

8

YEARS OF ACHIEVEMENTS THE JOURNEY OF THE EGYPTIAN OIL AND GAS SECTOR

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INTRODUCTION

Thanks to the new structural reforms, strategies and programs, the Ministry of Petroleum and Mineral Resources (MOPMR) did its best and exerted efforts to achieve remarkable progress in the Egyptian oil and gas sector to ensure it remains the leading economic sector. Accordingly, an intensive work program was implemented during the past eight fiscal years (FYs) to increase oil and gas reserves by issuing international bids and intensifying search and exploration operations, which reflected positively on increasing the rates of domestic production of oil and gas and led to an increase in exports. Moreover, the strategic position of Egypt, especially in the Mediterranean region, and its active presence in several important international energy forums and conferences supported its position as a regional gas hub. In this context, the MOPMR witnessed unprecedented results and remarkable achievements during the above mentioned period.



A satellite night-time image of Egypt and the surrounding region. The Nile River is clearly visible, glowing with a bright yellow-orange light, indicating oil and gas fields. The surrounding land and sea are dark, with some coastal areas and cities also showing light. The text is overlaid on the top left of the image.

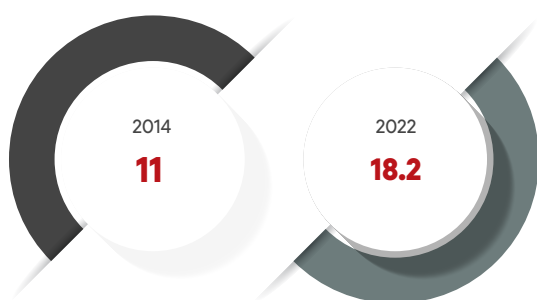
SECTION 1:

THE EGYPTIAN OIL & GAS SECTOR ACCOMPLISHMENTS

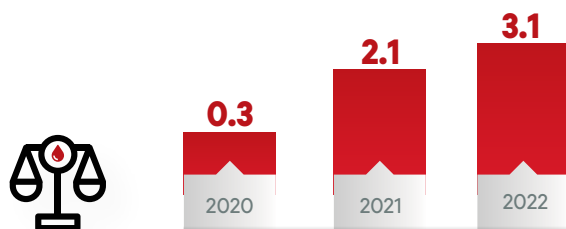
OIL & GAS SECTOR AS A LEADING ECONOMIC SECTOR

Over the past eight FYs the Egyptian oil & gas sector has managed successfully to achieve remarkable progress in the Egyptian economy as a leading sector through promoting petroleum exports as well as pushing and encouraging investments in oil and gas exploration.

OIL & GAS EXPORTS GROWTH (\$ billion)

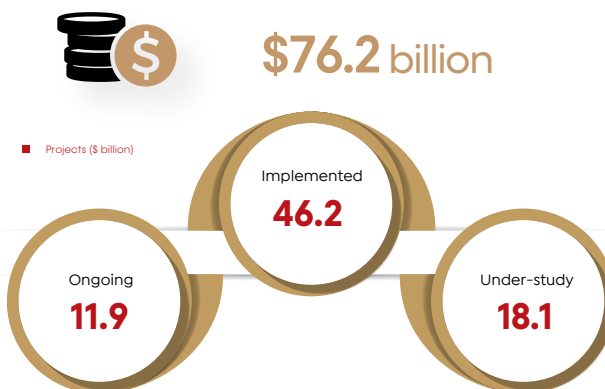


OIL & GAS TRADE BALANCE SURPLUS (\$ billion)



A surplus was achieved for the third year in a row, after several years of deficit

SECTOR'S INVESTMENTS FROM FY 2014/15 TO 2022



DECLINING ARREARS TO IOCS (\$ billion)



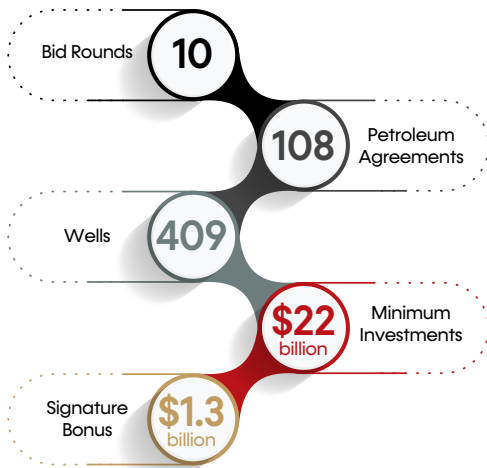
UPSTREAM ACHIEVEMENTS

In the framework of the Ministry's efforts to make Egypt an energy hub amid the challenges in the global oil and gas markets, an intensive work program was implemented during the last eight FYs to increase oil and gas reserves by issuing international bids and intensifying search and exploration operations.

The new discoveries as well as awarding of new areas for the first time such as the Western region of the Mediterranean and the Red Sea reflected the fruitful results of the ministry's strategy in recent years to create an attractive environment for international oil companies (IOCs) to pump their investments in Egypt. The strategy succeeded in attracting the two largest international companies, ExxonMobil and Chevron.



EXPLORATION & DISCOVERY ACTIVITIES TO 2022

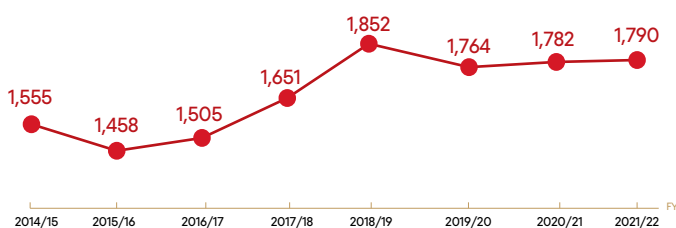


NATURAL GAS FIELDS DEVELOPMENT PROJECTS



Thanks to promoting the exploration and production activities in addition to creating an attractive environment for investments, crude oil and natural gas production witnessed a significant increase over the past eight FYs as it rose from 1,56 million barrels of oil equivalent per day (mmboe/d) in FY 2014/15 to reach 1.79 mmboe/d in FY 2021/22. It is noteworthy that August 2019 witnessed the highest level of crude oil and natural gas production at 1.93 mmboe/d.

CRUDE OIL & NATURAL GAS PRODUCTION (Thousand boe/d)



An aerial night photograph of a coastal region, likely the Persian Gulf area, showing a large body of water with a prominent, winding, glowing yellow-orange light trail that reflects the city lights of a coastal city. The surrounding land is dark, with scattered lights visible along the coast and inland.

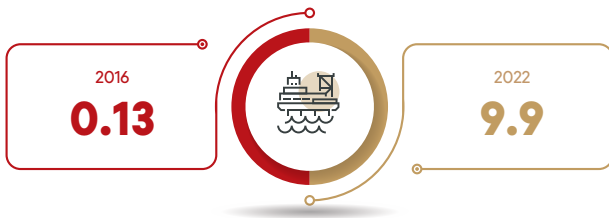
SECTION 2:

NATURAL GAS ACTIVITIES

NATURAL GAS & LNG EXPORTS

With the resumption of liquified natural gas (LNG) exports from the Damietta liquefaction plant after an 8-year hiatus, Egypt's LNG production experienced a historic boost. Egypt turned from being an LNG importer to be a net LNG exporter in 2019. Moreover, Egypt was ranked 1st among Arab countries in achieving growth in natural gas & LNG exports volume during Q3 2021. Accordingly, natural gas and LNG exports hit \$7.8 billion in 2022.

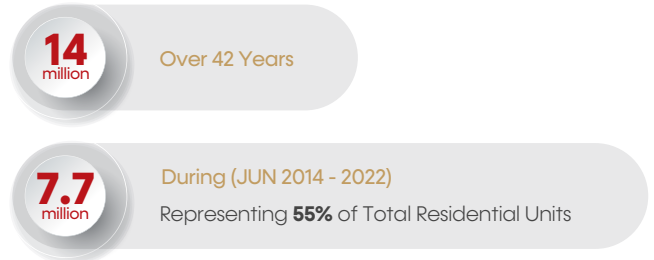
NATURAL GAS & LNG EXPORTS (\$ billion)



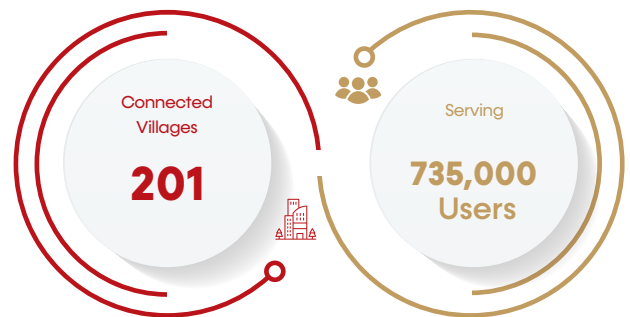
NATURAL GAS DELIVERY

In continuation of the efforts of the oil & gas sector in implementing the national project to deliver natural gas to residential units in line with the state's policy to create a kind of social justice, the use of natural gas has extended to replace butane, where the MOPMR succeeded in substituting 250 million butane cylinders annually.

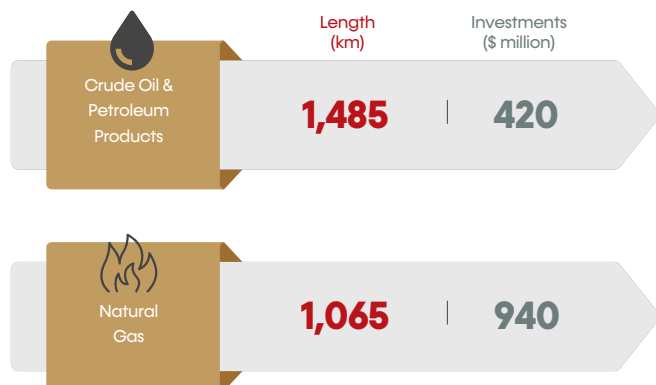
CONNECTED RESIDENTIAL UNITS



HAYA KARIMA INITIATIVE



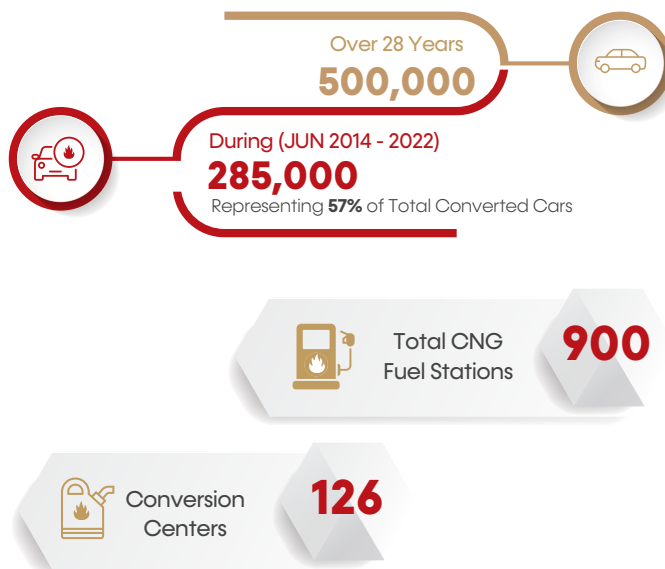
EXPANSION OF NETWORK PIPELINES



CAR CONVERSION TO NATURAL GAS

Within the framework of implementing the presidential initiative to expand the use of natural gas as vehicle fuel, the MOPMR is working hard to expand the activity of converting cars to run on natural gas. This was driven by increasing the number of fuel stations that provide compressed natural gas (CNG) and establishing new centers for converting cars to run on natural gas all over the country.

CONVERTED CARS TO CNG FUEL



SECTION 3:

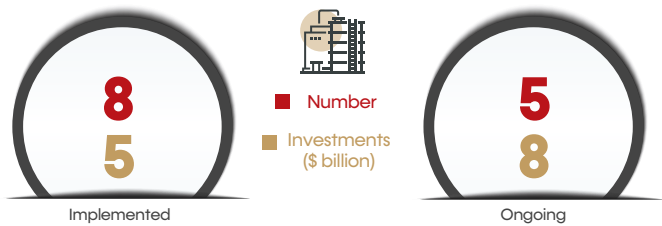
REFINING, PETROCHEMICALS & INFRASTRUCTURE HIGHLIGHTS



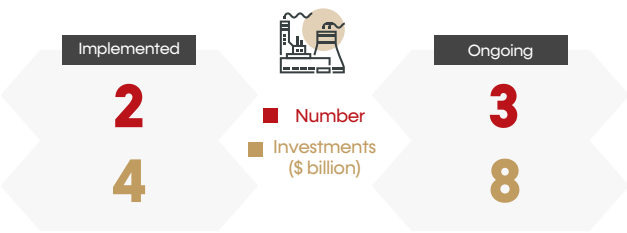
The MOPMR has continued its efforts to increase investments in refining and petrochemical projects as well as infrastructure and operate them in an optimum economic way which can achieve sustainability, reduce costs and reduce emissions.

As for the last 7.5 years, total refining projects (implemented and ongoing) accounted for 13 projects with \$13 billion total investments. Also, the total petrochemical projects (implemented and ongoing) amounted to five projects with \$22 billion total investments.

REFINING PROJECTS



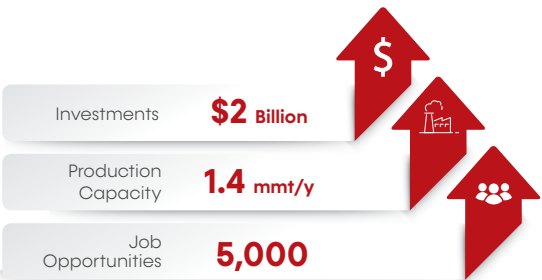
PETROCHEMICAL PROJECTS



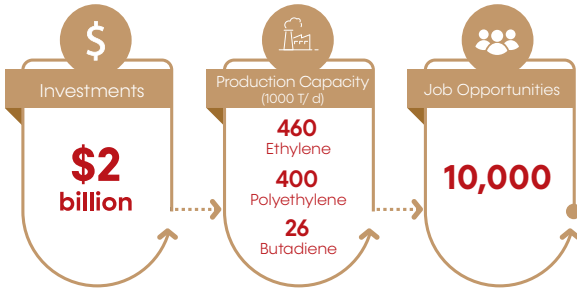
IMPLEMENTED PETROCHEMICAL PROJECTS



Misr Fertilizers Production Company (MOPCO) Project



The Egyptian Ethylene and Derivatives Company (ETHYDCO) Project




The Ministry exerted efforts to develop infrastructure and petroleum ports to support Egypt's regional role as a hub for trading oil and gas. So, these achievements came as part of the effective implementation of a modernization and development plan.

PETROLEUM PRODUCTS TRANSPORTATION AND STORAGE CAPACITIES

Date	Port Capacities (mmt/y)	Pipelines Capabilities (mmt/y)	Storage Capacities (billion tons)
2014/15	45	118	1.1
2021 - SEP 2022	76	125	2.5
Growth Rate (%)	70	6	130



An aerial night photograph of a city, likely Chicago, showing the city lights, a large body of water (Lake Michigan), and a river (the Chicago River) flowing through the city. The text is overlaid on the left side of the image.

SECTION 4:

SECTOR'S SOCIAL RESPONSIBILITY

CSR STRATEGY OVERVIEW

The oil and gas sector has adopted a new strategy for social responsibility aimed at unifying the government and private sectors under one umbrella to support vital initiatives and projects that meet basic priorities for society and citizens, instead of providing individual initiatives.

This is in addition to achieving the concept of sustainable development and the leadership of the Egyptian oil and gas sector in economic and sustainable development.

Vision

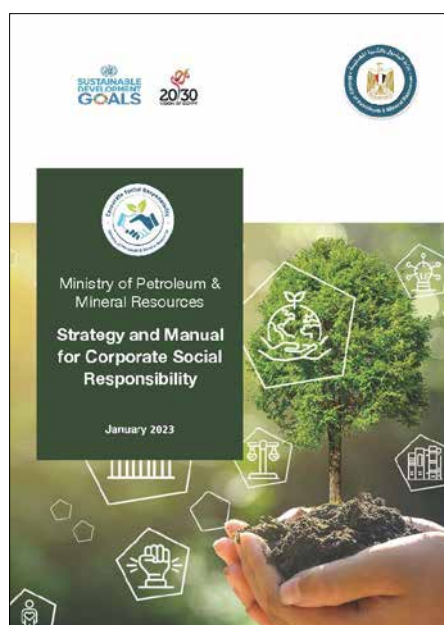
The corporate social responsibility (CSR) strategy's vision focuses on achieving the sustainable development concept and enhancing environmental, social and economic performance. It also aims at realizing the leadership of the Egyptian oil and gas sector in sustainable development. This is in addition to improving the quality of living conditions in Egyptian society.

Mission

The mission of the strategy is represented in the Ministerial decree which was issued to formulate the CSR high committee and working group. The committee will help in supporting the sector's contribution to achieving the annual sustainable development plan of Egypt's Vision 2030.

Goals

The strategy's goals focus on the development concept, adopted by the sector, which is based on three developmental dimensions: economic, social and environmental. These goals have to be achieved through an annual work plan.



Within the framework of Egypt's Vision 2030 and in light of the 17 sustainable development goals (SDGs) set by the United Nations in 2014, major institutions have a basic developmental role. The sector drafted 10 goals of the 17 SDGs to provide and expand the scope of solutions that address global challenges.

The CSR strategy Focuses on 10 SDGs

10 SDGS



No Poverty

Zero Hunger



Good Health

Quality Education



Gender Equality

Clean Water and Sanitation



Affordable and Clean Energy

Decent Work and Economic Growth



Climate Action

Partnerships for the Goals



MAJOR INITIATIVES

Within the framework of CSR strategy, the MOPMR launched many community development initiatives to boost sustainable development and enhance environmental, social and economic performance.

Blood Donation Campaign

In 2019, the MOPMR along with the Egypt Oil & Gas (EOG) CSR task force organized the campaign in cooperation with the Egyptian National Blood Transfusion Services and the Ministry of Health and Population. The campaign is the first joint activity between the sector's national oil companies (NOCs) and IOCs.

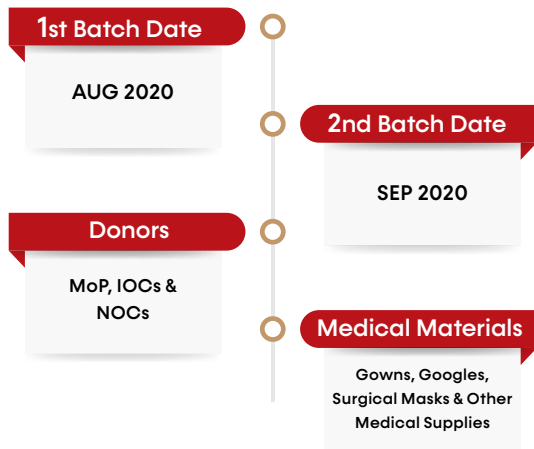
CAMPAIGN RESULTS



Anti-COVID 19 Aid Supply

The MOPMR and the EOG CSR task force launched an initiative titled "Eed Wahda" (One Hand) to support the medical sector. The goal of the initiative is to confront the coronavirus outbreak with the support of Misr El Kheir Foundation.

INITIATIVE HIGHLIGHTS



Initiative to Support Citizens in Aswan

The oil and gas sector implemented a project to support those affected by the floods in Aswan in Khor Awada village, following the floods that the governorate faced in November 2020.



INITIATIVE 1ST PHASE

Rebuilding

- 50 Houses

Providing

- Furniture & Electrical Appliances for 500 Homes
- Sustainable Income for 50 Families

Establishing

- Floodplain to Avoid a Recurrence of the Crisis



An aerial night photograph of a city, likely New York City, showing a dense network of glowing yellow and orange lights from buildings and streets. The lights form a complex pattern, with a prominent diagonal line of light running from the bottom left towards the center. The surrounding areas are dark, with some scattered lights visible in the distance.

SECTION 5:

ENERGY TRANSITION & DECARBONIZATION EFFORTS

SECTOR'S STRATEGY

The oil & 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 represented in energy security, financial sustainability, and governance of the sector.

Strategic Pillars

1. Energy Security

- » Boost energy supply
- » Diversify energy supply
- » Optimize the energy demand
- » Promote decarbonization activities

2. Financial Sustainability

- » Address historic arrears & financial interdependencies
- » Reform energy subsidies
- » Maximize value added from oil & gas
- » Monetize decarbonization opportunities

3. Sector Governance

- » Improve sector governance & organizational structure
- » Capitalize on the sector's human capital
- » Attractive climate investment
- » Unified sector-wide focus on decarbonization

DECARBONIZATION KEY PILLARS

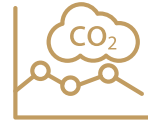
Within the framework of the oil & gas sector's strategy for energy transition and emissions reduction, the sector adopts a plan to support decarbonization according to the following six main pillars.

- 1- Energy Subsidy Reform
- 2- Low Carbon Natural Gas as a Complement to Renewable Energy
- 3- Improve Energy Efficiency
- 4- Decarbonization
- 5- Renewables & Bioenergy
- 6- Hydrogen

ENERGY EFFICIENCY & EMISSIONS REDUCTION ACHIEVEMENTS

The oil & gas sector succeeded in completing projects to reduce CO₂ emissions in addition to entering into partnerships with foreign partners to implement the sector's strategy.

EMISSIONS REDUCTION VOLUME

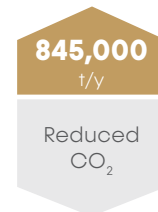


5.2 mmt/y of CO₂

COMPLETED EMISSIONS REDUCTION PROJECTS



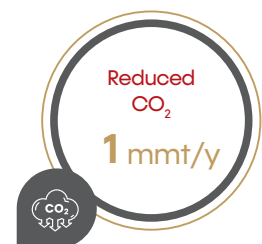
Natural Gas Delivery



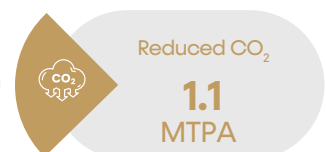
Car Conversion to Natural Gas



Flare Gas Recovery



Energy Efficiency



In parallel with executing projects to reduce emissions, the MOPMR signed agreements and entered partnerships to achieve the sector's strategy, including:

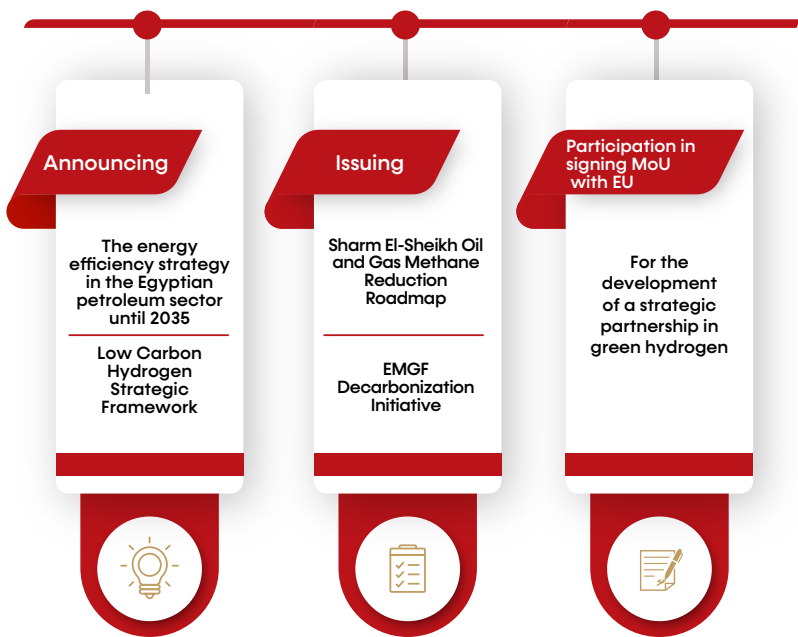
- » Implementation of the first campaign to study the measurement of methane emissions in the sector's companies in cooperation with the European Bank for Reconstruction and Development (EBRD).
- » Signing a joint declaration of intent with the Federal Ministry for Economic Affairs and Climate Action and the Federal Ministry for Economic Cooperation and Development of the Republic of Germany for cooperation in the field of green hydrogen.

COP27 DECARBONIZATION DAY

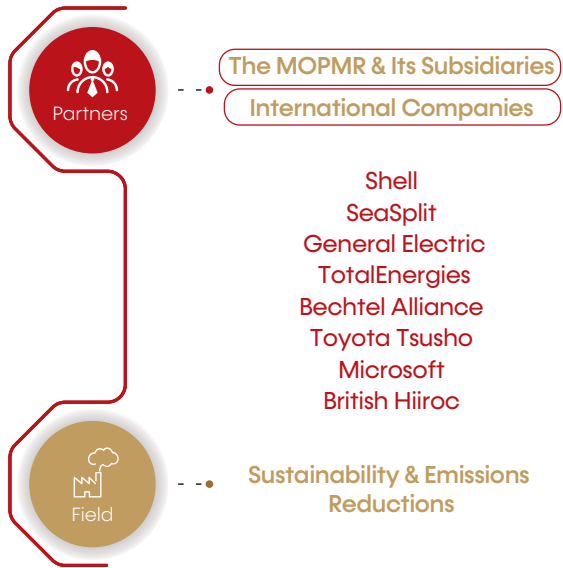
Egypt's oil and gas sector succeeded in organizing the first ever "Decarbonization Day" as part of the official thematic days at COP27. This was the first time ever in COP summits that those who participated in COP27 had the opportunity to take part in Decarbonization Day, a day that not only seeks to highlight the importance of decarbonization as a cause but was a clear demonstration of Egypt's firm commitment to achieving the objectives of the Paris Agreement while pushing for a just energy transition.

Decarbonization Day was opened by H.E. Tarek El Molla, Minister of Petroleum and Mineral Resources, H.E. John Kerry, U.S. Special Envoy for Climate, and H.E. Gerd Muller, United Nations Industrial Development Organization (UNIDO) Director General. It covered eight sessions and showcased efforts, commitments, and enablers for accelerating decarbonization in hard-to-abate industries. This is in addition to 20 bilateral meetings with a number of ministers, officials from international companies, as well as leading experts from global and regional energy institutions.

MAJOR MOPMR'S OUTCOMES FROM COP27



SIGNING 7 MOUS & AGREEMENTS



Shell
SeaSplit
General Electric
TotalEnergies
Bechtel Alliance
Toyota Tsusho
Microsoft
British Hiirac





SECTION 6:

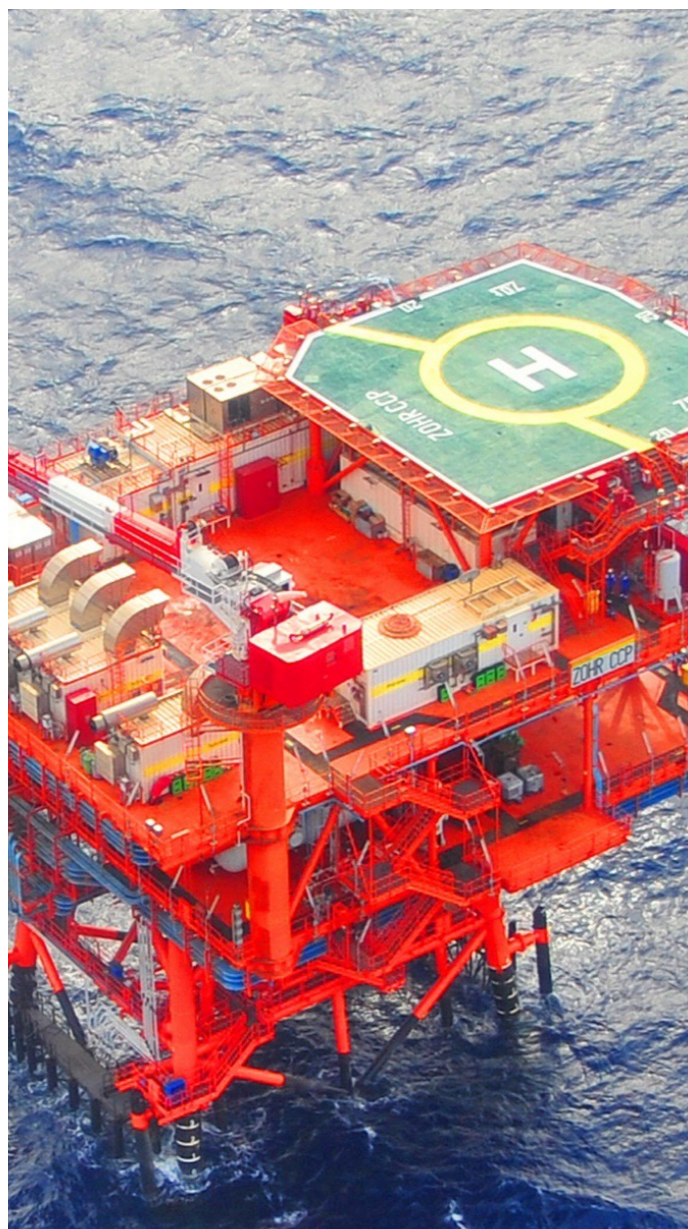
EGYPT ON THE GLOBAL SCENE

STRATEGIC PARTICIPATION IN GLOBAL EVENTS

Egypt continued its active presence as a major speaker in several important international energy forums and conferences.

Egypt in Gas Exporting Countries Forum (GECF)

- » Hosting the ministerial meeting of the Forum in October 2022 in Cairo.
- » The Egyptian Minister of Petroleum and Mineral Resources, H.E. Tarek El Molla, chaired the forum.
- » Participating in the Summit of Heads of State of the GECF Member Countries in Doha in February 2022.



Egypt's Global Participation

EGYPT'S GLOBAL PARTICIPATION IN INTERNATIONAL FORUMS, EVENTS & CONFERENCES



Energy MoUs

The MOPMR is working on different levels to boost cooperation and coordination both regionally and internationally, in addition to promoting its competitive potential in this industry either at the level of coordination with the governments of countries or international companies operating in the region.

SIGNING A BILATERAL COOPERATION MOU

Parties



Egypt & The US

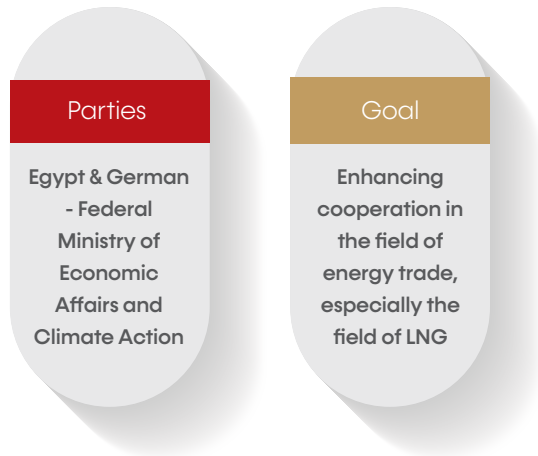
LAUNCHING STRATEGIC DIALOGUE

Parties



Egypt & The US

SIGNING A DECLARATION OF INTENT



Signed MoUs

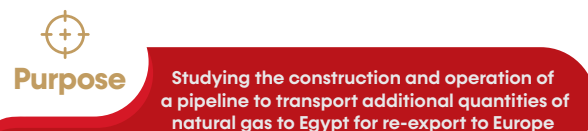
EGYPTIAN-PALESTINIAN MOU



EGYPTIAN-GREEK MOU



EGYPTIAN-ISRAEL MOU



EGYPT'S LEADING ROLE IN THE EMGF

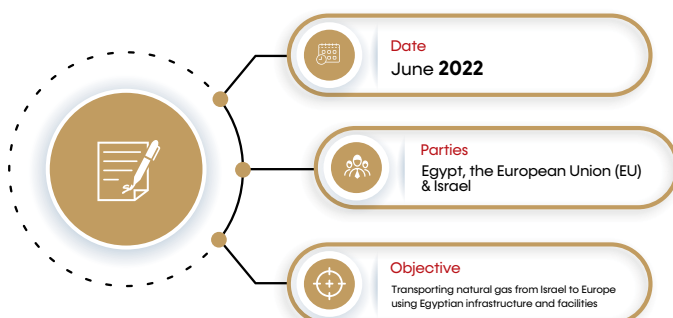
In 2018, Egypt introduced an Initiative to establish the East Mediterranean Gas Forum (EMGF), with the participation of six Mediterranean countries and with its headquarters in Cairo, as a platform for structured policy dialogue on natural gas. The forum statute was signed in September 2020 and entered into force in March 2021. Also in March 2021, France became a member and US became an observer. The EMGF progressively evolved in the past years and became pivotal regional platform that embrace sustainable dialogue on cooperation required to facilitate the successful development of the East Mediterranean gas value chain.

In January 2022, the first Secretary General for the Forum, Osama Mobarez, was selected from Egypt. Cyprus chaired the 8th EMGF Ministerial Meeting for the year 2022. At the end of 2022, Egypt was assigned to chair the Forum in 2023, headed by the Minister of Petroleum and Mineral Resources, H.E. Tarek El Molla

Trilateral MoU

The EMGF played a very important role in ensuring energy security and sustainability to the region and beyond through providing solutions for the dilemma of securing gas supplies for Europe. In June 2022, during the 7th EMGF Ministerial Meeting, a tripartite MoU was signed between Egypt, Israel, and the EU under which Israel will transport natural gas to the EU from Egypt after being liquefied.

TRILATERAL MoU



CONCLUSION

Over the past eight FYs, Egypt's oil & gas sector succeeded in achieving tangible success stories across the value chain of the industry. These achievements had a positive impact on the local, regional and global levels. In that respect, the MOPMR is keen to continue its reforms, plans and strategies in order to maintain its performance and achieve further success. The MOPMR strives to attract foreign investments as well as increase decarbonized production and exports during the upcoming years to assert Egypt's position as a regional energy hub.



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