



EGYPTIAN NATURAL GAS COMPANY (GASCO)



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About GASCO

GASCO has been established in March 1997 by virtue of investment law no.230 of 1989 amended by law no.72 of 2017.

GASCO is one of the main players in oil & gas market under the umbrella of the Egyptian natural gas holding company (EGAS).



3
Shareholders

EGAS %70
Petrojet %15
Egypt Gas %15

16
Branches

14 Regional branches
WDGC
Amerya LPG plant

4K
Employees

The most up-to-date employees
covering all business disciplines

20
companies

GASCO's Investments

GASCO Vision & Mission



Vision

GASCO envisions itself as a leading regional operator of gas transmission systems and gas derivatives recovery plants, with a commitment to leveraging hydrogen technologies and advancing the capture and utilization of carbon dioxide, fostering Egypt's vision as a regional energy hub.

Mission

- ❑ Managing, operating, and developing the gas transmission and distribution systems utilising the local gas fields and regional gas to secure local supplies and export.
- ❑ Providing EPC services for natural gas pipelines networks and its facilities.
- ❑ Managing, operating, and expanding natural gas processing plants.
- ❑ Supplying feedstock solely to the petrochemicals in Egypt.
- ❑ Pioneering sustainable solutions through strategic integration of hydrogen and carbon dioxide into our business and driving the transition towards a low-carbon economy.

GASCO Business Enterprise

1- Gas Transmission System Operator (TSO)

- **Gas Pipelines:** more than 8260 km of high pressure pipelines network and all of its components and facilities.
- **Dahshour Compression Station:** four compression units (9 million m³/ day per each)
- **PRMS :** Pressure Reduction & Metering Stations.
- **NATA :** National Advanced Transmission & Automation Center.
- **Total Numbers of Customers:** 110 customers through high pressure network.



2- Gas Distribution System Operator (DSO)

- 504 industrial customers** through medium & low pressure pipelines network with all of its components in three concession areas:-
- 10th of Ramadan industrial zone
 - West Alexandria free zone
 - Mergham industrial area



3- Gas Processing Plants

- **Western Desert Gas Complex (WDGC):** Capacity: 935 MMSCFD. Products: Ethane / Propane Mix, Propane, LPG and Condensates..
- **Amerya LPG Recovery Plant:** Capacity: 350 MMSCFD. Products: Ethane plus, LPG and Condensates.



5- Oil & Gas Services

- SCADA & Tele-Communications.
- In-line Inspection & Integrity Services **for Gas, Oil & Refined Products** Pipelines (by PIMCOE).
- Engineered Composite Systems and Polymeric Applications.
- Hot Tapping & Stoppling.
- HSE Studies.

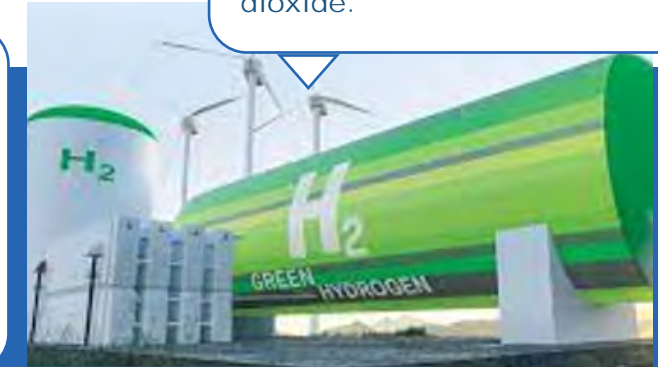


4- Gas Projects

- **FEED & EPC** of gas pipeline projects including all facilities. e.g. PRMS.

7- Hydrogen and carbon dioxide value-chain activities

GASCO added to its scope the activities of producing, transporting and exporting hydrogen, as well as separating and transporting carbon dioxide.



6- Export and import of ethane and propane products

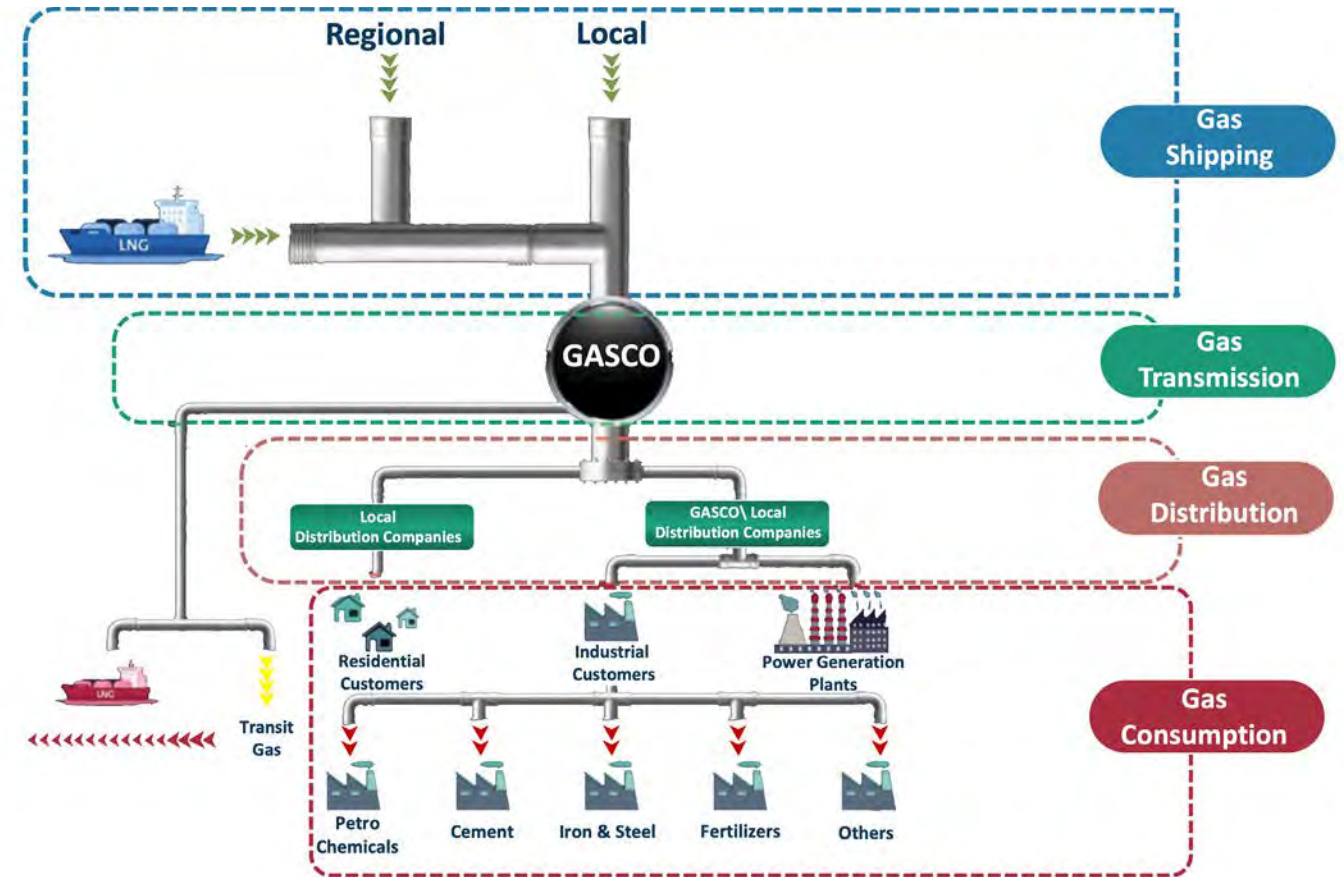
GASCO exports commercial propane product to the world market and also imports ethane product to secure local petrochemicals plants with feedstock.



GASCO Business Enterprise

1- TSO (Transmission System Operator)

Gas Market
Participants

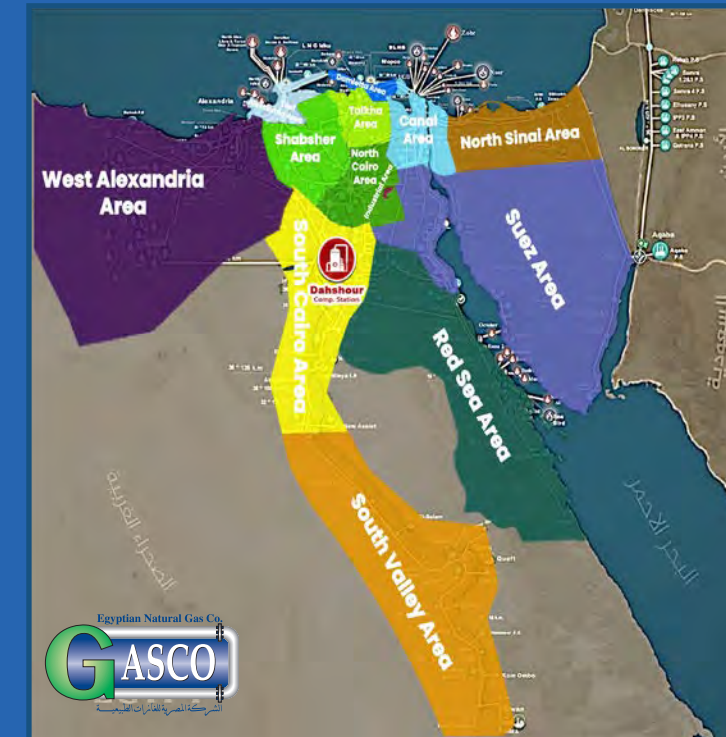


GASCO Business Enterprise

1- TSO (Transmission System Operator)

- 1- Management, operation, maintenance and development of the Egyptian national gas grid (**more than 8260 km** of high pressure pipelines networks with all of its components).
- 2- Securing the operation of the national grid through our SCADA system (NATA).
- 3- Operation and maintenance of compression stations.
- 4- Perform all expansion projects needed for security of supply.
- 5- Upgrading of the high pressure national gas network.

GASCO is the legal entity licensed to manage and operate the Egyptian national gas transmission system.



GASCO Business Enterprise

1- TSO (Transmission System Operator)

National Gas Grid Components:

1. Gas Pipelines

More than 8260 km of transmission gas pipelines extend along the country to cover the increasing gas demand, and to connect the consumers with the production centers.



GASCO Business Enterprise

2. Compression Station

One of the most vital compression stations in Egypt is Dahshour compressors station.

GASCO operates and maintains Dahshour compression station since Oct 2011.

Dahshour compression station consists of four turbo-compressors units (9 million m³ / day per each).



GASCO Business Enterprise

3. Pressure Reduction & Metering Stations (PRMS)

GASCO has executed about **149 EPC project** of gas pressure reduction, filtering, and metering stations with capacities range from 0.25 to 22 million m³/ day.



GASCO Business Enterprise

4. National Advanced Transmission & Automation Center (NATA)

NATA is the core and crux of control over the gas grid. It provides a **24/7** uninterrupted service to assure the network's operation in terms of security, efficiency and effectiveness.

5. Total Numbers of Customers:

110 customers through high pressure network, e.g. power generation plants, industrial customers, LNG plants, LDCs and CNG companies.



GASCO Business Enterprise

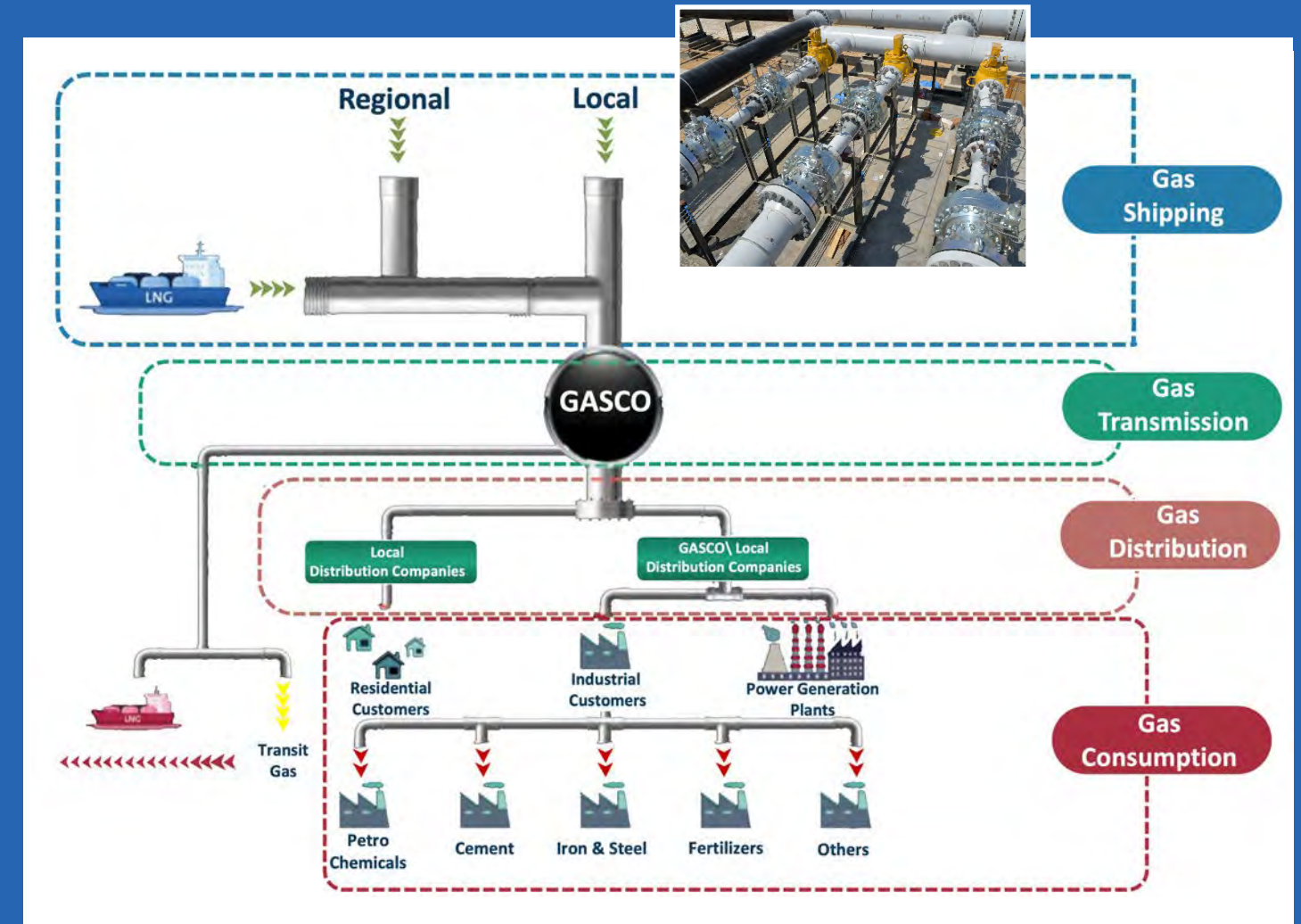
2- DSO (Gas Distribution System Operator)

GASCO supplies Gas to 504 industrial customers in three concession areas:-

- 10th of Ramadan industrial zone
- West Alexandria free zone
- Mergham industrial area

GASCO supervised the construction of 496 supplying gas project to industrial customers,e.g.:

- | | |
|---|---|
| <input type="checkbox"/> Oil & Gas | <input type="checkbox"/> Petrochemicals |
| <input type="checkbox"/> Cement | <input type="checkbox"/> Fertilizers |
| <input type="checkbox"/> Iron & Steel | <input type="checkbox"/> Ceramic |
| <input type="checkbox"/> Glass | <input type="checkbox"/> Spinning & weaving |
| <input type="checkbox"/> Food & Beverages | <input type="checkbox"/> Paper |
| <input type="checkbox"/> Home Appliances | <input type="checkbox"/> Others |



GASCO Business Enterprise

3- Gas processing Plants

❑ Western Desert Gas Complex (WDGC)

is designed to treat **935 MMSCFD**.

Since year 2000 and till the end of year 2023, the Complex has produced **32.21 MMTons** (LPG for domestic use, Propane for exportation, Ethane/ Propane Mix for petrochemical industries, and Condensates for oil refineries).

❑ Amerya LPG Recovery Plant

is designed to treat **350 MMSCFD**.

Since year 2000 and till the end of year 2023, the plant has produced **4.38 MMTons** (LPG for domestic use and Condensates for oil refineries).



GASCO Business Enterprise

4- Gas Projects

☐ FEED & EPC Projects:

GASCO provides FEED (Front End Engineering Design) and EPC (Engineering, Procurement and Construction supervision) including permits, site survey, compensations, commissioning and start-up activities for:

1- Gas pipelines.

2- PRMS (Pressure Reduction and Metering Stations).



GASCO Business Enterprise

5- GASCO Services

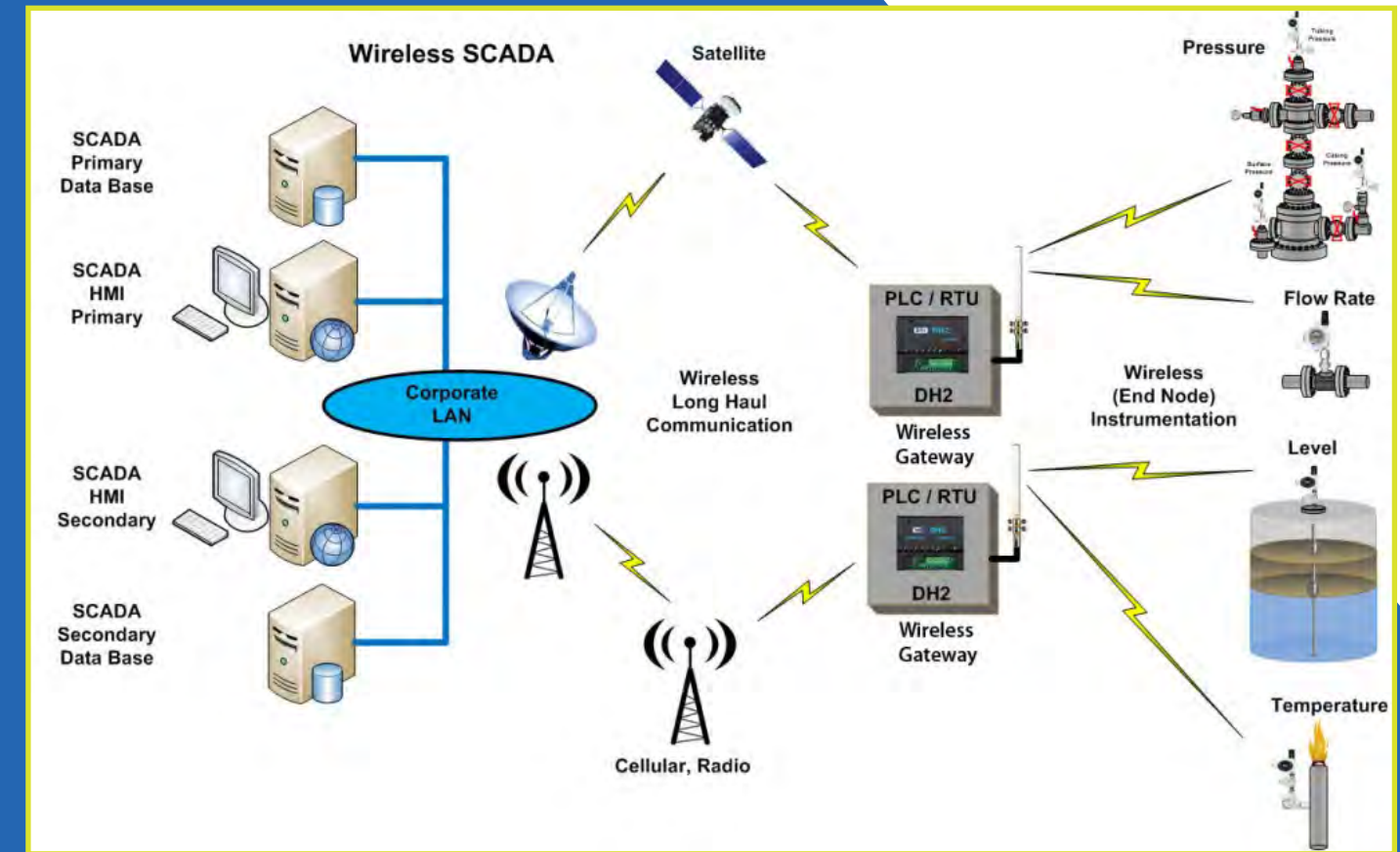
A- SCADA & Tele-Communications

GASCO provides both engineering and technical support for SCADA and telecommunication construction projects for numerous utilities.

GASCO assists clients in all phases of SCADA projects including:

- ☐ Design.
- ☐ Bid specifications.
- ☐ installation and commissioning supervision.
- ☐ field technical support.
- ☐ Operation.

Communication systems are the backbone of SCADA system, GASCO's engineering staff is well experienced in the analysis, application, design, upgrade and integration of all types of communication systems.



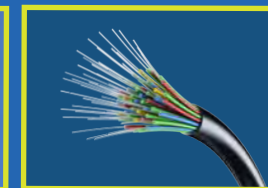
Communication Systems



VSAT



Mobile Network



GASCO Fiber Network



GASCO NEC Microwave Network



VPN Network

GASCO Business Enterprise

B- In-line Inspection & Integrity Services (Gas, Oil & Refined Products Pipelines)

❑ In-Line Inspection Services:

[Cleaning // proving // In-Line inspection].

❑ Integrity Services

A. FFP (Fitness for Purpose) studies, impair the integrity of the inspected working pipelines;

- MAOP (Max. Allowable Operating Pressure).
- Remaining Life Assessments & Scheduled Repair Plan.

B. Corrosion Growth rate™ RunCom™ Studies,

C. Field Repairs for damaged pipelines using advanced cold working techniques,

D. GPS- Coordinates of pipelines on digital maps (Mapping).



Baker Hughes 

GASCO Business Enterprise

C- Engineered Composite Systems and Polymeric Applications

ECR (engineered composite repair) systems is one of our progressive solutions used to maintain, repair and rehabilitate the critical assets.

- Emergency repairs
- Restoring metal loss

▣ Fields of application

- Leak sealing
- Rotating equipment
- Pipelines & high consequence industrial pipework
- Pressurized vessels
- Civil structures



D- Hot Tapping & Stoppling

GASCO's professionals & highly experienced staff had been trained and certified from TDW, Belgium. GASCO's recourse pool diameter range for Hot Tapping (1" up to 36") & for Stoppling (10" up to 32")



GASCO Business Enterprise

E- HSEEn Studies

Health & Safety:

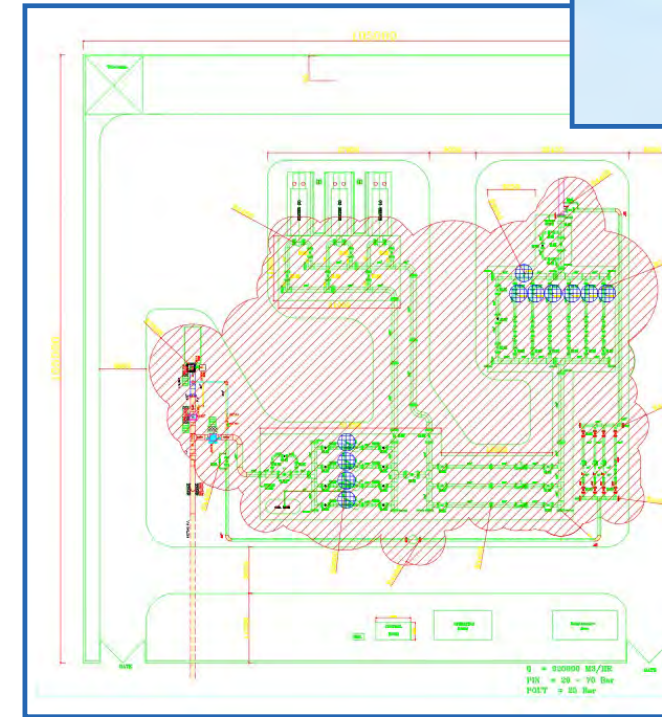
- A. Safety Management System
- B. HAZOP/ HAZID
- C. QRA

Environmental:

- A. ESIA studies.
- B. Energy management system - ISO 50001:2018.
- C. Environmental management systems - ISO 14001:2015.
- D. Noise level measurement complying with the environmental law regulations number 710/2012 and ISO 14001:2015.
- E. Exhaust air emissions measurement complying with the environmental law regulations number 710/2012 and ISO 14001:2015.

HAZOP

Hazard and Operability Analysis



HAZID

QRA



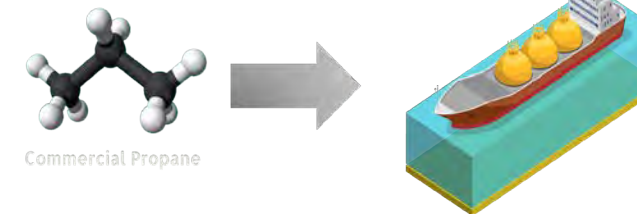
GASCO Business Enterprise

6- Export and import of ethane and propane products

Based on the vision of the petroleum sector to transform Egypt into a regional hub for oil and gas trade and circulation, and to meet the needs of the local market:

A. GASCO exports commercial propane product from WDCG to the world market through Alexandria sea port using its propane exporting pipeline (diameter 12 inch and length 27 km).

B. GASCO imports the ethane product to supply the feedstock to petrochemical plants in Alexandria area using its ethane importing pipeline (diameter 24 inch and length 23 km).



A. Exporting Propane



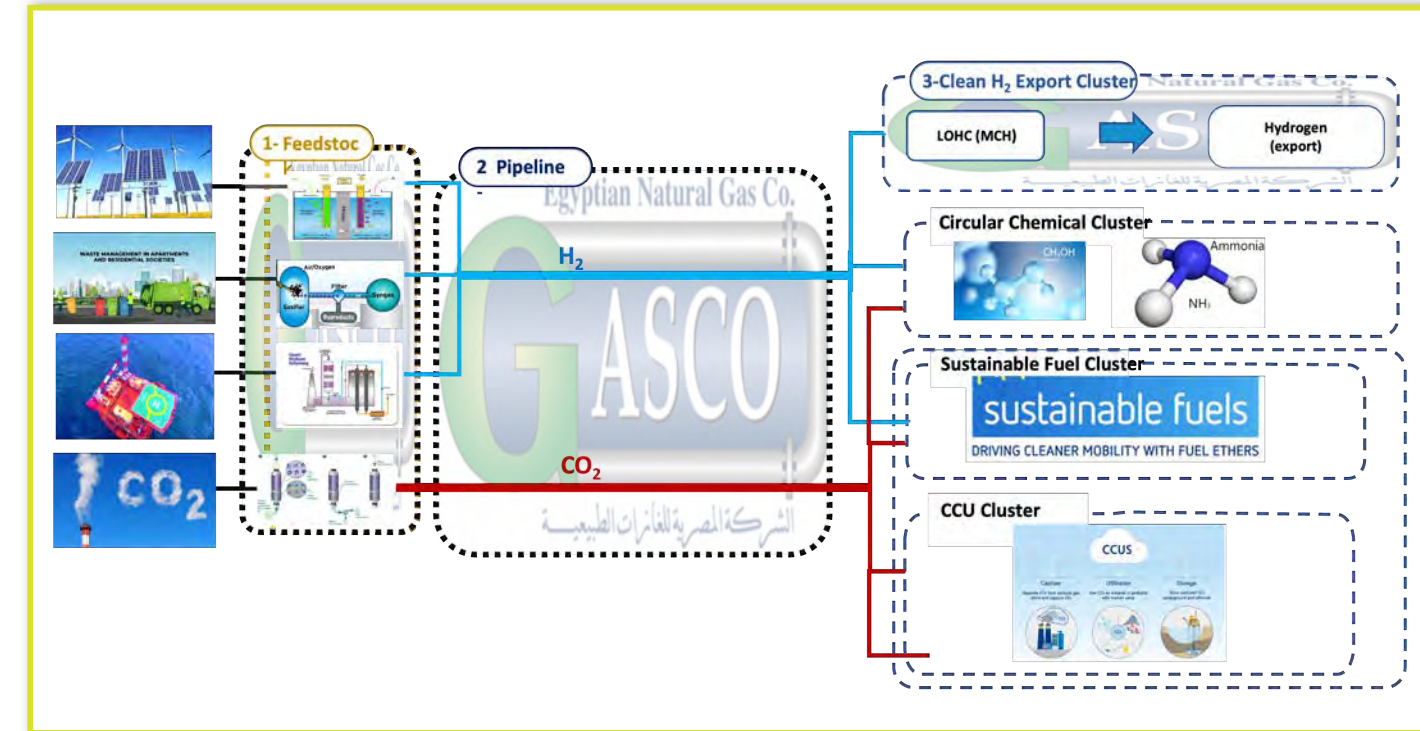
B. Importing Ethane

GASCO Business Enterprise

7-Hydrogen and Carbon Dioxide value-chain activities

In light of the establishment of the National Council for Green Hydrogen, which comes within the framework of the state's efforts to localize this promising industry and achieve its integrated and sustainable energy strategy, GASCO added the activities of hydrogen and carbon dioxide to its scope. The current objectives:

- A. Potential cooperation related to feasibility studies, front-end engineering design (FEED) studies, project management, construction supervision, and operation and maintenance of hydrogen and CCUS projects.
- B. Study blending hydrogen into the gas network and the possibility of qualifying the use of gas lines to transport hydrogen.
- C. Study potential partners by evaluating investment opportunities available in the fields of hydrogen and carbon dioxide.
- D. Implementation of the small projects that can be classified as quick wins in this field.
- E. Possible funding opportunities for hydrogen and CCUS projects.



Quality & HSEEn

GASCO gives a top priority for HSE, process safety, energy conservation and quality issues.

GASCO considers the quality and HSEEn acting as an investment that reflects directly positively on the sustainability of its human resources and the work environment, as well as the company's asset and reputation.

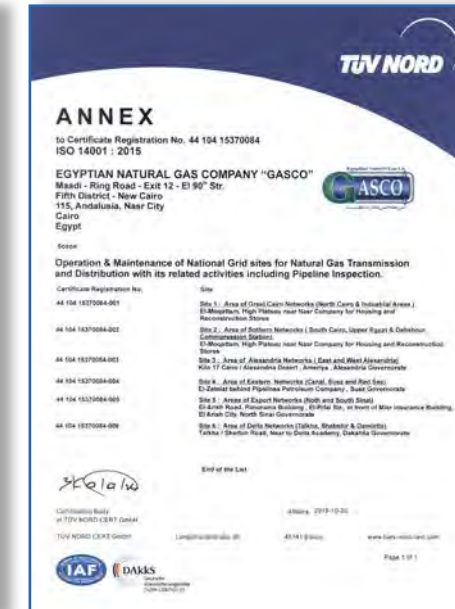
GASCO takes a proactive approach to prevent losses in all its activities, where all projects are planned and studied in the initial stages of design and construction, then continue during the stage of operation and maintenance. That is done along with promoting the concept of safety culture and raising awareness among employees.

GASCO is one of the leading companies in the Egyptian petroleum sector to be certified for:

- Quality Management System (ISO-9001)
- Environmental Management System (ISO-14001)
- Laboratories Quality Management System (ISO/IEC-17025)



ISO 9001



ISO 14001



ISO/IEC 17025

Quality & HSEEn



- Information Security Management System (ISO-27001)
- Occupational Health and Safety Management Systems (ISO-45001)
- Energy Management System (ISO-50001)



ISO 27001



ISO 45001



ISO 50001



GASCO achieves the objectives of the environmental sustainability policy and energy rationalization that are in line with Egypt's vision for Sustainable Development 2030 and the sustainable development goals approved by the United Nations General Assembly.

Gas Projects Reference List

A- Pipelines Projects e.g.:

1050 km (different sizes) - upper Egypt gas line; (Dahshur – Elwasta - Beni Sweif – Menia – Asyut – Gerga – Aswan - Kima).

32"/200 km – (Amerya – Dahshor).

36"/200 km – (Teena – Areesh).

32"/170 km – (Teena – Meet Nama).

32"/170 km – (Idku – Damietta).

42"/165 km (Teena - New Capital).

32"/120 Km (Borg ElArab – Alalamen).

In-Addition to:

[GASCO/ENPPI/PTJ] consortium for EPC of the Arab gas line project, (phase-1 2003) - (phase-2 2006), 36"/685 km (Areesh – Aqaba – Rehab, Syria).



Gas Projects Reference List

B- PRMS- Pressure Reduction & Metering Stations

GASCO has executed more than **149 PRMS** with capacities range from (0.25 to 22) million cubic meter per day :

- ❑ EBIC - Egypt Basic Industries Co.
- ❑ EMETHANEX.
- ❑ EPP - Egyptian Poly Propylene.
- ❑ WDEPC.
- ❑ Egyptian Sugar & Integrated Industries.
- ❑ Pyramids Industrial Development.
- ❑ Delta Elec.
- ❑ ERC - Egyptian Refining Company.
- ❑ Kima - Egyptian Chemical Industries.
- ❑ East Delta Elec.
- ❑ Beni Sweif Power st. (Seimens) 22 million m³/ day.
- ❑ New Adminstration Capital st. (Seimens) 22 million m³/ day.
- ❑ Brullos Power St. (Seimens) 22 million m³/ day.
- ❑ South helwan power st. 8 million m³/ day.
- ❑ Borg Al-Arab st. 6 million m³/ day.
- ❑ Marsa Matrouh power st. 0.25 million m³/ day.
- ❑ MIDELEC power st. 1.44 million m³/ day.



GASCO Services Refrence List

A- SCADA & Tele-Communications

- Connecting West Delta fields with head office – B.P
- Connecting Admin. building with refinery lab – ERC
- Connecting SHARM EL SHEIKH elec. St. – elec. sector
- Connecting ZOHR field to national SCADA-PETROBEL/Eni



GASCO Services Reference List

B- In-line Inspection & Integrity Services (Gas, Oil & Refined Products Pipelines)

GASCO has inspected, repaired, rehabilitated and maintained 7160 km of the national gas grid, moreover 5591 km for multi-national companies and pipelines abroad.

- Inspecting 36"/5 km oil feedline - SUCO.
- Inspecting 16" oil feedline - Qarun.
- Inspecting 24" & 16" gas lines - Badr Eldin.
- Inspecting 36" the Jordanian gas line - TGS.
- Inspecting 24" & 30" gas lines - Al-Burullus.
- Inspecting 16" water line - Asyut Oil Refinery.
- Inspecting 8"/105 km LPG line - P.P.Co.
- Mapping service - the Egyptian National Gas Grid.



GASCO Services Reference List

C- Engineered Composite Systems and Polymeric Applications

- Cold repair of 26,32 & 42 - metal loss - BAPETCO
- Cold repair of new feed gas line - metal loss - KIMA
- Valve performance enhancing - gas leak - MOPCO
- Sponge blasting for pressurized vessels - BAPETCO

D- Hot Tapping & Stoppling

- 24"/1 stoppling & 2 hot tapplings - Khalda
- 42"/7 hot tapplings - Petrojet
- ALL hot tapping for Zohr gas development



GASCO Services Reference List

E- HSEEn Studies

- QRA – 24" western desert gas line – KHALDA
- QRA – 3" vent line – TGS
- QRA – crude loading line – ELNG
- QRA – western desert gas station – BAPETCO
- Hazardous Classification - PRMS – ETHYDCO
- ESIA – regasification unit – EGAS
- ESIA – fields & offices – MODERNGAS
- Environmental management sys, energy management sys & hazardous waste disposal sys – EGAS & MODERNGAS
- Exhaust air emissions - MODERNGAS



Saving
Energy



GASCO's Investments

Share in
20 companies
work in the natural gas field
and its value - added industries.







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