



THE MINISTRY OF PETROLEUM
AND MINERAL RESOURCES'

2020 IN REVIEW

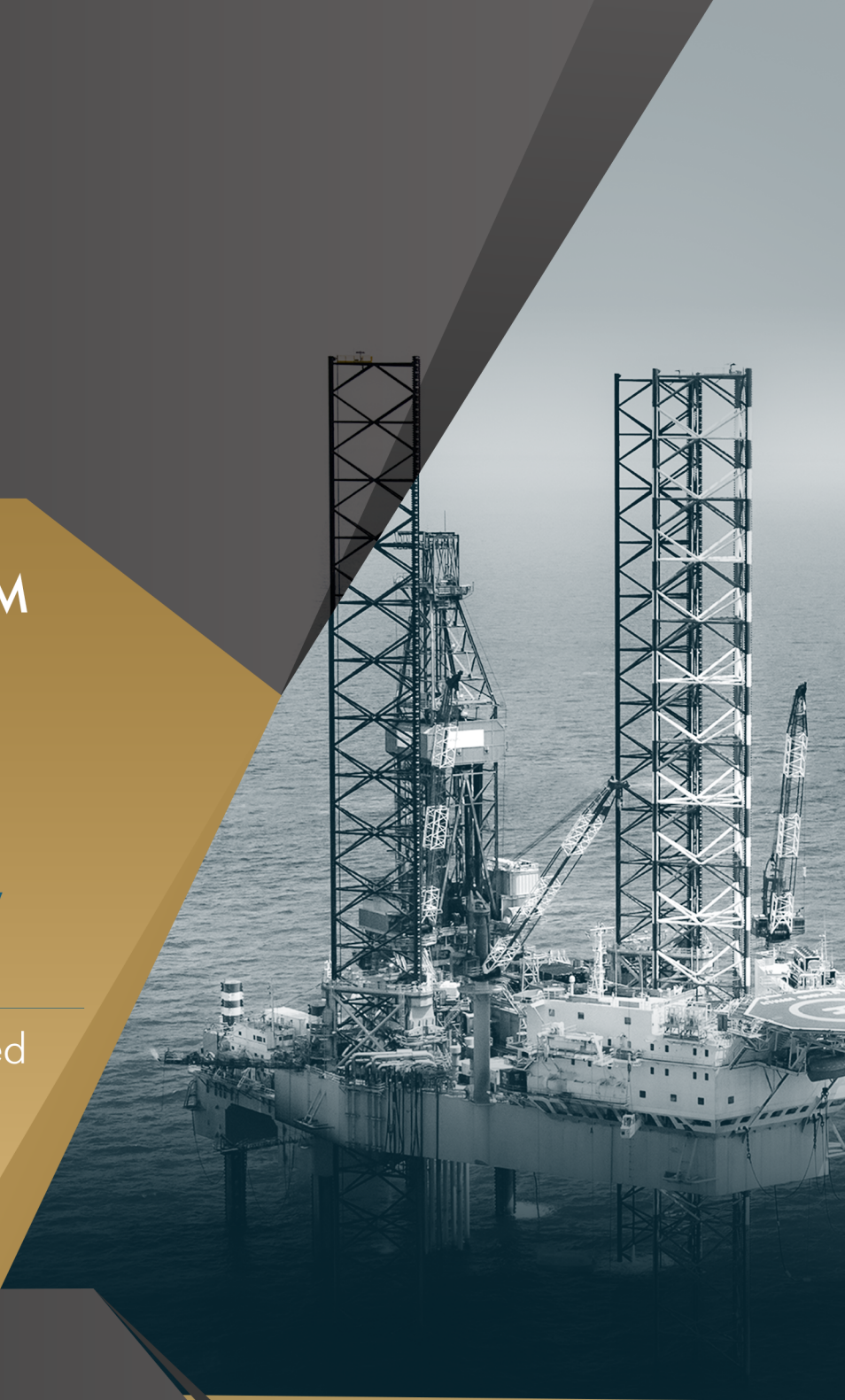
Outstanding Performance Supported
by Economic Reforms Despite
COVID-19 Challenges

SPECIAL REPORT

PREPARED BY



JANUARY 2021



EOG'S RESEARCH & ANALYSIS VISION

Egypt Oil & Gas Research & Analysis division is aiming to provide petroleum industry stakeholders with different types of information covering the latest updates in the promising sector.

The reports are based on industry facts and figures - from reputable, reliable and official sources only. The R&A transforms this raw data into valuable original research and analysis.



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THE MINISTRY OF PETROLEUM AND MINERAL RESOURCES' ACHIEVEMENTS IN 2020



OUTSTANDING PERFORMANCE SUPPORTED BY ECONOMIC REFORMS DESPITE COVID-19 CHALLENGES

Despite the challenges imposed by the COVID-19 in 2020, the Ministry of Petroleum and Mineral Resources has managed to accomplish significant achievements that were only possible due to hard work and the scientific and practical approach that was observed throughout the year.

Even under the difficult circumstances of the pandemic, Egypt managed to become one of the few countries that were able to achieve economic growth in 2020. This came as a result of the integrated economic, developmental and social reform plans, which were supported by political and economic stability.

During the pandemic, the petroleum sector was able to achieve remarkable operational results, while observing all the health, safety and environment (HSE) conditions as well as the precautionary measures for keeping employees safe and preserving the facilities and equipment in addition to guaranteeing production sustainability. The achievements proved the consolidation and strength of the reforms conducted by the ministry and the flexibility of the sector's working plans and strategies.

The MoP has taken many precautionary and preventive measures in all petroleum sites and facilities in line with the country's plans to limit the spread of the coronavirus. The ministry developed flexible work programs that do not affect the production plans of all petroleum activities that play a vital and strategic role to support the national economy. The ministry focused on supporting the necessary manpower in the petroleum fields and production sites with periodic medical check-ups in addition to providing the onsite medical department with the needed capabilities. The ministry also allowed each department to determine the

necessary number of people needed for operations to ensure the continuity of the production process.

The ministry made sure to sanitize the sites and buildings belonging to oil sector companies regularly, in addition to providing the necessary cleaning supplies. The ministry followed up on the situation with the petroleum sector's Supreme Medical Council in addition to forming a sub-emergency committee.

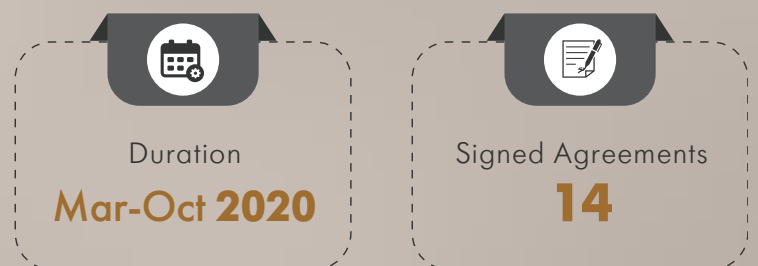
Co-operation Petroleum Company (Copetrole) and Misr Petroleum were also commissioned to provide disinfectant gel products and sanitizers with 70% alcohol concentration. Both companies made the products available for the public in all their outlets and supply stations at reasonable prices. Additionally, the Suez Safety Outfitters (SSO) Company produced cloth masks with standard specifications. To support the Ministry of Health and Population (MOHP), MoP in collaboration with international oil companies (IOCs) operating in Egypt, donated about EGP 4.5 million to fund the purchase of medical supplies and Personal Protective Equipment (PPE) including protective clothing, masks, goggles, and other preventive medical supplies.

It should be noted that despite the pandemic, the ministry signed 14 exploration and production (E&P) agreements with IOCs from March to October 2020.

INITIATIVE WITH IOCS



AGREEMENTS DURING THE PEAK OF COVID-19



PRESIDENTIAL SUPPORT FOR PETROLEUM SECTOR IN 2020

The year 2020 has witnessed continuous support from the political leadership, which was keen to follow up progress rates of the petroleum sector's plans and its ambitious projects. Throughout the year, President Abdel Fattah Al-Sisi conducted several meetings with Prime Minister, Mostafa Madbouly, and the Minister of Petroleum and Mineral Resources, Tarek El Molla, which, in many cases, were also attended by chairmen of international oil companies (IOCs) operating in Egypt.

The President also was keen to personally inaugurate and visit oil and gas projects and events. The President's field visits included the opening of Egypt Petroleum Show (EGYPS 2020) in its fourth edition; the expansion project of Alexandria National Refining and Petrochemical Company (ANRPC); the Egyptian Refining Company (ERC) project in Mostorod and the final drilling operations of Ahmed Hamdy Tunnel 2 which Petrojet has participated in its execution.

On the governmental level, Prime Minister Mostafa Madbouly has continuously supported and reviewed the efforts exerted by the oil, gas and mineral resources sector. Madbouly was keen to offer the necessary help to the sector to overcome any challenges, increase investments and maximize its contribution to the country's development. Early in the year, Prime Minister issued the new executive regulation of the mineral resource law no (145) of 2019 after its amendment.

Madbouly also followed up the implementation situation of the ministry's projects. He personally inspected the facilities of Al Hamra Petroleum Port in New Alamein on the Mediterranean coast. He also gave the green light to operate the new offshore 36 inches transportation line with a length of 8 kilometers (km) as well as the new offshore buoy in order to increase the shipping capacity to 1 million barrels per day (mmb/d) of crude oil with investments estimated at about \$100 million.

INAUGURATION OF THE NEW SHIPPING PIPELINE AT EL-HAMRA PORT



UPSTREAM MAIN ACHIEVEMENTS

ENHANCING EGYPT'S OIL AND GAS RESOURCES AND RAISING THE PRODUCTION RATES

The Ministry of Petroleum and Mineral Resources (MoP) continued to boost the country's resources of oil and gas and raise the production levels by adding new economic discoveries throughout the year.



22 SIGNED AGREEMENTS WITH IOCS

12 PETROLEUM AGREEMENTS IN ISSUANCE PHASE

Minimum Investments

\$1.6 billion

\$1.8 billion

Signature Bonus

\$139 million

\$89 million

Drilling Commitment

74 Wells

33 Wells

62 NEW DISCOVERIES

47 Crude Oil | **15** Natural Gas



12 DEVELOPMENT LEASES

Location ▶ Western Desert
Nile Delta

Signature Bonus ▶ **\$6.5 million**

SEISMIC SURVEYS

■ Company ■ Surveyed Area (km²)

345
GUPCO

100
Nepton

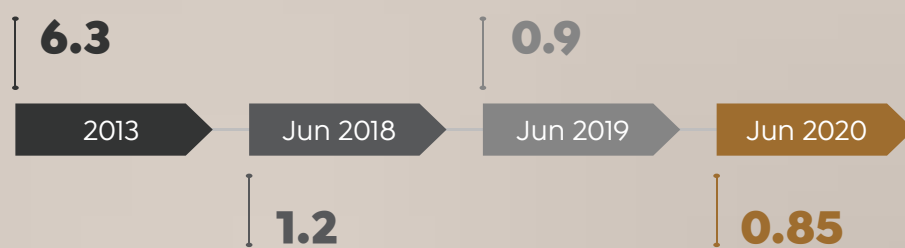
The MoP also finalized the launch of Egypt Upstream Gateway (EUG) to promote the petroleum exploration areas internationally. It was implemented at rapid rates that align with the state's plans to support digital transformation.

REDUCING IOCS' ARREARS

Continuing the efforts to reduce the arrears of the foreign companies, the ministry succeeded in reducing the accumulated arrears to an unprecedented value estimated at \$850 million by the end of June 2020, a decrease of 87% compared to 2013 when it reached \$6.3 billion. This issue was one of the main challenges which affected the oil

and gas exploration and production investments. Furthermore, this will be an incentive for pumping more investments, intensifying E&P operations and accelerating the development of discoveries that can achieve higher production rates.

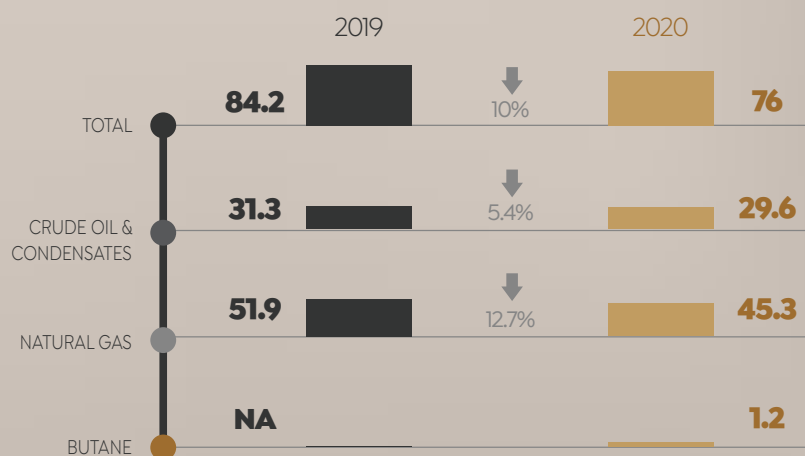
ARREARS DEVELOPMENT (\$ BILLION)



From 2013 to June 2020, arrears decreased by **87%**.

PETROLEUM PRODUCTION INDICATORS

PETROLEUM PRODUCTION (MMT)



AVERAGE PRODUCTION RATES

- 638,000 mmt/d**
Crude Oil, Condensates & Butane
- 6.6 bcf/d**
Current Natural Gas
- 7.2 bcf/d**
Natural Gas Production Capacity

IMPLEMENTED PROJECTS OVER THE PAST 6 YEARS

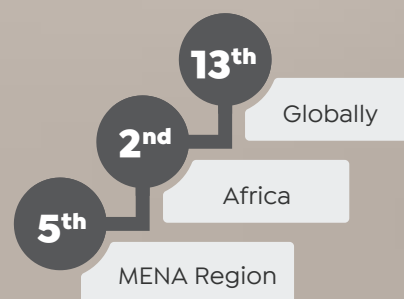


29
Number of Projects



EGP 437 billion
Investments

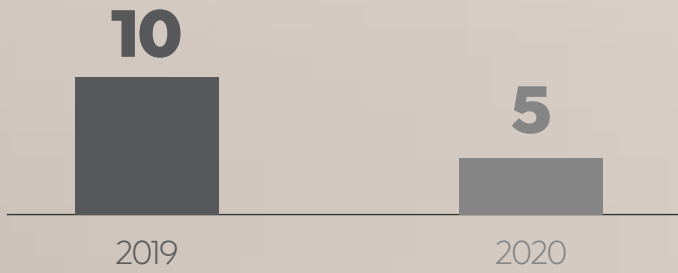
EGYPT'S RANK IN NATURAL GAS PRODUCTION



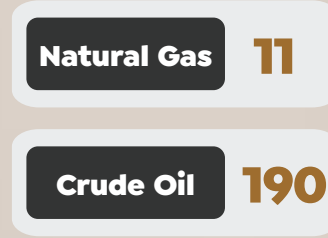
Achieving **25%**
growth in natural gas sector

OIL & GAS EXPLORATION, PRODUCTION AND DEVELOPMENT PROJECTS

MAJOR DEVELOPMENT PROJECTS



WELLS BROUGHT ONLINE



Total
201

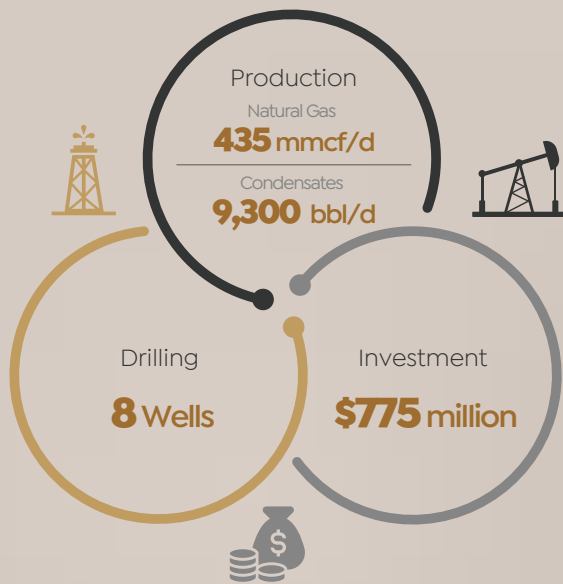
ADDED PRODUCTION

	2019	2020
 Natural Gas (bcf/d)	1.8	1.5
 Condensates (bbl/d)	15,400	32,500
 Crude Oil (bbl/d)		160,000

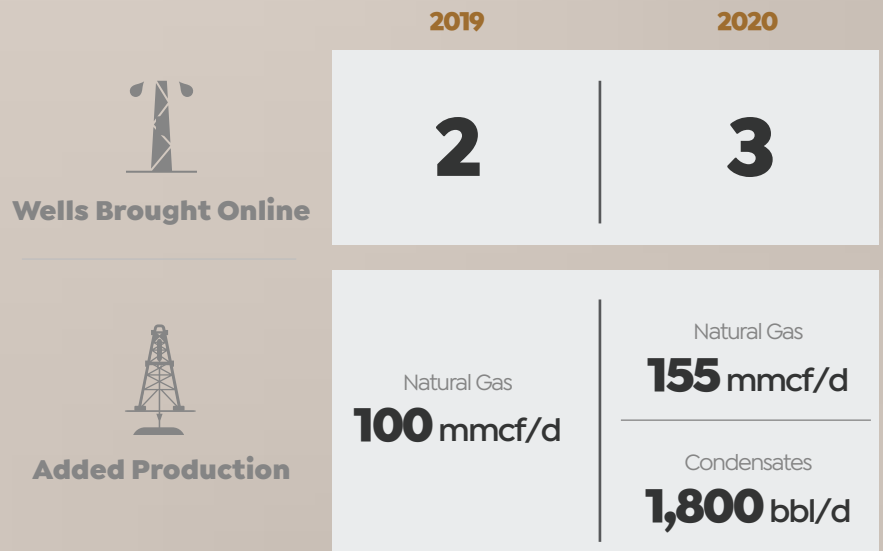
A. NATURAL GAS PRODUCTION AND DEVELOPMENT PROJECTS

COMPLETION OF PHASE 9B DEVELOPMENT PROJECT IN WDDM

PROJECT TARGETS



PRODUCTION UPDATES



COMPLETION OF SOUTHWEST BALTIM DEVELOPMENT PROJECT IN MEDITERRANEAN

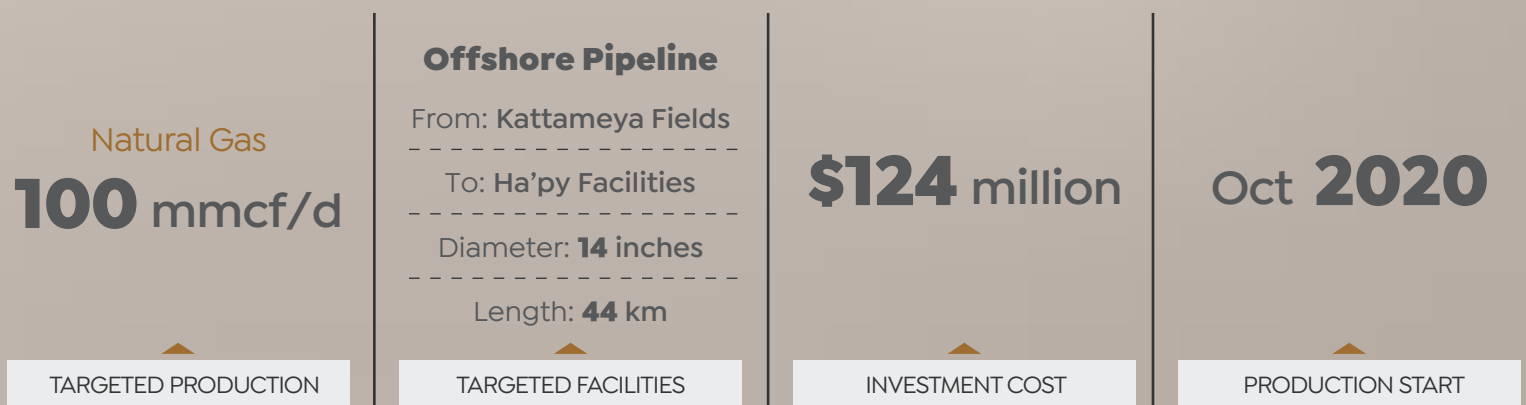
PROJECT TARGETS



UPDATES IN 2020

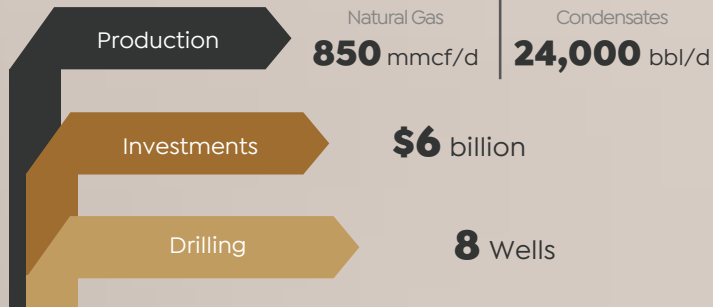


KATTAMEYA FIELD IN MEDITERRANEAN



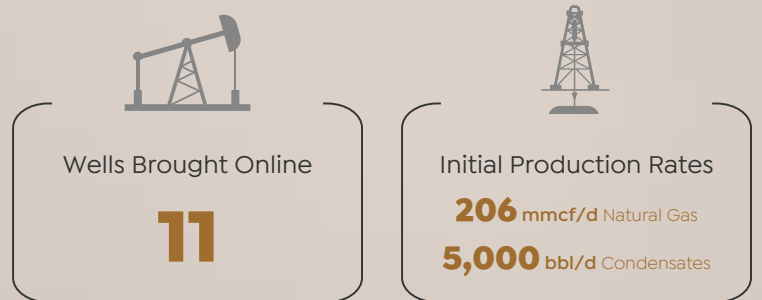
COMPLETION OF DEVELOPMENT OF NORTH ALEXANDRIA & WND FIELDS
(3RD PHASE- RAVEN FIELD)

PROJECT TARGETS



ADDITIONAL PROJECTS IN NILE DELTA AND WESTERN DESERT

UPDATES OVER JAN-OCT 2020



B. CRUDE OIL PRODUCTION AND DEVELOPMENT PROJECTS

NORTHWEST OCTOBER FIELD DEVELOPMENT PROJECT- GULF OF SUEZ- GPC

PROJECT TARGETS



GPC Production Rate
64,000 bbl/d



The highest since
1957

ADDITIONAL PROJECTS FROM DIFFERENT COMPANIES

UPDATES OVER JAN-OCT 2020



REFINING, PETROCHEMICAL, AND INFRASTRUCTURE PROJECTS

REFINING PROJECTS

A. IMPLEMENTED PROJECTS

INAUGURATION OF ERC REFINERY

PROJECT TARGETS

4.7 mmt/y

Convert Mazut to
High Value Products



\$4.3 billion

Investments

INAUGURATION OF HIGH-OCTANE BENZENE PROJECT AT ANRPC



Targeted Production

700,000 t/y

OPERATION OF AROMATICS EXTRACTION UNIT PROJECT IN APC

PROJECT TARGETS



Production (t/y)

2,000 Wax

10,000-16,000 Oils



Investments

\$438 million

TRIAL OPERATION OF HIGH-OCTANE BENZENE PRODUCTION UNIT AT ASORC

PROJECT TARGETS

Production

800,000 t/y

Investments

\$450 million

B. UNDER-EXECUTION PROJECTS

MIDOR EXPANSION PROJECT

Target

Increase Refinery's Capacity
by **60%**

Investments

\$2.3 billion

DIESEL COMPLEX AT ANOPC

Target

Convert **2.5** mmt/y of
Mazut to High Value Products

Investments

\$2.9 billion

ASPHALT PRODUCTION UNIT AT SOPC

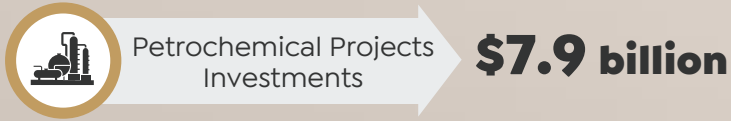
Production

400,000 t/y

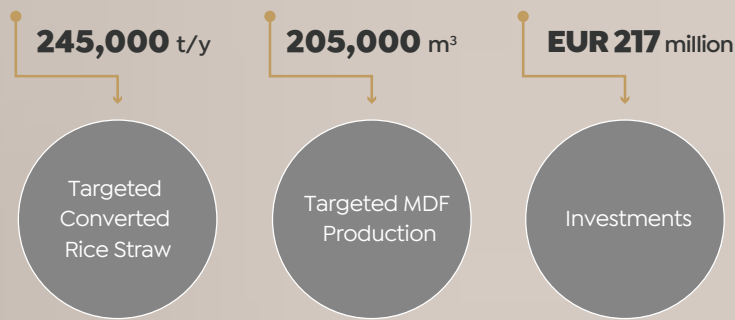
Investments

\$64 million

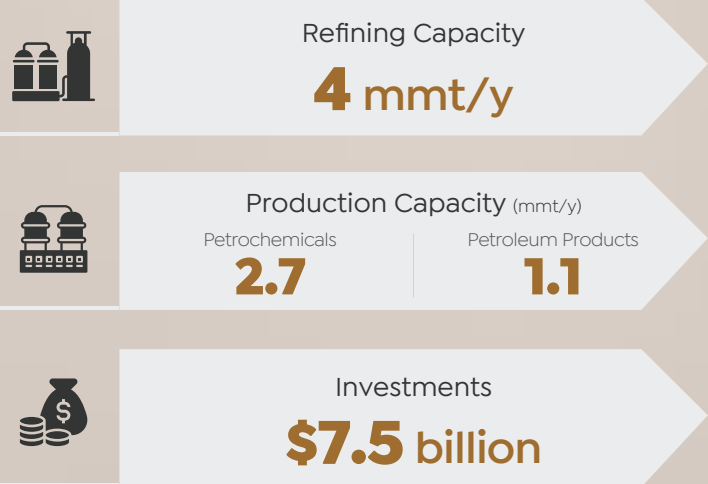
PETROCHEMICAL PROJECTS



THE PROJECT OF PRODUCING MEDIUM-DENSITY FIBERBOARD (MDF)



REFINING AND PETROCHEMICALS COMPLEX AT SUEZ CANAL ECONOMIC ZONE

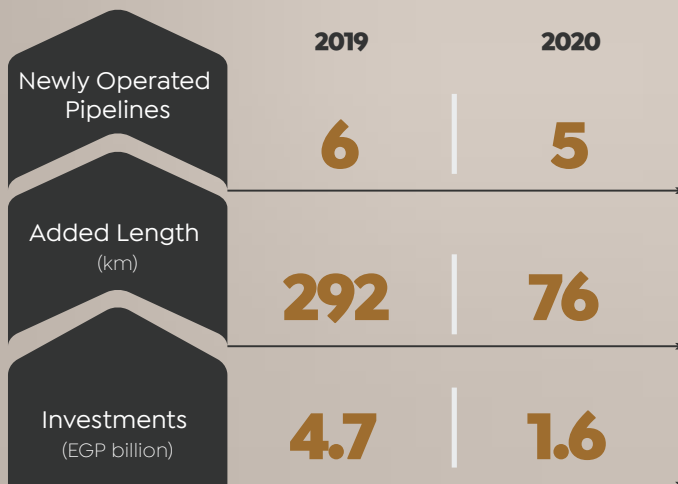


INFRASTRUCTURE PROJECTS

A. CRUDE OIL AND PETROLEUM PRODUCTS PIPELINES

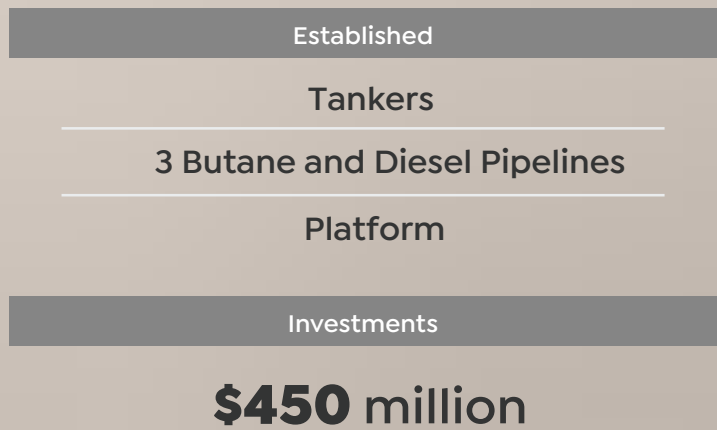


B. NATIONAL GAS GRID PROJECTS



C. INCREASING STORAGE CAPACITY

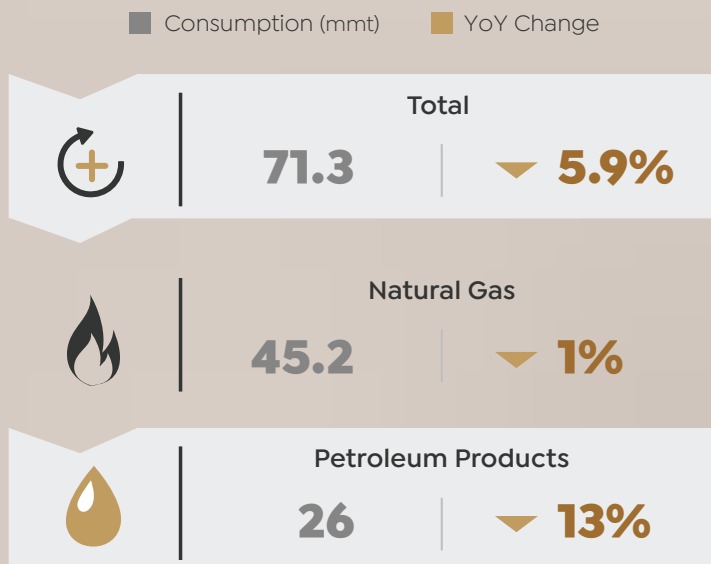
SONKER'S TERMINAL AT AIN SOKHNA



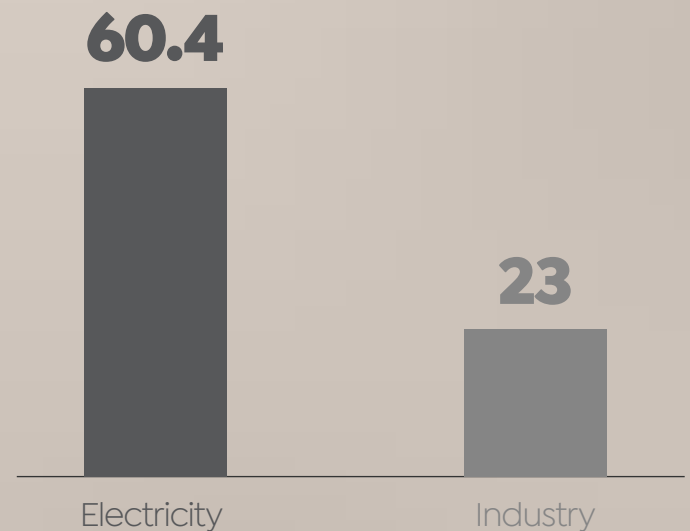
DOWNSTREAM DEVELOPMENTS

THE LOCAL CONSUMPTION OF PETROLEUM PRODUCTS AND NATURAL GAS

PETROLEUM PRODUCTS AND NATURAL GAS CONSUMPTION

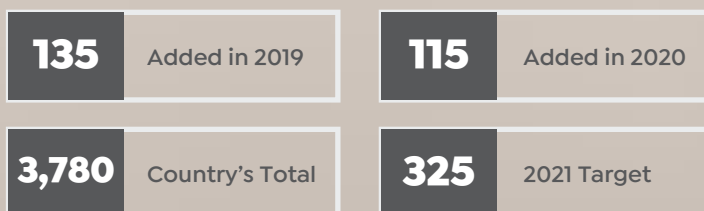


NATURAL GAS CONSUMPTION BY SECTOR (%)



UPGRADING THE SERVICES DELIVERED TO CITIZENS

CAR SERVICES & SUPPLY STATIONS



CYLINDERS DISTRIBUTION CENTERS



NATURAL GAS DELIVERY

	2019	2020	Since Start of Operating
Residential Units (million)	1.2	+1	11.7
Commercial Units	2,013	1,528	-
Factories	56	47	-

CNG STATIONS

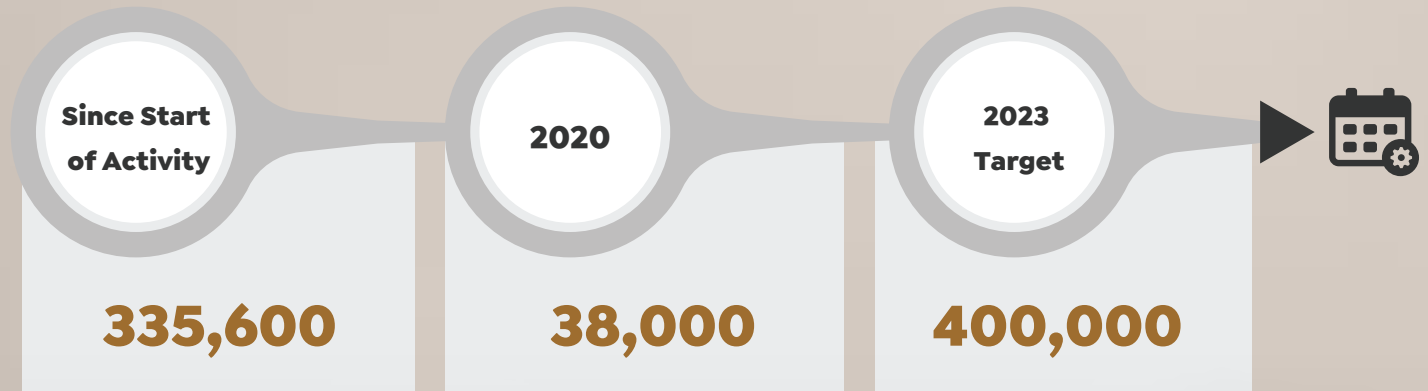


Since Start of Activity
225

2021 Target
325

Total By 2021
550

CARS CONVERTED TO NATURAL GAS



INTERNATIONAL AND MODERNIZATION SUCCESS

EMGF ANNOUNCED AS AN INTERNATIONAL ORGANIZATION HEADQUARTERED IN CAIRO

Egypt had taken the initiative to establish the East Mediterranean Gas Forum (EMGF) two years ago, during the trilateral summit held in Crete between Egypt, Cyprus, and Greece. The idea was widely accepted by most of the region's countries, whether producers, consumers, or transit countries.

The EMGF was formally established in less than 20 months after the signing of the forum's charter by the seven founding countries in September 2020. According to the charter, the EMGF would be headquartered in Cairo. The forum is an example of regional cooperation

as the member countries agreed on achieving one goal, which is maximizing the benefit of the East Mediterranean wealth for its people. This is set to be achieved through joint integration and through using the existing infrastructure owned by each country for the economic benefit and at the least possible cost. The EMGF goal aims to benefit producers and consumers at the same time as the natural gas will be available to the world at competitive prices. The success of the EMGF attracted countries like France, the US, and the United Arab Emirates (UAE) to participate in the forum as permanent members or as observers.

EFFECTIVE STEPS IN TURNING EGYPT INTO AN OIL & GAS REGIONAL TRADING HUB

As part of the oil and gas sector's Modernization Project, the ministry of petroleum is adopting a strategy to turn Egypt into a regional oil and gas trading hub. This strategy includes three main levels, internal; political; and technical. These levels are being executed under the belief that Egypt's leadership and vision to be a regional gas hub will benefit all countries

in the region through integration and cooperation. This cooperation will lead to achieving economic benefits and using energy investments as a tool of peace in the region. During 2020, many steps have been taken in order to achieve this strategy, including:

- Strategy-setting completion by assigned team and authorization by the cabinet.
- Establishing the EMGF to include natural gas producing countries, as well as importers and transit countries around the East Mediterranean to boost cooperation and create a regional natural gas market.
- Signing agreement between Egypt and Cyprus to encourage investors to establish a marine pipeline to move gas from the Aphrodite field to Egypt's liquefaction plants to be re-exported.
- Needed agreements are being prepared to be signed with investors to execute the project of connecting Cypriot gas fields to Egyptian liquefaction plants.
- Several projects have been executed to boost refineries' efficiency. Additionally, many projects aimed to develop the systems of storage, transport, trading and distribution of petroleum products.

THE OIL & GAS SECTOR MODERNIZATION PROJECT AND SUPPORTING THE NATIONAL ECONOMY

In light of boosting the oil and gas sector's ability to cope with the modern era as well as the local, regional, and international challenges, in 2016 the sector started executing an ambitious modernization project. The project aims to develop the sector in order to increase its contribution to Egypt's comprehensive development. This goal is set to be achieved through working more efficiently, attracting investments, and developing human capital. During 2020, the sector witnessed many achievements, including boosting the investment climate in the area of oil and gas E&P, which resulted in attracting major IOCs to invest in Egypt for the first time, including ExxonMobil and Chevron.

Additionally, for the first time, the sector used enhanced methods to promote investment opportunities in the oil and gas E&P as Egypt is preparing for establishing the first investments digital gateway; the EUG. The gateway will make geological data available for companies that are interested in investing in Egypt. This will be a new leap in promoting the E&P opportunities and bid rounds using the fastest and

latest techniques. The EUG's returns will be positive as it will contribute to attracting investments. The gateway is considered a successful deployment of the technological and digital solution in increasing the investments' attraction.

Meanwhile, the MoP has taken tangible steps to develop the human capital and prepare young leaders through a successful initiative and executing the first round of the young professionals' program to train young talents. A group of young leaders joined the program after long and vigorous tests to select the most qualified applicants. The program then worked on preparing these talents to be armed with scientific and technical skills to be able to run major future projects and continue on the path of success. In 2020, a second round of the program has been announced for selecting a number of talents and preparing young and middle professional leaders.

MINERAL RESOURCES EVOLUTION AND DEVELOPMENT

INTERNATIONAL BID ROUND FOR GOLD EXPLORATION



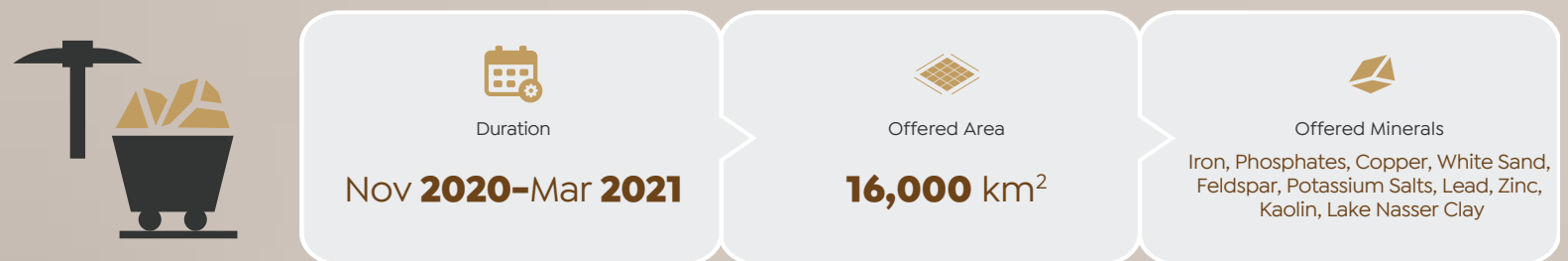
GOLD BID ROUND- SECOND PHASE



GOLD BID ROUND RESULTS



NEW BID ROUND FOR MINERAL RESOURCES



NEW COMMERCIAL GOLD DISCOVERY



LAUNCHING MINERAL RESOURCES EMPLOYEES TRAINING PROGRAM



Targeted Trainees

450 (6 groups)

1st Phase Trainees

60

2nd Phase Trainees

110

MOP'S TARGETS FOR MINERAL RESOURCES SECTOR



Sector's Share in GDP in 2030

5%

MINISTRY'S STRATEGIES AND INITIATIVES TOWARDS INTEGRATION

MINISTERIAL PARTNERSHIPS FOR INTEGRATION AND COLLABORATION

The year 2020 witnessed ministerial integration and application of successful joint action initiatives to achieve sustainable development goals. One of the most important initiatives is the Higher Committee for Environmental Compliance and Reform.

In 2020, the MoP and the Ministry of Environment began implementing a plan to achieve environmental compatibility in petroleum sites through the Higher Committee for Environmental Compliance and Reform which is headed by both ministers. Through continuous coordination between the two ministries, both ministers followed up on the integrated plans aligning with environmental standards stipulated by the Environment Law and its executive regulations. This initiative follows the directives of the Prime Minister to reach radical solutions to the industrial drainage issue in line with the Environmental Protection Law.

The Ministry of Environment reviewed and completed the environmental reform plans of the General Petroleum Company's (GPC) Ras Sidr field in South Sinai and East Zeit Petroleum (ZEITCO) in the Red Sea. Besides, the two companies' industrial drainage issue on the marine environment was permanently stopped.

The Ministry of Environment carried out environmental audits and evaluated the implementation rates of environmental reform plans as per the schedule between the two ministries. The audits were for the following companies: the Gulf of Suez Petroleum Company (GUPCO), Nasr Petroleum Company, Suez Oil Company (SUCCO), Petro Gulf, Amal Petroleum Company (AMAPETCO), and GPC. The ministry managed to implement 40% of the reform plans by the end of October in line with the approved schedule set by the Egyptian Environmental Affairs Agency (EEAA).

TANGIBLE MEASURES TO SETTLE FINANCIAL DISPUTES

In addition to that, the MoP signed cooperation protocols to resolve financial disputes between four ministries, namely MoP, Ministry of Finance (MoF), Ministry of Electricity and Renewable Energy (MERE), and the Ministry of Public Business Sector. The protocols aimed to settle the debt owed to MoP by some companies affiliated with the Ministry of Public Business Sector for their natural gas withdrawals. Additionally, disputes between the Egyptian General Petroleum

Corporation (EGPC), the Egyptian Electricity Holding Company (EEHC), MoF, and MERE were resolved and they agreed on future rules and paying off the sectors' fuel withdrawals. The Ministry of Public Business Sector also agreed to transfer ownership of some of their real estate assets to the MoP as a way to settle its debt.

NATURAL GAS DELIVERY TO LOCAL BAKERIES INITIATIVE

In 2020, the MoP signed a protocol with the Ministry of Local Development and the Ministry of Supply and Internal Trading to deliver natural gas to local bakeries for the first time. The agreement is considered a huge leap in reducing the consumption of traditional fuels, saving costs, and supporting the environmental aspect by using natural gas as clean energy.

In the end, despite the challenges it has witnessed, the petroleum sector achieved outstanding results in 2020. This will remain a milestone in the sector's distinct approach and flexible strategy which aims to unlock the reservoirs. The data and figures are proof of the sector's achievements over the past four years in addition to approaching a professional economic manner when it comes to production or providing services.

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