Eni, Venice Green Refinery, Italy

- Feasibility Study for UCO Pre-Treatment Plant, 2019.

  Project scope is the pretreatment of 20 t/h of Used Cooking Oils (UCO) to remove contaminants like metals, Na, K, P, N, Ca, Mg, Fe, Cl, in order to make the treated oil suitable as a feedstock for the HVO (Hydrotreated Vegetable Oil) plant based on Eni/UOP Ecofining technology.
  Two different treatment schemes - one step and two-step wet degumming - have been analysed and recommendation on the preferred solution have been issued.

<u>Power to X</u>

- Technical Advisory Services for the assessment of potential for hydroelectric production at various site in Italy, 2021.

  Scope of Work was the execution of a due-diligence to assess the poterntial for hydroelectric production sites located in n.3 italian regions. The job included the collection and analysis of all the available hydrologic data form various sources relevant to each site and support to Client in the evaluation of technical and economical risks associated with the development of a hydro-plant at each site.

Client: Eniprogetti

- Feasibility Study for installation of Energy Storage Systems (Thermal Batteries) in CCGT power plants, 2019-2020.

  The Study scope is the analysis in terms of CAPEX, OPEX and operability of Thermal Storage systems based on super-heated water, molten salts, cement like materials, or crushed rock. The thermal storage allows to follow the price trend of the electricity market: i.e. less electric production when the price is low, i.e. steam is used to charge the thermal storage; maximize electric production when the price is high, i.e. maximize steam to turbine for power generation.
  The thermal storage size is optimized considering:
  - duration of charge/discharge cycles;
  - EE price differential between charge and discharge periods.

Client: Eni

- Pre-feasibility Study for hydraulic energy recovery on a pipeline, Italy, 2015.

  Monte Alpi-Taranto oil pipeline is 136,7 Km long. The height difference between the highest and the lowest point at Taranto Refinery is 1300 m. The study addressed the possibility to recover the hydraulic energy presently lost, due to pressure reduction across the pipeline end valve (let down valves), by installing a hydraulic turbine. Addition of drag reducers to reduce the oil viscosity thus reducing pressure drop along the pipeline, in order to increase the energy recovered, was also investigated.

vii. Recent references on LNG

Client: SAIPEM

- Detail Design activities for Mozambique LNG Project (Mozambique), 2020-2021.

  The new plant is being constructed at a remote coastal location in the Cabo Delgado province of Mozambique. It consists of 2 x 6.44 MMTPY NG Liquefaction trains with a total production capacity of 12.88 MMTPY of LNG.
  The feed stream is fed to the LNG plant, which comprises gas/liquid separation, gas treatment (removal of acid gas, dehydration and mercury), heavy component (C5+) removal followed by gas liquefaction, storage and export. Condensate stabilization and export facilities, utilities and offsites are also included in the project.

- Detail Design activities for Bonny Island LNG Project (NIgeria), 2020-in progress.

  The new Complete Train (CT) 7 will be replicas of trains 4-6, i.e. an air-cooled C3/MR LNG train driven by two GE Frame-7 GT, with upstream amine unit for acid gas (CO2)

removal, molecular sieve unit for dehydration, and an adsorption bed for mercury removal. It also includes a scrub column for NGL removal and a fractionation unit.

- FEED for Browse LNG project (Australia), 2015
  Browse LNG Project consists of n.3 x 4 MMTPY trains, based on APCI C3 MR technology.

- Assistance to Commissioning and Start-up of GNL 3Z – Arzew LNG Project (Algeria), 2013

  GNL 3Z Project consists of n.1 LNG train 4.7 MTPA based on APCI C3-SPLIT MR technology (including infrastractures, storage and utilities) with provision for a second LNG train.

- Detailed Design activities (Instrumentation & Automation) for OLT Offshore LNG Toscana, 2013-2014.

  The world's first offshore Floating Storage and Regassification Unit (FSRU) was constructed by converting LNG Carrier Golar Frost.
  The FSRU is permanently moored offshore Livorno, Italy, about 12 miles from the coast in a water depth of about 120 meters and it is connected to shore through a gas export pipeline. Storage capacity is 137,000 cubic meters in four spheres. The production capacity is 3,75 billion standard cubic meters per annum (bscmpa).
  Simeco scope was the design of Instrumentation and Automation systems, including FAT and SAT of DCS and ESD systems.

Client: GNL Italia

- Procurement services and supply of spare parts for cryogenic loading arms at Panigaglia LNG Terminal, 2021

Client: Consorzio IRIS/Consorzio Industriale provincia di Sassari

- Pre-feasibility Study for 10,000 m3 LNG Storage at Porto Torres, 2015-2016.

  Porto Torres LNG, along with the other LNG coastal storages being developed in Sardinia, is part of the program aimed to bring natural gas to Sardinia. The study analysed the conditions of the various location in the Porto Torres industrial area with respect to the possibility to install a 10,000 m3 LNG storage.

Client: Adriatic LNG (Offshore Regassification Terminal, Adriatic Sea, Italy).

Frame Agreement 2009-2014: secondment of personnel within Client's Technical Team. Approx. 30,000 engineering manhours per year for new projects dealing with improvement of operation and maintenance at the Regassification Terminal:

- Detail Engineering for LV electrical distribution revamp
- Front-End Engineering Design services for a new High-Pressure Air Compressor (HPAC) System for Wobbe Index correction of the Send Out Gas.
- Feasibility study and concept selection for a new Nitrogen Storage and Injection System for Wobbe Index adjustment into the ALNG onshore pipeline.
- Definition of a full Black Start philosophy of the Terminal.
- Feeasibility Study for Boat Landing Modifications.
- Feasibility Study for Potable Water UV Treatment.
- Feasibility Study for installation of smoking cabins at selected locations.
- Feasibility Study for the upgrading of the flow measurements on the HP and LP flares.
- Detail Engineering of the enclosure to protect the Custody Transfer Sampling Skid (CTSS) to be installed on the platform.
- Front End Engineering Design for the new Waste Water Treatment Plant.

Activities dealing with maintenance engineering and operative maintenance carried out by SIMECO personnel seconded at Terminal, included:

- N. 3 Gas Turbines (11 MW/each) ESD (Emergency Shut Down) reduction study and implementation through:
    - Enclosure water leakage sealing system improvements
    - Enclosure Ventilation enhancement
    - Exhaust damper system verification and improvements to reduce closing time.
    - Anti-icing thermal probes installation in a more suitable position
    - Verification of Oil/water cooler and extension for actual needs fulfillment
    - Planned maintenance timing verification

- Installation of a new Back-Up Air Compressor driven by a diesel engine (186 kW) including:
    - Installation compliance study
    - SS piping routing study for connection to General Instrumentation Air system and to Emergency Diesel Generator / Detail installation Study
    - Verification of installation compliance with technical, safety and environmental protection best practice

- Sewage Emergency Transfer Pump to ship including:

- Mechanical equipment installation detailed design
- Electrical feeder line: detailed design follow-up and installation supervision.

- Installation of a Diesel Fuel Delivery Station with branching from Diesel Day Tank and Air Driver Pumping Station.
- Oil sampling points improvements, oil sampling methods specification, oil analysis data screening and machines conditions evaluation.
- Supervision to vibration monitoring activites for main mechanical equipment failure advance alert.
- Maintenance and upgrading of HW & SW of Yokogawa control systems (DCS, ESD, F&G systems), including:

  - DCS graphic pages: review and upgrade alarms display.
  - Fire and Gas system: Cause & Effect testing.
  - F&G system: replacement of gas detectors.

- GPS timer for ICSS time synchronization: equipment substitution.
- LNG Open Rack Vaporizers: control logic modification.
- Glycol Water Pump: shut down logic upgrade.
- Plant Resource Manager (PRM): system configuration.
- GBS heating system: fiber optic leak detection and temperature monitoring maintenance.
- Instruments: maintenance and replacement.

viii. Recent references on Pipeline Projects

The following projects have been carried out through our affiliate Streamline Srl (a company of Simeco group).

Client: Amec Foster Wheeler

- FEED of a 10 km DN 20” slurry pipeline, Italy 2017.

Client: TECMA-Eni S.p.A.

- Feasibility Study for MAMBA Project, Sealines: 2×22”- 5×16”- 1×8”, Mozambico, 2016-2017.

- Feasibility Study for In-Line Inspection, DN32” sealine, Italy, 2016.

Client: Eni S.p.A.

- Replacing of DN42” sealine coverage, Venice Refinery, Italy, 2016.
- Displacement Study for Pegli-Sannazzaro DN32” Pipeline, Italy, 2015.

Client: ExxonMobil

- In-line Inspection Optimization, Augusta Refinery, Italy, 2016.
- Hydraulic Study (Steady State and Transient), DN6”/8”/10”/12”pipelines, Trecate, Italy, 2016.

Client: API

- Hydraulic Study (Steady State and Transient) for Loading and Offloading operation, DN24” pipeline (Offshore/Onshore), Italy, 2016.

Client: IPLOM

- Hydraulic Study, Safety System Design, StartUp and Shut Down Procedure, Multedo-Busalla DN16” pipeline, Italy, 2016.
- Pipeline displacement and refilling (Calculations, procedures, equipment definition and on field supervision), Multedo-Busalla DN16” pipeline, Italy, 2015.
- Spillage Analysis and definition of Motorized Valves location, Multedo-Busalla DN 8” & DN16” pipelines, Italy, 2014.
- Pipeline requalification (Hydraulic Study, Thickness and MAOP verification), Multedo-Busalla DN16” pipeline, Italy, 2010.

Client: ExxonMobil

- Hydraulic Study in Steady State and Transient State, Quiliano-Trecate DN20” pipeline, Italy, 2016.
- Hydraulic Study in Steady State and Transient State (Loading and Offloading), DN36” pipeline (Offshore and Onshore), Middle East, 2016.

Client: AIR LIQUIDE

- Oxygen Pipeline Cleaning Study (Pigging and vent simulation), Limito-Sannazzaro DN12” oxygen pipeline, Italy, 2016.

Client: EP

- Pipeline cleaning and abandonment procedures, Ostiglia-Sermide DN12” pipeline, Italy, 2016.

Client: SEAPAD

- Revamping and optimization of Kerosene and Virgin Naptha Bi-Directional Pipelines (DN12”-20”-28”), Italy, 2015.
- Hydraulic Analysis, Specification and Working Procedure, Pig Dislodging & Nitrogen Displacement, Ferrera-Fegino DN12” Pipeline, Italy, 2012.

- Hydraulic Study for Pipeline Requalification, Multedo–Fegino Pipeline, Italy, 2010.
- Basic design study for new pipeline booster pump, Multedo Booster Station, DN 28" Pipeline, Italy, 2010.

Client: Eni S.p.A. - R&M Div. & Oléoduc du Rhone S.A.

- Pipeline displacement (Calculations, procedures, equipment definition and on field supervision), Ferrera-Aigle DN20" Pipeline, Italy-Switzerland, 2015.

Client: TECMA & Ionicagas (Eni group)

- Simulation of sealines cleaning and Inspection, Sealine DN10"/14"/16", Crotone, Italy, 2014.

Client: TECMA & Air Liquid

- Oxygen Pipeline Cleaning Study, Castelnuovo-Lonato DN8" pipeline, Italy, 2014.

Client: AMEC Foster Wheeler

- Feasibility Study for EESTI Energia Pipeline Project, Sour semi-coke gas preparation and transportation, Estonia, 2014.
- DN 4" Flowline Water displacement study, Romania, 2014.

Client: IES

- Pipeline Displacement and Pressurization Study, Venice-Mantova DN10" pipeline, Italy, 2014.

Client: Eni S.p.A. - R&M Div.

- Sealine conversion from transport of "black" products to transport of "white" products (Hydraulic and Interface length analysis), DN42" pipeline, Venice, Italy, 2013.
- Pipeline Services - Pipeline Displacement and Pressurization Study, Italy, 2013.
- Feasibility Study (P&ID's, Equipment Sizing, Hydraulic Analysis) for kerosene pipeline, Genova-Sannazzaro DN12", (Italy), 2013.

Client: Amec Foster Wheeler (Final Client: MOL Group)

- FEED activities for pipeline conversion from transport of "black" products to transport of "white" products (P&ID, D/S and specification issue, Hydraulic analysis, Batch study ecc...), Venice-Mantova DN10", Italy, 2013-2014.

Client: TAMOIL

- Hydraulic Study in Steady State and Transient State, Cremona-Trecate DN6" Pipeline, Cremona (Italy), 2013.

Client: Eni S.p.A. – Venice Refinery

- Basic & FEED Engineering activities, Revamping of Venice Refinery, Interconnecting DN16"/30" pipelines, Italy, 2013.

Client: ICC

- Flow Assurance in Steady, Dynamic and Transient State with the scope to define the tests to be performed in the CO_2 Pilot Plant, DN4" Pipeline, Spain, 2013.

Client: Saipem

- Flow Assurance in Steady, Dynamic and Transient State (side by side comparison between results provided by OLGA and LEDA softwares), DN36" Sealine, Italy, 2013.

Client: Eni/PPC

- Hydraulic Analysis, Specification and Working Procedures, Ragusa – Mostringiano-Magnisi DN10"/24" pipelines, Italy, 2013.

Client: SIGEMI S.r.l.

- Basic Design for Revamping of Arquata Scrivia (AL) Depot, Italy, 2020-in progress.
- Hydraulic Study in Steady and Transient State, Northern Italy Pipeline Grid DN10"/16", Italy, 2012.
- Detailed Engineering for Safety Valves Sizing and Installation, Italy, 2012.

Client: Eni S.p.A. - E&P Div. /PPC

- Basic Engineering (Flow Assurance, pipeline material and thickness definition, P&ID's, D/S) for new pipeline for the CO2 re-injection, Pipeline Gela-Giaurone DN10", Italy, 2012-2013.

Client: TMPC (Trans Mediterranean Pipeline Co.)

- Flow Assurance Study for Trans Mediterranean Pipeline, Sealine DN24", Tunisia, 2012.

Client: Technip

- Basic Design (P&ID's, Blow Down Study, Main Line Valves) for West Qurna 2 project, DN42" Oil and DN32" Gas pipelines, Iraq, 2011.

Client: Tecnomare/Eni Spa

- Pigging Philosophy for Congo Marine XII Block Litchendjili Gas Development Project, DN12" Pipeline, Congo, 2011.

Client: ABB

- Detail Design for El Merk Project, Flow Assurance, DN24"/12" pipeline, Algeria, 2011.

Client: NSP-Saipem

- Landfall design, P&ID, Pipe Sizing, Precommissioning and Commissioning Procedures for North Stream Project, Gas Sealines 2 x DN 48", Russia-Germany, 2008-2011.

Client: Tamoil

- Hydraulic and Batch Study for Products Re-Conversion, Trecate-Cremona DN6" Pipeline, Italy, 2011.

Client: Shell Italia-Tamoil

- Hydraulic and Batch Study for Pipeline Products Re-Conversion, Lacchiarella-Cremona DN6" pipeline, (Italy), 2011.

Client: Italgas Storage

- Conceptual design and Hydraulic Study for Cornegliano Laudense-Cervignano DN42" pipeline, Italy, 2011.

Client: Shell Italia

- Flow Increase Study San Quirico-Arquata-Lacchiarella DN10" Pipeline, Italy, 2011.
- Hydraulic Study for S. Quirico-Arquata-Lacchiarella DN10" Pipeline, Italy, 2010-2011.
- Nitrogen Displacement & Restart Project, S. Quirico-Arquata-Lacchiarella DN10" Pipeline, Italy, 2010.
- Hydraulic Study, S. Quirico-Arquata-Lacchiarella DN10" Pipeline, Italy, 2010.

Client: Porto Petroli Genova (POPEGE)

- Basic and Detail Design, Genova Loading System DN28" Pipeline, Italy, 2011.

Client: Eni/Tecnomare

- Pigging Philosophy for Hewett Gas Storage, Sealine DN32" Sealine, UK, North Sea, 2010.

Client: Eni S.p.A.- R&M Div. & Tamoil

- Hydraulic study, Batch study, Products interface length), Sannazzaro – Cremona DN22"/26" finished products pipeline, Italy, 2010.

Client: IES

- Nitrogen Displacement & Restart, Hydraulic study, Commissioning, Displacement Procedure for Venezia-Mantova DN10" Pipeline, Italy, 2010.

Client: Repsol/Heymo

- Basic & Detailed Engineering (Hydraulic Study, Thickness and MAOP definition, Pumping station Design), Cartagena-Puertollano DN14" Pipeline, Spain, 2007.

ix. Recent reference on Power Projects (Engineering Services)

Client: SAIPEM

- Detail Design for re-powering of Eni NAOC Okpai Power Station from 480 MW to 960 MW by addition of n.2 Gas Turbines and n.1 Steam Turbine (Combined Cycle), Nigeria, 2017-2018.

Client: Sarlux

- Basic engineering, cost estimate and scheduling for replacement of MV and LV switchgears and VSD fan motors (560 kW) in electrical substations, Sarroch Refinery, Italy, 2017.

- Detail Design of power grid modifications to supply 17.1 MW to the FCC blower, Sarroch Refinery, Italy, 2017.

- Detail Design for the self-supplying of South Plants (380 kV & 150 kV), Sarroch Refinery, Italy, 2017.

- Detail Design for new 150 kV electrical substation, North Plants, Sarroch Refinery, Italy, 2017.

Client: AMEC Foster Wheeler

- Electrical engineering for replacement of electrical equipment (34 MVA) inside electrical substations damaged by a fire at Versalis plant, Ragusa, Italy, 2016.

Client: E.ON.

- Preparation of Work Requisitions for dismantling / relocation of existing gas turbine and Material Requisition for n.2 new auxiliary boilers, 7,5 MW, Mira – Adria, Italy, 2013.

Client: Versalis

- Basic Design, FEED and Cost Estimate for the installation of n.2 x 150 t/h HP Steam Generators, Porto Marghera, Italy, 2011-2012.

Client: Enipower

- Feasibility Study for installation of Thermal Batteries in CCGT plants, 2020-2021.

  The Study analysed analysed from CAPEX and OPEX standpoints technologies for thermal storage, based on molten salts, crushed rocks (Brenmiller) and cement-like (Energy Nest technology).
- Basic Design Study and Cost Estimate for the New Steam Generator (200t/h), Ravenna, Italy, 2009.
- FEED activities, Cost Estimate (+/-15%), preparation of ITT documents for EPC and EPC Technical Bid Evaluation for the revamping of the existing Combined Heat & Power Plant 140 MWth, S. Donato Milanese, Italy, 2009.
- Detail Design for new Photovoltaic plant, 4 MW, Ferrandina, Italy, 2009.
- Detail Design for new Photovoltaic plant, 1 MW, Taranto, Italy, 2009.

Client: Siram (Veolia group)

- Conceptual Design and Cost Estimate for Biomass Power Plant, 14 MW, Augusta, Italy, 2009.
- Conceptual Design and Cost Estimate for Biomass Power Plant, 10 MW, Coniolo, Italy, 2009.

Client: Maire Tecnimont

- Basic Design for Biomass Power Plant, 17 MW, Olevano Lomellina, Italy, 2008.
- Basic Design and Piping Detail Design for the new Coal Fired Power Plant, 370 MW, Puerto Coronel, Chile, 2007.

Client: Eni S.p.A. – Div. R&M

- Basic Design and Detailed Design for the installation of new Power Generation Unit, 3,5 MW, Robassomero, Italy, 2007.

Client: Eni Oil Company (Libyan Branch) (now Mellitah Oil & Gas B.V.)

- FEED of the Water Injection and Power Generation systems at El Feel Field, 50 MW, Libya, 2006-2007.

Client: Eni S.p.A. / NAOC

- FEED including Preparation of ITT documents for EPC and EPC Technical Bid Evaluation for Okpai Power Plant expansion from 480 MW to 960 MW, Nigeria, 2004.
- FEED including preparation of ITT documents for EPC and EPC Technical Bid Evaluation for the Okpai community Power Generation Plant, 3 MW, Nigeria, 2004.

Client: EnelPower

- Detail Design for Combined Heat & Power Plant, 100 MW, Castleford, United Kingdom, 1999.

x. Recent reference on EPC Contracts

Here below is a list of SIMECO reference relevant to EPC Contracts:

Client: Matrica, Porto Torres (Italy)

- EPC contract on a Fixed-Lump Sum and Turn-Key Basis for the new Pelargonic Acid Hydrogenation Unit, 2020-in progress.

  Contract Value: 4.5 M€

Client: RAM, Milazzo Refinery (Italy)

- EPC contract on a Fixed-Lump Sum and Turn-Key Basis for the revamping of the existing Kerosene Hydrodesulphurization Unit (HDS-1), including Pre-commissioning, assistance to Client during Commissioning and Operation up to Final Acceptance, 2014-2016.

  Contract Value: 16 M€

  (See Main Projects 2001-2020; Slide # 9)

Client: ENI S.p.A. Refining & Marketing Div, Sannazzaro Refinery (Italy), 2011-2013

- EPC contract on a Fixed-Lump Sum and Turn-Key Basis for installation of a Clarified Oil Vacuum Distillation and Filtration System on the existing FCC Plant including Process Design, Detail Design and Engineering, Procurement, Construction, Pre-commissioning, assistance to Client during Commissioning and Operation up to Final Acceptance, supply of spare parts during the warranty period (2 years operation), 2011-2013.

  Contract Value: 14 M€

  (See Main Projects 2001-2020; Slide # 12)

Client: ENI S.p.A. Refining & Marketing Div., Taranto Refinery (Italy)

- EPC contract on the Fixed-Lump sum and Turn-Key Basis for the installation of a new Electrically Traced Liquid Sulfur Transfer Line (4'' x 1 km by skin effect electrical tracing technology) including Process Design, Detail Design and Engineering, Procurement, Logistics, Construction, Pre-commissioning, assistance to Client during Commissioning and Operation up to Final Acceptance, supply of spare parts during the warranty period (2 years operation), 2010.

  Contract Value: 1,1 M€

  (See Main Projects 2001-2020; Slide # 16)

Client: ENI S.p.A. Refining & Marketing Div., Sannazzaro Refinery (Italy)

- EPC contract on the Fixed-Lump sum and Turn-Key Basis for the installation of a new dehydration and hydroisomerization unit of a C4 butylenic stream, including endorsement of Process Design Package, Detail Design and Engineering, Procurement, Logistics, Construction, Pre-commissioning, assistance to Client during Commissioning and Operation up to Final Acceptance, supply of spare parts during the warranty period (2 years operation), 2008-2009.

  Contract Value: 8,5 M€

  (See Main Projects 2001-2020; Slide # 21)

Client: Polimeri Europa, Sarroch Petrochemical Complex (Italy), 2008-2009

- EPC contract on the Fixed-Lump sum and Turn-Key Basis for the installation of new API separators covering system and cryogenic unit for VOC recovery including Process Design, Detail Design and Engineering, Procurement, Logistics, Construction, Pre-commissioning, assistance to Client during Commissioning and Operation up to Final Acceptance, supply of spare parts during the warranty period (2 years operation).

Contract Value: 6,0 M€

(See Main Projects 2001-2020; Slide # 23)

Client: RAM, Milazzo Refinery (Italy), 2005 (Phase 1) – 2008 (Phase 2)

- EPC contract on the Fixed-Lump sum and Turn-Key Basis for the replacement of existing crude oil loading arms (Phase 1: 4 x 16''; Phase 2: 4 x 16) at refinery jetty, including Detail Engineering and Design, Procurement, Logistics, Construction, Pre-commissioning, assistance to Client during Commissioning and Operation up to Final Acceptance, supply of spare parts during the warranty period (2 years operation).

  Contract Value: 5,6 M€ (Phase 1 + Phase 2).

  (See Main Projects 2001-2020; Slide # 31)

xi. Construction Management & Construction Supervision Services

Construction Management/Construction Supervision Services have been carried out for the following projects.

Client: Sarlux, Sarroch Refinery, Italy

- Construction Supervision during Refinery Major Turn-Around, 2020
- Revamping of Alkylation Unit, 2019
- Revamping of FCC (addition of 4th stage cyclon separator and new catalyst discharge system), 2020
- Tank Farm maintenance, 2019-2020
- Replacement of n.4 reactors at Continuos Catalytic Reforming (CCR) Unit, 2019-2020
- Replacement of 150 kV Air Insulated Switchyard, 2017
- Revamping of Propane Storage and Loading system, 2017
- Energy integration between Mild Hydrocracking Unit (MHC) and Gasoline Etherification Unit (TAME), 2016-2017
- Maintenance and Refurbishment of Electrical Substations (i.e. replacement of PC, MCC, UPS, electrical protections switchboards, installation of new VFDs, civil works, …) at North and South Plants, 2016-2019
- Refurbishment of Reforming Plant, 2015
- Revamping of existing Water Desalination Plant, 2015

Client: Sarpom, Trecate Refinery, Italy

- Field Engineering services during Major Turnaround and plant revampings, 2019-2020

Client: RAM, Milazzo Refinery, Italy

- Turnaround of HDS-1 unit, 2015

Client: Versalis, Ragusa Petrochemical Complex, Italy

- Revamping of Electrical Substation, 2014

Client: Versalis, Ravenna Petrochemical Complex, Italy

- Revamping of MTBE/ETBE and 1-butene plant, 2014

xii. Organization of the Firm

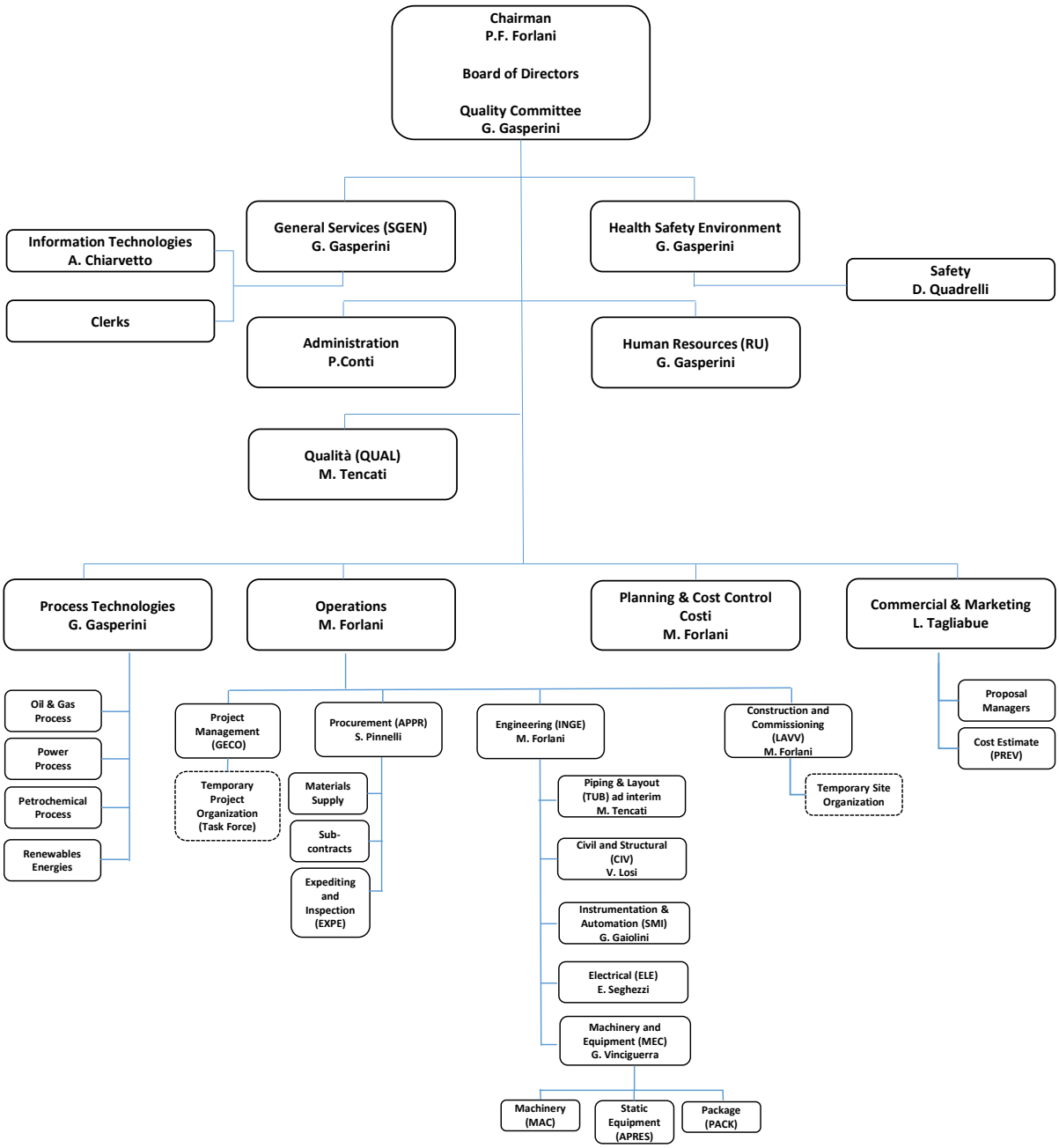
The organization of SIMECO is presented in the attached Company Organization Chart (Attachment 1).

SIMECO's Quality Management System is certified by Det Norske Veritas for compliance with ISO 9001:2015 standard (Attachment 2).

SIMECO's Occupational, Health and Safety Management System is certified by Det Norske Veritas for compliance ISO 45001:2018 (Attachment 3).

ATTACHMENT 1

SIMECO COMPANY ORGANIZATION CHART



ATTACHMENT 2

SIMECO ISO 9001:2015 CERTIFICATE

DNV·GL

MANAGEMENT SYSTEM CERTIFICATE

Certificato no./Certificate No.:	Data prima emissione/Initial date:	Validità:/Valid:
CERT-07991-2001-AQ-MIL-SINCERT	01 marzo 2001	24 ottobre 2018 - 24 ottobre 2021

Si certifica che il sistema di gestione di/This is to certify that the management system of

SIMECO S.p.A.
Via Arcivescovo Romilli, 22 - 20139 Milano (MI) - Italy

È conforme ai requisiti della norma per il Sistema di Gestione Qualità/
has been found to conform to the Quality Management System standard:

ISO 9001:2015

Questa certificazione è valida
per il seguente campo applicativo:

Progettazione polidisciplinare di base e di dettaglio di impianti chimici, petrolchimici, di raffinazione, di produzione energia, di oleodotti e gasdotti. Approvvigionamento di apparecchiature e materiali
(EA: 34)

This certificate is valid
for the following scope:

Multidisciplinary basic and detailed design of chemical, petrochemical, refinery, power generation and of gas and oil pipelines. Equipment and material procurement
(EA: 34)

Luogo e Data/Place and date:
Vimercate (MB), 13 settembre 2018

ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

SGQ N° 003 A
SGA N° 003 D
SGE N° 027 H
SCR N° 004 F
EMAS N° 009 P
PRD N° 023 B
PRS N° 094 C
SSI N° 002 C

Membro di MLA EA per gli schemi di accreditamento SGQ, SGA, PRD, PRS, ISP, GHG, LAB e LAT, di MLA IAF per gli schemi di accreditamento SGQ, SGA, SSI, FSM e PRD e di MRA ILAC per gli schemi di accreditamento LAB, MED, LAT e ISP

Per l'Organismo di Certificazione/
For the Certification Body
DNV GL – Business Assurance
Via Energy Park, 14 - 20871 Vimercate (MB) - Italy

Zeno Beltrami
Management Representative

La validità del presente Certificato è subordinata al rispetto delle condizioni contenute nel Contratto di Certificazione/
Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.
DNV GL Business Assurance Italia S.r.l., Via Energy Park, 14 - 20871 Vimercate (MB) - Italy. TEL:039 68 99 905. www.dnvgl.it

ATTACHMENT 3

SIMECO ISO 45001:2018 CERTIFICATE

DNV·GL

MANAGEMENT SYSTEM CERTIFICATE

Certificate No:
213863-2017-AHSO-ITA-ACCREDIA

Initial certification date:
13 February 2017

Valid:
14 February 2020 - 13 February 2023

This is to certify that the management system of

SIMECO S.p.A. - Sede Legale e Operativa
Via Arcivescovo Romilli, 22 - 20139 Milano (MI) - Italy

has been found to conform to the Occupational Health and Safety Management System standard:
ISO 45001:2018

This certificate is valid for the following scope:
Multidisciplinary design, site survey and construction supervision activities, procurement of equipment and materials, construction and installation of Oil & Gas. (IAF 34, IAF 28)

Place and date:
Vimercate (MB), 03 February 2020

ACCREDIA
L'ENTE ITALIANO DI ACCREDITAMENTO

SGQ N° 003 A
SGA N° 003 D
SGE N° 007 H
SCR N° 004 F
EMAS N° 009 P
PRD N° 093 B
PRS N° 094 C
SSI N° 002 G

Membro di MLA EA per gli schemi di accreditamento SGQ, SGA, PRD, PRS, ISP, GHG, LAB e LAT, di MLA IAF per gli schemi di accreditamento SGQ, SGA, SSI, FSM e PRD e di MRA ILAC per gli schemi di accreditamento LAB, MED, LAT e ISP

For the issuing office:
DNV GL - Business Assurance
Via Energy Park, 14, - 20871 Vimercate (MB) - Italy

Zeno Beltrami
Management Representative

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid.
ACCREDITED UNIT: DNV GL Business Assurance Italia S.r.l., Via Energy Park, 14 - 20871 Vimercate (MB) - Italy. TEL:+39 68 99 905. www.dnvgl.it