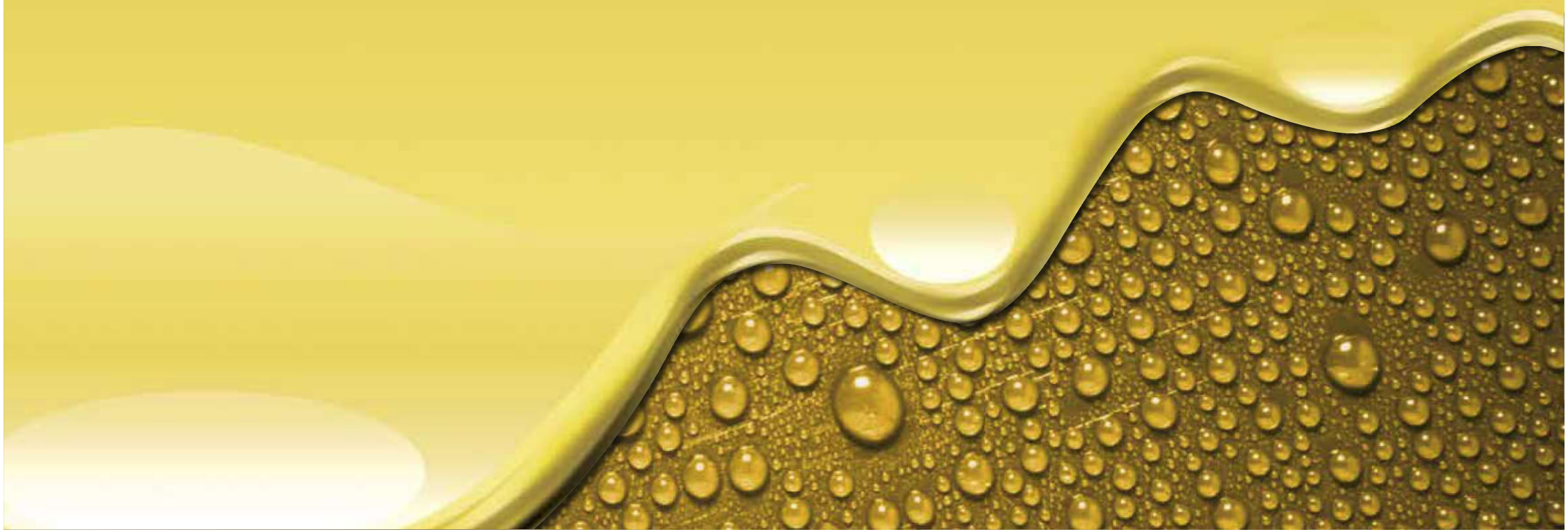


**SICON OIL & GAS S.p.A.**



# OUR COMPANY SINCE 1992

SICON OIL & GAS is a subsidiary of Consolidated Contractor (CCC) Group. CCC Group stands amongst the leading international contractors in the Oil and Gas industry. Maintaining this position necessitates continuous scrutiny and monitoring of the latest trends and practices in the contracting business at the highest levels.

In the early nineties, The Board of Directors of CCC Group recognized an expanding market for Engineering, Procurement, Installation and Commissioning (EPIC) Contracts. CCC Group made a strategic decision to secure the share of the Group in the Oil and Gas industry by establishing a design firm in the heart of Europe that would enhance the Group standing in Engineering and Manufacturing.

During the year 1992, CCC Group and a team of Italian engineers have founded SICON OIL & GAS that specializes in Design, Engineering, Procurement, Manufacturing and Management of Projects in the field of hydrocarbons and petrochemicals. The new entity, based in Milan, benefits from a diverse and wide network of branches and affiliates. Capitalizing on an internal expertise, global exposure and resources, SICON OIL & GAS has also expanded, over the years, to encompass projects in the Oil & Gas market, industrial clusters, petrochemicals and power generation in Asia, Africa, the CIS countries and the Middle East.



HASIB J. SABBAGH  
Co-Founder  
Late Chairman  
of CCC Group



SAID KHOURY  
Co-Founder  
Late Chairman and  
President  
of CCC Group



SICON OIL & GAS is an EPC Contracting Company that undertakes full responsibility from the process of conceptual design up to the handover of turn-key EPC projects in the Oil & Gas field.

The core goal of SICON OIL & GAS is to generate engineering design that turns concepts into realities that operate safely, efficiently and reliably. This is achieved on the premises of safeguarding the environment and maintaining the welfare of habitats which are carried out on all levels and phases of any project.

“an EPC Contracting Company  
that undertakes full responsibility from the  
process of **conceptual design**  
up to the handover”



Several projects have been  
**successfully completed**  
around the world

-  SICON OIL & GAS offices
-  SICON OIL & GAS projects
-  CCC Group offices



# WHERE WE ARE

SICON OIL & GAS has implemented a policy of expansion close to major Oil & Gas Clients by establishing registered Branch Offices and Operating Offices in UAE (Abu Dhabi), in Libya (Tripoli), in Kazakhstan with a plan for other countries (such as Algeria, Egypt, Saudi Arabia, etc.).

SICON OIL & GAS is registered with major Oil & Gas Companies and Operators such as: ADNOC, ADCO, ADGAS, GASCO, TAKREER, ADWEA, ZADCO, FERTIL, DOLPHIN ENERGY, QP, KJO, NOC LIBYA Group (all Companies), NGC Iraq, ENI group, SASOL, SONATRACH and SONELGAS Groups and with various Operators or Oil & Gas Ministries in Middle East, in CIS and in North Africa.



Several project have been successfully completed around the world, upholding the highest standards of Health, Safety & Environment (HSE) and Quality.

# WHERE WE SERVE

SICON OIL & GAS main expertise encompasses Onshore Upstream and Midstream sectors of the Oil & Gas industry. In house experience and capabilities are also extended to some fields of the downstream sector and to Offshore projects.

## UPSTREAM & MIDSTREAM

- Wellhead Facilities
- Oil & Gas and Water Separation and Treatment
- Re-Injection systems
- Oil, Gas and Water Transportation with all associated Pipelines Facilities
- Storage and Loading systems

## DOWNSTREAM

- Final Hydrocarbon Products systems (fuels, diesel oil, chemicals, etc.)
- Natural Gas Distribution
- Refinery units and Off-sites

## POWER GENERATION

- Power generation plants
- Renewable Energy Systems

## INDUSTRIAL PLANTS

## SERVICES TO THE CUSTOMER

SICON OIL & GAS arranges for Export Credit Financing. SICON OIL & GAS attains Supplier and Buyer Credit facilities, up to 95% of the value of contracts, utilizing Italian banks, under SACE coverage.

With world-wide presence and the support of the Group, SICON OIL & GAS has enough attributes that enables it to tackle the most trying or challenging EPIC projects in all aspects. At the same time, SICON OIL & GAS performs engineering services and specialized tasks such as feasibility studies, FEED packages for open-art and licensed plants, and risk analysis utilizing internal resources.







“performs engineering services  
and specialized tasks”





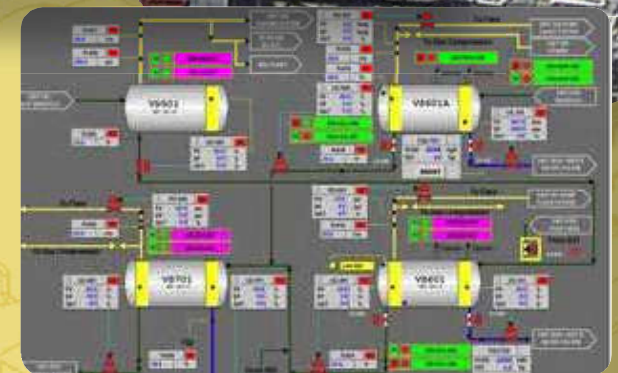
SICON OIL & GAS, while implementing Quality Assurance and HSE Management systems, provides several categories of services.

#### **PROJECT MANAGEMENT SERVICES**

- Feed Verification
- Preparation of Tender Packages
- Contract Administration,
- Development of Execution Plans, Procedures and Method Statements
- Project Control
- Cost Control
- Planning
- Change Control

#### **ASSISTANCE FOR PROJECT FINANCING**

- Project Financing (BOT, BOO, etc.)
- Buyer & Supplier Export Credit
- Documentary Credits





# WHAT WE OFFER

## FEASIBILITY STUDIES

- Technical Optimization Studies
- Environmental and Safety Studies
- Risk Analysis
- Logistics Plans
- Country Surveys
- Capital and Operating Cost Estimation
- Financing Analysis
- Economic & Financial Profitability Studies
- Master Planning
- Budget

## BASIC AND DETAILED ENGINEERING SERVICES

- Conceptual Design
- Basic Design
- Front End Engineering Design (FEED)
- Steady State & Dynamic Simulations
- Hydraulic Studies
- Fluidodynamic Studies
- Design Basis Definitions
- Equipment Sizing
- Material Selection
- Pipeline Design
- Piping Design
- Modeling and Stress Analysis
- Civil/Structural/Architectural & HVAC
- Electrical Design
- Instrumentation & Control Design
- Telecommunication & SCADA Design
- F&G Detection and Protection Design

## PROCUREMENT & MANUFACTURING

- Vendors Qualification and Subcontractors Assessment
- Technical and Commercial evaluation
- Purchase Orders Placement and Contract Administration
- Inspection and Quality Control
- Expediting & Transportation
- Field Material Control and Handling at Site

## CONSTRUCTION

- Construction Management (for EPCM jobs)
- Setup of Construction organization
- Assessment of Construction Partners or Sub-contractors (when required)
- Organization of Site Camps and Logistics
- Mobilization of manpower, equipment and tools
- Field Supervision & Inspection
- Construction Planning and Progress Control
- Fabrication facilities

## COMMISSIONING, START UP, TRAINING & OPERATION

- Preparation of Procedures and Operation & Maintenance Manuals
- Training of Personnel and Operators
- Engineering and Vendor Support presence during commissioning
- Organization of Operation and Maintenance Services
- Ensuing Handover Assistance

“provides several categories  
of services”

# OUR COMPETENCE

## OIL, GAS AND WATER PLANTS

- Wellheads Treatment Facilities and Gathering
- Early Production Facilities
- Oil & Gas and Water Separation
- Crude Oil Treatment Units
- Gas Dehydration and Gas Sweetening
- Heavy Ends Recovery / HC Dew Point Control
- Utilities and Off-Sites
- Gas and Water Re-Injection
- Sulphur Recovery Units
- Water Treatment
- Off-Shore facilities

## REFINERY

- Open-Art and Licensed Units
- Utilities and Off-Sites



## POWER PLANTS

Sicon Oil & Gas has diversified its expertise in Electrical Power Generation plants:

- Gas Turbine Power Generation Plants (Simple & Combined Cycle) including BOP units
- Diesel Generation packages, including all auxiliaries
- MV/LV substations
- Local MV transmission lines
- Waste To Energy Systems





# EPC PLANTS

projects and areas  
of strength





# “EPC PIPELINES projects and areas of strength”





## OIL, GAS AND WATER PIPELINES

- Liquid Hydrocarbon, Gas and Water Transportation Pipeline Systems
- Pumping and Compression Stations
- Pipeline Associated Facilities:
  - Scraper stations
  - Custody metering & Over-Pressure Protection
  - SCADA & Telecommunication
  - Cathodic Protection and A.C. Mitigation
- Pressure Reduction Stations
- Slurry Transportation Pipelines
- Gas Distribution Networks for Industrial, Commercial and Domestic users



# OUR RESOURCES

With its head office in Milan, the heart of Europe's Oil & Gas Industry, SICON OIL & GAS is endowed with innate capabilities of a pool of engineers and specialists, delivering a cutting edge technology. The proximity to the major European Vendors and Suppliers allows for easy access and control. The Main Milan Office and branches have diverse pools of engineers that generates a high quality technical product that past experience vouches for. SICON OIL & GAS has the potential to establish fully-fledged branches wherever necessary. Fully operational close to major clients. Being a member of the CCC Group, SICON OIL & GAS also enjoys the support and presence of its Parent Company in more than 40 countries of 5 continents. While the basic strategy of SICON OIL & GAS is to deploy its own construction resources to execute works, SICON OIL & GAS nonetheless has the access to CCC Group resources, whenever needed. Current setup can handle an annual capacity up to:

- 600,000 Man Hours for Engineering,
- Construction and Installation (In-house or with Subcontracts) up to a project value of 150 Million Euros per annum including:
  - Construction Site Supervision and Project Management
  - 5 Million Man-hours of direct construction works
  - Heavy Construction Equipment

SICON OIL & GAS can avail the support and services of many main Italian and international Banks.

Banco Popolare – Milan

Intesa San Paolo S.p.a. – Milan

Unicredit Corporate Banking S.p.A. – Milan

Banca Popolare di Vicenza – Milan

Mashreq Bank - Abu Dhabi

Union National Bank – Abu Dhabi

Jamahiriya Bank - Tripoli (Libya)

Sahara Bank - Tripoli (Libya)

Monte dei Paschi di Siena – Milan

Banca Popolare di Sondrio – Milan

SICON OIL & GAS Core EPC Organization consists of:

## CORE PROJECT MANAGEMENT

- Project Management Teams
- Planning and Schedule Monitoring
- Cost Control Services
- Contract Administration Services

## MULTI-DISCIPLINARY ENGINEERING TEAMS

- HSE and Loss Prevention
- Field engineering and surveyors
- Process
- Pipeline
- Piping
- Mechanical / Machinery and Packages
- Instrumentation & Control / Telecommunication
- F&G Detection and Protection
- Electrical and Cathodic Protection
- Civil / Structural / Architectural & HVAC
- Quality Control

## PROCUREMENT SET-UP

- Qualified Vendors Data Base
- Project Procurement Coordinators
- Buyers
- Internal Quality Control and Inspection Team
- Internal Vendor expediting Team
- Logistics between Vendor Locations to Work Sites

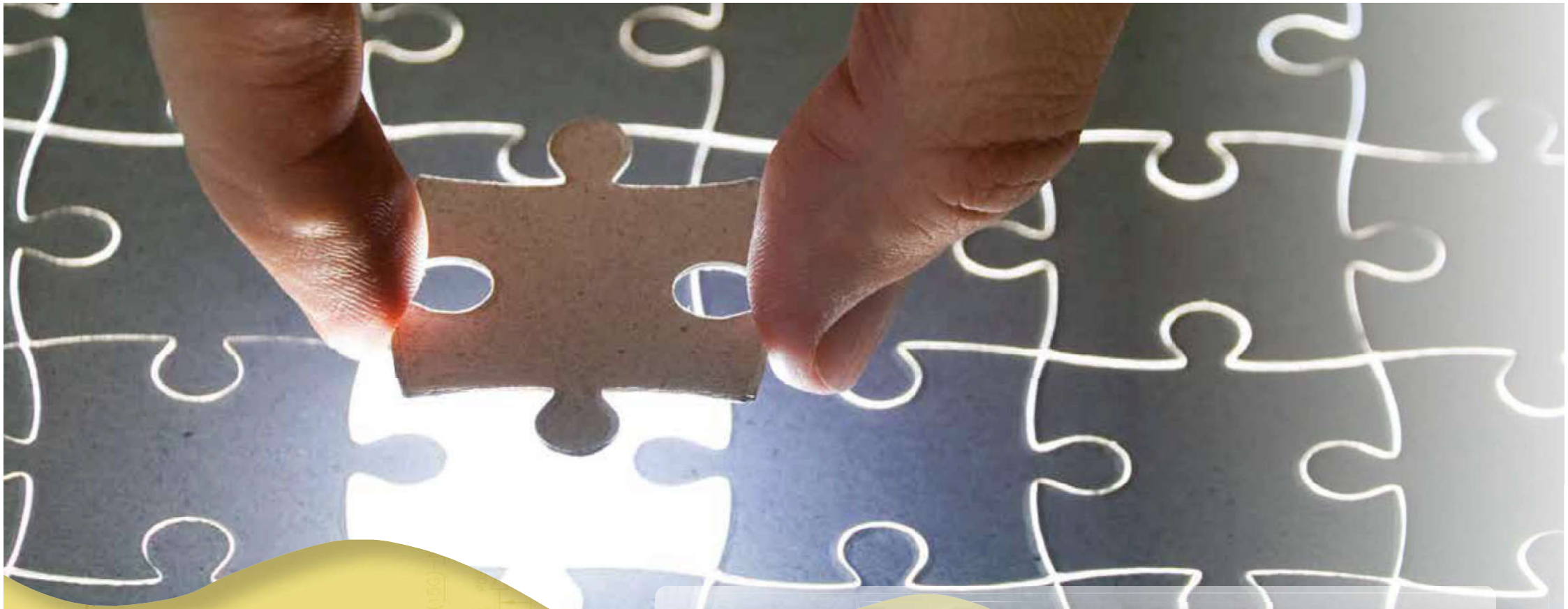
## CONSTRUCTION SITE SET-UP

- Construction Management
- Topographic Survey and Geotechnical investigation Teams
- Camp logistic and temporary facilities
- Oil and Gas Qualified Labor
- Construction Equipment fleet
- Commissioning & Start Up Teams
- Leaders for Training
- Fabrication Facilities



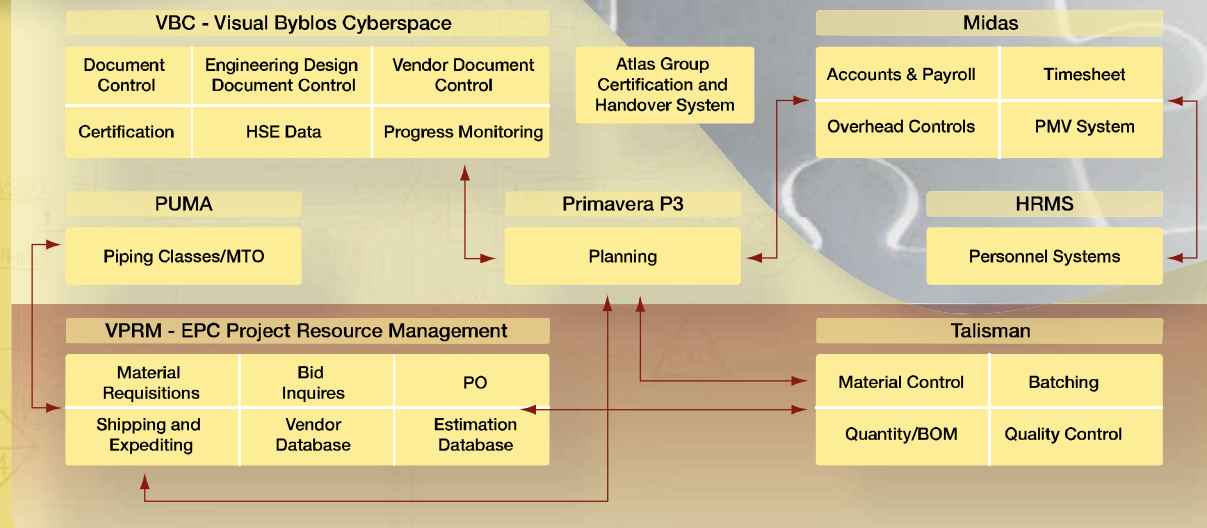


“ a pool of engineers  
and specialists ”



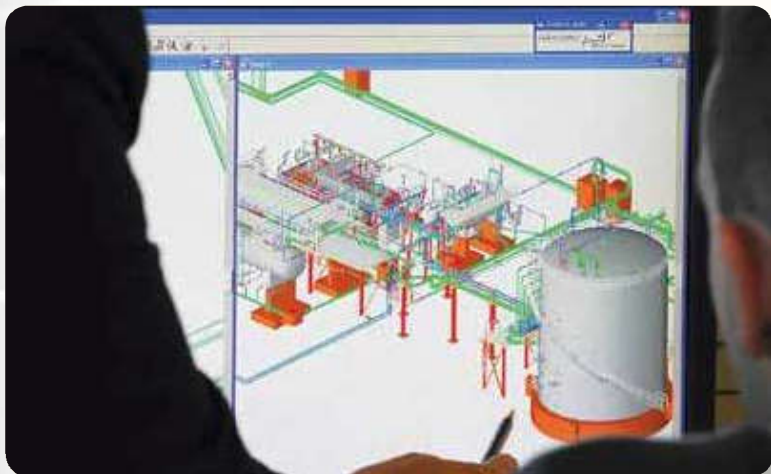
“An integrated automation system covers all cycles of operations”

## IT - AUTOMATION OVERVIEW





# OUR INNOVATION



SICON OIL & GAS relies heavily on internal IT solutions in optimizing duration and exemplary performance in all activities of the different sectors of operations coupled with meeting expectations of Clients related to time and cost effectiveness. SICON OIL & GAS has invested continuously in acquiring or developing highly sophisticated systems, capable of assisting discipline engineers and all departments to perform seamlessly.

Outsourcing from Web-based solutions have been introduced within the architecture of internal systems to facilitate remote access of data, information, specifications, standards or reporting worldwide, relying on a Wide Area Network (WAN) platform, connecting offices around the world with the central office in Milan.

Internal IT systems cover all cycles of operations related to project management & control, design & engineering, procurement, construction management, accounting, financial & risk analysis. State of the art specialized technical tools are available internally, especially for:

## **PROCESS SIMULATIONS AND HYDRAULIC MODELING**

- ASPENONE SUITE (HYSYS)
- OLGA 2000
- Pipeline Studio

## **PIPELINE AND PIPING**

- CAD and 3D Modeling
- Pipeline Alignment Sheets and Profile Design Programs
- Smart P&ID
- Stress analysis (Ceasar II)

## **INSTRUMENTATION**

- INTOOLS  
(Smart Plant Instrumentation)

## **ELECTRICAL DESIGN**

- ETAP
- CYME

## **CIVIL & STRUCTURAL**

- STAAD-PRO
- PROKON

## **PROJECT MANAGEMENT**

- Visual Byblos Cyberspace (VBC): a custom built document management solution used for **Document Control** and **Progress Measurement**
- PUMA used for material coding
- Vantage Project Resources Management (VPRM) used for Material Requisitions and Procurement Cycle
- TALISMAN Program used for Procurement and Material Tracking up to site
- Primavera is the main **Planning & Progress Measurement** application
- Atlas Group Certification and Handover System

All project control programs are fully integrated. Access to other software in CCC Group IT system is always available.

# OUR GREEN VISION

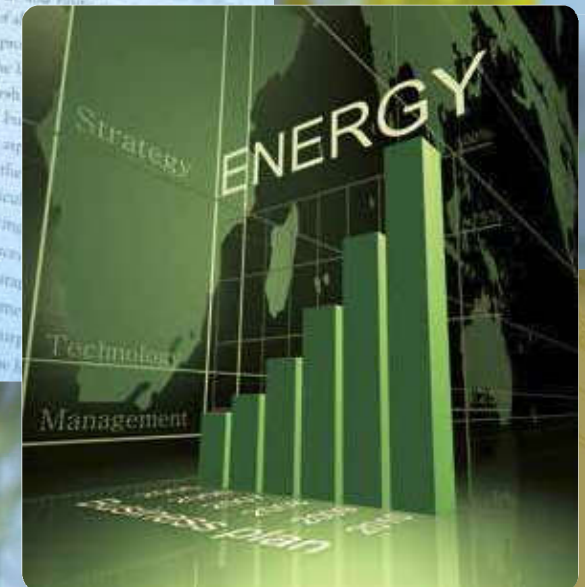
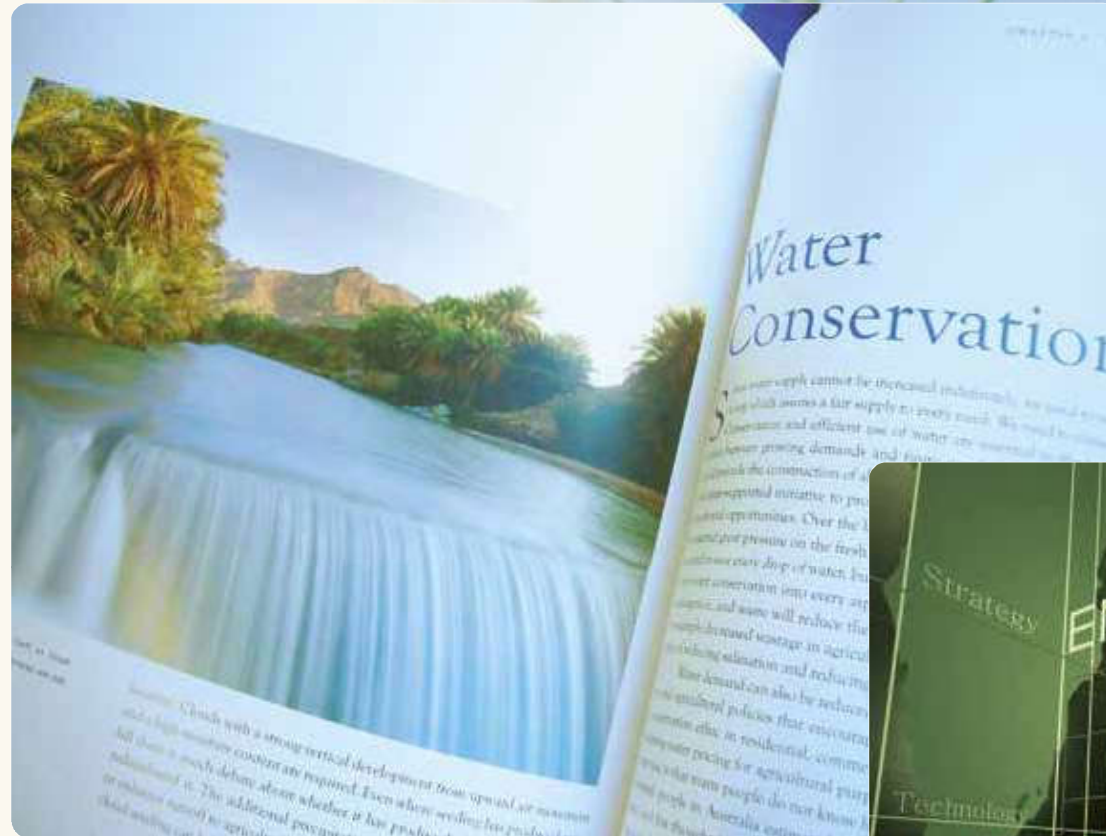
SICON OIL & GAS “green vision” strategy is directed towards maintaining international environmental protection standards.

These standards are followed in the Oil & Gas Sector, Down Stream Sector and Renewable Energy technologies:

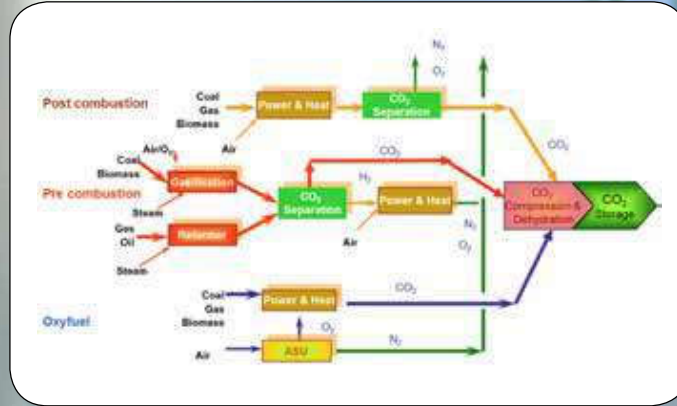
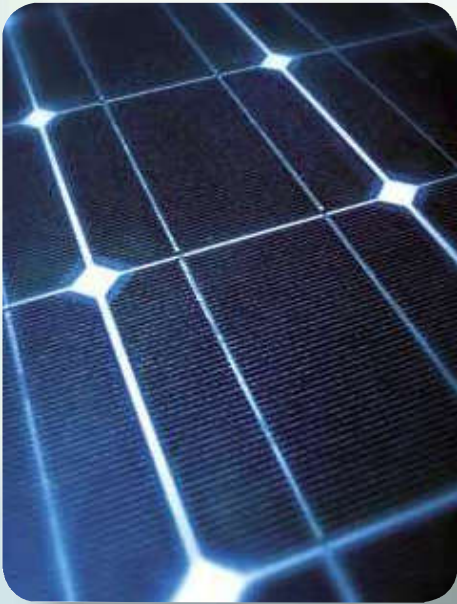
- Clean Fuels sector
- Cogeneration plants
- CO<sub>2</sub> Capture
- Emission control
- Flare Gas Recovery Unit
- Solar Panel units
- Sour gas treatments
- SO<sub>2</sub> Reduction to Elemental Sulfur
- Sustainable Energy
- Waste management



born  
naturally green







“These standards are followed  
in both the Oil & Gas Sector  
and Renewable Energy”



The Board of Directors of SICON OIL & GAS, has constantly enforced a perpetual audit of HSE and Quality systems, empowering the management in its commitment in sustaining high levels of control and standards.

The core perception of HSE promotion is derived from CCC Group certification by Bureau Veritas of ISO 14001 for environment and OHSAS 18001 for health & safety.

SICON OIL & GAS is certified by Bureau Veritas (BV) as per the latest ISO 9001 Quality Standards for Engineering, Procurement, Construction, Installation, Commissioning, Start up and Project management for Oil & Gas Water Plants and Pipeline projects.



“SICON OIL & GAS conducts its business in accordance with its Safety, Environmental, Quality and Ethical Policies”

# certification

SICON OIL & GAS recognizes the importance of health and safety for its employees, as well as the general public, remaining vigilant in environmental protection and the prevention of property damage in its operating locations. It respects local cultures throughout its diverse operating locations and upholds high business values.

SICON OIL & GAS strives to fulfill its responsibilities to its employees and the public by continuously working to improve its ability to offer services and products which create healthy work spaces and respect the environment.

SICON OIL & GAS considers the promotion of health and safety for its employees to be a key contribution to promoting sustainable development and an integral component of success.



Sicon Oil & Gas Top Management is committed to the following objectives:

- understanding and meeting the Customer requirements, fulfilment of contract obligations and all technical and economic requirements (safety, quality, delivery time and costs) to meet Customer satisfaction
- compliance with the statutory and regulatory requirements (standards and Codes in force in the country of destination)
- achievement of the specified quality performances
- recognizing the importance of human resources and increasing their competence, involvement and motivation.

The Management is also committed in continually improving the effectiveness of the Quality Management System and the implementation of lesson learned records.





***SICON OIL & GAS S.p.A.***

International Contracting Company for Oil & Gas

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MEMBER OF CCC GROUP



## EXPERIENCE LIST OF MAIN PROJECTS COMPLETED/ONGOING - PLANTS

Client	Project Name	Project Description	Type of Project	Project period	
Sui Southern Gas Company Pakistan	Gas System Rehabilitation Steam Boilers & Ancillary Equipment	Expansion of Boiler system: with Steam Boilers 177,000 LB/H • Feed Water Pumps and Condenser Pumps • Deareators and Ancillary Equipment	Engineering and Procurement of materials	AWARD 1995	COMPLETION 1997
TECNOMARE Milan for KOC/KIO  Kazakhstan	Karachaganak Unit 3 Gas / Condensate Separation Trains	Process Simulation Model of existing 4 trains 12,000 ton/day each • Optimization of condensate production • Definition of options for improvement with recovery of heavier components from gas separated by LTS system. • Model validation with optimization of sampling systems for analysis	Engineering Services	AWARD 2000	COMPLETION 2000
TECNOMARE Milan for KOC/KIO  Kazakhstan	Karachaganak Unit 3 Gas / Condensate Separation Trains KPC – Unit 2 and Orenburg terminal	Feasibility Technical and Commercial study for Production improvement up to 20000 ton/day of condensate: • Verification of existing separation trains • Additional chilling unit, flash gas compression unit, tank • Metering systems • Verification and rehabilitation of flaring and blow-down system	Engineering and Estimations  Services	AWARD 2000	COMPLETION 2001
SALYAN OIL LTD Baku  Azerbaijan	Kursangi & Karabagli Oil field Pipelines and GOSP facilities	GOSP Production improvement up to 80000 BPD in two locations • Manifolds and Three-phase separation • Heating-Treating / Dehydration • Oil storage and Shipping pumps and Metering systems • Produced water treatment for injection • 10" / 12" Crude pipeline ANSI B31.4 – 42 km	E.P. services	AWARD 2001	COMPLETION 2002
SONATRACH-AGIP Algeria	Bir-Rebaa Gas Dehydration Unit Extension	Preparation of Tender documents for an EPC Contract Extension of the gas dehydration unit by Glycol 3,000,000 Smc/d	Engineering Services	AWARD 2001	COMPLETION 2001
Agip Oil – Libyan Branch  Libya	Bouri Field  DP3/DP4 Production Facilities Debottlenecking	Debottlenecking activities required by a vibration study to increase the capacity on the gas separation system and executed to minimize offshore works and shut down periods: • Enlargement the inlet and outlet nozzles Flare K.O. Drums • Modifications on Stage Separators • Replacement of instruments on water systems	Turn-key EPC project	AWARD Sept. 2004	COMPLETION Mar. 2006
KJO (Khafji Joint Operations)  Saudi Arabia	Expansion of Khafji Crude Onshore Production Facilities	Pre-Settling facilities for incoming production from offshore (450,000 BPD) consisting of: • Pre-settling tanks • Additional heat exchangers with hot oil system • Oil Reclaiming System and Drainage Facilities • Crude Oil Loading Pumps and Metering System for Crude Oil Loading • Additional Extension of Distributed Process Control System (DCPS)	Turn-key EPC project	AWARD Aug. 2005	COMPLETION Aug. 2007 (extended to 2009 with variations)





## EXPERIENCE LIST OF MAIN PROJECTS COMPLETED/ONGOING - PLANTS

Client	Project Name	Project Description	Type of Project	Project period	
ENI OIL Libya	A/100 Low Pressure Facilities and Arrival Manifold Modifications Project	Modifications and upgrading of Low Pressure Facilities: <ul style="list-style-type: none"> <li>• Centrifugal gas turbo-compressor units and Electrical Screw type gas compressors</li> <li>• MP Gas Separators and Gas Scrubbers</li> <li>• New Three phase separators</li> <li>• Upgrading of 12 flare systems</li> <li>• DCS and ESD systems and Expansion of electrical substation</li> <li>• Cooling water system for Low Pressure Gas Compression</li> <li>• Arrival Manifold Modifications</li> </ul>	Turn-key EPC project	AWARD April 2008	IN PROGRESS
North Gas Company (NGC) IRAQ	Study for the production of fuel for cars by using the treated Natural Gasoline	Feasibility study for producing motor gasoline starting from the condensate stream of an existing Natural Gas processing complex, by increasing the Octane Number with licensed technologies: <ul style="list-style-type: none"> <li>• Catalytic Reforming,</li> <li>• Isomerization,</li> <li>• Polymerization,</li> <li>• Hydrodesulphurization</li> </ul>	Engineering and Estimations Services	AWARD Sept. 2009	COMPLETION July 2011
CCED Oman	Block 3 & 4 Crude oil production fields development	FEED, Engineering studies and site activities for the design of GOSP facilities and treated crude transmission pipeline to PDO network. Procurement services for main materials	Engineering and Procurement Services	AWARD 2010	COMPLETION Jan 2011
Joint Operations (KGOC / Chevron) Kuwait (through CCC)	Eocene Tanks and Chemical Storage Tanks at MGC	Process Engineering services for the overall project and in particular for the design of the Tank Internals and for the definition of performance guarantees with CFD study. Engineering coordination and procurement of part of materials.	Engineering and Procurement Services	AWARD 2011	IN PROGRESS
Zakum Development Company (ZADCO) UAE	Satah Facilities – Replacement of Main Diesel Generators at Arzanah Island Power House	EPC and operation and maintenance support of 3 New Diesel generators sets, at 3.5 MW each, plus balance of plant, Power Management System and Exhaust gas Treatment System	Turn-key EPC project	AWARD 2013	IN PROGRESS
ADCO – UAE	Jebel Dhanna Tanks and Metering Upgrading works	<ol style="list-style-type: none"> <li>1. New skid-mounted 30" bi-directional sphere type meter prover at Jebel Dhanna.</li> <li>2. Leak detection system for 36" MOL pipeline transporting stabilized crude oil from ASAB to BAB, 100km with two BVS stations.</li> <li>3. New earth shunts of the crude oil tanks, Retractable Grounding Assembly earthing installation and upgrading the earth network at the tank farm area.</li> </ol>	Turn-key EPC project	AWARD 2013	IN PROGRESS
Zakum Development Company (ZADCO) UAE	EPC for Water Injection Plant Upgrade at Upper Zakum Central Complex (Off-shore)	Modification of four out of ten existing fine filters to high capacity dual media filters for sea water to increase the injection rate to 1,300,000 BWPd in order to maintain the crude reservoir pressure; <ul style="list-style-type: none"> <li>• replacement of internals and filtering media</li> <li>• DCS control system upgrade</li> <li>• replacement of Vacuum Pumps, Ejectors, flow control and backwash valves</li> </ul>	Turn-key EPC project	AWARD 2014	IN PROGRESS



## EXPERIENCE LIST OF MAIN PROJECTS COMPLETED/ONGOING – PIPELINES AND FACILITIES

Client	Project Name	Project Description	Type of Project	Project period	
M.E.W. Ministry of Electricity and Water Kuwait	Sabiya Power Station Supply and Erection of Fuel Supply Pipeline and Equipment	Fuel oil and Gas transmission systems: <ul style="list-style-type: none"> <li>Hot oil fuel pipeline 16" diam., 86 km</li> <li>Gas Pipeline 42" diam., 86 km</li> <li>Pumping and heating station</li> <li>Metering with Interface detection and Pressure control</li> <li>Fuel oil pumps, Fuel Oil Heaters and Fuel storage</li> </ul>	Turn-key EPC project	AWARD 1994	COMPLETION 1996
QGPC Qatar General Petroleum Corporation Qatar	Fuel Gas Supply to RAS ABU FONTAS "B" Generation & Desalination Upgrade	Upgrade of Gas Transmission and distribution: <ul style="list-style-type: none"> <li>Sour Gas distribution Station at Point "S" 440 MMSCFD 30-45 bar</li> <li>Upgrade of the existing plant and Gas distribution system to users 300 MMSCFD</li> <li>Gas Pipeline 30" and 24" - 60 km from point S to point W2</li> <li>New pressure let down station at point W2 with Sour Gas K.O. Drums 440 MMSCFD and Two-stages Sour Gas Filter - Separators</li> </ul>	Turn-key EPC project	AWARD 1995	COMPLETION 1997
OGDC Oil and Gas Development Corporation Islamabad Pakistan	Panjiir Gas Field Gas Gathering System and gas Transport Pipeline	Wellhead Facilities: Sour gas cyclone separators and Chemical & methanol injection. Gas transmission pipelines: <ul style="list-style-type: none"> <li>Flow-lines (no. 6) from wells 6" - 12 km.</li> <li>Gas Pipeline 12" - 16 km with River crossing (500 m bridge)</li> <li>Panjiir Gas Treatment Plant:</li> <li>Test separator and Production separator 40 MMSCFD 70 bar</li> <li>Gas dehydration plant (by Glyco) 30MMSCFD</li> <li>Gas metering system</li> </ul>	Turn-key EPC project	AWARD 1996	COMPLETION 1999
LIBERTY POWER LTD Pakistan	Gas Transmission Pipelin for Liberty Power Plant from Qadirpur to Daharki	12" Gas Transmission Pipeline system 40 MMSCFD – 70 bar including <ul style="list-style-type: none"> <li>Gas Metering skid</li> <li>Instrument gas skid complete with filtration</li> </ul>	Turn-key EPC project	AWARD 1997	COMPLETION 1998
NATIONAL GAS S.A.E. Egypt	Natural Gas Distribution Network in Area of Eastern Delta	Gas transmission pipeline systems to 48,000 Domestic and commercial consumers: <ul style="list-style-type: none"> <li>12", 30"km. high pressure gas and 8"/10", 15 km. medium pressure pipelines</li> <li>N. 1 Pressure reduction and metering station, 20,000 SCM/H (1st stage)</li> <li>N. 1 Pressure reduction and metering station, 40,000 SCM/H (2nd stage)</li> <li>City regulators 5.000 SCM/H each and Sector regulators 1.000 SCM/H each</li> <li>Medium pressure polyethylene network</li> <li>Meter and regulators</li> </ul>	Turn-key EPC project	AWARD 1999	COMPLETION 2000
SONATRACH Algeria	Haoud El Hamra-Arzew (OZ2) 34" Crude Pipeline including upgrade of OZ1 28" Pipeline	Basic and detailed design and preparation of tender documents for Crude oil transmission pipelines: <ul style="list-style-type: none"> <li>820 km. of 34" pipeline</li> <li>28 Line Valve Stations</li> <li>No. 6 Pumping Stations with electrical pumps and gas turbine pumps.</li> <li>No. 16 Pig Launching and Receiving Stations Storage Tank farms upgrading</li> </ul> Intermediate injection points with Crude filtering and metering	Engineering services	AWARD 1998	COMPLETION 1999
SASOL (ROMPCO) Mozambique- South Africa	Mozambique Secunda Pipeline	Gas transmission system to feed gas to Sasol refinery in Secunda – South Africa: <ul style="list-style-type: none"> <li>26" pipeline 860 km</li> <li>Pipeline facilities and main river crossings</li> <li>PPS at Secunda, including supply of all required utilities</li> </ul>	E.P. services and Commissioning assistance	AWARD 2002	COMPLETION Feb. 2004



## EXPERIENCE LIST OF MAIN PROJECTS COMPLETED/ONGOING – PIPELINES AND FACILITIES

Client	Project Name	Project Description	Type of Project	Project period	
QP (Qatar Petroleum)  Qatar	RAS LAFFAN TO MESAIEED SWEET GAS PIPELINE PROJECT	<ul style="list-style-type: none"> <li>36" Gas Pipeline 117 km and 36" Spur line 4 km</li> <li>24" Gas Pipeline 12.1 km</li> <li>N. 2 flares</li> <li>Custody metering and Pressure control system with HIPPS</li> <li>Air compressor system</li> </ul>	Turn-key EPC project	AWARD  2004	COMPLETION  Jan 2006
DOLPHIN ENERGY UAE	Eastern Gas Distribution Systems (EGDS) Upgrade Works Project	Expansion of Gas network to main users in Al Ain, Maqta, Taweelah, Jebel Ali: <ul style="list-style-type: none"> <li>Filtration and Custody Ultrasonic Metering systems</li> <li>Expansion of Control Building and SCADA &amp; Telecom works.</li> <li>Pipeline sections in the range of 18" to 48" and tie-ins by hot tapping</li> </ul> UAN Pipeline new 36" pipeline and terminal to new consumer.	Turn-key EPC project	AWARD  May 2006	COMPLETION  2009
SNC LAVALIN MADAGASCAR	AMBATOVOY Nickel Slurry Pipeline Project	24" - 220 Km Nickel Slurry pipeline from Moramango to Tamatave. Basic and Detailed Engineering and Technical assistance to Construction	Engineering services	AWARD 2008	COMPLETION June 2009
ADCO UAE	Bu Hasa Shuaiba Unit "H" Water Injection Enhancement Project	Enhancement of Water Injection System / Network with 5 new water injection clusters: <ul style="list-style-type: none"> <li>Electrical Submersible Pumps and Surface Water Pumps</li> <li>Chemical Injection Skids</li> <li>Water Injection pipelines</li> <li>Overhead line/s and power skid</li> </ul>	Turn-key EPC project	AWARD  May 2010	COMPLETION  2012
CCED OMAN	Block 3 & 4 Crude Production Facilities	<ul style="list-style-type: none"> <li>Pumping station</li> <li>Crude pipelines 50 km 10" 300# pipeline and 85 km 16" 600#</li> <li>Custody metering to PDO selling</li> </ul>	Feed Engineering and Procurement Services	AWARD 2010	COMPLETION 2012
CWJV - Botswana	North South Carrier 2 water pipeline	Engineering coordination for Water pipeline and pumping stations	Engineering services	AWARD 2011	COMPLETION 2012
QCG (through MCJV) Australia	QCLNG Export Pipeline and Narrows	42" – 540 km Gas Pipeline with special crossings (trenchless Narrows) Specialized Pipeline Consultancy and Topographic and geotechnical supervision. Procurement, Expediting, QC and Inspection services	Engineering and Procurement Services	AWARD 2011	COMPLETION 2013
ARABIAN POWER COMPANY UAE	12" Pipeline from Takreer Petrochemical Refinery to APC/ITM Umm Al Nar Power Desalination	<ul style="list-style-type: none"> <li>12" Fuel Oil Pipeline 3500 m</li> <li>2 Custody Metering System (dual stream)</li> <li>Pumping Facilities</li> <li>All associate facilities</li> </ul>	Turn-key EPC project	AWARD 2011	COMPLETION 2013
CCED OMAN	Block 3 & 4 Crude Production Facilities	Detailed Eng. and procurement Services: <ul style="list-style-type: none"> <li>15 km 16" stabilized oil pipeline (from Alam to Qarn Alam PDO QAMPS) 50,000 BOPD.</li> <li>QAS Receiving Station in Qarn Alam with new receiving system, metering facilities and utilities.</li> </ul>	Engineering and Procurement Services	AWARD 2013	COMPLETION 2013
KOC - Kuwait (through CCC)	New Transit Pipelines from BS-171 to Mina al Ahmadi	"38.7 km", 48" gas pipeline from the Gas Control Station (GCS) in Jebel Ali to DEWA Hassyan Power Station plot (HAPS) including Traps and BVS stations. Cathodic Protection and AC Mitigation	E.P. Engineering Service and Procurement	AWARD 2013	COMPLETION 2014
DUSUP (Dubai Supply Auth.) (thru AIGHANDI-CCC JV)	Construction of Hassayan 48" Gas Pipeline	"38.7 km", 48" gas pipeline from the Gas Control Station (GCS) in Jebel Ali to DEWA Hassyan Power Station plot (HAPS) including Traps and BVS stations. Cathodic Protection and AC Mitigation	Turn-key EPC project	AWARD 2013	IN PROGRESS