EGYPT OIL & GAS NEWSPAPER

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EXCLUSIVE INTERVIEW

RESILIENCE IN THE FACE OF CRISIS: LESSONS LEARNED FROM OIL INDUSTRY FRONTLINE

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EDITOR'S LETTER

BOOSTING THE COUNTRY'S INVESTMENT ATTRACTIVENESS

In fiscal year (FY) 2019/20, Egypt succeeded in reducing arrears to international oil companies (IOCs) to $850 million, a decrease of 87% compared to FY 2012/13 when it reached $6.3 billion. This gradually began to reflect on investments, exploration and production (E&P) operations, and the development of discoveries that can eventually achieve higher production rates.

International oil price is another factor that strongly affect investments in the oil and gas sector. Lately, the prices witnessed a slow recovery, which gives positive insights about the mid-term investments flow.

To know more about how investors see the future of Egypt's energy sector, Egypt Oil & Gas Newspaper conducted an exclusive interview with IOCs and services companies' heads. They shared with us how COVID-19 affected their policies and strategies. They additionally discussed the current investment state, operational updates, and 2021 outlook.

The issue includes a variety of features tackling investment strategies, increasing natural gas investments, the economic contribution of the refining sector, and how Suez Canal secured its position in the international energy trade map during the pandemic.

In the research and analysis section, we provide our readers with an analytical report about the economic contribution of the oil and gas sector in Egypt.

WISH YOU AN INFORMATIVE READ!

MAHINAZ EL BAZ

Acting Editor-In-Chief
Research & Analysis Manager

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LEGAL ADVISOR

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This publication was founded by **MOHAMED FOUAD AND OMAR DONIA.**

PRODUCTION

GPC TO DRILL 15 WELLS IN EASTERN, WESTERN DESERTS

The General Petroleum Company (GPC) aims to drill 15 exploration and development wells in H2 of fiscal year (FY) 2020/21.

The company will drill five wells in the Eastern Desert divided into three development wells and two exploration wells, in addition to 10 wells in the Western Desert divided into six development and four exploration wells.

The company drilled 18 development wells during H1 2020/21. Nine of them were in the Eastern Desert and nine in the Western Desert. The company's total expenditures on the drilling programs during H1 of FY 2020/21 amounted to about EGP 1 billion. It should be noted that the company's target average daily production in 2021 is about 64,000 barrels (bbl) of crude oil.

GPC'S PRODUCTION HITS NEW RECORD OF 68,000 BBLOE/D

The average production of General Petroleum Company (GPC) jumped to a new record of 68,000 barrels of equivalent oil per day (bbloe/d) during H2 2020.

This was announced during the GPC general assembly meeting chaired by the Minister of Petroleum and Mineral Resources, Tarek El Molla, to approve the company's planned budget for fiscal year (FY) 2021/22, in the presence of the Minister of Local Development, Mahmoud Shaarawy.

El Molla praised GPC's performance in the period from July to December 2020, noting that the company allocated EGP 5 billion in its FY 2021/2022 budget to increase drilling exploration and development wells. The minister encouraged the company to continue with the development of its industrial drainage system on the marine environment.

DOWNSTREAM

EGYPT TO BUILD NEW OIL REFINERIES WORTH $7 B

Egypt is implementing new oil refineries and projects in Cairo, Alexandria, Assiut, and Suez with investments of about $7 billion.

This was announced during the general assembly chaired by the Minister of Petroleum and Mineral Resources, Tarek El Molla, with the public sector companies including oil refining companies of Cairo, Suez, Nasr, and Assiut via video conference to approve their planning budgets for fiscal year (FY) 2021/22, in the presence of the Minister of Local Development, Mahmoud Shaarawy.

El Molla confirmed that the ministry puts refineries' development and the implementing of the latest technologies as priority.

EL MOLLA INAUGURATES NEW INTEGRATED NATURAL GAS STATION

The Minister of Petroleum and Mineral Resources, Tarek El Molla, inaugurated a new integrated natural gas station in the Stadium Station of Co-operation Petroleum (Copetrole) to supply cars with natural gas, liquefied oil and electric charging.

El Molla, who was accompanied by Khaled Abdel Aal, Governor of Cairo, stated that the ministry's plan is to secure a sustainable fuel supply and to improve the efficiency of fuel transportation and trade to meet the needs of consumers.

For his part, Nasser Amin, Chairman of Natural Gas Vehicles Company (Car Gas), stated that the station's capacity was increased to double the amount of sales to 16,000 cubic meters to supply 1,100 cars.

Adel Ayyad, the Chairman of Copetrole, mentioned that the station has been developed to increase its capacity to 35,000 liters of 92 and 95 gasoline, in addition to services enable to supply 28 cars at the same time through seven quadruple pumps.

TAQA TO CONSTRUCT 180 NATURAL GAS STATIONS IN THREE YEARS

The CEO of TAQA Arabia, Khaled Abu Bakr, stated that the company will build 180 natural gas stations with investments of about EGP 3.6 billion from 2021-2023.

Abu Bakr mentioned that the company will build 40 new natural gas station with investment of about EGP 800 million in 2021. TAQA Arabia will also invest EGP 1.2 billion to implement 60 new natural gas station in 2022 and will invest 1.6 billion to implement 80 stations at 2023.

EGYPT TO RAISE PIPELINE NETWORK'S EFFICIENCY

Egypt targets to implement new projects to develop and raise the efficiency of the national network of pipelines for transporting petroleum products, Minister of Petroleum and Mineral Resources, Tarek El Molla said.

The minister's remarks came during the general assembly meetings of the Petroleum Pipelines Company (PPC), Petroleum Gas Company (Petrogas), and the Egyptian Petrochemicals Company which were held via video conference to approve their planned budgets for fiscal year (FY) 2021/22.

During the meetings, El Molla referred to the implementation of pipelines, tanks and storage units in El Hamra expansion in the Western region as a necessary step that contributes to Egypt's transformation into a regional hub for oil and gas trading. He also confirmed that the ongoing SCADA project will follow a time schedule, and will allow automatic control of the pipeline network.

EGYPT INAUGURATES FIRST NATURAL GAS STATION IN SHARM EL SHEIKH

The Minister of Petroleum and Mineral Resources, Tarek El Molla, inaugurated the first natural gas supply station in Sharm El Sheikh, South Sinai Governorate, accompanied by South Sinai Governor, Khaled Fouda, with the aim to expand the presidential initiative of converting cars to run on natural gas.

El Molla stated that the main target during the coming three years is to convert 400,000 cars to run on natural gas including 250,000 to replace old cars and the rest 150,000 cars are through the conversion project. He also added that the plan aims to add 325 new natural gas supply station by the end of December 2021 to expand the number of cars running on natural gas. Additionally, El Molla pointed out that the current total number of natural gas supply stations after inaugurating Sharm El Sheikh's station reached more than 200 stations nationwide.

The Chairman of Gastec, Abdel Fattah Farahat, pointed out that the station will supply several cities such as El Tor and it has a capacity of 1,500 cubic meters per hour to supply 1,500 cars/day.

MSMEDA FACILITATES NGV CONVERSION IN INSTALLMENTS UP TO 5 YEARS

The Micro, Small, and Medium Enterprise Development Agency (MSMEDA) in the cooperation with the Ministry of Petroleum and Mineral Resources (MoP) through the Natural Gas Vehicles Company (Cargas) and the Egyptian International Gas Technology (Gastec) has offered incentives to encourage citizens to convert their cars to run on natural gas.

According to the statement, the cost of car conversion to run on natural gas will be paid in installment over one to five years through Cargas and Gastec companies. They can also pay at gas stations or Fawry outlets.

Additionally, the Minister of Industry and Trade; and the Managing Director of MSMED, Neveen Gamea, called for car owners, taxies, and microbuses to take advantage of these benefits and convert their cars in car conversion centers of Cargas and Gastec in various governorates to save up to 55% of the cost.

AGREEMENTS

EL MOLLA SIGNS 9 NEW OIL AND GAS AGREEMENTS WORTH MORE THAN $1B

The Minister of Petroleum and Mineral Resources, Tarek El Molla, signed nine new agreements worth more than $1 billion with six international and local companies for drilling 17 new exploration wells to search for petroleum and natural gas in the Mediterranean, and the Red Sea.

El Molla stated that the signed agreements are part of 12 new agreements with investments of about $1.4 billion that were reached during the coronavirus pandemic, to drill 23 new wells in nine areas in the Mediterranean, in addition to three areas in the Red Sea, pointing out that the remaining three agreements are to be signed soon.

The signed exploration agreements include seven agreements that were signed by the Egyptian Natural Gas Holding Co. (EGAS). The first one was with Exxon Mobil to search the North Marquia marine area in the Mediterranean and another with Chevron and its partner Tharwa Petroleum to search the North Sidi Barrani area. The third one was with Chevron and its partner Tharwa to search the Narges marine area in the Mediterranean with a minimum investment of $110 to drill two wells.

MSMEDA SIGNS AGREEMENTS WITH GASTEC, CAR GAS WORTH EGP 200 MM

The Micro, Small, and Medium Enterprise Development Agency (MSMEDA) signed two agreements with the Egyptian International Gas Technology (Gastec) and Natural Gas Vehicles Company (Car Gas) worth EGP 200 million.

The first agreement was signed by the representative of MSMEDA, Raafat Abbas, and the representative of Car Gas, Nasser Amin, to provide EGP 100 million to Car Gas to implement the presidential initiative goals.

Additionally, the second agreement was signed by Raafat Abbas, and Abdel Fattah Farhat, the representative of Gastec, to fund EGP 100 million to Gastec for the same presidential initiative goals as well.

EGYPT TO RECEIVE $1.1 B FUND FROM ITFC

The Minister of Petroleum and Mineral Resources, Tarek El Molla, witnessed the signing of an agreement with the International Islamic Trade Finance Corporation (ITFC) to provide integrated financing solutions to all Egypt's foreign trade sectors for 2021 worth $1.1 billion.

The agreement was signed by the CEO of ITFC, Hani Salem Sonbol, the Deputy CEO of the Egyptian General Petroleum Corporation (EGPC), Ashraf Abdallah, and the Deputy CEO of the General Authority for Supply Commodities, Ahmed Youssef.

This agreement includes many projects and programs that will facilitate, digitize, and enhance the competitive capabilities of foreign trade. In addition, this agreement comes within the framework of an earlier agreement signed in 2018 between Egypt and ITFC estimated by $3 billion for five years to provide basic food commodities, crude oil products and petroleum products.

CAR GAS, GASTEC SIGN CONTRACTS WITH CHILLOUT

The Natural Gas Vehicles Company (Car Gas) and Egyptian International Gas Technology (Gastec) signed contracts to provide Chillout, which is a subsidiary of the National Company for Roads, with 24 plots of land for establishing new natural gas stations in line with the presidential initiative for natural gas vehicles conversion (NGVC).

The Minister of Petroleum and Mineral Resources, Tarek El Molla, witnessed the signing and mentioned that this cooperation aims to provide citizens with outstanding services, increasing the numbers of beneficiaries from these services and encouraging them to convert their cars to run on natural gas.

The contracts were signed by Magdy Anwar, the Chairman of Chillout, Magdy Galal; the Chairman of the Egyptian Natural Gas Holding Company (EGAS); Abdel Fattah Farahat, Chairman of Gastec; and Nasser Amin, the Chairman of Car Gas.

EGYPT SIGNS AGREEMENT WITH USTDA TO SUPPORT REFINERY UPGRADE

The United States Trade and Development Agency (USTDA) awarded two grants to Amreya Petroleum Refining Company (APRC) and Suez Oil Processing Company (SOPC) with a total of $1.4 million to conduct feasibility studies for refineries development.

The APRC feasibility study aims to improve its refinery efficiency by 25% and reduce emissions by 20%. While the SOPC study is intended to increase the refinery's total production capacity, the productivity of gasoline, and improve its quality to meet international fuel standards. The UOP was selected to carry out its study.

The Minister of Petroleum and Mineral Resources, Tarek El Molla, asserted that this agreement is a remarkable example of the continuous strategic partnership between Egypt and the US in the oil and gas sector.

TRADE

IRAQ TO SUPPLY EGPC WITH 12 MMBBL OF CRUDE IN 2021

The Iraqi Council of Ministers approved the renewal of a contract to supply 12 million barrels (mmbbl) of Basra Light crude to the Egyptian General Petroleum Corporation (EGPC) in 2021.

This is the same quantity of crude that was agreed upon before the contract's renewal. The contract's validity will extend for six months and the contractual terms will be the same as the previous contract provided that EGPC pays within the contractual time period. It should be noted that the Minister of Petroleum and Mineral Resources, Tarek El Molla, had previously confirmed that the Egypt-Iraq crude import deal will be renewed every six months. Not only that, but he discussed with the Iraqi Ambassador to Cairo, Ahmed Nayef Al-Dulaimi, the possibility of establishing a joint Egyptian-Iraqi company and to facilitate the participation of Egyptian companies in oil and gas projects in Iraq.

EGAS EXPORTS 33.9 BCF OF NATURAL GAS TO JORDAN IN FY 2019/20

The Egyptian Natural Gas Holding Company (EGAS) exported about 33.9 billion cubic feet (bcf) of natural gas to Jordon through the Arab Gas pipeline in the fiscal year (FY) 2019/20.

The company also highlighted that the exported liquefied natural gas (LNG) from Idku gas liquefaction plant reached about 120 billion cubic feet of gas equivalent (bcfe) through 33 LNG shipments.

The company also stated that the national plan of natural gas households' delivery has been amended from 1 million housing units to 1.1 million units. It added that its targeted plan in FY 2020/21 is to deliver natural gas to 100 industrial and 1000 commercial facilities.

SCA EXTENDS DISCOUNT FEES FOR LPG TANKERS FOR 6 MONTHS

The Suez Canal Authority (SCA) is extending the discounts granted for liquefied petroleum gas (LPG) tankers, which operate between the ports of the US Gulf and India and its eastern parts until 30 June 2021.

The authority confirmed that these discounts will encourage LPG tankers to cross the canal, with reduction rates ranging from 24 to 75%. The ships traveling between the ports of western India and the Maldives to Kochi port will have a 24% reduction from the normal fees, while the ships traveling between the east of Kochi port in western India before reaching Singapore obtain a 60% discount. Furthermore, petroleum gas tankers traveling between Singapore ports and its eastern parts will enjoy a 75% discount.

APEX ANNOUNCES NEW OIL DISCOVERY IN WESTERN DESERT

Apex International Energy (Apex) announced a new oil discovery in Southeast Meleiha Concession (SEM), located in the Western Desert of Egypt.

The new oil discovery was attained at the SEMZ-11X well, located 10 km west of Zarif field. The well was drilled to a total depth of 5,700 feet and encountered 65 feet of oil pay in the Cretaceous sandstones of the Bahariya and Abu Roash G formations.

The well was Apex's second exploration well in an ongoing three-well program following the acquisition and processing of 1,342 square kilometers of 3D seismic data in 2019-2020. The first well, the SEMZ-1X drilled last month, also discovered Bahariya oil with 17 feet of indicated pay.

Additionally, Apex plans to drill the third well the SEMZ-3X to a depth of 5,700 feet in the Bahariya formation.

ENI ANNOUNCES OIL DISCOVERY IN THE WESTERN DESERT

Eni has made a new oil discovery in the Meleiha Concession in the Western Desert, adding an extra 10,000 barrels of oil per day (bbl/d) to the current concession production.

The discovery was made through the Arcadia 9 well, drilled on the Arcadia South structure and located 1.5 kilometers (km) south of the main Arcadia field already in production. Eni's statement records encountering 85 feet (ft) of oil column in the Cretaceous sandstones of the Alam El-Bueib 3G formation. The well has been drilled and is already tied-in to production with a stabilized rate of 5,500 bbl/d.

Additionally, two development wells, Arcadia 10 and Arcadia 11, have been drilled back-to-back after the discovery from Arcadia 9. Arcadia 10 encountered 25 ft of oil column whereas Arcadia 11 encountered 80 ft within the Alam El-Bueib 3G formation and 20 ft of oil pay in the overlying Alam El Bueib 3D formation. All three wells share the same oil-water ratio in the discovered reservoir.

Eni credited the discovery to its successful implementation of its infrastructure-led exploration strategy which allowed a quick valorization of these new resources. It should be noted that Eni through its subsidiary; the Italian Egyptian Oil Company (IEOC) holds a 38% interest in the Meleiha concession, Lukoil holds a 12%, and the Egyptian General Petroleum Corporation (EGPC) holds a 50% interest.

EXXONMOBIL ACQUIRES OFFSHORE EXPLORATION CONCESSION IN EGYPT

ExxonMobil Egypt (Upstream), in cooperation with Tharwa Petroleum Company, signed an agreement with the Egyptian Natural Gas Holding Company (EGAS) to acquire a concession covering more than 4,000 km2 in the Star marine area in Egypt.

ExxonMobil will own 90% stake, while Tharwa will own 10% stake. The operations include reprocessing of 3D seismic data in the region.

The General Manager of ExxonMobil, Amr Abou Eita, stated that Star is located next to the Northeastern Amiriya marine area in the Delta region and the agreement confirms the company's interest in exploration at Egypt especially after signing two agreements at the beginning of 2020.

The agreement was signed by Abou Eita; Magdy Galal, Chairman of EGAS; and Hussein Farghali, Chairman of Tharwa, under the patronage of the Minister of Petroleum and Mineral Resources, Tarek El Molla.

SOUTH DISOUQ SD-12X PRODUCES FIRST NATURAL GAS 6 WEEKS EARLY

SDX Energy produced first natural gas at South Disouq SD-12X well in Egypt on 21 December 2020, six weeks ahead of schedule.

The company's first natural gas production is the following success of the SD-12X exploration well in Q2 2020, a commercial discovery in the Kafr el Sheikh formation.

Additionally, the company evaluates that SD-12X has recoverable resources of approximately 24 billion cubic feet (bcf) and can generate at a rate up to 10-12.5 million standard cubic feet of gas per day (mmscf/d). The well is currently producing around 5-7 mmscf/d. SDX has 100% working interest from this well production.

As per the statement, the South Disouq 12-month production concession ended at 31 December 2020 reaching 49.5 million standard cubic feet of gas equivalent per day (mmscfe/d), while West Gharib reached 3,285 barrels per day (bbl/d).

UOG BRINGS ASH GAS PIPELINE IN ABU SENNAN ONSTREAM

United Oil and Gas (UOG) has completed the ASH gas pipeline which connects the ASH field to the existing gas processing facilities at El-Salmiya in Abu Sennan concession.

Per the statement, the operation was completed safely, in a timely manner, and remained under budget. The pipeline was brought onstream on December 27 and has delivered an average of 5.45 million standard cubic feet per day (mmscf/d) of gas since its operation. The pipeline brings about 1,090 barrels of oil equivalent per day (bbloe/d) on a gross basis equating to an additional 1.2 mmscf/d (240 bbloe/d) net to United's working interest. These initial flow rates are in line with UOG's expectations. UOG indicated that the ASH gas pipeline is significantly beneficial as now any gas produced from ASH-3 well can be monetized more efficiently.

It should be noted that UOG has a 22% working interest in the concession which is operated by Kuwait Energy Egypt.

MOP, SHELL EGYPT SIGN AGREEMENT FOR OIL, GAS EXPLORATION IN RED SEA

The Minister of Petroleum and Mineral Resources, Tarek El Molla, signed an agreement with Shell Egypt for oil and natural gas exploration in concession area (4) in the Red Sea deep water.

The Shell Egypt's share will be 63%, while the UAE's Mubadala Company will have 27%, and the Egyptian Tharwa Petroleum Company will have 10% of the contractor's share. According to a statement by Shell Egypt, the new agreement comes in light of the company's plans to focus its strategic investments in Egypt on the offshore concessions and the natural gas added value chain.

The Chairman of Shell Egypt, Khaled Qassem, expressed his happiness at the signing Block 4 exploration agreement to explore oil and gas in the Red Sea region, which aligns with the company's great expertise in this area.

SHELL EGYPT SIGNS TWO PSCS FOR BLOCKS IN RED SEA, MEDITERRANEAN

Shell Egypt has signed production sharing contracts (PSCs) for offshore and deep-water concession of the Red Sea's Block 3 that covers 3,097 Km^2 and the offshore North Kanayes of Herodotus Basin in the West Mediterranean concession in which it holds 30% share, while Total company, the main operator of the project holds 35%, KUFPEC limited holds 25%, and Tharwa Petroleum company has the remaining 10%.

Khaled Kassem, Shell Egypt CEO, said that Shell Egypt has gained great experience in the field of oil and gas exploration and production (E&P) in the sea and deep water through several giant projects worldwide.

It is worth noting that Shell has won two concessions of Ganoub El Wadi Petroleum Holding Company (Ganope) for oil and gas exploration operations in the Red Sea in the international tender announced in December 2019. The company succeeded in implementing several achievements in E&P in the deep-water including the phase 9 project at West Delta concession.

ENERGEAN ANNOUNCES FINAL INVESTMENT DECISION FOR OFFSHORE EGYPT PROJECT

Energean Oil and Gas Company announced the Final Investment Decision on North El Amriya (NEA) and North Idkunea concession (NI) subsea project in offshore Egypt.

The NEA concession contains two discovered gas fields Yazzi and Python, while the NI concession contains four discovered gas fields. The NEA and NI will deliver first gas in H2 2022 with 49 million barrel of oil equivalent (bbloe) of 2P reserves with expected production to be approximately 90 million standard cubic feet per day (mmscf/d), 87% of which is gas, in addition to 1,000 barrel of condensates per day.

As per the statement, the NEA and NI project will provide Egypt with additional cost efficiencies and strategic benefits. In addition, the gas will be sold at $4.6 mmBTU when Brent prices are above $40 per bbl. The total capital expenditure will be about $235 million, mostly to be incurred in 2022, while TechnipFMC has been awarded the EPIC contract to deliver the project.

It is worth noting that it is anticipated that the NEA and NI drilling campaign will be combined with a boarder Abu Qir drilling campaign, providing capital expenditure synergies.

EGYPT, NUTRIEN TO SETTLE DISPUTES

The Ministry of Petroleum and Mineral Resources (MoP) and the Ministry of Finance (MoF) reached an agreement to settle the disputes between the Canadian Nutrien Company (formerly Agrium) and Egypt.

The settlement agreement included an end to the investment arbitration case filed against Egypt at the Permanent Court of Arbitration (PCA) at The Hague, Netherlands. It also included an end to the commercial arbitration case filed against the Egyptian Company for Nitrogen Products, in return to the transfer of the ownership of the share of Nutrien, which represents 59,573,922 shares equivalent to 26% of the total shares of Misr Fertilizers Production Company (MOPCO) to the MoF for a price that was agreed by all parties after negotiations.

SAUDI ARABIA

Saudi Aramco has made four new oil and gas discoveries in the Kingdom, Prince Abdulaziz bin Salman bin Abdulaziz, Minister of Energy, stated. The company's first discovery was of non-conventional oil in Al-Reesh oil field, north-west of Dhahran and drilled Well 2, 3, and 4. Well 2 produced 4,452 barrels per day (bbl/d) of Arab extra light crude oil and 3.2 million standard cubic feet of natural gas (mmscf). As for Well 3, its initial production amounted to 2,745 bbl/d of crude and 3 mmscf of gas. Well 4 showed a daily flow of crude at 3,654 bbl/d and 1.6 mmscf of natural gas daily. The second and third discoveries were made at Al-Sarrah reservoir at Al-Minahhaz well, south-west of the Ghawar oil field, and at Al-Sahbaa well, south of Ghawar. Aramco discovered non-conventional gas of about 18 mmscf/d along with a daily 98 bbl of condensate in Al-Minahhaz well and 32 mmscf/d of gas from Al-Sahbaa well. The fourth discovery was made in Al-Ajramiyah Well 1, in the north-west of the city of Rafhaa in the Northern Borders Province. The well test shows a rate of 3,850 bbl/d.

Saudi Aramco seeks a loan worth $7.5 billion for potential investors in its oil pipelines. The Saudi company started discussions with lenders regarding funding terms which would then be given to investors. They added that these negotiations come in parallel with the sale of Aramco's stake in a pipeline unit at a cost of about $10 billion. This pipeline line transaction would be the first phase of Aramco's strategy to raise money by selling leasing rights or stakes in non-core assets. The company refused to comment on such deal.

UAE

Sharjah National Oil Corporation (SNOC) and Eni company have announced the production start-up of Mahani field through Mahani-1 gas well in Sharjah Area B. The well was completed in eight months and it is connected to the existing pipeline, ready to produce gas and liquids for processing through Sajaa gas processing plant. Mahani-1 was drilled to a total depth 14,597 feet and tested gas at flow rates of up to 50 million standard cubic feet per day (mmscf/d) with associated condensate from the Thamama Formation.

Eni acquired a 70% stake in the exploration offshore block 3 in Abu Dhabi where Thailand's PTT Exploration and Production Public Company Limited (PTTEP) acquired the remaining 30% stake. Block 3 covers an area of 11,660 square kilometers and is the largest block offered by Abu Dhabi National Oil Company (ADNOC) as part of Abu Dhabi's second competitive block licensing round. The agreement is valid for a period of up to nine years and could extend to 35 years subject to successful exploration, taking into consideration that if the process moved to the development and production phases, ADNOC will then have the option to hold a 60% stake.

Shelf Drilling signed an agreement with Abu Dhabi National Oil Company's (ADNOC) subsidiary, ADNOC Drilling, to sell the Shelf Drilling Journey jack-up drilling rig for $77.6 million. The Shelf Drilling Journey rig is a Gusto CJ-46 design rig that was delivered by China Merchants Heavy Industries (CMHI) in 2019 and is expected to be delivered during Q1 2021. It should be noted that Shelf Drilling purchased two newbuild premium CJ-46 jack-up rigs from CHMI for $87 million per rig. Per the statement, Shelf Drilling has been assigned as the "unrestricted subsidiary as defined in the applicable financing agreements of the company's subsidiaries."

ADNOC Distribution announced that it has finalized an agreement to acquire 15 service stations in Saudi Arabia at a cost of $10 million, reaffirming its commitment to expand its businesses in the kingdom. The acquisition is implemented under certain conditions including obtaining regulatory approvals. The addition of these new stations highlights the long-term growth strategy of the company to become a leading fuel operator in Saudi Arabia.

The new stations are located in the Eastern region and will be renewed according to ADNOC Distribution standards to offer high quality fuel and retail services to customers including convenience stores.

Penspen Company announced that it has won a detailed engineering project from Target Engineering Construction Company in Abu Dhabi, starting from December 2020. Per the statement, Penspen will undertake engineering works for the existing T-1517 and 1519 crude oil tanks in the Jebel Dhanna Crude Receiving facility. Penspen also will provide a site survey, insulation selection, tank dome roof design and a tank shell adequacy check due to the additional loading that will be taking place. In addition, seismic activity, structural engineering drawings with a bill of quantities (BOQ), as well as preparation tank modification drawings related to insulation cleats, dome roor support cleats and platform modifications as part of the remit will be made by Penspen.

Zenith Energy Company announced that it has signed a cooperation agreement with Fleet Oil and Gas Company to jointly identify and pursue oil and gas exploration and production (E&P) acquisitions in the Mediterranean, the Middle East, and Africa. According to the terms of this agreement, the two companies will identify potential acquisition opportunities and conduct due diligence on any transaction that is suitable. If the two parties approved this potential acquisition and took forward following the completion of a satisfactory due diligence exercise, they will enter into a joint venture agreement to be made by a newly incorporated vehicle that will be subject to a separate agreement.

IRAN

Iran began drilling operations at phase 11 of the South Pars oil field with the aim of recovering natural gas in March 2021. The field is rich with natural resources with estimates of 14.2 trillion cubic meters (tcm) of gas and 18 billion barrels of gas condensate, representing about 8% of the world's gas reserves and accounting for around half of Iran's domestic gas resources. The National Iranian Oil Company (NIOC) aims to reach production of 57 million cubic meters (mmcm) of gas at phase 11. The field development has been in progress since 2002, however, political turmoil has affected its development after Total and China pulled out of the project.

The National Iranian Oil Company (NIOC) has signed eight oil contracts with local companies to boost and maintain production at the Iranian fields at a cost of $1.2 billion. The contracts included projects in Binak, Solabdar, Lali Bangestan, Gachsaran 3 and 4, Golkhari, Bibi Hakimeh and Ahvaz 2, 3 and 5 fields, which are operated by National Iranian South Oil Company (NISOC) in the provinces of Bushehr, Fars, Khuzestan, Kohgiluyeh and Boyer-Ahmad. Additionally, a contract concerning Reshadat Offshore Field operated by the Iranian Offshore Oil Company (IOOC) was included among the eight contracts.

The CEO of Oil Industries Engineering and Construction (OIEC) Group, Gholamreza Manouchehri, announced that the first phase of production from Azar joint oilfield will start soon. He elaborated that 21 out of 28 days of the performance test of the final crude oil production has been successfully completed in Azar field. He noted that the developers of the field have secured production of 65,000 barrels per day (bbl/d) of oil, adding that the production from this field began in 2016 with 15,000 bbl/d.

IRAQ

Dana Gas achieved a production record from Pearl Petroleum's Khor Mor Gas Plant in the Kurdistan Region of Iraq (KRI) of 430 million cubic feet per day of gas (mmcf/d) on December 15. The company's average gas production amounted to 400 mmcf/d in Q4 2020, an 8% year-on-year (YoY) increase. Pearl Petroleum, which Dana Gas owns a 35% stake in, restarted the expansion project of Khor Mor Gas Plant on the same day after its suspension in March due to COVID-19. Dana Gas expects to complete the first 250 mmcf/d gas processing train in Q1 2023 and is also examining ways to reduce the schedule further.

The Iraqi's oil exports revenues reached $42 billion during the year 2020, noting that December revenue reached more than $4 billion at a selling price of $49 per barrel, the General Manager of the Iraq State Organization for Marketing Oil, SOMO, Alaa Al- Yasiri, announced. He elaborated that the exports amounted to 3 million barrels per day (mmbbl/d) after the decision to reduce the impact of the Organization of the Petroleum Exporting Countries and its Allies (OPEC+) agreement expecting that oil prices will improve despite the new strain of coronavirus. On the same context, Al-Yasiri announced that the company had reached an agreement with a Chinese company to export oil by prepayment noting that OPEC agreement helped in identifying the quantities of exported oil from Kurdistan region through Turkish Ceyhan.

RUSSIA

Lukoil and Gazprom signed a Master Agreement to develop Vaneyvisskoye and Layavozhskoye fields in the Nenets region, Russia. The Vaneyvisskoye and Layavozhskoye fields have reserves of 27.4 million tons (mmt) of liquid hydrocarbons and 225.3 billion cubic meters (bcm) of natural gas. Lukoil and Gazprom agreed to establish a joint venture (JV) to carry out the project and develop the fields. The JV will handle the design and survey work as well as the documentation for the construction of field facilities and infrastructure for hydrocarbon treatment. The JV will also be responsible for transport to Lukoil's oil receiving facility and an entry point to Gazprom's gas transportation system.

Russian oil and gas company, Lukoil, produced 35 million tons (mmt) at its Yury Korchagin and Vladimir Filanovsky fields in the North Caspian Sea. Lukoil drilled the new production wells in 2020 producing over 7 mmt, in addition wells to intensify influx of hydrocarbons. The company began establishing infrastructure facilities at its third major Caspian project, Valery Grayfer field, which has an estimated plateau level is over 1 mmt of oil per year. It also installed jackets for the accommodation block in April and for the fixed ice-resistant platform in August. The topsides of both platforms are being built by shipyards in Astrakhan. Additionally, the company drilled an exploration well at the Severo-Rakushechnaya prospective structure located north of Valery Grayfer field. It also continues exploration works at Khazri and Titonskaya structures located in the Central Caspian. LUKOIL plans to continue establishing facilities in 2021 at the Valery Grayfer field. At its other offshore fields, exploration and production (E&P) will take place.

CHINA

Eni's CEO, Claudio Descalzi, and the Director General of China's International Cooperation Center of the National Development and Reform Commission (ICC-NDRC), Huang Yong, signed a Memorandum of Understanding (MoU) to promote energy cooperation. The new partnership will enable Eni and ICC-NDRC to "to share knowledge and best practices, assess the impact of energy policies and market regulations, identify areas of mutual interest, and develop relationships with Chinese institutions and companies at the national, provincial and municipal levels," according to Eni's press release.

The Chinese Sinopec company announced the establishment of the first phase of a new shale gas field, Weirong, in southwestern Sichuan at a production capacity estimated at 1 billion cubic meters of natural gas per year (bcm/y). The company elaborated that it exploited the proven reserves at the deep shale gas field which reached 124.7 bcm after drilling operations at a depth of 3,750 meters under the surface of the earth. Sinopec said that it had drilled 56 wells attached to eight drilling platforms during the first phase of development that started at the late of 2019. It noted that it will proceed to the second phase of development which will bring the annual production capacity of Weirong to 3 bcm by 2022 or sufficient to cover annul fuel consumption of 16 million housing unit.

According to data issued by the General Administration of Customs, the total Chinese oil imports during 2020 reached 542.39 million tons (mmt). The data showed that the Chinese natural gas imports stood at 101.66 mmt, while the China's exports of refined oil products reached 61.83 mmt exports.

China's crude oil throughput has gradually declined by 0.5% reaching 14.9 million barrels per day (mmbl/d) in December 2020 after recording a high in November. While the country's total crude proceeded during 2020, jumped up 2.7% reaching 13.51 mmbl/d compared to the previous year. According to refineries and analysts, the state-owned and private refineries have cut their average daily production in December despite improving the sales conditions, as they are trying to clear the storage before closure of the year. The data showed that the Chinese refineries processed about 674.41 million metric tons which increased by 3% versus the previous year.

ROBUST MACROECONOMICS, INVESTMENT RESILIENCE AMID 2020 CHALLENGES

ENERGEAN COMPLETES ACQUISITION OF EDISON E&P

Oil and gas company Energean has completed its acquisition of Edison Exploration & Production S.P.A. from Edison.

In connection with the completion of the acquisition of Edison E&P, an application has been made to the Financial Conduct Authority and to the London Stock Exchange for 177,089,406 ordinary shares of 1 penny each in the company to be re-admitted to the premium listing segment of the Official List of the Financial Conduct Authority and to trading on the main market for listed securities of the London Stock Exchange.

Energean entered into a conditional SPA in July 2019 to acquire Edison E&P. The acquisition deal was originally valued at $750 million initial consideration and $100 million contingent consideration.

DRAGON OIL TO BOOST INVESTMENTS IN EGYPT BY $650 MM

Dragon Oil is planning to increase its investments in Egypt through acquiring some operating assets in the Western Desert in the next five years.Through this acquisition, Tayeb Huwair, COO (Non-Operating Assets) at Dragon Oil, pointed out that the company's investments in Egypt will increase by $650 million, up from $850 million, to reach about $1.5 billion.

Huwair mentioned that the company's total production of crude oil is estimated at 150,000 barrels per day (bbl/d) from its concessions in Egypt, Iraq, and Turkmenistan. However, the company plans to increase its production to around 300,000 bbl/d by 2024.

He also noted that Dragon Oil's current production rate in Egypt is approximately 60,000 bbl/d, and the company intends to increase that production level in the next three years to reach 70,000 bbl/d.

For the West Mediterranean deep water bid rounds, launched by the Ministry of Petroleum and Mineral Resources, Huwair remarked that Dragon Oil is studying the possibility to participate.

Furthermore, Dragon Oil affirmed that they will continue working with the Gulf of Suez Petroleum Company's (GUPCO) operation team.

KHALDA'S INVESTMENTS TO REACH $792 MM IN FY 2020/21

Khalda Petroleum Company's – a joint venture (JV) between Egyptian General Petroleum Corporation (EGPC) and Apache -investments are expected to reach $792 million during fiscal year (FY) 2020/21.

During the company's general assembly meeting, Samir Abaadi, Chairman and Managing Director of Apache, noted that these investments will go toward drilling 80 wells; 29 exploration wells and 51 development wells. In addition, existing wells will be completed to reach a production rate estimated at 150,000 barrels of crude oil and condensates per day (bbl/d), 715 million cubic feet of natural gas per day (mmcf/d), and 1,357 barrels of butane.

As for the FY 2019/20 adjusted budget, Abaadi clarified that it includes $732 million of targeted investments, with an $80 million increase to drill 67 wells of crude oil and natural gas; 30 exploration wells and 37 development wells.

Abaadi added that H1 of FY 2019/20 witnessed the drilling of 30 exploration and development wells to sustain reserves and production of crude oil and natural gas.

Furthermore, Abaadi mentioned that many measures were taken to develop the infrastructure for production. This includes completing the Bat-Apries pipeline ahead of schedule and developing Gad fields for natural gas. Additionally, a plan to reduce fuel consumption is underway, and it will contribute to reducing the cost of a barrel.

NOCS

STATE ALLOCATES EGP 680.56 B TO EGPC'S FY 2020/21 BUDGET

The Egyptian General Petroleum Corporation's (EGPC) budget for the fiscal year (FY) 2020/21 was set at EGP 680.56 billion.

EGPC's expenses for the current FY were estimated at EGP 579.242 billion, of which EGP 1.298 billion are allocated towards wages. The statement estimates EGPC's revenue for FY 2020/21 at EGP 588.768 billion, and expected profits at EGP 9.526 billion of which EGP 8.5734 billion will be in surplus.

Additionally, EGPC is not allowed to overdraft facilities from the Central Bank of Egypt (CBE) or other banks without the approval of the Prime Minister and the Minister of Finance.

GPC INVESTS EGP 195 MM FOR FY 2019/20 DISCOVERIES

The General Petroleum Company (GPC) invested EGP 195 million for the discoveries made during the fiscal year (FY) 2019/20.

The new discoveries varied between four exploration wells and three development wells in the company's concession areas, totaling the test rates at about 6,700 barrels per day of crude oil (bbl/d) and 4.21 million cubic feet of gas (mmcf). Nabil Abdel Sadek, Executive Chairman of the Board of Directors, pointed out that the company aims to keep up with the high productivity rates it achieved for the first time in its history.

GPC TO INVEST EGP 2.6 B IN FY 2020/2021

The Chairman of the General Petroleum Company (GPC), Nabil Abdel Sadek, announced that his company targets drilling 40 exploratory and developmental wells with an investment cost of EGP 2.6 billion in fiscal year (FY) 2020/2021.

He added that the company plans to reach a total production of about 106,000 equivalent barrels per day, pointing out that this shall be achieved by drilling 40 wells with investments of EGP 2.6 billion, as well as repair and supplement 33 wells, drill 36 developmental wells, and repair 24 others within the framework of a joint work program with a number of foreign companies.

Sadek explained that the company will continue to implement the infrastructure development plan and production facilities in the fields with investments worth EGP 5 billion.

GPC ALLOCATES EGP150 MM FOR "NORTH WEST" PIPELINE PROJECT

The General Petroleum Company (GPC) has allocated EGP150 million for implementing 8-inches pipeline project to exploit gases produced from "North West" field in the Eastern Desert.

Nabil Abdel Sadeq, the Head of GPC, said in a statement that the implementation of the project has commenced at the end of August 2020 and is expected to be finalized by the end of February 2021.

He added that the project is one of several projects that the company intends to implement to maintain the company's production rates and compensate the normal reduction in addition to increase the output in the upcoming period.

GPC INVESTS $2.5 MM FOR DEVELOPING ABU SENNAN CONCESSION

A petroleum source, who preferred anonymity, stated that the total investments for developing Abu Sennan Concession in the Western Desert, which is affiliated to the General Petroleum Company (GPC), reached to $2.5 million.

The source added that the new discovery HF36/5 in the concession has not produced yet. However, its initial tests have shown that its productivity would reach 27 million cubic feet (mcf) of natural gas in addition to 1,000 barrels of condensates.

The source disclosed the implementation of a new 21 kilometer-pipeline that links the new discovery to the production line that will cost $2 million. He elaborated that it is expected to be finalized in four months and to start production by the end of the current year.

COOPERATION

ANOPC INKS A $2.8 B EPC CONTRACT

Assiut National Oil Processing Company (ANOPC) has inked an Engineering, Procurement, and Construction (EPC) contract with TechnipFMC valued at $2.8 billion.

Minister of Petroleum and Mineral Resources Tarek El Molla witnessed the virtual signing ceremony where TechnipFMC also signed subcontracts with Enppi and Petrojet.

TechnipFMC will construct a new hydrocracking complex for the Assiut refinery in Egypt. The new complex will utilize the nearby Assiut Oil Refining Company's (ASORC) refinery by transforming its lower-value petroleum products into higher-value petroleum products that meet European standards. Such products include; diesel, high octane gasoline, and butane.

The mazut hydrocracking complex will have a production capacity of about 2.8 million tons per year (mmt/y) of diesel of European standard. It also has a production capacity of 400,000 tons per year (t/y) of high-octane gasoline produced from naphtha and 100,000 t/y of butane, in addition to a production capacity of 300,000 t/y of coal and 66,000 t/y of sulfur.

Per the contract, new process units will be added to the refinery including; a vacuum distillation unit, a diesel hydrocracking unit, a delayed coker unit, a distillate hydrotreating unit, and a hydrogen production facility unit. TechnipFMC's steam reforming proprietary technology will be employed within these units.

WEPCO, ENPPI, PETROJET SIGN A $64 MM DEAL

Western Desert Operating Petroleum Company (WEPCO) has inked a deal with the Engineering for the Petroleum and Process Industries (Enppi) and Petrojet to establish two warehouses for storing crude oil at Al-Hamra Petroleum Port with investments worth $64 million.

Warehouses 7 and 8 will be used to store crude oil produced by companies operating in the Western Desert. Petrojet and Enppi are currently working on the project with an estimated value of about $32 million per warehouse. The goal is to increase the total capacity of the Al-Hamra Petroleum Port from 1.5 million barrels (mmbbl) to 2.6 mmbbl.

Per the statement, the project aligns with the Ministry of Petroleum and Mineral Resources' plan to turn Egypt to a regional energy hub as the port trades about 50% of crude oil production in Egypt. WEPCO has chosen the fast-track approach to establish warehouse 8, in which the company is creating its foundation work in parallel with its engineering one.

It should be noted that WEPCO has recently succeeded in operating the new 8-kilometers (km) marine pipeline project in Al-Alamein. In addition to the warehouses, these projects are key for developing the facilities of the Al-Hamra Petroleum Port.

WEPCO SIGNS A $5 MM DEAL WITH ENPPI

Western Desert Operating Petroleum Company (WEPCO) has contracted a $5 million deal with the Engineering for the Petroleum and Process Industries (Enppi) to engineer the Distributed Control System (DCS) of crude oil project at Al Hamra Petroleum Port in El Alamein.

The project aims to control all Al Hamra Port's facilities and to develop crude oil trading operations with the latest control and safety systems. This includes warehouse radar measurement systems, emergency stopping systems, and integrated management systems for trading ports. The project is expected to be completed and begin operational experiments in 2021.

The project aligns with the Egyptian General Petroleum Corporation's (EGPC) strategies to adopt the latest control and safety technologies. Additionally, trading at Al Hamra Petroleum Port deals with about 50% of the production of crude oil in Egypt which aligns with the Ministry of Petroleum and Mineral Resources' plans to make Egypt a regional energy hub.

CAPITAL GAINS

EBRD TO FUND APC'S PROJECT WITH $250 MM

The European Bank for Reconstruction and Development (EBRD) announced its provision of a sovereign loan to fund a project by Alexandria Petroleum Company (APC) worth $250 million for upgrading water and energy efficiency at the company's diesel refinery.

According to the bank, the project will install energy management system, cooling water tower, emissions monitoring system, pollution and emissions reduction investments, in addition to implementing an energy and water efficiency investment program (EWEIP) and implementing a waste water treatment as well as other modernization investments.

The project aims to improve the refinery's efficiency and reduce energy consumption and emissions. It will also raise the quality of fuel according to Euro 5 standards and reduce water usage.This project comes in line with the Modernization Program launched by the Ministry of Petroleum and Mineral Resources. The total cost of the project is worth $647 million.

SOPC TO RECEIVE $50 MM LOAN FOR ENERGY EFFICIENCY IMPROVEMENT

The House of Representatives approved the presidential decree no. 118 of 2020 regarding an additional $50 million loan agreement with the European Bank for Reconstruction and Development (EBRD) to improve the Suez Oil Processing Company's (SOPC) energy efficiency.

The decree was signed on November 23, 2019, aiming at enhancing the oil and gas sector and improving energy efficiency in Egypt.

SUEZ CANAL BANK SELLS MIDOR STAKES TO EGPC FOR $30.6 MM

The Suez Canal Bank has sold its 1.27% stake in the Middle East Oil Refinery (Midor) for $30.6 million to the Egyptian General Petroleum Corporation (EGPC).

The bank added that the capital gains from this sale will amount to $5.7 million without the tax impact and implementation expenses.

The bank's Board of Directors previously agreed to sell its share of 560,000 stocks at $54.70 per stock to EGPC, which is the main shareholder of the company. The deal was finalized after obtaining the necessary approvals from the Financial Regulatory Authority (FRA) and the Egyptian Stock Exchange (EGX).

The sale comes after a consortium of banks led by the National Bank of Egypt (NBE) agreed to provide a long-term joint loan of EUR 30 million to Midor Electricity (MidElec) to boost the capacity of the power plant in Midor.

RESILIENCE IN THE FACE OF CRISIS: LESSONS LEARNED FROM OIL INDUSTRY FRONTLINE

The oil and gas industry had quite the year in 2020, facing tumultuous challenges beginning with a global pandemic; then hitting an oil price crash; and ultimately, adapting to a whole new work environment. Despite all these circumstances, the sector remained resilient. Egypt Oil and Gas (EOG) had the opportunity to get an inside scoop of how several international oil companies (IOCs) in Egypt managed to deal with the hurdles of 2020 while maintaining safety precautions and exploring what the future holds for the oil and gas industry in 2021.

Uncharted Territory

The pandemic has altered various aspects of the oil and gas business on many levels, forcing oil companies, especially the ones focused on exploration and production (E&P), to alter their plans and adapt to the declining demand. Roberto McLeod, EnapSipetrol Egypt General Manager, told EOG that the global decline in production as well as lack of mobility "caused a drastic drop in global demand for oil which led to a significant drop in oil prices to unprecedented levels that were not expected at the beginning of 2020." This has led the company to "review all our 2020 operations and production programs, where part of them had already progressed, then we had to decide what to do with the rest of our plan for the year."

Looking into how the pandemic affected Kuwait Energy Egypt, Kamel El-Sawi, President of Kuwait Energy Egypt, addressed the topic noting that the company had to adapt its work program to react with the change. El-Sawi added that the budget has undergone a few changes "to balance between assets' development plan and reduce the negative impact on financial key performance indicators like free cash flow and company net profit." Lastly, Kuwait Energy Egypt's projects were reprioritized so the focus was directed towards high-value projects and phasing out other projects to ease the impact on cash flow while maintaining the same production level, El-Sawi remarked.

A GROWING RECOGNITION OF THE IMPORTANCE OF GAS IN THE ENERGY TRANSITION CAN BE POSITIVE FOR EGYPT AND THE WHOLE EASTERN MEDITERRANEAN, WHICH IS SO PROMISING FOR NEW GAS DEVELOPMENTS.

SAMEH SABRY
Senior Vice President of Wintershall Dea and Chairman of EOG Committee

Unexpected turmoil and changes are common in the oil and gas industry, but a pandemic was certainly not. Sameh Sabry, Senior Vice President of Wintershall Dea and Chairman of EOG Committee, explained that despite the volatile nature of the sector, nothing could have prepared the sector for the drastic changes the pandemic has caused. Seeing the glass half full, Sabry remarked a few takeaways from the unusual circumstances; "being adaptable to new challenges, digital excellence, and a positive team culture were three essential ingredients for our success in 2020."

Schlumberger's Managing Director in Egypt and East Mediterranean, Karim Badawi, noted that 2020 was a year of transformation, it "highlighted the resilience of our teams and the whole sector. We have all tag-teamed to ensure business continuity and deliver the energy needs for Egypt." Remote working was utilized at Schlumberger to ensure smooth operations on all levels through a myriad of hybrid approaches of connectivity. Badawi also remarked that "the previous year has demonstrated the importance of the acceleration of the digital transformation that was already adopted by Egypt's Ministry of Petroleum Modernization Program, and fully aligned with the Schlumberger corporate strategy." To close the feedback loop, Schlumberger was able to deploy digitally-enabled and instrumented hardware, empowering customers with fit-for-purpose digital solutions and integrating decades of domain knowledge that optimizes performance.

The pandemic-induced prices did not have much impact on some companies, on the contrary, it has had a positive impact on their operations. DR. Mahmoud Dabbous, IPR Energy Group Chairman and CEO, stated that "the low-oil price environment of 2020 has not impacted IPR's daily operations in Egypt, due to its prudent approach and operating practices." It has even led to what Dabbous called "the biggest expansion and growth in IPR's 27-year history in Egypt as an E&P company". Thomas Maher, Apex's CEO, illustrated that Apex was fortunate enough to complete the exploration drilling program in the West Badr El-Din concession just before the first COVID-19 cases were detected in the field.

Apache's VP and General Manager, David Chi, indicated that throughout the pandemic, the company has been trying to integrate remote work with standard office hours to create a balance between human interaction and talent

EGYPT IS SITTING IN A VERY ADVANTAGEOUS POSITION GIVEN ITS ABUNDANT HYDROCARBON RESOURCES.

DAVID CHI
Apache's VP and General Manager

development. Minimizing costs became essential during such times as "it is critical to accelerate the creation of the digital oilfield, where we can improve cost efficiency and data quality while providing a safer work environment for our employees," Chi noted. With such an uncertain environment that affects the whole world, Chi made it clear that "we need to do everything we can as a business to drive costs down so we can compete with other industries and other countries."

Besides the trouble of molding life to the pandemic, the decline in demand has left its toll and led to one of the worst oil price crashes in a long time, which in turn "has negatively impacted activity levels, especially drilling, which has exacerbated the decline in Egypt's oil production," Maher indicated. However, the situation opened up new avenues to explore renewables and electricity. McLeod believes that "several industrial sectors and oil and gas companies now plan to increase their participation in the electricity value chain. These trends may foster collaboration that provides new business models and helps advancement in the energy transition." On another note, Chi pointed out that the supply chain realignment will present an opportunity to Egypt; "as a nation with a large, cost-competitive population, abundant energy, easy access to large domestic and international markets, Egypt has a great chance to become the manufacturing powerhouse of the future."

Safety First

Throughout 2020, companies prioritized their employees' safety and working from home became the new normal. In combating COVID-19, Apex moved to work from home at the beginning of the pandemic, now most of its employees are returning to office life with the flexibility of working from home if they chose to. Maher added that "operations in 2020 remained pretty much the same, but with situation-appropriate COVID-19 precautions and communication channels. Tele-conferencing, mask-wearing, and social distancing have become the new norm."

In the same manner, Apache allowed its office employees to work from home early on and continues to do so. Chi stated that "we had the technical wherewithal and processes in place to adapt quickly, and our team has shown true resiliency and demonstrated their impressive talent and determination while adjusting to new

GROWTH WILL REMAIN CONTINGENT ON SUCCESSFUL AND SPEEDY DEPLOYMENT OF VACCINES. HENCE, DIFFERENT WORK PROGRAM AND BUDGET SCENARIOS SHOULD BE CONSIDERED FOR THIS.

KAMEL EL SAWI
Kuwait Energy Egypt President

DANA GAS'S ONSHORE NILE DELTA ASSETS INSTANTLY BOOSTED IPR'S PRODUCTION PROFILE BY 300%, AS WELL AS INCREASING ITS PROVED AND PROBABLE RESERVES BASE BY 400%.

DR. MAHMOUD DABBOUS
IPR Energy Group Chairman & CEO

ways of working." For field workers, things were a bit more challenging, however. Apache took a series of strict measures which included regular health checkups, providing masks, and increasing cleaning and disinfection measures.

IPR had a similar approach to managing the pandemic to ensure safety while also maintaining the same productivity levels in the office. Extending their approach to the field, IPR implemented safety protocols "to ensure field personnel were safe and managing operations prudently." Likewise, Apex, established an Emergency Response Plan (ERP) to apply when needed, especially since the company began its exploration drilling in December, Maher remarked. As for Kuwait Energy Egypt, the company has made it a priority "to keep our workforce healthy and all precautionary measures to safeguard the employees and ensure the business continuity were taken while maintaining all operations running with 100% efficiency," El-Sawi added.

Relying on technology to ensure safety became the mainstream attitude for most companies in 2020, but for Wintershall Dea, technology has always been a core part of its operations. Sabry elaborated that "the extent of digitalization is shown by the fact that in some of our business units in the Netherlands and Norway, our production platforms are operated unmanned, controlled by [a] mouse click from a control center. By enabling home working and remote operations, digitalization makes us more resilient." Pinpointing on Egypt, Sabry asserted that "we [Wintershall Dea] have fully utilized the available tools and pushed ourselves to be more digital to cope with the current situation."

Prioritizing HSE was at the top Schlumberger's agenda as the company aimed to maintain its relentless efforts to foster a safe working environment for everyone. The company extended its approach beyond COVID-19 to maintain the industry and ensure a high state of awareness and adoptions of mitigation measures, Badawi remarked.Schlumberger put its technological capabilities to work by adopting Greenroad applications to digitally monitor the company's fleets and improve drivers' abilities. One of the most notable efforts was the development of Onesite Pass application during the pandemic, as it "let people check-in whether working remotely or in our facility and to confirm their good health status," Badawi explained.When it comes to the digitalization of domestic logistics, Schlumberger rolled out BlueHaul which "provides accurate and live tracking of all our trucks and materials shipping within different locations in order to enhance the safety of our drivers, while also providing real-time visibility on our assets with estimated delivery to our warehouses or well sites," Badawi stated.

THE NEW BOARD AND ADMINISTRATION SHOWED DETERMINATION TO GROW ITS OPERATIONS AND INVESTMENT IN EGYPT.

ROBERTO MCLEOD
General Manager Egypt, Enap Sipetrol

Troubled Waters

In addition to the pandemic's impact on the global industry, it has also left a tangible effect on the local market. Many small and medium-sized companies had to shut down as they could not stand a chance against the tumbling global economy. McLeod demonstrated that "the change seen in the energy industry forced authorities to take precautionary measures that affected all industries all over the country such as tourism, airlines, investment in the oil sector."

Market disruptions have certainly made an impact on all industries that new, creative solutions should be targeted. On mitigating the crisis, El-Sawi conveyed that "companies shall be innovative and think out of the box to optimize the cost. Ensure that they are having a well-established automation and digitalization system to gain a good connection with all employees." Acknowledging the state of the market, Sabry believes that after the crisis, Egypt could have the upper hand when it comes to the energy transition. "A growing recognition of the importance of gas in the energy transition can be positive for Egypt and the whole Eastern Mediterranean, which is so promising for new gas developments," Sabry stated.

Taking an in-depth look into Egypt's energy industry in 2020, Badawi noted that the ministry remained on track to achieve self-sufficiency of oil and gas to meet the local market needs. For Schlumberger, Egypt became its center which allowed it to "support operations in other countries, such as Jordan and Lebanon, where we have leveraged the regional talent pool, infrastructure, and our technology leadership to achieve many successes throughout the year," Badawi stated.Badawi proclaimed that focusing on brownfields to gain oil sufficiency should be replicated in the gas industry. Badawi made it clear that "brownfield development will be at the forefront of Egypt's goal of achieving oil supply self-sufficient. However, to fully exploit these fields, innovative fit-for-basin solutions will be needed as opposed to prescribed technologies."

Investments State

Perhaps one of the most affected areas that COVID-19 hit was the investment aspect in oil and gas. With the imbalanced state of supply and demand, a reduction in costs and activity level came along. Apache's Chi noted that oil and gas companies faced another type of pressure in addition to COVID-19, which is shareholders' focus on investment returns rather than production growth. However, "in the long-term, one of the top priorities for oil and gas producing nations will continue to be competing for foreign investments," Chi remarked, adding that "in a resource-centric industry like oil and gas exploration and production, a key to long-term success is the continuous replenishment of opportunity inventory, and this has been a focus for Apache in Egypt."

For Egypt in particular, several IOCs have expressed their intentions to expand their business in the country. Enap's CEO explained that after the organizational restructure of the company in Egypt, "the new Board and administration showed determination to grow its operations and investment in Egypt besides our operations in the Western Desert in East Ras Qattara Concession which is operated by our joint venture (JV) with the Egyptian General Petroleum Corporation (EGPC)."

Similarly, Dabbous remarked that "Dana Gas's onshore Nile Delta assets instantly boosted IPR's production profile by 300%, as well as increasing its proved and probable reserves base by 400%." He continued that the acquisition of Sojitz's share in Alamein concession "increased production and reserves while allowing IPR to accelerate its exploration efforts in 2021." Maher also made it clear that "Apex will continue to identify and evaluate mergers and acquisitions (M&A) opportunities in Egypt, with the hope of making a significant investment as early in the year as possible."

When it comes to competitiveness, Chi pointed out that "Egypt is sitting in a very advantageous position given its abundant hydrocarbon resources." What's more is that through modernizing the government's fiscal regimes and operating model, Egypt's edge is never lost. As the pandemic pushed the oil and gas industry to a new normal, it also pushed forward its digital transformation especially when it comes to working locations. Chi explained that creating jobs is a major challenge for Egypt and its fast-growing population, however "with proper training and an abundance of talent at a competitive cost, I think Egypt should investigate opportunities to create jobs in this new world norm."

One of the most impactful investments, in the long run, is investing in developing cadres. Schlumberger has always been a pioneer in building capacity programs and the pandemic did not hinder its progress as the company signed four memoranda of understanding (MoUs) with several universities in Egypt "to provide access to our digital platforms, virtual visits to our operational bases, and online technical and non-technical virtual sessions," Badawi stated. The company also managed to train approximately 1,000 undergraduates from nine universities. Badawi highlighted Schlumberger's people resilience in the past year denoting that the company "maintained our commitment of developing our people as they remain at the core of our success as a company."

Egypt's reforms and strategies put the country in an investor-friendly environment. As leaders in production in Egypt and with an inventory of drillable prospects, Chi affirmed that "this provides a very solid foundation for us to continue investing and generating significant value for all stakeholders." He added that in the current climate, Egypt bodes relatively well to other investment options. Coupling that with strong leadership and economic growth, Egypt will continue to be a very attractive investment destination for companies around the world.

Operational Updates

Despite the hardships faced in the past year, Apex managed to find a silver lining at the Southeast Meleiha Concession with the spudding of the first of three exploration wells in early December 2020. Since then, Apex announced on January 18 that the first two exploration wells in their three well campaign discovered oil at shallow depths in the Bahariya Formation, while the third exploration well was drilling. Playing on the momentum, Maher stated: "We look forward to working together with our partners at EGPC to further explore and develop the considerable potential of our concession and to expeditiously bring online production from this first discovery."

Moving on from 2020's limited E&P plans, IOCs are very much looking forward to continuing expanding their presence and operations in Egypt. El-Sawi delved into Kuwait Energy Egypt's operations in the Abu Sennan concession, stating that the results of the drilling campaign were up to scratch and the company has already begun 2021 drilling plans. For Kuwait Energy Egypt "Abu Sennan is a very promising asset with high value, which encourages the company to continue developing this field," El-Sawi added.

As for Apex, Maher denoted that the company will continue its "aggressive exploration drilling program at Southeast Meleiha with the goal of finding and establishing commercial production of oil from multiple fields we believe are on this concession." Not only that, but a second exploration drilling campaign could be on the horizon by mid-2021, which will aim to drill additional prospects in another area of the concession.

Apache's VP gave an update on the company's Western Desert concessions saying that Apache acquired a portion of a multi-year, multi-million acres state-of-the-art new broadband 3D seismic project and has re-processed a large amount of vintage seismic data. The company also succeeded in its drilling operations with a success rate of 93%. Meanwhile, in Matruh Basin, Apache recorded 555 feet net pay at Herunefer E-2. Chi boasted about Apache's efficiency in its operations as well as its finances during the pandemic, saying: "successful companies focus on optimizing the cost structure of their business constantly as this will enable the generation of more financial resources for re-investment while building resilience for challenging times like in 2020."

When it comes to integrating digital solutions to oil and gas operations, Schlumberger excels at transforming cloud capabilities into E&P solutions. Badawi elaborated that "[Schlumberger] leverages the power and storage elasticity of the cloud, the efficiency of high-performance computing, and the connectivity of the Industrial Internet of Things (IIoT) to create technologies tailored to each domain's biggest challenges." Badawi indicated that digital solutions allow users to transform real-time data into knowledge and benefit from it. This leads to the acceleration and automation of operational decisions efficiently. Such technologies include Agora Edge AI and IoT solutions offering "which utilizes the latest advanced in edge computing and the power of IoT to enable the different teams to reduce downtime and HSE exposure, lower operating costs and enhance production," Badawi explained.

In Egypt specifically, Schlumberger alongside Sensia was awarded to deploy Avocet production operation software across all EGPC JVs. In addition to this, Schlumberger's Egypt Digital Production Center (EPDC) aims to digitize production data from Egypt's producing assets. Focusing on Egypt's Brownfields; Badawi expressed his pride in Schlumberger as it "leverages the best in-class seismic processing technology to design and execute the ocean bottom nodes and streamer surveys in the Gulf of Suez with the first phase completed during the first half of 2020." This type of technology maximizes operators' chances in drilling and production activities in addition to unlocking the full potential of their assets. The past year has also nourished a more positive behavior towards the environment as it led to a commitment towards resource-conscious and sustainable products; thus, paving the way to a greener future. Despite the hardships of 2020, Badawi pointed out that "2020 was a great challenge, for the world, for the industry, and the Egyptian oil and gas sector was no exception, however its resilience shows a great future lay ahead."

"WE EXPECT 2021 TO BE OUR BUSIEST AND MOST SUCCESSFUL YEAR IN TERMS OF M&A ACTIVITY, EXPLORATION DRILLING RESULTS AND FIRST PRODUCTION."

THOMAS MAHER
President and Chief Operating Officer at Apex International Energy.

2021 Outlook

Building on the past year's experiences and challenges, IOCs remain positive about Egypt's energy future. Maher stated that "we expect 2021 to be our busiest and most successful year in terms of M&A activity, exploration drilling results, and first production." In the same regard, IPR will pursue M&A opportunities in addition to "focusing on organic and inorganic growth in its Egyptian portfolio of assets with the objective of optimizing performance," Dabbous, added.

McLeod reiterated Maher's point, expecting that "we are going to see economic improvement and our goal for 2021 is to grow in Egypt. We have, already, been here for almost 20 years and trust the way our business is executed." El-Sawi also remained optimistic but cautious, stating that "growth will remain contingent on successful and speedy deployment of vaccines. Hence, different work programs and budget scenarios should be considered for this."

Badawi hopes that this year will be a continuation of Schlumberger's success in 2020. "I strongly believe that 2021 will be another strong year for Egypt and the whole sector, carrying on our efforts as strategic performance partner of choice to the sector to continue together to create amazing technology that unlocks access to energy, for the benefit of all," Badawi affirmed.

For Apache, on a global level, the company plans to move forward with its critical projects and maximize its return on investments (ROI). More specifically in Egypt, "Apache expects to maintain an active drilling and investment program in 2021. Our plan will remain flexible and we will adjust our activity and spending as appropriate," Chi said. The company remains an ally to the ministry's Modernization Project which would benefit both parties by higher returns and value creation. On a final note, Chi noted that oil and gas will continue to be major players in the global economy for a long time and that "Egypt is in a great place – in terms of resources, location, and leadership – to provide the energy that helps elevate lives across the globe."

"BROWNFIELD DEVELOPMENT WILL BE AT THE FOREFRONT OF EGYPT'S GOAL OF ACHIEVING OIL SUPPLY SELF-SUFFICIENT"

KARIM BADAWI
Managing Director at Schlumberger Egypt and East Mediterranean.

EGYPT: A PATH TOWARDS A WINNING INVESTMENT STRATEGY

BY AMINA HUSSEIN, REHAM GAMAL, AND TASNEEM MADI

Egypt is one of the best destinations for investments, especially in the petroleum sector. This is mainly due to the proactive measures taken, as well as the Central Bank of Egypt (CBE) and government entities' several initiatives in various sectors. Additionally, the adopted investment law and the newly set business-friendly regulations play a vital role in creating a perfect host for investments. Egypt was also one of the 10 largest manufacturing countries in 2019, where the manufacturing sector, including refining, contributed $108 million.

Egypt's diversified economy, strategic geographical position, low labor costs, skilled workforce, substantial energy reserves, and large pool for domestic demand assisted in rising Foreign Direct Investments (FDIs). According to the United Nations Conference on Trade and Development's (UNCTAD) World Investment Report 2020, Egypt was ranked the largest recipient for FDIs in Africa in 2019 with inflows of $9 billion increasing by 11 % compared to 2018. It is worth noting that FDIs in Egypt are mainly driven by the petroleum sector, where the sector represents about three-quarters of total investments. Petroleum Investments increased after the discoveries in the Western Desert, in addition to the discovery of Zohr in the Mediterranean Sea.

I. INVESTMENT ENVIRONMENT

A. EGYPT'S RANKING IN INTERNATIONAL INDICES

Within the last two years, Egypt's position advanced in various international indices, especially in Government Artificial Intelligence (AI) Readiness Index, and the Logistics Performance Index.

In the Government AI Readiness Index, Egypt progressed to 7^{th} rank among Arab countries. Egypt acquired the 8^{th} rank in the MENA region in the AI Readiness Index. Egypt also improved to the 56^{th} rank out of 172 countries in the latest mentioned rank. In the Logistics Performance Index, Egypt was the 67^{th} among 160 countries.

During the first wave of COVID-19, the Egyptian government has worked hard to protect the country's economy and investments from being negatively affected. Accordingly, Egypt has been ranked the third in the Middle East by Bloomberg in the COVID-19 Resilience Ranking, and 25th globally. Moreover, according to Horizon's COVID-19 Economic Recovery Index (CERI), Egypt is ranked as the first in Africa, the fourth in Arab region and the 70th globally out of 122 countries. These indices reflect the Egyptian economy's strength and resilience during crises.

EGYPT'S RANKS IN GLOBAL INDICES IN 2020

	Ranking	Improved Spots (YoY)
Global Competitiveness Index (GCI)	93	1
Ease of Doing Business	114	6
COVID-19 Resilience Ranking	24	1
COVID-19 Economic Recovery Index (CERI)	70	-
Logistics Performance Index	67	0
Corruption Perception Index	106	11
Legatum Prosperity Index	121	3
Digital Evolution Index	54	0
Government AI Readiness Index	56	55

B. INVESTMENT LAW AND REGULATIONS AMENDMENTS

Since June 2019, Egypt has set a number of reforms and legislative adjustments. The series of approved amendments aims to promote investments, provide a suitable investment climate, reduce bureaucracy in increasing the capital, registering a company and accessing services online.

In January 2020, the Prime Minister, Mostafa Madbouly announced the formation of the Ministerial Investment Committee, upon decree 38 of 2020, to discuss issues related to promoting investments, set FDI policies, and solve investment disputes.

In November 2019, the Cabinet set an amendment for the public and private sectors; where the concerned entities must provide a quarterly overview on their direct and indirect foreign investment assets to the General Authority for Investment (GAFI).

The Cabinet adopted a series of business practices and amended the Companies Law (Law 4 of 2018). An amendment was approved in June 2019, which aims to enhance investment opportunities and encourage financial inclusion.

In February 2020, the Cabinet also approved giving the Financial Regulatory Authority (FRA)-regulated real estate and private equity (PE) funds to use more than 25% of their capital raised into a single transaction or company.

In September 2020, the Companies Law was also allowed dual listing in stock exchanges for companies, provided modern financial tools and permitted sukuk issuance.

Moreover, an amendment was approved for E-Payments (Law 18 of 2019) in December 2019, which allows public and private sector entities to pay subsidiaries, suppliers, contractors, taxes and customs electronically.

II. ECONOMIC STABILITY

A. EGYPT'S ECONOMIC PROFILE

Thanks to the economic reform program and government efforts, the Egyptian economy was able to maintain positive economic indicators and be one of the most stable economies around the world during the current global slowdown.

EGYPT'S MAIN ECONOMIC INDICATORS IN FY 2019/20

- GDP: **EGP 5,526.95** billion
- GDP Growth Rate: **3.57%**
- Investments: EGP **473.8** billion
- BoP: (-) **$8.59** billion
- FDI: **$2.5** billion
- Annual Average Headline CPI: **5.7%**
- International Reserves*: **$38.202** billion
- Average Exchange Rates (EGP): US $:**16.13** | EUR: **17.84** | Pound Sterling: **20.34**
- Employment*: **24.115** million individuals

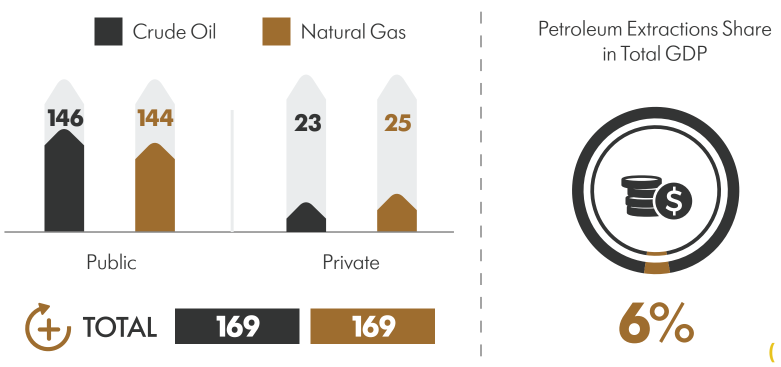
*By June 2020

B. PETROLEUM SECTOR ECONOMIC PROFILE

The petroleum sector is one of the engines of economic growth in Egypt. In FY 2019/20, the sector significantly contributed to the country's gross domestic product (GDP), national investments and the Balance of Payments (BOP). Meanwhile, the sector's arrears continued to decline which promoted the foreign investments and led to signing new agreements in different areas.

1. PETROLEUM GDP IN FY 2019/20

PETROLEUM EXTRACTIONS GDP PER PRODUCT (EGP BILLION)



REFINING GDP PER SECTOR (EGP BILLION)

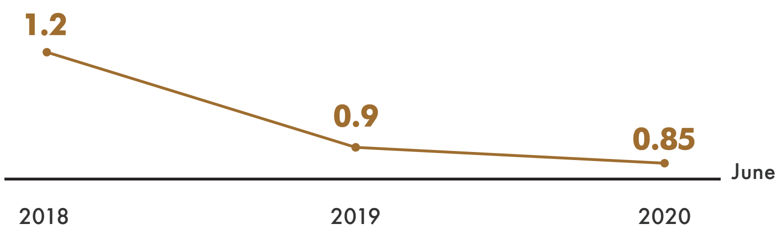
	Refining GDP
Public	224
Private	12
TOTAL	237

Refining Share in Total GDP

4%

3. ARREARS TO IOCS

DEVELOPMENT OF ARREARS TO IOCS ($ BILLION)



2. PETROLEUM INVESTMENTS IN FY 2019/20

PETROLEUM EXTRACTIONS PUBLIC INVESTMENTS (EGP BILLION)

	Investments	Share in Petroleum Extractions Investments (%)
Crude Oil	43	85
Natural Gas	8	15
TOTAL	51	

Petroleum Extractions Share in Total Public Investments (%)

11

REFINING PUBLIC INVESTMENTS (EGP BILLION)

Investments	Share in Manufacturing Industries Investments (%)	Share in Total Public Investments (%)
3	6	0.5

Foreign Investments Pumped in the Petroleum Sector

$7.77 billion

4. SIGNED AGREEMENTS IN FY 2019/20

SIGNED PETROLEUM AGREEMENTS

New	Total	Amended
17	20	3

5. PETROLEUM TRADE BALANCE IN FY 2019/20

PETROLEUM AND PETROCHEMICAL EXPORTS

Exports	Value ($ billion)	Volume (tons)
Total Petroleum Exports	3.26	8,990
Petrochemical Exports	1.22 (37% of Petroleum Exports)	

III. EGYPT'S PETROLEUM INFRASTRUCTURE

A. THE SUEZ CANAL & SUMED PIPELINE

Egypt has the potential to become an energy hub for major markets in Europe through operating the Suez Canal and the SUMED pipeline. Both channels transport about 98% of the exported Arab Gulf oil products to the European Union (EU) and the United States (US), according to the Ministry of Petroleum and Mineral Resources' (MoP) data. The channels have a strategic significance for global crude oil and liquified natural gas (LNG) trade as their closure would require tankers to divert around the southern tip of Africa, leading to a delay in transportation and increased shipping costs.

The Suez Canal, which connects the Red Sea to the Mediterranean, is a critical checkpoint due to the large quantities of hydrocarbons flowing through it. Oil flows through either the northbound or the southbound of the canal. Northbound oil flows come primarily from the Persian Gulf countries and are destined for the EU and the US. While the significant southbound oil exporting countries are Russia, Turkey, the Netherlands, Algeria, and Libya, and their exports are primarily destined for Asian markets, according to a report by the US Energy Information Administration (EIA).

SUEZ CANAL NAVIGATION IN 2020*

Oil Tankers	LNG Tankers
5,006	686

*Announced in December

The 200-mile-long SUMED pipeline transports around 115 million tons (mmt) of crude oil, according to the MoP's website. Oil flows north from the Ain Sokhna terminal along the Red Sea coast to the Sidi Kerir terminal on the Mediterranean Sea. The giant oil tankers carrying cargoes that mostly come from Saudi Arabia are too large to cross the Suez Canal fully loaded to reach their destinations in Europe and North America. Yet, unloading some of its cargo at one end of the pipeline in Ain Sokhna allows tankers to cross the Canal, explained by the EIA.

B. LNG EXPORTING TERMINALS

After years of being a net importer, Egypt was able, in October 2018, to regain its position as natural gas exporter after achieving self-sufficiency in September 2018. The Egyptian LNG exports increased from zero in FY 2014/15 to record 120 billion cubic feet (bcf) by 33 cargoes in FY 2019/20, according to the Egyptian Natural Gas Holding Company's (EGAS) annual reports.

Egypt has a relatively large, well-developed LNG export infrastructure, which includes two world-class LNG exporting facilities. The Spanish Egyptian Gas Company (SEGAS) and the Egyptian Liquefied Natural Gas Company (ELNG) manage the LNG facilities. The first facility is located in Damietta, while the second one is in Idku, east of Alexandria.

The Idku terminal was established in 2001 when the Egyptian General Petroleum Corporation (EGPC) and Edison signed an agreement with Shell to develop an integrated LNG export project in Egypt. The project is a two-train LNG terminal on the Mediterranean Coast with an annual capacity of 353 bcf of LNG, aiming to export ELNG to Europe and the US, according to EGAS's website.

EGYPTIAN LNG EXPORTS FROM IDKU PLANT IN 2020

CARGOES
16

DESTINATIONS	
Pakistan	Kuwait
China	India
UK	

On the other hand, Damietta plant functions as a tolling facility, with a current annual capacity of 264.8 bcf of LNG. The plant's natural gas supplies are provided by the Temsah fields, Ha'py Development Area, in addition to Scarab and Saffron fields in the West Delta. The plant was idle until recently Eni has come to an agreement with its partners to reopen the plant in 2021, according to Eni's press release.

ENI TO RE-OPEN DAMIETTA LIQUEFACTION PLANT

Q1 2021
Re-Opening Date

Increase plant's LNG portfolio by **3.78 bcm**
Target

STAKEHOLDERS' SHARES (%)

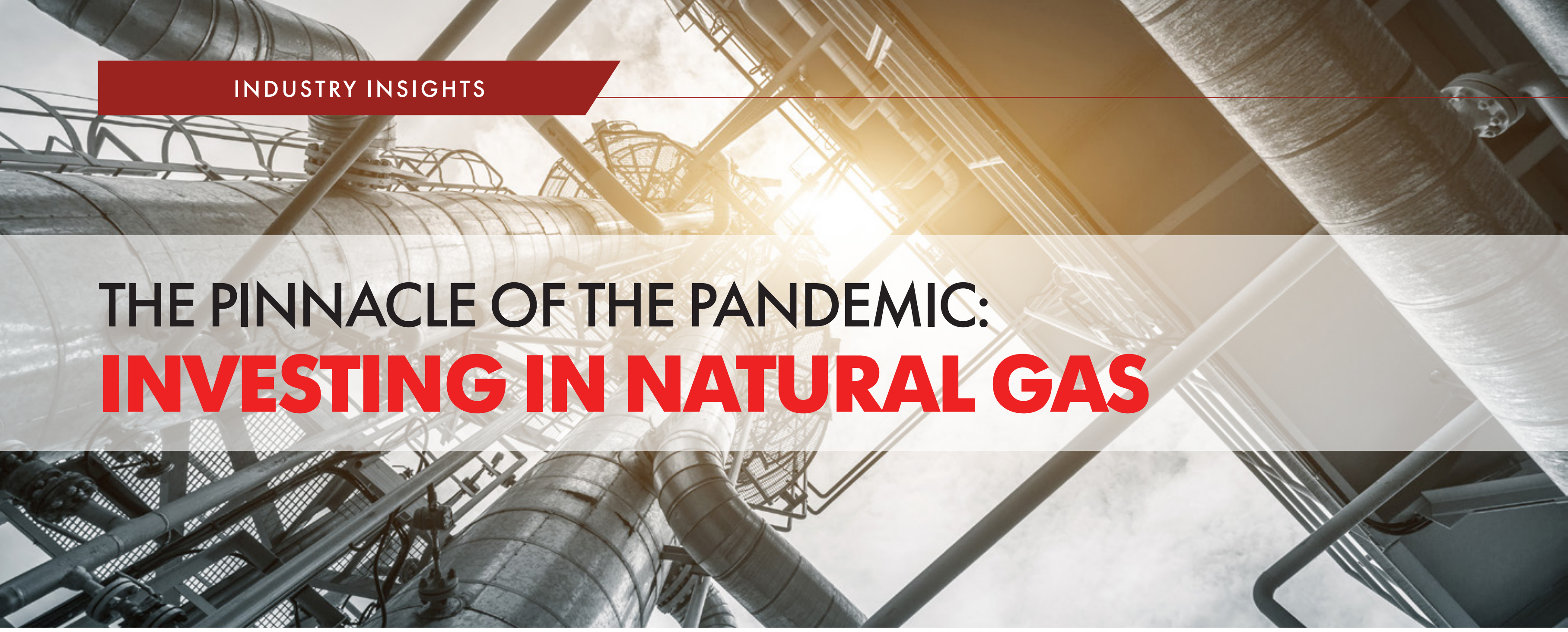
10
EGPC

40
EGAS

50
Eni

The Egyptian government has been tirelessly launching initiatives and easing measures to enhance investments. The government is working on encouraging the private sector to engage and support the Egyptian economy. Public debts, arrears to the international oil companies (IOCs) declined and inflation has fallen steadily to attract further investments. These indicators and indices created a room for the private sector to invest in different sectors such as in petroleum, health, education and public infrastructure.

Within the framework of the modernization program and Egypt's Upstream Gateway (EUG) project, the MoP's minister, Tarek El Molla explained the project's main purposes to develop the petroleum sector and enhance investment opportunities. Through the EUG project, the MoP is working on launching an integrated digital portal for the activity of research, exploration and production of petroleum and gas resources.



THE PINNACLE OF THE PANDEMIC: INVESTING IN NATURAL GAS

BY RANA AL KADY

To begin with, the natural gas investment climate as of Q1 2021 has proved to be a financial opportunity that cannot be ignored for both the upstream and downstream sectors. The trend in natural gas popularity has changed dramatically between 2019 and 2021; starting with a low-sloped rise, continuing with a plateau and eventually exponentially increasing at present. However, before further analyzing the current state of the financial market, it is important to understand the journey that led to the present day interest in natural gas.

THE EVOLUTION OF NATURAL GAS

First of all, it is crucialto identify the overall situation in the market and the financial implications associated with the pandemic in terms of the oil and gas sector's interest in natural gas. This includes assessing the development of natural gas throughout the course of the pandemic. To be specific, the International Energy Agency (IEA) categorized the interest in the investment of natural gas into three main phases; the first phase which took place in 2019 is referred to as the 'cool down' phase, the second phase which took place in 2020 (i.e. during the first and second wave of the COVID-19 pandemic) is referred to as the 'meltdown' phase, while the current phase leading to the future (i.e. between 2021 and 2025) is referred to as the 'rebound and beyond' phase.

More specifically, the first phase (or the 'cool down' phase) is based on the fact that the total consumption of natural gas increased by nearly 70 billion cubic meters (bcm) in 2019 alone. However, this global increase mainly occurred in markets located mostly in South East Asia. While the Middle East continued to see strong signs favoring the demand for natural gas due to the high demand for Electricity, Egypt was different. In fact, the natural gas trend in Egypt reached a near plateau that was surprising to local markets; this was especially after exponential increases in natural gas consumption during the two years prior.

Furthermore, the second phase (or the 'meltdown phase') is namely based on the impact of the global pandemic as the world began to shut down and undergo lockdown procedures during mid Q1 2020. During this phase, the natural gas sector – as well as the oil and gas sector overall –faced what is now referred to as an 'unprecedented macroeconomic shock'. By Q2 2020, it was found that the consumption of natural gas had dramatically decreased by nearly 7% (in terms of year-on-year calculations) as a result of the lockdown and its respective negative impact on the global Gross Domestic Process (GDP).While Africa took the smallest hit at less than 5% decrease in natural gas demand, Europe had the worst impact at over 45% decrease in natural gas demand, in terms of bcm.

NATURAL GAS INVESTMENT CLIMATE

Based on the trends of the past, economic experts predict the natural gas market will change for the better in the long run, with high demands and better opportunities for investments. At a time when the oil and gas sector found that the demand for oil products hit an all-time low, natural gas becomes an affordable and reliable option that is more readily available – in terms of infrastructure – than renewable energy (which would require more time and additional investments before being able to immediately replacing oil and gas alternatives).

An oil and gas Financial Expert, who prefers anonymity, has noted that "Renewable Energy is becoming a very interesting topic even within the oil and gas sector, but Renewable Energy technologies do not have the same level of infrastructure that crude oil has, for example." The Financial Expert further explained this point by adding that "the interest in natural gas will still be a lot but not as much as when crude oil begins to be in demand again after the pandemic ends. When that happens, the energy sector will make crude oil, and in the case for Egypt, natural gas, a top priority."

At the moment, thereare many reasons as to why there is astrong interest in investingin the natural gas market. The demand for natural gas is projected to nearly double by 2035 and then doubles that amount again by 2050, thus creating leverage for investments in the energy source. Recently, Egypt has signed multiple agreements with International Oil Companies (IOCs) and National Oil Companies (NOCs) in hope to be able to further encourage international investors for investment opportunities as Egypt continues its aspiration to become a regional gas hub. With nine exploration agreements signed in the first week of 2021 alone, Egypt continues to meet its goal through its local discoveries. Thus, creates a turnaround despite the impact of the pandemic on the sector.

ADVANTAGES AND DISADVANTAGES OF INVESTING NOW

Of course, despite the slow but steady increase in the demand for natural gas that is expected to continue over the coming months, it is crucial to be reminded that the investment climate is still under the impact of the pandemic's second wave. While the pandemic's impact is becoming less and less adverse moving forward, its ripple effect will be sure to last for some years to come (as mentioned earlier, between 2021 and 2025) during the 'rebound and beyond' phase. Therefore, at such a sensitive time, it is crucial to identify the advantages and disadvantages associated with the current investment climate in the natural gas sector.

There are a number of advantages when it comes to investing in the natural gas sector at this time. For example, Egypt's strategic location promotes dynamic foreign investments given its central location around some of the world's largest investors (i.e. with the help of Ports). Secondly, despite Egypt having one of the region's oldest and most developed oil and gas sectors, there remain several potential opportunities yet to be unearthed. Additionally, Egypt has invested (and continues to invest) in the necessary infrastructure to explore, discover, transport and refine both oil and gas products; this indicates Egypt's readiness and potential to become a regional gas hub.

On the other hand, there are also a few disadvantages when it comes to investing in the natural gas sector given the current climate; the first being that the pandemic remains unpredictable and could take an unexpected turn in the opposite direction. Also, a considerable amount of investments have been directed towards renewable energy and green technologies, creating further competition for the sector in the long run. Additionally, the exploration and production phases are expected to take place over the coming years which would take a long time to finally see successful outcomes.

To conclude, the natural gas investments in Egypt take place with the aim of becoming a regional hub. The unprecedented macroeconomic shock of the pandemic has proven that nothing is set in stone. Despite this, there is no denying that Egypt is exerting all efforts to promote investments in the natural gas sector in the long run by drawing different investors (i.e. foreign, local, private sector etc.) to the even greater potential that Egypt has yet to untap.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PULLING THE THREADS OF **PRIVATE INVESTMENTS**

BY **MAI EL GHANDOUR**

For years, the privatization program has been oscillating back and forth with promises that fail to see the light of day. However, the government has been pushing forward with the program's comeback in an attempt to flourish the investment climate and pump more foreign direct investments (FDIs) amid the coronavirus pandemic. One of the companies that has kickstarted the program and is currently being offered to the private sector is the state-owned oil distribution company, Wataniya Petroleum. Will this perhaps be the first of many national oil companies (NOCs) to be up for grabs by private sector investors?

PRIVATIZATION IN THE OIL, GAS SECTOR

In December 2020, the Sovereign Fund of Egypt (SFE) has selected Wataniya Petroleum, a subsidiary of the National Service Products Organization (NSPO), to be offered to private sector investors as a first stage and then will be offered in the Egyptian Stock Exchange (EGX) where all Egyptians can invest in it, Minister of Planning and Economic Development and SFE Chairperson, Hala El-Said, stated.

El-Said added that other companies will soon be offered to the private sector as well with conditions to ensure the highest returns for the state and create investment opportunities for the private sector.

Following the announcement, SFE's CEO Ayman Soliman told Bloomberg that Wataniya has already "attracted [interest from] a lot of investors" without providing any further details on the actual offering. However, he indicated that this will be the beginning of a saga of 10 NSPO subsidiaries that SFE seeks to offer for investment as an initial phase ahead of potential initial public offerings (IPOs) on the EGX.

Gulf newspapers, local press, and international media have reported on multiple occasions several "suitors" for Wataniya, who all asked for anonymity as the ongoing talks were said to be confidential. Egypt Oil & Gas (EOG) has attempted to contact the companies in question, but they either declined to comment or could not be reached.

The SFE has not confirmed whether it has received offers from foreign or Egyptian buyers. However, the financial services outlet Bloomberg reported on December 7 that Abu Dhabi National Oil Company (ADNOC), which produces most of the United Arab Emirates (UAE)'s oil, is interested in acquiring a majority stake in Wataniya Petroleum, according to people familiar with the talks.

ADNOC's services arm, Abu Dhabi National Oil Company for Distribution, previously said it plans to expand in Egypt. The plan would come as part of the $20 billion joint investment platform ADNOC set up with the SFE last year. The partnership aims to establish strategic joint ventures, specialized funds or investment instruments, to invest in several sectors, including the energy sector.

Taqa Arabia has also been reported to be eyeing a majority stake in the company with the SFE as a partner, sources said.

Al-Borsa Newspaper has recently cited other anonymous sources familiar with the negotiations referring to two other UAE and Saudi companies in the running for the acquisition; namely Emirates National Oil Company (ENOC) and Aldrees Petroleum and Transport Services Company.

It is important to note that SFE had earmarked the leading local investment bank EFG-Hermes to advise on Wataniya's stakes acquisition.

So, when is the sale going down? According to Al-Borsa, the bidding could begin due diligence by the end of January, paving the way for the sale to be wrapped up by the end of H1 2021.

OBJECTIVES OF PRIVATIZATION

The CEO of SFE previously stated that the main purpose of the SFE is to create investment opportunities in Egypt's untapped assets. It should be noted that SFE and NSPO signed a cooperation agreement in February 2019 to offer some of NSPO's subsidiaries to private investors.

"This is a historic shift in how Egypt's economy is structured," Planning Minister El-Saeed said in a separate interview with Bloomberg, describing it as the first opportunity for domestic and foreign investors to fully own army-affiliated companies.

"The state had to step in during the period where we suffered from political instability after 2011, this was a situation where the private sector shied away from investing," said El-Saeed, who's also a non-executive chairman of the sovereign fund. "Without these investments, Egypt's economy would have shrunk, not grown."

Soliman, on the other hand, was reported saying that the opportunities given by the fund "are a manifestation of the government's direction to encourage private sector participation." It seeks to promote "more sustainable investment offerings structured around public-private partnerships versus just privatization," he said.

BOOSTING FOREIGN DIRECT INVESTMENTS

According to the United Nations Conference on Trade and Development (UNCTAD) World Investment Report 2020, Egypt was the largest FDI recipient in Africa in 2019, with inflows increasing by 11% to $9 billion. "Economic reforms instituted by the government have improved macroeconomic stability and strengthened investor confidence in the country," the report stated, adding that FDI was mainly driven by the oil and gas industry.

Petroleum FDI in FY 2018/19 increased to $9.5 billion (EGP 160.17 billion), marking the highest level in five years and contributing 75% of the total FDI inflows to Egypt, according to data by the Ministry of Petroleum and Mineral Resources.

Iuliia Kornieieva, Department of Macroeconomic Regulation & International Economic Relations, Academy of Financial Management in Ukraine, describes privatization as a tool of attracting FDI.

Kornieieva analyses the use of IPO as one of the best ways of privatization of large state-owned enterprises, carried out in order to attract long-term investment resources and improve the level of corporate governance.

She proposes a mechanism to support the privatization processes aimed at attracting foreign investments, addressing international financial organizations to facilitate successful IPOs of state-owned companies that are subject to privatization.

El-Said was quoted saying, "It is high time for these offerings. The Central Bank of Egypt has lowered interest rates, which drove many investors to the Stock Exchange in search for better profits." She concluded by saying that "the NSPO owns more than 30 companies. It will test the market to determine the best approach for selling stakes in them that is both appealing to investors and will bring it maximum revenues."

THE SUEZ CANAL: WEATHERING GLOBAL TRADE STORM

BY **JASMINE SHAHEEN**

International organizations have declared 2020 as one of the worst years for the world economy. The COVID-19 consequences were to blame for the economic damage that left only a handful of countries to come on top with little economic damage by the end of the year. Trade, being one of the main driving forces of the economy, was not able to escape a hit over the past year too. As some parts of the world begin their way to recover, health-wise and consequently, economic-wise, Egypt Oil and Gas (EOG) takes a look back on what 2020 has brought on the global and national trade through the lens of the Suez Canal; one of the most vital links connecting the world economy.

RIDING OUT THE STORM

According to the United Nations Conference on Trade and Development (UNCTAD) report on COVID-19 Impact on Trade and Development, in the first 31 weeks of 2020, global port calls by all ship types were down by more than 10% compared to the same period in 2019. Not only that but during the second half of May 2020, global port calls had fallen even to less than 80% of calls for the same period during the previous year. However, on a more focused note, for Egypt, where the Suez Canal is one of the main sources of national income, the strategic waterway has shown some light amid the sunken period of global trade.

Throughout 2020 and with all its hassle, one would have expected that the Suez Canal would be hit as hard as other sectors such as tourism or the foodservice industry. However, given the latest figures released by the Suez Canal Authority (SCA), it appears that the Suez Canal's traffic recorded 18,829 vessels in 2020 compared to 18,880 in the previous year, indicating a decrease of a mere 0.27%. Despite the tumbling global economy, the Canal has managed to generate revenues of $5.61 billion, the third-highest annual revenue in the history of the canal.

Zoning in on how the Suez Canal's petroleum trade played out in 2020, based on SCA's data, out of the 18,829 vessels, 686 were liquefied natural gas (LNG) carriers against 750 LNG tankers in 2019. Per the SCA, this can't be taken lightly especially amid the decline in spot gas trade to Asian countries and in light of the decline in natural gas prices. As for oil tankers and despite the decline in global demand for petroleum products, SCA's data shows that 5,006 oil tankers crossed the Suez Canal during 2020.

KEEPING UP WITH TUMBLING PRICES

The small discrepancies between the last year's figures and 2019 could be considered remarkable in such circumstances. The SCA has taken bold moves to ensure the smooth continuation of the trade. Most notably, offering several discounts on tariffs to some vessels which included a discount of 24% to liquefied petroleum gas (LPG) carriers from West of India ports and the Gulf Coast of the US and 60% off to LPG tankers crossing from East of Kochi ports to Singapore. The SCA also offered a discount of 75% on all oil tankers cruising between Latin America from Colombia and ports of Asia from Karachi and its Eastern parts. The discounts were supposed to be valid until the end of 2020, however, the SCA extended the same discounts until June 31, 2021.

CHANGING TIDES

Such discounts were made in an effort to lure more ships back to the Canal after lower fuel prices have made ships take the longer route of Cape of Good Hope when traveling. Between April and May 2020, the French container transportation and shipping company, CMA-CGM, and the 2M Alliance - which is an alliance between Maersk Line and Mediterranean Shipping Company (MSC) - switched their transport route from the Suez Canal to the Cape of Good Hope. George Safwat, Spokesperson of the SCA, stated that only three vessels switched their routes and that it was coordinated with the SCA beforehand.

Safwat explained to the BBC that this shift was a result of the global economy being affected by the repercussions of COVID-19 as well as the fallout of the price of oil per barrel. In his own words, Safwat elaborated that this "made the cost of the journey through the longest routes much less than the cost of crossing the Suez Canal." Meaning that transport companies are ready to bear the fuel price increase despite late delivery. It should be noted that the Cape of Good Hope adds 3,000 miles more than the Suez Canal.

This is not the only change in the trade scenery as talks on reviving the Eilat-Ashkelon pipeline connecting the Red Sea to the Mediterranean have been ongoing. If the pipeline becomes active, it will be used to ship oil from the Gulf to Europe, thus bypassing the Suez Canal. Osama Rabie, Head of the SCA, stated that this could have a damaging effect on the canal's revenues, which consequently could pose a threat to Egypt's finances and economy. That is because the canal's revenues are the third source of Egypt's foreign currency after remittances and tourism. The pipeline, however, does not pose a real threat to Egypt at the moment, Rabie previously stated.

Amidst all these challenges, the Suez Canal will always be an important asset for trade especially since its expansion to allow the shortest shipping two-route way between Europe and Asia. With the new expansion, the state aims to further reduce the transit time of vessels crossing the Suez Canal from one end to the other and increase its capacity in anticipation of the expected growth in world trade. Consequently, it does not only benefit world trade but the national economy as well. Mohab Mamish, Former Chairman of the SCA, previously elaborated on that angle indicating that "the new waterway would increase annual profits from the Suez Canal from $5.3 billion in 2014 to $13.23 billion by 2023."

The new expansion gives its competitors a run for their money by allowing more vessels into the canal at a favorable cost and time. Thus, it is evident that as a commercial landmark, the Suez Canal will always be a guiding lighthouse to world trade.

OPERATIONAL EXCELLENCE BUILDS REFINERIES' PROFIT MARGIN

BY FATMA AHMED

The refinery industry is one of the essential pillars of the petroleum sector. The Egyptian government has given great attention to this important industry, where Egypt is ranked as the second-highest oil refining country in Africa by refining about 23% of the total domestic refined oil in the continent .

REFINING SECTOR IN GDP

According to data issued by the Ministry of Planning and Economic Development (MPED), the refining sector contributed a total of EGP 236.7 million to the Gross Domestic Product (GDP) during the fiscal year (FY) 2019/2020, jumping by 24.6% compared to the FY 2018/2019 when it recorded 189.9 million. Additionally, the data showed that the refining share in the GDP hit its highest level since FY 2014/15, reaching 4.3% compared to 3.7% during the previous year and 4.1% during FY 2014/15.

Furthermore, the refining sector's share in the petroleum extraction GDP increased to 25.1% during FY 2019/20 compared to 22.4% in the FY 2018/19. These high results pushed the total refining sector share in the total GDP over the past six years, up to EGP 944.2 billion, rising by 131% since FY 2014/15 when it was estimated at EGP 102.3 million. However, the refining investments has dropped to EGP1.1 billion or by 70.8% during FY 2019/20 after reaching EGP 3.7 billion in FY 2018/19.

When it comes to the petroleum exports, the data issued by Central Bank of Egypt (CBE) showed that exports have increased by 86.4% during FY 2019/20 to EGP 848 million versus EGP 115.5 million during FY 2018/19. On the same note, the petroleum products exports recorded $2.42 billion during the first quarter of FY 2019/20 compared to $2.78 billion during the same period of FY 2018/19 due to the decline in global prices. On the other hand, the petroleum imports decreased by 13% to $2.7 billion due to the same reason.

PROFIT MARGINS OPTIMIZATION

Refiners are considered one of the best investments that can enhance the state's economy, increase the overall contribution to the GDP, and impact the economy positively. Additionally, as long as investments in refineries increase, the demand for petroleum products can be sufficiently met which helps in reducing exports and saving more money for the country.

This pushes governments in cooperation with the operators and investors to find ways to optimize the refineries' profit margins. Hossam Mahmoud, Process Safety Engineer, highlighted to Egypt Oil and Gas (EOG), that the main challenge that faces the investors is "how to gain high profit with low cost."

INTEGRATED SUSTAINABLE APPROACH

An article published by a Consultancy.UK entitled "Improving Margins at Oil Refineries through Operational Excellence", stated that oil companies and governments can sustain and improve refineries profit margins through applying integrated strategies and roadmaps for operational excellence which would help save costs and lead to higher profits margin. The article showed that the refiners can fall into one of four categories when seeking operational excellence.

The first category is the survival mode; in this case, the company tries to operate normally but frequently uses inappropriate and inefficient solutions due to a lack of personnel competency. The second category refers to the path of stability, where the company's interest directs to occupational safety and key technical aspects of the operation system. Consequently, the third category aims at having first quartile OPEX levels. Finally, the fourth category is that of leadership pace setters where all aspects of the operation are implemented according to a unified operational system, personnel involvement and compliance with a system's principles under the continuous training and leadership from the administration's side.

Furthermore, the article stated that all four elements should be implemented together in order to achieve the highest level of efficiency. In addition, there are other components that should be added to such categories to achieve an integrated approach. This includes developing and introducing the most advanced technical system via pilot projects and developing the competencies and skills among all employees from fresh graduates to managerial roles. Also, optimizing raw materials is essential; this includes increasing conversion per ton of crude oil processed as refineries with a higher level of conversion will have a better adaptation to market changes. Additionally, reducing energy consumption should be taken into consideration in order to reduce costs. Furthermore, balancing maintenance costs with reliability should be executed to create cost structure that helps in generating consistent profitability during low-margin periods.

The Process Safety Engineer said that "the operator should have enough experiences and skills for optimizing operation and rapid response for maintenance".

PROCESS SIMULATION TECHNOLOGY

Application of process simulation technology becomes the best method for refineries to achieve operational excellence. An article published by Processing Magazine entitled "Maximizing Refinery Profit Margins Through Process Engineering", elaborated that "process simulation technologies have advanced sustainability to help refineries on a broad range of processes that span operational troubleshooting, crude selection, refinery planning, profit margin analysis and turnaround planning". Process simulation can be applied through various stages.

Process simulation can be used for the maintaining operations of heat exchangers which is a critical part of the refining process and plays a significant role in determining energy efficiency, so developing a prioritized maintenance schedule for heat exchangers mitigates technical and financial concerns for the system.

Mahmoud said that "the operators can improve the profit margin through reducing the possible troubles that may lead to the shutdown of a certain unit or maybe several units in the refineries, affecting profits." According to the article, this issue can be resolved by simulation solutions, which offer refineries visibility and the ability to better document their emission levels.

Additionally, this technology can give the process engineer the ability to maintain and update the planning models in order to make decisions on how to manage and control their operations. It, also, can offer a precise and accurate analysis for the refinery operations and assess the economic impact of possible strategic reconfiguration projects.

EGYPT'S EFFORTS & STRATEGIES

The Ministry of Petroleum and Mineral Resources (MoP) has put a strategy since 2016 to achieve the self-sufficiency of petroleum products in line with the Modernization project. MoP has been working on fulfilling this strategy by establishing new refineries and developing the existed ones. The Minister of Petroleum and Mineral Resources, Tarek El Molla, pointed out the important role that refineries have to play in meeting and securing the local market needs for petroleum products by giving directives to accelerate the digital transformation of refineries.

Several refining projects have been completed lately. In 2020, increasing efforts were exerted to implement the ministry's strategy to increase capacities to more than 41 million tons (mmt) of petroleum products. The most important of which, was the inauguration of the Mostorod Petrochemical Refinery at the Egyptian Refinery Company (ERC) with investments worth of $4.3 billion and a production capacity of 4.7 mmt per year. Moreover, the MoP is working on implementing the expansion of the Middle East Oil Refinery (MIDOR), which began in 2017 with investments of $2.2 billion and is expected to be completed in 2022. In addition, it signed an agreement for a $2.8 billion new hydrocracking complex in the Assiut refinery.

There are, also, many projects to be implemented during the upcoming years in addition to strategies and plans to increase refineries' investments. Mahmoud said that it is important for the government to facilitate obtaining the official requested papers for establishing projects and getting lands, as well as to dissolve any possible troubles that stakeholders may face in the future. He, also, noted, that the government should help in providing rapid residence cards for foreign experts.

BIDEN'S ENVIRONMENT AGENDA TESTS OIL INDUSTRY'S SOLIDITY

BY **IHAB SHAARAWY**

Just hours after his inauguration ceremony, the new US President issued a series of executive orders reversing hallmark policies of the Trump administration.

One of these policies that has been in the line of fire since day 1, is Trump's oil legacy. Within hours of becoming president, Joe Biden signed an executive order to return to the global Paris Agreement on tackling climate change. It is the agreement that was abandoned by the Trump administration, which had largely been a champion of the oil industry and wanted to advance oil projects to achieve US energy independence.

Biden's decision to rejoin Paris Accord was hailed by world leaders, environmental activists and even leaders of the oil industry. However, some other executive orders that for example aimed at reducing methane emissions from the oil and gas sector; banning drilling in the Arctic Refuge; and cancelling permits for the Keystone XL oil pipeline from Canada, had consolidated fears of the oil industry in the US that they should be ready for more consequences of Biden's policies on their future.

TARGETING FOSSIL FUEL

The recent fast developments of Biden's policies towards fossil fuel proved that the sector's fears are more than justified.

One of the latest developments was the signing of a raft of executive actions to combat climate change, including pausing new oil and gas leases on federal land and cutting fossil fuel subsidies.

Biden administration also announced the suspension of new oil and gas leasing and drilling permits for US lands and waters for 60 days as part of a broad review of programs at the Department of Interior.

Biden's campaign had already pledged to halt new drilling on federal lands and end the leasing of publicly owned energy reserves as part of his plan to address climate change.

The recent moves by the Biden's administration drew criticism from the oil industry's main trade group, the American Petroleum Institute, which said limiting access to publicly owned energy resources would mean more foreign oil imports, lost jobs and fewer tax revenues.

"Impeding American energy will only serve to hurt local communities and hamper America's economic recovery," the petroleum institute President Mike Sommers said in a statement.

Sommers went further to elaborate that without access to energy development on federal lands and waters, US energy supply would shift to foreign sources, cost nearly one million American jobs, increase CO_2 emissions and reduce the revenue that funds education and key conservation programs.

RESILIENCE STRATEGY

Some experts see that the impact of the decision to halt leasing permissions could be blunted by companies that stockpiled drilling permits in the closing months of the Trump administration.

Around 1,400 permits on federal lands were approved over a three-month period that included the election. Those permits are supposed to allow companies to continue drilling for years, potentially undercutting Biden´s climate agenda. However, there are fears that the pause could soon become a long-term ban.

Biden's policies also included directions to federal agencies to "eliminate fossil fuel subsidies as consistent with applicable law." Biden also said he would ask the Congress to end subsidies through legislation. He also gave orders to establish climate considerations as an essential element of US foreign policy and national security.

He also set a goal to conserve 30% of federal land and waters to protect wildlife by 2030 and seek to double renewable energy production from offshore wind, also by 2030.

The new directions, which were cheered by environment groups, were also disapproved by the industry leaders who warned of dire economic and social consequences that will affect jobs and energy security.

The new tendency by the US administration added insult to injury for US oil companies which was hit hard in 2020, when oil prices were affected by the pandemic and an epic price war that amplified the glut, causing the oil industry to nearly run out of room to store all the excess barrels.

That unthinkable hit caused US oil to crash below zero for the first time in history. Many oil companies were left with no option rather than slamming the brakes on production and rapidly cutting jobs.

According to an analysis published by Deloitte, around 107,000 jobs vanished from the US oil, gas and chemicals industry between March and August 2020. It was the fastest rate of layoffs in the industry's history -- and it does not even include the untold number of people taking pay cuts.

The new environmental agenda casts a shadow over the companies' ability to regain these jobs any time soon.

Biden's policy towards fossil fuel was very clear since his early electoral campaign, when his campaign even refused donations from executives of fossil fuel companies.

However, many experts thought that Biden's agenda for fossil fuel is easier said than done, citing the hardship he will face to get legislation pass through highly divided congress where Biden is expected not only to find opposition of the Republicans but even from fellow Democrats representing oil-producing states.

Instead, experts suggest that Biden is likely to find support for a clean electricity standard that depends more on natural gas and increasing low-carbon energy spending on areas like carbon capture or energy storage.

NEW TEST OF PERSISTENCE

However, Biden seems to be determined to take bolder actions to deal with climate crisis insisting that "we have already waited too long to deal with this climate crisis," noting the threats the US faces from intensifying storms, wildfires and droughts are linked to climate change.

"This is a case where conscience and convenience cross paths, where dealing with this existential threat to the planet and increasing our economic growth and prosperity are one and the same. When I think of climate change and the answers to it, I think of jobs," Biden added in a recent White House event.

Oil companies are still waiting for the international climate summit that Biden will hold on Earth Day April 22 to announce a target for reducing its greenhouse gas emissions by 2030 under the Paris climate accord, which may bring more restrictions on fossil fuel production.

While Deloitte analysts urged oil and gas companies to embrace sustainability as a way of business and use the pandemic as a wake-up call to decarbonize their work, the new targets set by the Biden administration may accelerate this transition.

However, some see this transition will not be easy as many oil, gas and chemical companies are ready to fight for survival.

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KEEPING THE ECONOMY AFLOAT AMID COVID-19

BY **JASMINE SHAHEEN**

The past year, 2020, has been undeniably one of the most challenging years for the whole world, not just Egypt. It has severed a deep cut across myriad aspects of our lives especially on the economic level. Almost the majority of global economies' gross domestic product (GDP) has been slashed losing at least 2.4% of the value of their GDP in 2020. However, Egypt kept its GDP growth rate at 3.6% during the previous fiscal year (FY) 2019/20, withstanding the economic challenges presented by the coronavirus (COVID-19) pandemic.

As an exporter and importer of crude, the low oil price environment became a double-edged sword for Egypt. It resulted in decreasing the petroleum trade deficit in Q1 2020 by $405.1 million to amount to $40 million against $445.1 million in Q1 2019 and indicating a 91% year-on-year (YoY) decrease. With the limited movement in the country, petroleum imports have dropped as well during that period by 21.3% amounting to $2.3 billion from $2.9 billion in Q1 2019.

DEBT RELIEF

The state has certainly prioritized the wheel of the economy above all else in 2020, taking grandeur steps to ensure its stability. The Ministry of Petroleum and Mineral Resources has contributed in its own manner to elevate some of the economic burdens on the country and to keep the economy afloat. One of its first means to do so was to exempt industrial consumers of natural gas of about EGP 5.3 billion in owed-debt to the ministry. The Ministry of Petroleum and Mineral Resource signed cooperation protocols to resolve financial disputes with three other ministries, namely the 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 the Ministry of Petroleum and Mineral Resource by some companies affiliated with the Ministry of Public Business Sector for their natural gas withdrawals.

The Ministry of Petroleum and Mineral Resource applied several measures to the clauses included in the contracts between the concerned parties. Such new measures include the exemption of a penalty fee or paying retroactively as of 2009. It stipulates that consumers will have the opportunity to pay for any quantity that is less than the contractual quantities. The protocols also exempted industrial consumers from 65% of the overriding penalty stipulated in the contracts which should be applied in case of exceeding natural gas quantities than agreed. Topping that with an additional 50% exemption on the due delay penalties stipulated in the contracts, provided that they pay the debts-owed according to previously agreed scheduling programs.

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 for 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 Ministry of Petroleum and Mineral Resource as a way to settle its debt.

The ministry has taken an additional initiative by reducing the price of natural gas to industrial consumers from $8 and $6 per million British thermal units (mmBtu) to $4.5/mmBtu for manufacturing cement. For the iron and steel, aluminum, ceramics, and porcelain industries, the price was reduced from $7/mmBtu to $5.5/mmBtu. Such actions led the petroleum sector to bear an annual decrease of EGP 9.5 billion in revenues. Furthermore, as the ceramics industry's debts were increasingly high representing about 55% of the private sector debts, the ministry decided to schedule the ceramics industry's debt to be paid over four years after paying a 5% advance payment.

OIL HEDGING & ARREARS

The low oil price environment provided Egypt with great importing opportunities as Egypt is both an importing and an exporting country. Minister of Finance, Mohamed Maait, previously stated that the country has secured enough amount of crude oil during the FY 2020/21. No further information was announced, but the minister stated that Egypt has managed to double its oil hedges as a precautionary measure against the possible increase of oil prices, ensuring that the country now has enough oil stock until June 30, 2021.

Despite the economic challenges and their tolls, Egypt managed to continue paying its due arrears to international oil companies (IOCs). In 2020, arrears to IOCs fell by 5.5% to reach $850 million by June, taking into consideration that it reached $900 million by the end of 2019.

FEES REDUCTION

Due to the uneven equilibrium of petroleum products supply and demand, trade traffic has shifted dramatically. To balance out the shift, Egypt has made a few attractive changes to its Suez Canal tariffs. In 2020, the Suez Canal Authority (SCA) allowed liquefied petroleum gas (LPG) tankers traveling between West of India ports and the Gulf Coast of the US a discount of 24% on the regular fees. Additionally, tankers traveling to East of Kochi ports to Singapore gained a discount of 60%. Ships that are reaching Singapore ports and their Eastern parts were granted a discount of 75%. As for oil tankers traveling between Latin America from Colombia and ports of Asia from Karachi and its Eastern parts, such tankers were given a discount of 75% from the regular fees. The SCA made such attractive offers to bring in more vessels to the canal that use alternative routes such as the Cape of Good Hope.

All in all, the state and its authorities have shown great effort to maintain the national economy and to patch up the marks of the pandemic.

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- Shipwreck and aircraft searches

AUV being deployed off back of vessel.

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THE DECOMMISSIONING OF OIL, GAS REGULATIONS IN EGYPT: A GRAY MATTER

BY **FATMA AHMED**

Decommissioning of oil and gas activities is one of the important topics that need more intention from the stakeholders worldwide. It faces some challenges especially from the legal perspective and regulatory framework. Egypt is one of the countries that confront this issue especially when it comes to the payment of associated costs.

The paper in question is "The decommissioning of oil and gas fields: Egyptian law and policy" and is written by Mostafa Elshazly, a Senior Associate at Zaki Hashem and Partners. The paper was published in the Journal of World Energy Law and Business, Oxford Academic in 2019.

WHAT IS DECOMMISSIONING?

The decommissioning in the oil and gas field is the final phase of the project which means the activities related to the abandonment of petroleum production wells and the removal of onshore and offshore installations. This process includes clearing and filling the well as well as removing the infrastructure and platform to restore the site of operation to its original state.

Decommissioning is a non-profit activity and it should be done either by the international oil companies (IoCs) or national oil companies (NoCs). It requires reallocation of profits and the procurement of finances to perform it. Most of the petroleum regulations oblige the concessionaire to implement the decommissioning program in most of the countries which produce oil. However, the mechanisms for executing decommissioning differ from one country to another.

According to the author, there are no comprehensive legislative tools to regulate this aspect in Egypt noting that the regulatory framework varies between NOCs which could lead to conflicts between IOCs and NOCs.

EGYPTIAN CASE

In Egypt, the Ministry of Petroleum and Mineral Resources (MoP) is the authority which is responsible for shaping the policies and strategies of oil and gas operations through the Egyptian General Petroleum Corporation (EGPC), the Egyptian Natural Gas Holding Company (EGAS) and the Ganoub El Wadi Petroleum Holding Company (GANOPE).

The paper stated that Egypt regulates its oil and gas resources exploitation through conducting Production Sharing Agreements (PSAs). These PSAs are signed between the MoP, a relevant IOC as a contractor and a relevant NOC which could be EGPC, EGAS or GANOPE.

According to Article 32 of the Egyptian Constitution of 2014, all oil and gas resources are under the control of the state which can grant the right of exploiting natural resources according to a law for a period not exceeds 30 years. These laws follow a standard format with limited deviation.

Additionally, another legislation is provided by the Mines and Quarries Law No 66 of 1953, along with its executive regulation known as the Petroleum Law and by the Environment Law No 4 of 1994 and its executive regulations. However, these laws don't include comprehensive rules for oil and gas decommissioning.

Decommission Arrangements through Egypt's NOCs

Despite the limited deviation in the model agreements which have been adopted for petroleum exploitation by each of EGPC, EGAS and GANOPE, the mechanism for implementing decommissioning is different in each NOC's model PSA. For example, EGPC didn't introduce clear and standard rules that regulate decommissioning activities until now. In the early 1960s, it signed agreements with a minimum scope on this topic. One of these agreements in 1964 minimized the scope of the decommissioning obligation to implement decommissioning programs only in the case of the permanent abandonment of oil wells.

By 2015, EGPC adopted a new mechanism for decommissioning in which the contractor was committed to restoring the contract area to its original conditions that it was in at the time it was awarded to the contractor. But this language was criticized by IOCs because it entailed significant expenditure to carry out decommissioning activities. In addition, this obligation might be imposed at the time of relinquishment so that the contractor might not obtain a full cost recovery.

Additionally, EGPC adopted a new model through issuing Article 5 of the current model forming PSA stating that the contractor shall ensure that all environmental regulations in the country have been followed under the accepted petroleum industry practices at the time of relinquishment of the expiry date. However, this language did not identify real commitment by the contractor for decommissioning leaving this topic in a grey area.

As for GANOPE, its latest PSA model in 2016 stated that the contractor shall restore the concession area at the time of relinquishment to its original condition and to the condition requested by GANOPE. Yet, this model is still generic and makes the contractor would not be able to assess the decommissioning obligations that might be imposed by Ganope at the time of relinquishment of the contract area.

EGAS introduced more comprehensive decommissioning procedures in its PSA model. It included that the contractor has to restore the contract area to its original state as when it was received according to good petroleum industry practices. Also, the contractor should submit a decommissioning plan describing decommissioning procedures and estimated costs that should be approved by EGAS. Furthermore, a cost recovery mechanism is established, enabling the Contactor to recover all the decommissioning costs properly. A bank account is required to be opened with a bank approved by EGAS and the Contractor, dedicated to the management of the decommissioning fund for the implementation of the decommissioning program for the developed areas. Decommissioning practices will be done during the last five years of the lease. Additionally, if petroleum production is continued in the contract area by any entity other than the contractor, EGAS will be responsible for implementing the decommissioning procedures.

CONCLUSION

The author ended his paper, suggesting clear provisions that can regulate decommissioning procedures between NOCs and IOCs at the early stages of the projects. Firstly, the contractor should implement decommissioning at each time it relinquishes a portion of the contract area and weigh up between the need for decommissioning against the possible need for the continuing use of certain infrastructure items.

Second, a decommissioning plan should be made at the first stages of project, and approved by the relevant NOC and the successful completion of decommissioning should be confirmed by a certificate of performance. Thirdly, the funds allocated for the decommissioning plan should be deposited into a bank account. Fourthly, approved decommissioning costs will be recoverable.

According to the paper, in order to enhance the attractiveness of the Egyptian petroleum sector to potential investors, it is a must for NOCs to provide contractual models reflecting a clear, unified and comprehensive policy regarding the decommissioning of oil and gas fields and related infrastructure.

DNV GL COMBINES OIL, GAS, POWER, RENEWABLES BUSINESSES IN RESPONSE TO ENERGY TRANSITION

Adapting to face the challenge of deeply decarbonizing the world's energy system and reflecting the trends reshaping energy sectors, DNV GL has combined its current oil and gas, power, and renewables businesses. DNV GL's new combined business area – Energy Systems – provides assurance to the entire energy value chain through approximately 4,000 energy experts in 40 countries, making it the world-leading resource of independent energy experts and certification body.

Ditlev Engel, who has been CEO of DNV GL's former renewable energy business area since 2016, will lead the new business area which provides verification, certification, and advisory services combined with digital solutions to the entire energy value chain from generation, production to transportation and use of energy.

"Joining forces in Energy Systems gives DNV GL the size to work with the key industry players to help scale green energy technology and optimize safety from production to consumption," said Ditlev Engel, CEO – Energy Systems.

RESPONDING TO A WIDER RE-SHAPING OF THE ENERGY INDUSTRY

REMI ERIKSEN
Group President and CEO of DNV GL

"The creation of Energy Systems is our response to a rapidly changing energy market in search for deeper decarbonization," said Remi Eriksen, Group President and CEO of DNV GL. "We want to enable our customers to tackle the energy transition – faster. By combining our expertise, we will better serve customers operating in and entering the energy market. This new structure will help us serve all players in the energy market."

According to DNV GL's outlook for the oil and gas industry in 2021, Turmoil and Transformation, oil and gas companies are expected to boost investment in the energy systems of the future this year, as they seek to transform for the long term. The research is based on a survey of more than 1,000 senior oil and gas professionals and in-depth interviews with industry executives. Transformational investments come despite a crash in confidence for industry growth and reinvigorated cost cutting:

- A record two-thirds (66%) of senior oil and gas professionals globally report that their organization is actively adapting to a less carbon-intensive energy mix in 2021, up from just 44% in 2018.
- Some 57% plan to increase investment in renewables, up from 44% last year, while half (48%) aim to increase investment in green or decarbonized gas.

The research suggests priorities are shifting as investors reassess the risks of financing oil and gas projects and as governments and industry players pour billions into green recovery strategies following the Covid-19 pandemic. The majority of senior oil and gas professionals expect these shifts in investment will lead to a wider reshaping of the industry: eight-in-ten (78%) believe there will be increased consolidation in the year ahead, up from 64% one year ago.

"For DNV GL and our customers, these trends make it essential that we serve the full energy value chain, bringing oil and gas, power, and renewables expertise together to support decarbonization efforts, increase digitalization and efficiency, and ensure safe and reliable operations," said Hisham El Grawany, Vice President and Area Manager North Africa. "As the world's leading energy expertise powerhouse, we will continue to support Egypt's journey in becoming a regional energy hub with a world-class infrastructure."

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DITLEV ENGEL
CEO – Energy Systems

To combine its energy industry expertise in a new business area and offer a broader set of services to our energy sector customers, DNV GL will also change its name to DNV on 1 March 2021. The move comes after a comprehensive review of the company's strategy as it positions itself for a world in which many of DNV GL's markets are undergoing fundamental change. The name simplification is a natural consequence of the successful completion of the merger between DNV and GL, since the launch of DNV GL Group on September 12, 2013. Today, DNV GL operates as a fully integrated company with a presence in 100 countries and 100,000 customers across the maritime, oil and gas, energy, food, and healthcare industries, as well as a range of other sectors. Going forward, DNV GL will be a company of three great houses consisting of approximately 12,000 experts; the leading maritime classification society, the world's largest resource of independent energy experts and certification body, and a business assurance house that is shaping how products and supply chains are assured.

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HOW CAN WE GET READY FOR THE UNCONVENTIONAL RESERVOIR ERA?

If you observe Egypt' oil and gas production profile, you can find out that Egypt's major production comes from conventional mature fields which suffer from normal production decline with time. That is the reason why leading oil and gas companies in Egypt spend more money on exploration budgets to compensate for this normal decline in production. It is the normal in conventional oil and gas around the world due to the pressure decline in a reservoir's volume. If the pressure remains constant, the reservoir will produce water because we produce from limited extension formations like sandstone and carbonates.

The oil and gas sector in Egypt should think strategically in multiple directions; for example, to extend the area of exploration in the Western Desert, the Mediterranean and the Red Sea blocks, and the West Mediterranean region. The second important way that already started and should continue is to extend the scope of work to include unconventional reservoir workflow.

Egypt has abundant world-class scientists and expertise in petroleum engineering generally and especially in hydraulic fracturing and unconventional reservoir. We have Dr. Mohamed Youssef Soliman, Chairperson of Petroleum Engineering department in the University of Houston, and Dr. Ahmed Abou-sayed and Dr. Ibrahim Abou-sayed with their exceptional experience and scientific impact and leading roles in unconventional reservoir development worldwide. Not to mention, many young experienced scientists who know how we can develop that type of reservoir.

Unfortunately, due to the high cost per barrel of unconventional reservoirs development projects, it is not preferential for the investor especially the giant ones like Shell, ENI, BP.… etc. but on other hand, we can look to the first module of how unconventional reservoir development started. In the US, Mitchell Energy began gas production from the Barnett Shale of North Texas in 1981, but it was uneconomic. After that, the company consumed years and years in experimenting with new techniques. Its continuous trials achieved the first economic fracture completion of the Barnett Shale in 1998, by using slick-water fracturing. Then, the development of shale gas was introduced to the oil industry and encouraged all companies in the US to develop the ten main shale basins in the US with what is called "Shale Gas Boom". The first year that the majority of new horizontals Barnett wells drilled is 2005, and then by 2008, 94 % of the Barnett wells drilled were horizontal.

I recommend starting in Egypt with a small concession as a prototype to be operated by the General Petroleum Company (GPC) for example and to be supported by all Egyptian oil and gas leaders experienced in hydraulic fractures. However, we need to keep in mind that it will be a high capital costs development with relatively lower operating cost, so we will spend a large amount of money paving the way to upcoming investors, and with time, the cost will decrease.

The oil and gas sector began in that direction, changing the agreement types to cope with the different types of reservoirs and share risks with foreign investors. It is also important to note that the sector introduced an example of the Apollonia gas project and tested shale gas in the Western Desert with Khalda Petroleum Company.

Mohamed Adel Gabry
Section Head (Hydraulic Fracture Team) at Khalda Petroleum Company

SUSTAINABLE DEVELOPMENT, EGYPT'S VISION 2030

In contrast to other developing countries with comparable technological capabilities, Egypt's economy is working hard to launch a digital environment to pave the road towards achieving Egypt's Vision 2030.

Over the last two years, using these digital infrastructures, the petroleum sector has adopted an integrated strategy that supports achieving the objectives of Egypt's Vision 2030, most importantly achieving sustainable development.

The Egyptian Ministry of Petroleum and Mineral Resources is trying to overcome lags behind other oil-producing countries in producing/exporting value-added petroleum products. The main actors in the Egyptian national innovation system are the government ministries, the research institutes/universities and the enterprises. The research and development activities are now much more oriented towards higher value-added production rather than expansion. They build upon a tacit division of labor that has begun to emerge with respect to advanced technology in the sector.

The conceptual approach to innovation in terms of a 'National Technological Development System' reinforces this focus on the supply of research and technology, whether from within the emergent system or through global coordinated effort and licensing from abroad and on the part of innovation in the development of new industrial techniques.

The implemented strategy intends to support the main role of the target sector in the general advancement measures and development process, boost the advantages of Egypt's common assets and natural resources, and increment the returns efficiently.

This requires concerted efforts to agree on a unified program between the sector companies and foreign partners targeting sustainability and efficiency of energy in the Egyptian petroleum sector.

The Egyptian oil ministry created an intranet to facilitate unified updates and messaging and get buy-in from employees. People routinely feel bargained when new systems are realized. They simply recognize change once they comprehend the structure will help them work even more capably and save time for all the more fulfilling endeavors.

In meeting the demands of the domestic market, the Egyptian oil sector's vision is to help the country become a clean energy hub for the region through filling 40% of its energy needs through solar and wind by 2030.

The Ministry of Petroleum and Mineral Resources'integrated strategy will not only set an example for the nation, but as it begins to show results, it will help unlock the potential of the whole area by improving the economy, engaging individuals, and making maintainable wellsprings of energy and sustainable resources for a long time into the future.

One last important issue to be considered is the role entrepreneurs play as the backbone of any economy and the urgent need to create a national vision in which entrepreneurship and innovation would be seen as the key vehicle in economic growth and from which goals and priorities can be derived for the nation in a serious step to achieve Egypt's Vision 2030.

Mohamed El Haythem
M.Phil., DBA, MBA
General Manager, Foreign Companies' Control, EGPC

EGYPT OIL&GAS
RESEARCH & ANALYSIS

VALUE AND VOLUME OF SHARES TRADED FOR OIL & GAS SECTOR IN DEC 2020

VALUE TRADED (EGP BILLION)

% OF TOTAL VALUE TRADED
1.05

VOLUME TRADED (BILLION SHARES)

% OF TOTAL VOLUME TRADED
1.61

NATIONAL DRILLING

CURRENCY	CLOSE PRICE	YTD PRICE CHANGE (%)
USD	4.69	▼ 5.44

ALEXANDRIA MINERAL OILS CO.

CURRENCY	CLOSE PRICE	YTD PRICE CHANGE (%)
EGP	3.12	▼ 14.05

EGYPT GAS

CURRENCY	CLOSE PRICE	YTD PRICE CHANGE (%)
EGP	43.57	▼ 21.50

SIDI KERIR PETROCHEMICALS

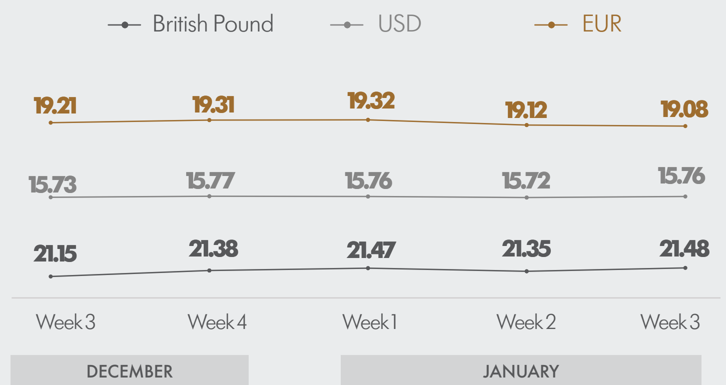
CURRENCY	CLOSE PRICE	YTD PRICE CHANGE (%)
EGP	9.31	▲ 3.67

MAIN ECONOMIC INDICATORS

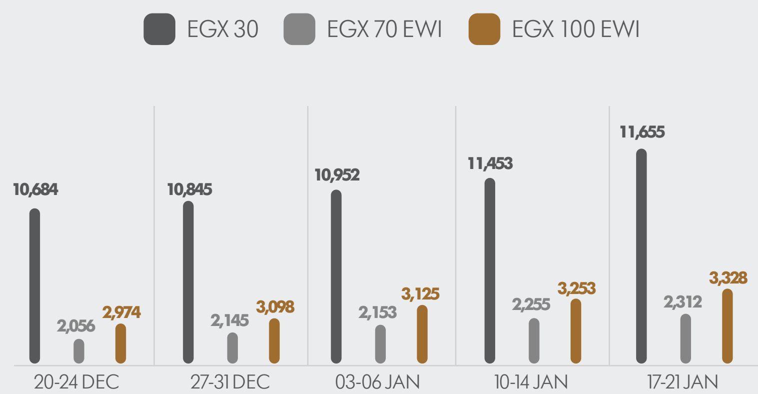
November 2020 | December 2020

Indicator	November 2020		December 2020
ANNUAL INFLATION HEADLINE CPI (%)	5.7	↓	5.4
NET INTERNATIONAL RESERVES ($ BILLION)	39.222	↑	40.063
NON-OIL PRIVATE SECTOR PMI (POINTS)	50.9	↓	48.2

EXCHANGE RATES



CAPITAL MARKET INDICATORS



Source of Raw Data: CBE, CAPMAS, Egyptian Exchange, HIS Markit

SDX UPDATES IN EGYPT IN 2020

SOBHI WELL PRODUCES NATURAL GAS

10-12 mmcf/d
Evaluated Production Rate

South Disouq
Concession

24 bcf
Evaluated Recoverable Resources

December 2020
Production Start

5-7 mmcf/d
Current Production

PRODUCTION UPDATES

Concession	Actual Production	Guidance
South Disouq (mmcf/d)	49.5	47 - 49
West Gharib (bbl/d)	3,285	3,200 - 3,300

GPC DRILLING PLANS IN H2 2020/21

Location	Exploration Wells	Development Wells	Total
Eastern Desert	2	3	5
Western Desert	4	6	10

NATURAL GAS EXPORTS TO JORDAN IN FY 2019/20

Exported Through
Arab Gas Pipeline

33.9 bcf
Quantity Exported

NATIONAL PLAN FOR NATURAL GAS DELIVERY IN FY 2020/21

1.1 million
Residential Units

100
Industrial Units

1,000
Commercial Units

CARS CONVERSION TO NATURAL GAS PLAN OVER 2021-2023

250,000
Replacement of Old Cars

150,000
Conversion Project

400,000
Total Targeted

INTERNATIONAL OIL PRICES

BRENT PRICES ($/BBL)

10 Nov	43.61
30 Oct	47.59
04 Dec	49.25
23 Dec	51.20
04 Jan	51.09
20 Jan	56.08

OPEC BASKET PRICES ($/BBL)

10 Nov	41.72
30 Oct	46.43
04 Dec	48.35
23 Dec	49.46
04 Jan	51.35
20 Jan	54.85

NATURAL GAS PRICES ($/MMBTU)

10 Nov	2.95
30 Oct	2.88
04 Dec	2.58
23 Dec	2.61
04 Jan	2.58
20 Jan	2.54

UNDER THE HIGH PATRONAGE OF

HE. ENG. TAREK EL MOLLA

MINISTER OF PETROLEUM & MINERAL RESOURCES - ARAB REPUBLIC OF EGYPT

PART OF THE EGYPTIAN OIL AND GAS SECTOR

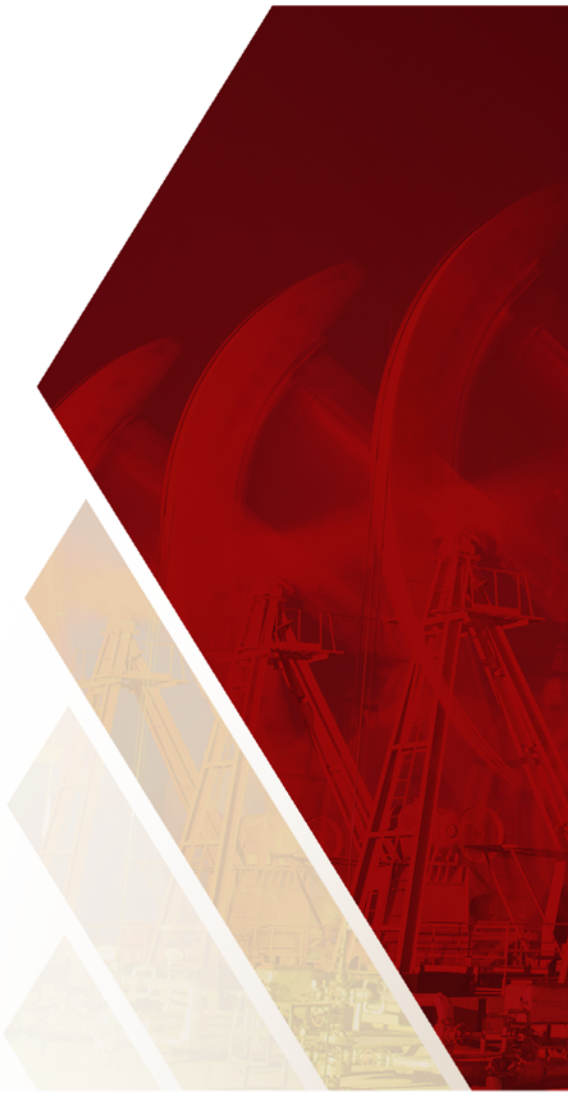
MODERNIZATION PROGRAM

4TH UPSTREAM TECHNICAL CONVENTION

UNLOCKING VALUE

IN AN UNCERTAIN UPSTREAM ENVIRONMENT

APRIL 2021



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