

EGYPTIAN OIL & GAS

SECTOR'S ROAD TO NET-ZERO CARBON



EGYPTIAN OIL & GAS SECTOR'S ROAD TO NET-ZERO CARBON



BY JOLLY MONSEF, MARIAM AHMED & YOUSSTINA MOUNIR

The oil and gas sector is working through a strategy where energy transition and emission reduction are major parts. Accordingly, the sector has adopted a vision and plan to convert to low-carbon energy sources and reduce carbon emissions through strategic pillars which are otherwise known as energy security, financial sustainability, and governance of the sector.

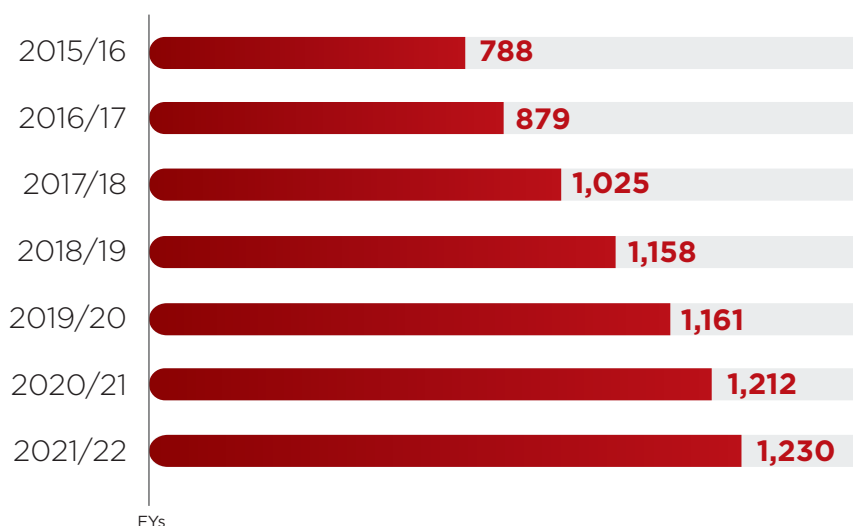
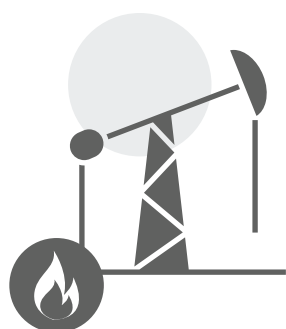
Also, within the framework of the oil and gas sector's strategy for energy transition and emissions reduction, the sector adopts a plan to support decarbonization according to six main pillars which are: energy subsidy reform, low carbon natural gas as a complement to renewable energy, improving energy efficiency, decarbonization, renewables & bioenergy and hydrogen.

NATURAL GAS AS A TRANSITIONAL FUEL

Natural gas is considered to be a "bridge fuel" in the transition from coal to a near-zero emission energy system. In this context, the oil and gas sector had promoted and encouraged new natural gas discoveries over the past years to increase its production to meet the market's needs.

The new discoveries have always been driven by the Ministry's work strategy to create an attractive environment for international oil companies to pump their investments to search for gas and oil in Egypt.

Natural Gas Production Growth (Thousand boe/d)



Natural gas consumption has been significantly and continuously increasing in light of Egypt's vision to diversify its energy mix, enhance the transition towards green fuels, and boost decarbonization in the energy sector.

The natural gas consumption share is expected to reach 65% during FY 2022/23. Moreover, natural gas usage has expanded in many industrial sectors to increase its added value, including petrochemicals and fertilizers production.

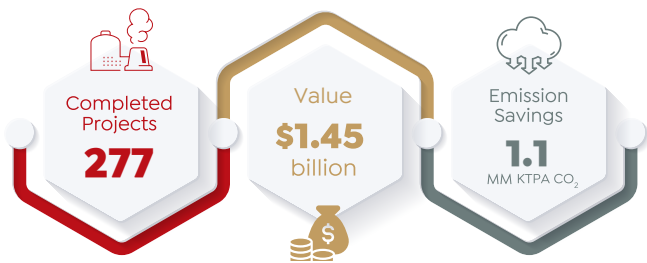
THE EGYPTIAN OIL & GAS SECTOR'S EFFORTS

The sector has adopted a solid plan to achieve sustainable development, decarbonization, and transition to low-carbon energy sources. In this regard, the Ministry has determined to ascertain this plan by promoting energy efficiency, gas flaring and emission reduction projects, and natural gas delivery and CNG initiatives.

Energy Efficiency

The sector considers energy efficiency to be the most cost-effective way to achieve emission reductions. It has succeeded in obtaining significant projects.

ENERGY EFFICIENCY PROJECTS UNTIL MID-FEBRUARY 2023



ANNUAL ENERGY SAVING



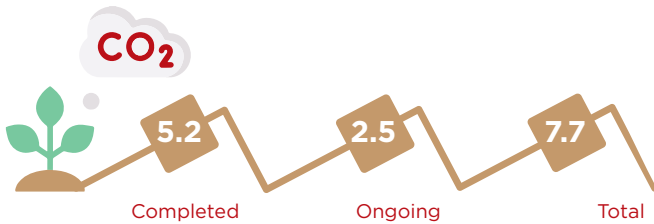
Gas Flaring & Emission Reduction

Egypt has made great progress toward reducing emissions in the local industry through implementing several low-carbon infrastructure projects.

GAS FLARING PROJECTS UNTIL DECEMBER 2022



EMISSION REDUCTION PROJECTS UNTIL MID-FEBRUARY 2023 (MM TPA CO₂)



Natural Gas Delivery & CNG Initiative

Considering natural gas as a clean and decarbonized fuel, the oil and gas sector took a strategic decision more than 20 years ago to intensively use it as a major energy source, and this is in line with Egypt's strategy for energy transition and boosting decarbonization.

NATURAL GAS DELIVERY*



*Since starting the activities

CNG INITIATIVES*



THE ROLE OF IOCS & INTERNATIONAL INSTITUTIONS

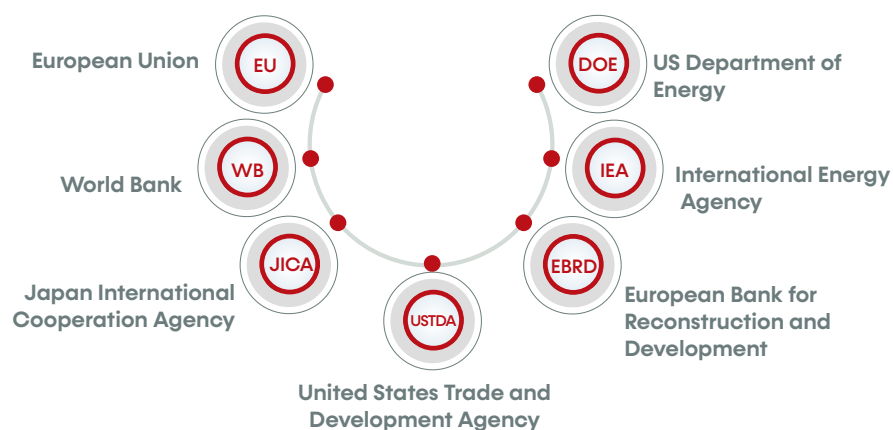
Collaboration and cooperation with all international oil companies (IOCs) and international institutions is a key enabler to create synergies across the six decarbonization pillars. The Egyptian oil and gas sector companies signed a number of memorandum of understanding (MoUs) with many

international companies from different countries specializing in energy transition, decarbonization, and hydrogen fields. Moreover, there is coordination with major international institutions to support the sector's efforts in the field of emissions reduction.

Signed MoUs with International Companies



Cooperation with International Institutions



Signed MoUs & Agreements

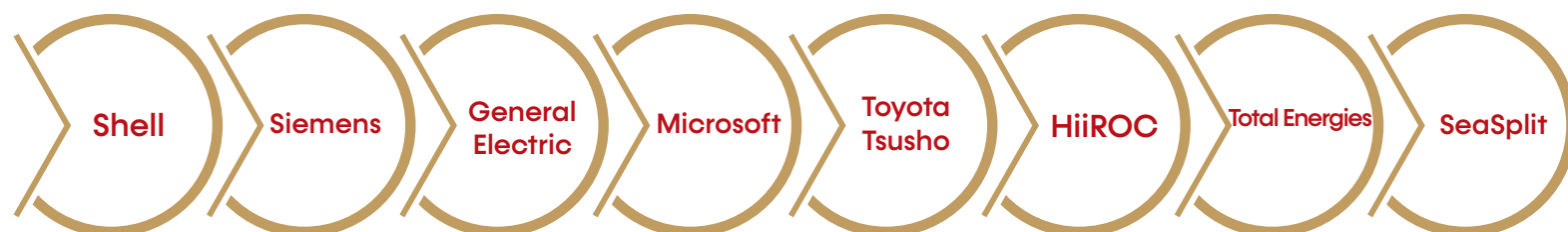
The Ministry of Petroleum and Mineral Resources (MOPMR) was keen to promote its efforts in decarbonization efforts through signing a number of MoUs and agreements with international companies and institutions in

recent major events such as Decarbonization Day at COP27 which took place in November 2022 and Egypt Petroleum Show (EGYPS) 2023 in February 2023.

Decarbonization Day at COP27

Within the Decarbonization Day at COP27, the oil and gas sector signed seven MoUs with different international companies specialized in sustainability and decarbonization fields.

Signed MoUs with IOCs During Decarbonization Day



EGYPS 2023

On the sideline of EGYPS 2023, the Minister of Petroleum and Mineral Resources, Eng. Tarek El Molla witnessed the signing of MoUs and agreements for executing a number of decarbonization projects.

MOPMR Signed an MoU for Low-carbon Projects

Agreement for Executing Decarbonization Projects

**Company**

Chevron

**Objective**

To cooperate in exchanging best practices related to decarbonization projects including methane emissions management

Partners

Shell,
Bechtel,
Enppi &
Petrojet

Aim

Implementing a number of emissions reduction projects in the gas facilities and installation affiliated to Shell



The sustainable and decarbonized economy will be possible as countries are working on its requirements, including technological innovation, effective capital reallocation and financing structures, and collaboration among, public and private sectors. Governments, the private sector, and international institutions are working on achieving an energy transition. The Egyptian oil and gas sector has an essential role in advancing decarbonization pathways to contribute to satisfying both local and

international energy demands with lower carbon intensity. Moreover, the MOPMR will continue working to execute projects to realize its vision and strategy for emission reduction. A key decarbonization solution is carbon capture, utilization, and storage (CCUS), a suite of technologies that Egypt adopted in collaboration with its strategic partners to achieve its goals and plans.



