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EGYPT OIL&GAS NEWSPAPER

EGYPT'S OIL AND GAS
MERGERS AND ACQUISITIONS A PROPELLING POTENTIAL

EXCLUSIVE INTERVIEW

THE REAL STORY OF DANA GAS IN EGYPT

Interview with Dana Gas CEO, **PATRICK ALLMAN-WARD**


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EDITOR'S LETTER

Egypt Oil & Gas dedicates its October issue to discuss different legal aspects in Egypt's hydrocarbon industry. This issue gives a special attention to Merger & Acquisition (M&A) deals in specific.

Reflecting on the legal theme, the issue covers a variety of features, from our industry insights to our political review. The issue also includes an overview of the most important M&A deals that took place in Egypt's oil and gas industry. Our industry insights highlight the government's IPO program and its implications on the petroleum industry. Another industry insight introduces a comparative analysis between the legal framework of the renewables and non-renewables in Egypt. And finally, we discuss how this boom in the investment climate is a direct relation to the decrease in arrears.

In another section, we delve into the Chinese foreign policy through its disputes with other countries on the South China Sea.

In the research and analysis section, we provide our readers with an analytical report that tracks the economic contribution of the refining industry in Egypt during the past two fiscal years.

Egypt Oil & Gas interviewed the Dana Gas CEO, Patrick Allman-Ward, to dig dipper into the real story behind selling Dana Gas's assets in Egypt.

And as always, we wish you a happy and informative reading!

MAHINAZ EL BAZ

Acting Editor-In-Chief
Research & Analysis Manager

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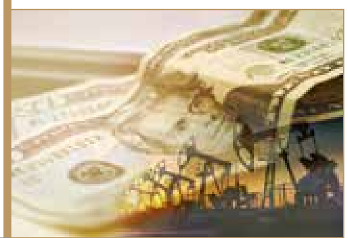

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MINISTRY OF PETROLEUM ANNOUNCES 10 NEW EXPLORATION WELLS IN WESTERN DESERT

The Ministry of Petroleum and Mineral Resources announced 10 new exploration wells in the Western Desert in the East Bahareya Extended Area 3, with an average daily production of 5,000 barrels of oil equivalent per day (boe/d). This was announced as Ashraf Abdul Jawad, Head of Qarun Petroleum Company, presented to Tarek El Molla, Minister of Petroleum and Mineral Resources, the company's achievements for Fiscal Year (FY) 2018/19, showing that production from the new exploration wells represents 16% of Qarun's production. The company's proven reserves increased by about 24 million barrels as a result of the new exploration wells. El Molla pointed out that the company's current daily production rate reached 31,700 boe/d and the total investments amounted to about $182 million.

EGYPT TO DRILL TWO NEW GAS WELLS IN NORTH DAMIETTA

The Ministry of Petroleum and Mineral Resources is preparing to drill two new wells in the Mediterranean fields of Atoll and Katameya in the North Damietta offshore concession in the East Nile Delta, with about $289 million in investments. The plan is to begin production from the two new wells by next year, which will help raise the production of the Atoll field by around 100 million standard cubic feet per day (mmscf/d), and start production in the Katameya field at a rate of 60 mmscf/d. Atoll's fourth well is set to be completed by Q1 2020, as shown by the financial results of the Pharaonic Petroleum Company (PhPC) for 2018/19. Currently, Atoll is producing nearly 300 mmscf/d of natural gas and 9,000 barrels per day (b/d) of condensates from three wells. Meanwhile, the Katameya field will soom come online, producing its first natural gas output, in Q2 2020.

BALTIM'S NEW WELL TO BE LINKED TO NATIONAL GRID

The Ministry of Petroleum and Mineral Resources connected the first well to the national grid at Southern-Western Baltim gas field, located 12 kilometers (km) away from the Nooros field in the Nile Delta. The new well is expected to produce 100 million cubic feet per day (mmcf/d) of natural gas after being linked to the onshore Abu Madi plant via a 44 km long pipeline. According to a report presented to the Minister of Petroleum and Mineral Resources, Tarek El Molla, the production rate is to increase to 500 mmcf/d after developing the drilling process of five wells by Q2 2020. The production is to be shared between the Egyptian General Petroleum Corporation (EGPC) and the contractor, Italian Eni and BP, according to the agreement between both parties.

GANOPE DISCOVERS THREE OIL WELLS IN FY 2018/19

Ganoub El Wadi Petroleum Holding Company (Ganope) achieved three new oil discoveries at its oil fields, two of which were brought online at the oil fields of Eish AL Mallaha and Petro Mallaha during Fiscal Year (FY) 2018/19. Still under evaluation, the third one, located at the Suez Gulf area and operated by Petrogulf Corporation (PGC) is the biggest of all. The three wells are being evaluated, with investments reaching $20 million. The PGC had completed drilling the first well at the end of August. Ganope is planning to dig 16 news wells this FY, dedicating investments estimated at $56 million. Ganope's total production has reached 25,000 barrels per day of oil equivalents (boe/d), in addition, the company drilled eight exploratory wells, 20 developmental wells, and re-drilling five other wells.

BAPETCO BRINGS 39 WELLS ONLINE, PRODUCING 23 MMCM/D OF GAS

Badr Eldin Petroleum Company (BAPETCO) has brought online 39 new oil wells for the Fiscal Year (FY) 2018/19, with a production rate estimated around 6,700 barrels per day (b/d) of crude oil, and 23 million cubic meters per day (mmcm/d) of natural gas. BAPETCO has increased the number of its rigs to seven, digging 53 wells ranging from exploratory to developmental ones. This has increased the production to over 124,000 barrels of oil equivalent per day (boe/d) in FY 2018/19. BAPETCO has also begun 3D seismic survey at the company's acquisition in the Western Desert, which covers an area with the total size of 2,000 kilometers (km), with an investment of $20 million. Such performance has catalyzed BAPETCO to invest in the domestic petroleum sector.

RASHPETCO, BURULLUS GAS COMPLETE 9B PHASE

Rashid Petroleum (Rashpetco) and Burullus Gas Company have successfully completed drilling the remaining six wells within the 9B phase of the West Delta Deep Marine (WDDM). The six wells are expected to produce 390 million cubic meters of natural gas per day (mmcm/d) in Q1 2020. The production of the first three wells is expected to be completed in Q4 2019, with a production rate of about 220 million cubic feet per day (mmcf/d). The company targets, in the long run, to explore deep layers at a low investment cost, whereas a number of seismic surveys have been conducted to drill four exploratory wells. Meanwhile, the first exploratory well is currently being drilled at 20,000 feet below sea level and at a cost of $58 million. The Joint Venture (JV) is working on several other projects in the West Delta gas fields, where the project was successfully completed last February with a capacity of 500 mmcf. In addition, the final tests of the main condensate pumps will be conducted in Q3 2019. The average gas sold to Rasheed and Burullus reached 290 mmcf/d and about 3,500 barrels per day (b/d) of condensate, with expenditures amounting to $345 million.

GUPCO'S CRUDE OIL PRODUCTION REACHES 61,700 B/D

The Gulf of Suez Petroleum Company's (GUPCO) average production level from its Ras Shouqair crude oil field has reached around 61,700 barrels per day (b/d) in Fiscal Year (FY) 2019/20. The company plans to increase the field's production capacity to reach around 73,000 b/d and targets increasing the pumped investments from $391 million to reach $503 million in the FY 2018/19. Total investments are expected to reach about $1.2 billion in FY 2019/20 and FY 2020/21 to expand the Exploration and Production (E&P) activities by drilling 13 new development and exploration wells and 12 well repair operations, which will contribute to reaching the targeted production levels and intensify crude oil reserves.

EGPC RECORDS HIGHEST PRODUCTION RATE IN FY 2018/19

Minister of Petroleum and Mineral Resources, Tarek El Molla, hailed the achievements that the Egyptian General Petroleum Corporation (EGPC) accomplished during the Fiscal Year (FY) 2018/19. It is especially important to acknowledge the achievement of four oil discoveries with a production rate of 2,800 crude oil barrels per day (b/d) and 1.1 million cubic feet per day (mmcf/d) of natural gas, which is the production highest rate since its foundation. Nabil Abdul Sadek, the Head of EGPC, indicated that the corporation added 5.2 million barrels to the reserves during the previous FY. Not only did EGPC drill 20 developmental and exploratory wells, but also overhauled and completed 271 wells, which kept the production rate stable. As part of the achievements, EGPC investments during the same FY reached EGP 1.3 billion, which gained revenues valued at EGP 13 billion.

EGAS TO EXTEND NATURAL GAS TO JPMC IN AMMAN

Egyptian Natural Gas Holding Company (EGAS) is due to sign a contract with the Jordanian-Egyptian Fajr for Natural Gas Transmission and Supply Company. Accordingly, Egypt will extend a natural gas pipeline to Amman-based Jordan Phosphate Mines Company (JPMC). The 12-month contract is valued at $3.9 million, equivalent to approximately EGP 64 million. EGAS's revenues had increased to EGP 14.43 million between January and June 2019, compared to the EGP 7.55 million increase during the same period last year. The total revenues of EGAS have hiked to EGP 1.35 billion during the first six months of 2019, in comparison to EGP 998.84 million during same period last year.

KHALDA PETROLEUM RECORDS HIGHEST PRODUCTION

Khalda Petroleum Company has achieved unprecedented record numbers in its history during Fiscal Year (FY) 2018/19, where the company recorded the highest daily crude oil production rate of more than 141,000 barrels last April and the highest annual crude oil production rate of more than 49 million barrels. According to Khaled Mowafi, General Manager of Khalda Petroleum, Khalda's production over the past 34 years amounted to approximately 1 billion barrels of crude oil and condensate and 5 trillion cubic feet (tcf) of natural gas. Among the distinctive discoveries that were made are the exploration of West Qasr –1X, West Heronifer – 6X, Southeast Mansour – 1X, North Tango – 1X, and Pironi – 1X. Mowafi pointed out that during the current FY, 43 wells have been drilled to develop proven reserves and confirm potential reserves, including 36 oil producing wells and four gas producing wells. In addition, 160 repair and refurbishment operations were carried out, including 64 oilfields and 12 natural gas operations, in addition to drilling and completing 27 exploration wells.

EGPC TO LAUNCH OIL, GAS EXPLORATION TENDER END OF YEAR

The Egyptian General Petroleum Corporation (EGPC) aims to launch an oil and gas exploration bid round by the end of this year. The tender is expected to include from eight to 12 concession blocks, including areas in the Western Desert, the Gulf of Suez, and the Eastern Desert, where crude oil might be found. EGPC added incentives to the new exploration agreements to encourage investors, which include the adjustment of the cost recovery period and the share of International Oil Companies (IOCs) in the production of crude oil from different concession areas across the country. Furthermore, EGPC is working to increase the productivity of the existing oil fields and the completion of project developments to link them to production and compensate for the natural decline in the productivity of the older fields. The Ministry of Petroleum and Mineral Resources aims to increase the production of crude oil and condensates to about 700,000 barrels per day (b/d) during next Fiscal Year (FY).


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NCIC AWARDS EPC CONTRACT TO ENPPI

El Nasr Company for Intermediate Chemicals (NCIC), an affiliate to the Armed Forces National Service Authority, has awarded a new management services contract to Enppi. Under the contract, Enppi will manage the EPC work of NCIC's new project for Nitrogen Fertilizers Complex, which will be executed by consortium of German Thyssen Krupp and Petrojet. The project will consist of six production plants that will produce Ammonia, Urea Synthesis, Granulated Urea, Nitric Acid, Ammonium Nitrate, and Calcium Ammonium Nitrate, making the company the first of its kind in Egypt. The size of the new complex is anticipated to be equivalent to that of the existing one, ranking the Sokhna Fertilizers Complex as a massive project, promoting Egypt revenues, localizing new industries and technologies, in addition to supporting Egypt's vision for 2030.

RAVEN GAS FIELD TO PRODUCE UP TO 900 MMCF/D

The petroleum sector has initiated the production in Raven gas field in North Alexandria concession in September, with an estimated maximum gas production capacity between 850 and 900 million cubic feet per day (mmcf/d). The field will produce from 20,000 to 25,000 barrels of gas condensates per day, which will enable the petroleum sector's self-sufficiency. The Raven gas field will add a massive improvement to Egypt's gas production's performance, causing it to resume its exports. The North Alexandria concession development processes cover the gap between the local gas supply and demand, after the production capacity has been doubled to exceed 7 billion cubic feet per day (bcf/d).

NATURAL GAS PRODUCTION RISES TO 7 BCF/D

Egypt's natural gas production has reached 7 billion cubic feet per day (bcf/d), up from 6.8 bcf/d at the end of June. The 0.2 bcf/d increase in Egypt's natural gas production is attributed to the recent discoveries in the Nile Delta concession area, as well as the new boost in production of Zohr field.

The production capacity of Zohr gas field has risen to 2.7 bcf/d, five months ahead of the scheduled date, whereas Belayim Petroleum Company (Petrobel) has successfully achieved a natural gas discovery in the Nile Delta concession area, with its initial rate of production at 20 million standard cubic feet per day (mmscf/d)

EGYPT'S CRUDE OIL PRODUCTION TO INCREASE BY 50,000 B/D YOY

Egypt's oil and gas sector is planning to boost crude oil production by 40,000-50,000 barrels per day (b/d) during the Fiscal Year (FY) 2019/20. Crude oil production is targeted to reach approximately 710,000 b/d by June 2020, up from 650,000 – 660,000 b/d in H1 2019. The petroleum sector is focusing on some factors that will support production increase, such as developing the current oil fields to retain its production rate, the concessions in the Gulf of Suez and the Western Desert in specific, in addition to adding new explorations to the production map. The sector's program aims to achieve crude oil self-sufficiency, depending on the new fields production and developing new phases of the fields and concessions.

EGYPT'S EMISSIONS, CONSUMPTION OF OIL, GAS DECREASE

Egypt's emissions produced by consuming oil and natural gas products decreased from 210 million tons in Fiscal Year (FY) 2016/17 to 206.8 in FY 2017/18, with a decrease of 1.5%, according to the Central Agency for Public Mobilization and Statistics (CAPMAS).

Marking the World Environment Day, celebrated on September 16, CAPMAS added that the consumption rate of oil and natural gas products also decreased from 79.3 million tons in FY 2016/17 to 79.1 million tons in FY 2017/18, with a decrease of 0.26%.

Meanwhile, the amount of electrical energy produced from environmentally friendly sources such as winds and solar energy reached 2,780 gigawatt per hour (GW/h) in FY 2016/17, compared to 2225.5 GW/h in FY 2015/16. The increasing consumption of such sources reached approximately 24.9%.

EL MOLLA INKS TWO EXPLORATION AGREEMENTS

Egypt's Minister of Petroleum and Mineral Resources, Tarek El Molla, has signed two agreements with two state-run agencies. The trilateral agreement touches on exploring new oil and gas wells in the Western Desert, with minimum investments reaching $4 million.

The agreement between the Egyptian General Petroleum Corporation (EGPC) and the Egyptian National Petroleum for Exploration and Development Company (ENPEDCO) stipulates that the latter is committed to drilling four exploratory wells located at southeast of Abu Sinan and southeast of Ras Qatara in the Western Desert of Egypt. Following the signing ceremony, El Molla confirmed that the oil and gas sector focuses on exploring a number of new promising geological components in the country's Western Desert. This requires, the Egyptian official reiterated, stepping up joint efforts to explore crude oil and natural gas at such oil-rich locations geologically wise.

EGYPT SIGNS OIL, NATURAL GAS MOU WITH OMAN

Egypt's Minister of Petroleum and Mineral Resources, Tarek El Molla, has signed a Memorandum of Understanding (MoU) with his Omani counterpart, Mohamed Saafan, Undersecretary of the Omani Ministry of Oil and Gas.

The agreement, attended by the Omani ambassador in Egypt Ali Al-Aisaai, is aimed at enhancing bilateral ties in the sphere of oil and natural gas as well as exchanging expertise and technologies, along with boosting means of cooperation in various oil and gas industries.

Following the signing ceremony, El Molla highlighted that the MoU is a reflection of the sisterly relationship between Egypt and the Sultanate of Oman, reiterating that the bilateral cooperation has been cemented for a long time, given Egypt's ongoing oil projects in the sultanate. El Molla indicated that the MoU is meant to expand the scope of cooperation, including projects in the field of transporting and trading oil and gas products as well as oil and gas Exploration and Production (E&P), thanks to the expertise that both countries enjoy.

US DEPARTMENT OF ENERGY HIGHLIGHTS BROUILLETTE'S VISIT TO EGYPT

The US Department of Energy has shed light on the three-day visit made by its Deputy Secretary of Energy Dan Brouillette to Egypt, where he launched the "US-Egypt Strategic Energy Dialogue" aimed at bolstering bilateral cooperation in the field of energy, bringing both public and private sector closer.

The bilateral Strategic Energy Dialogue covers myriad energy aspects and latest technologies in the domain of oil and natural gas development, including energy trade, clean coal technology, carbon capture utilization and storage, bio-economy, energy efficiency and renewable energy, green building technologies, smart grids, and energy capacity building. During his visit, Brouillette had talks with his Egyptian counterparts about the Joint Ventures (JVs) between Egyptian and US companies in various oil industries, with a focus on the US recently operating companies in Egypt such as Exxon Mobil Corporation which plays a major role in raising the growth rate in crude oil and natural gas sector.

CABINET APPROVES NEW REGULATIONS FOR OIL, GAS EXPLORATION

The Cabinet approved regulations regarding 17 petroleum commitment agreements for the oil and gas exploration, during their 54th meeting. The regulations authorize the Minister of Petroleum and Mineral Resources to contract with the Egyptian General Petroleum Corporation (EGPC), the Egyptian Natural Gas Holding Company (EGAS), Ganoub El Wadi Petroleum Holding Company (Ganope) and a number of International Oil Companies (IOCs) regarding some regions. These regions include North Beni Suef, West Fayoum, Southeast Siwa, Northwest El Amal in Gulf of Suez, Southeast Horus, South Abu Sinan, West Kalabsha block in Western Desert, Northeast El Amreya offshore block and East Damanhour onshore block.

ASORC AND EL MOLLA TO REVIEW PRODUCTION RATES

Assiut Oil Refining Company (ASORC) reviewed its achievements during the Fiscal Year (FY) 2018/19, such achievements were reflected in meeting around 60-65% needs of Upper Egypt provinces in relation to oil products. The statement came during a meeting that Minister of Petroleum and Mineral Resources Tarek El Molla held with the head of ASORC Mahmoud El Shabory to review the work of the company during the FY 2018/19. El Shabory said that ASORC refined around 3.5 million tons of crude oil to produce high-quality products including gasoline 92 and 80, butane, jet fuels, and diesel. ASORC implemented several projects with investments reached EGP 2 billion, including establishing a plant to produce naphtha fuel with amounts reaching 660,000 tons annually.

AL MANAR GROUP INCREASES PRODUCTION WITH 40%

Al Manar Group aims to increase its annual growth rate from 35% to 40% by the end of Q4 2019, according to its Head Ahmed Nawara. Nawara added that the group's growth plan depends on the production capacity, which will expand by opening new facilities, as the 6th of October facility's production capacity have increased to almost 5.5 tons per year. The CEO further pointed out to the company's five-year plan to develop and expand the 6th of October facility from 2018 to 2022, including developing the production capacity, increasing the number of the company's distributors and representative.


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SDX ENERGY ANNOUNCES OIL DISCOVERY IN WEST GHARIB CONCESSION

SDX Energy has announced a new oil discovery in its West Gharib concession in Egypt. The company encountered a commercial oil accumulation of approximately 135 feet of net heavy oil at a depth of 4,665 feet. The well was brought online at a steady average of roughly 315 barrels per day (b/d) (gross). The company is further planning to drill other development wells in the West Gharib concession over the next 18 months and a detailed update will be provided to the market soon.

EGYPT KUWAIT HOLDING'S NSCO COMPLETES DRILLING SECOND WELL IN NORTH SINAI, PRODUCING 75 MMCF/D

NSCO Investments Limited, a subsidiary of Egypt Kuwait Holding (EKH), has completed drilling its second natural gas field at Kamos concession (KM-1) in North Sinai of Egypt at a depth of 2,664 meters, with a production capacity of 20 million cubic feet per day (mmcf/d), raising the company's average daily output to 75 mmcf/d, compared to 25 mmcf/d during the first six months of 2019. With a growth rate reaching 200%, the EKH is setting an unprecedented production record since its first operations in offshore North Sinai in 2014. A statement by the Egyptian Exchange (EGX) indicated that a third well in KM-1 is due to be completed by Q4 2019.

EGYPT, SHELL SEEK TO INTENSIFY E&P ACTIVITIES

Minister of Petroleum and Mineral Resources Tarek El Molla discussed with Gerald Schotman, Executive VP Upstream JVs at Royal Dutch Shell, new ways to intensify Exploration and Production (E&P) activities and drive more investments. The meeting was held on the sidelines of the 24th World Energy Congress in Abu Dhabi, focusing on enhancing bilateral cooperation between the two parties and attracting more investment opportunities in various petroleum activities. Schotman confirmed the company's keenness to intensify Research and Development (R&D), as well as E&P activities in the oil and gas sector in Egypt. The company seeks to strengthen Egypt's position on the global energy map to become a regional energy hub.

FAJR, NEPCO SIGN TWO GAS SUPPLY DEALS

Jordan's National Electric Power Company (NEPCO) and the Jordanian-Egyptian FAJR for Natural Gas Transmission and Supply Company have signed two gas supply deals. Under the first agreement, 4 million standard cubic feet per day (mmscf/d) of natural gas will be provided to the Jordan Phosphate Mines Company (JPMC). The deal will help cut energy cost at the company's industrial complex in Aqaba by 20%. The second agreement was signed with Nuqul Group. Natural gas will contribute to reducing energy costs in factories by 25-55%. The special tax imposed on natural gas for industrial consumption has been cut to 7% from 16%. Companies working in natural gas transmission have been granted a three-year special exemption.

KNOC TO BOOST INVESTMENTS IN EGYPT

Chairman of the Korea National Oil Corporation (KNOC), Suyeong Yang, stated that the company aims to expand its investments in Egypt to strengthen the bilateral relations between the two countries, as well as promoting the active investment climate in Egypt. This came as Tarek El Molla, the Minister of Petroleum and Mineral Resources, welcomed Yang and the accompanying delegation of Dana Petroleum, as they reviewed the company's operations in the Gulf of Suez, Eastern and Western Deserts and North Sea regions. Yang stated that the company's total production of crude oil reached 12,000 barrels per day (b/d). From his side, El Molla emphasized the strong relationship between Egypt and South Korea which boosts Korea's activities in Egypt.

MUBADALA HEAD TO DIVERSIFY INVESTMENTS IN EGYPT'S OIL AND GAS SECTOR

Head of the UAE-based Mubadala, Musabbeh Al Kaabi said Egypt has become a hub for foreign investments in the field of oil and natural gas sector, adding that the UAE is seeking to enhance cooperation with Egypt by extending the rate of Emirati investments here. Al Kaabi statements came on the sidelines of the World Energy Congress held in Abu Dhabi where he met Egyptian petroleum officials. Al Kaabi expressed his interest in working with Egyptian companies in the field of transporting and distributing oil products in light of Mubadala's desire to diversify its investments in Egypt. Speaking about encouraging and facilitating Arab investments in Egyptian oil and natural gas, the Ministry of Petroleum and Mineral Resources confirmed that the government is clearing all hurdles that might hinder investment opportunities.

BARAMODA, TINK TO BE PART OF LIVEWIRE COMPETITION

Shell Egypt has announced the selection of two Egyptian entrepreneurs, Baramoda and Tink, out of the nine nominated companies graduated from Shell's program 'Intilaqaah' to be shortlisted among the top 21 nominated companies worldwide in the LiveWire Competition for top ten innovators. Baramoda, in the nutrition and agriculture category, and Tink, in the energy and shared transportation category, qualified after an aggressive competition with 98 graduating companies from Intilaqaah in 19 countries worldwide. It is worth mentioning that LiveWire 2019 focuses on finding innovative solutions to develop co-friendly production, rational consumption, recycling in nutrition, agriculture, energy and transportation fields to have a more sustainable future.

KUWAIT ENERGY SPONSORS MEDICAL CONVOYS IN RAS GHARIB

Kuwait Energy Egypt has recently sponsored a two-day medical convoys at the Ras Gharib Hospital as part of the company's Corporate Social Responsibility (CSR) initiatives.

The first convoys took place on June 21-22 and witnessed a wide range of specialized medical care, which included physical examinations by doctors, free minor surgical procedures and interventions, and providing medicine for underprivileged communities in the area. About 1,048 patients were treated at the first medical convoy, which offered diverse services by medical specialists such as otolaryngology specialists, gastroenterologists, pediatricians, dermatologists, orthopedic experts, and urologists.

The convoy of medical consultants included several doctors who conducted medical checkups, undertook basic laboratory tests, as well as x-rays for patients who needed them for diagnostic purposes. Kuwait Energy employees volunteered their time to assist doctors, spread awareness about the convoy, and share information about disease prevention with local families.

The second medical convoy was a more specialized unit for Ophthalmology specialists. A total of 578 patients were treated and provided 1,844 ophthalmology services which included 49 surgeries.

ACWA POWER REVIEWS THREE BIDS FOR LUXOR POWER PLANT

ACWA Power is comparing three bids from Siemens, General Electric, and Mitsubishi Electric to supply production units for its 2.25-gigawatt (GW) Luxor power plant. The project consists of three installed units with a capacity of 650 megawatts (MW) each. This shall be the first station to be built on the Build, Own, Operate (BOO) scheme. The company has agreed with a number of international banking institutions to fund the project and start commercial operations by the end of 2022. ACWA Power is still reviewing the offers to choose the best equipment and units with the highest efficiency and technology in accordance with the agreed standards with the Ministry of Electricity.

Meanwhile, the Ministry of Petroleum and Mineral Resources has agreed with Saudi Arabia's ACWA Power to finance the construction of a natural gas pipeline to feed the plant in Luxor, at a total cost of about EGP 1.6 billion.


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A QUICK LOOK AT THE MERGERS AND ACQUISITIONS DEALS IN 2019

IN EGYPT

WINTERSHALL DEA: A NEW EUROPEAN INDEPENDENT OIL AND GAS COMPANY

One of the most recent and prominent merger deals in 2019 was made by two leading German-based firms; Wintershall Holding GmbH (Wintershall) and DEA Deutsche Erdoel AG (DEA), forming Wintershall Dea. The merger was completed on May 1, 2019 after gaining the needed approvals from all relevant authorities, shareholders BASF and LetterOne.

Wintershall Dea will be managed by an Executive Board, consisting of five members: Mario Mehren, Chairman and CEO; Maria Moraeus Hanssen, Deputy CEO and COO, responsible for Europe and MENA; Thilo Wieland, Member of the Executive Board responsible for Russia, Latin America and Midstream; Hugo Dijkgraaf, CTO; and Paul Smith, CFO.

Based on the company's existing Exploration and Production (E&P) projects, Wintershall Dea is on track to reach a daily production of around 750,000 to 800,000 barrels of oil equivalent (boe) between 2021 and 2023, which is equivalent to an annual production growth rate of 6% to 8%. Wintershall Dea operates in four core regions; Europe, Russia, Latin America, and Middle East and North Africa (MENA) region.

DANA GAS SCRUTINIZES OFFERS TO SELL $500 MM EGYPTIAN ASSETS

Dana Gas has decided, after hiring financial advisors, to sell its $500 million offshore Merak-1 well in Egypt because no commercial discovery was made there. However, the rest of the company's operations in Egypt shall continue production.

Accordingly, the company is receiving many offers from several companies that are eager to acquire its assets in Egypt. Dana Gas is scrutinizing and evaluating these offers and their expected return. The deadline for receiving offers is November 15.

Dana Gas has become the fifth biggest natural gas producer in Egypt. In 12 years, the company succeeded in drilling over 50 onshore and offshore wells. However, the company's decision is driven by its need to focus on developing its assets in Iraq, which forms more than 90% of its reserves at about one billion barrels of oil equivalent (boe).

UNITED OIL AND GAS TO ACQUIRE ROCKHOPPER EGYPT

United Oil and Gas company (UOG) has submitted its proposal to acquire Rockhopper Exploration Plc in Egypt for $16 million. The acquisition will result in producing more than 1,100 barrels of oil equivalent per day (boe/d) of net low-cost production with 2.64 million boe of net 2P reserves to UOG.

Rockhopper holds 22% in oil fields with 17 producing wells. The current production from the Abu Sennan concession is more than 5,100 boe/d.

BP will fund the acquisition by providing $8 million after entering an agreement for UOG's future oil and gas production. As a result, BP will purchase all or a substantial amount of the project's output. While BP is providing a significant portion of the deal's finances, UOG will place new ordinary shares worth up to $5 million to Rockhopper.

ENERGEAN ACQUIRES EDISON FOR $750 MM

Energean Oil and Gas inked an agreement to acquire Edison for $750 million. In addition, Energean will pay an extra $100 million after commencing natural gas production in Italy's Cassiopea field in 2022.

Edison Exploration and Production (E&P) portfolio includes production in the East Mediterranean, with a significant presence in Egypt's offshore. That is why the acquisition of Edison E&P supports Energean's strategy of creating the leading independent, gas-focused E&P company in the Mediterranean.

Edison's E&P portfolio adds working interest 2P reserves of 292 million barrels of oil equivalent (boe), as well as a net working interest production of 69,000 barrels of oil equivalent per day (boe/d) in 2018. The Enlarged Group is expected to produce more than 140,000 boe/d in 2021, as Karish and Tanin development project comes onstream, with a trajectory to approximately 200,000 boe/d once the Energean Power FPSO reaches full capacity.

DRAGON OIL ACQUIRES BP'S STAKES IN GUPCO

Dragon Oil, a subsidiary of the Emirates National Oil Company (ENOC), has agreed with BP to acquire its assets in the Gulf of Suez Petroleum Company (GUPCO). The deal is expected to be finalized after receiving the approvals from the Egyptian Ministry of Petroleum and Mineral Resources in H2 2019.

GUPCO currently produces 63,000 barrels per day (b/d) through 11 concessions and exploration areas. Dragon Oil's current total production is estimated at 150,000 b/d. Therefore, carrying out the agreement supports Dragon Oil's position and investments in many countries, including Turkmenistan, Iraq, and Afghanistan.

UNITED ENERGY ACQUIRES KUWAIT ENERGY

United Energy Group (UEG) acquired completely Kuwait Energy Plc for over $650 million. The deal was inked on September 2018, and was wrapped up in late March 2019.

It is worth mentioning that Kuwait Energy holds a working interest of four licenses in Egypt, one of which is governed by a service contract and the other three are governed by Production-Sharing Contracts (PSCs), in East Ras Qattara, Abu Sennan, Burg El Arab, and the Eastern Desert.

SOCO INTERNATIONAL COMPLETES ACQUIRING MERLON

SOCO International Company completed the acquisition of Merlon Petroleum El Fayoum Company from Merlon International. The two companies agreed to carry out the acquisition for around $136 million in cash, as well as issuing 65.5 million new ordinary shares of SOCO to Merlon International.

Merlon International is obligated to distribute these shares between its shareholders within 30 days.

Moreover, Merlon will pay an assignment fee regarding the transaction to the Egyptian General Petroleum Corporation (EGPC).

DELEK DRILLING SEEKS ACQUIRING STAKES IN EGYPTIAN LIQUEFACTION PLANTS

Delek Drilling Company seeks to acquire stakes in one of the Egyptian natural gas liquefaction plants to expand its export footprint.

The Israeli explorer wants to purchase parts of either Idku or Damietta liquefaction facilities as a part of its deal with Egypt to liquefy gas and export it to global markets. The company is further considering buying capacities in the two plants instead of acquiring equity stakes. However, the Ministry of Petroleum and Mineral Resources' representatives did not comment on the matter.

IN MENA REGION

ARAMCO TO FINALIZE SABIC'S ACQUISITION BY 2020

Saudi Aramco plans to finalize acquiring a 70% stake in the Saudi Basic Industries Corp (SABIC) by 2020. The $69.1 billion deal comes in line with Aramco's strategy to expand its downstream business and boost its petrochemicals production capacity.

The petrochemicals production capacity of both companies combined is estimated to be around 79 million tons per year. However, Aramco aims to increase its refining capacity from 4.9 million to reach 8-10 million barrels per day (b/d) by 2030.

SAUDI PIF ACQUIRES 40% STAKE IN ARAMCO-JACOBS JV

Saudi Arabia's Public Investment Fund (PIF) has bought a 40% stake in Jasara Program Management Company, a Joint Venture (JV) between Saudi Aramco and Jacobs Engineering Group.

PIF acquired 30% of Jasara from Aramco and the other 10% from the US-based Jacobs, which leaves the Saudi company with a 20% stake, and Jacobs with 40%.

Jasara Program Management was established in 2017 to provide management services for social infrastructure projects in Saudi Arabia and across the Middle East and North Africa.

ADC TO ACQUIRE SCHLUMBERGER'S MIDDLE EAST ONSHORE DRILLING BUSINESS, SCHLUMBERGER'S SAUDI DRILLING BUSINESS

Arabian Drilling Company (ADC), a drilling subsidiary of Saudi Arabia's Industrialization and Energy Services Company (TAQA), plans to acquire Schlumberger's Middle East onshore drilling rigs business in Kuwait, Oman, Iraq and Pakistan. The acquisition deal is worth around $415 million and is supposed to be closed in H2 2019.

Under this acquisition deal, ADC will operate a fleet of 58 onshore rigs and nine offshore rigs across the Middle East and North Africa (MENA) region. The deal creates economies of scale and cost synergies, making ADC a regional leader, encompassing a diversified, multi-country and multi-client offering.

On the other hand, around 49% of Schlumberger's Saudi drilling business will be acquired by ADC as well.

ADNOC ACQUIRES 10% STAKE IN VTTI

The Abu Dhabi National Oil Company (ADNOC) announced acquiring a 10% stake in VTTI, a global energy storage terminal owner and operator.

The investment will allow ADNOC to secure storage in global export markets and at the port of Fujairah, which is a regional bunkering and storage hub in the UAE. The deal comes in line with ADNOC's transformation vision to become a more integrated global energy player.

VTTI owns 15 terminals located across 14 countries and its storage network holds about 60 million barrels of combined storage capacity. On the other hand, ADNOC has 8 million barrels of storage in Fujairah and is also building the world's largest single underground project for oil storage, with a capacity of 42 million barrels of crude oil.

In addition to ADNOC's 10% equity stake in VTTI, VTTI is 45% owned by the IFM Global Infrastructure Fund (IFM GIF) and 45% by Vitol.

TAQA TO ACQUIRE TWO US COMPANIES

Saudi Arabia's Industrialization and Energy Services Company (TAQA) plans to acquire two North American companies, working in the areas of oilfield services technology and manufacturing, by the end of 2019.

TAQA has dedicated around $1.2 billion for the new investments and acquisition transactions over the next three years.

The acquisition comes in line with the company's strategy to be a leading Oilfield Services and Equipment (OFSE) provider. The company aims to strengthen its footprint in oilfield services, equipment manufacturing, and new technologies across the wider Middle East and North Africa (MENA) region as well as North America.

HITECVISION, PETROGAS TO ACQUIRE TOTAL NORTH SEA OILFIELDS

Oman's Petrogas and HitecVision are set to acquire some of Total's North Sea oilfields in the UK for $635 million. Talks are focused on a portfolio of Total oilfields, including Dumbarton, Balloch, Lochranza, Drumtochty, Flyndre, Affleck, Cawdor and minority stakes in the China National Offshore Oil Corporation (CNOOC)-operated Golden Eagle, Scott, and Telford fields.

The deal will be carried through a subsidiary of the two groups called Petrogas NEO UK, as part of the plan to increase production to more than 100,000 barrels of oil equivalent per day (boe/d) within two to three years.

Total's oilfields in the British North Sea are set to produce 25,000 boe/d in 2019. The company had an overall production in Britain of around 185,000 barrels per day (b/d) in 2018, with natural gas accounting for more than half of its production.

SAUDI ARABIA

Saudi Arabia has appointed Prince Abdulaziz bin Salman as the new Minister of Energy, succeeding Khalid Al-Falih, as per a royal decree issued on September 7. The appointment marks the first time a member of the Saudi royal family is assigned with this position.

Saudi Arabia has created a new Ministry for Industry and Mineral Resources, separating the two sectors from the Ministry of Energy, which was previously called the Ministry of Energy, Industry, and Mineral Resources, but has now been renamed to the Ministry of Energy. Bandar bin Ibrahim bin Abdullah Al-Khorayef has been appointed as Minister of Industry and Mineral Resources.

Governor of the Saudi Public Investment Fund (PIF), Yasir Al-Rumayyan, has been appointed as the new Chairman of Saudi Aramco. Al-Rumayyan replaced former Saudi Minister of Energy, Khalid Al-Falih. Meanwhile, Saudi Minister of Transport, Nabeel Al-Amudi, has been appointed as an Aramco board member.

Saudi Arabia could restore its full oil production capacity a couple of weeks after two Aramco oil plants were subject to drone attacks. Attacks on Aramco's largest Saudi oilfields in Khurais and the world's biggest crude processing facility at Abqaiq have partially halted the company's production, reducing Saudi oil output by more than 5.7 million barrels per day (b/d), which makes for about 5% of global oil supply. There were no casualties from the attacks, according to Saudi Aramco CEO Amin Nasser.

Saudi Aramco is considering a plan to split its initial public offering (IPO) into two phases, with the first taking place in the local Saudi Stock Exchange (Tadawul). The plan would see Aramco list 1% of its shares on Tadawul before the end of 2019, and then list another 1% in 2020. The second stage will supposedly see 3% offering in an international market, most likely the Japanese stock exchange, in 2020 or 2021.

Saudi Aramco has hired nine banks as joint managers for its IPO. The chosen banks are Saudi National Commercial Bank (NCB) and Samba Financial Group, as well as JPMorgan Chase & Co, Morgan Stanley, Bank of America Merrill Lynch, Goldman Sachs, Credit Suisse, Citigroup, and HSBC.

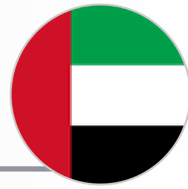
Aramco announced that it has signed a Memorandum of Understanding (MoU) with the Zhejiang Free Trade Zone (FTZ). The MoU follows a number of agreements that were signed during a visit by Saudi Crown Prince Mohammed Bin Salman to Beijing last February. The agreement is set to facilitate Aramco's planned acquisition of a 9% stake in the Zhejiang integrated refinery and petrochemicals complex.

ALGERIA

Neptune Energy and Sonatrach announced first gas export production from the Touat gas development in Algeria. The project is expected to produce around 75,000 barrels of oil equivalent per day (boe/d) at plateau, about 450 million standard cubic feet per day (mmscf/d) of gas. Its production is forecasted to continue for 20 years, accounting for around 6% of Algeria's total gas exports.

Petrofac inaugurated a construction skills training center in Hassi Messaoud, Algeria. The center will provide training for the Algerian oil and gas industry workforce with a capacity to train up to 400 delegates every year.

UAE



The UAE Minister of State and CEO of the Abu Dhabi National Oil Company (ADNOC) Sultan Ahmed Al-Jaber has discussed opportunities for collaboration with Russian Minister of Energy Alexander Novak, on the sidelines of the 24th World Energy Congress, held in Abu Dhabi between September 912. Areas for collaboration between companies from Russia and the UAE are mostly in the development of trading activities in hydrocarbons as well as joint projects in the fields of mining and trading.

The oil and gas industry needs $11 trillion in investment in order to keep up with the projected demand, according to Sultan Ahmed Al-Jaber, who added during the 24th World Energy Congress that the long-term outlook for the global energy demand remains robust.

Emirates National Oil Company (ENOC) has introduced a new fleet of fuel distribution trucks compliant with international Health, Safety, and Environment (HSE) standards. The new fleet of trucks is ADR-certified, ensuring safe driving, reduced driver fatigue, increased fuel-efficiency, as well as vehicle stability and accidents prevention. The body of the new tanker is made of lightweight aluminum, which increases the fleet's operational efficiency by 65% by cutting fuel consumption from 2.3 kilometers per liter (km/l) to 3.4 km/l. It also reduces stress on the truck's engine, which will cut maintenance costs by 22%.

ADNOC has closed a $600-million pipeline infrastructure investment agreement with GIC. The deal with the Singaporean sovereign wealth fund raises investments in ADNOC Oil Pipelines to $4.9 billion. Other investors include BlackRock, KKR, and the Abu Dhabi Retirement Pensions and Benefits Fund (ADRPBF).

National Petroleum Construction Company (NPCC) has signed Memoranda of Understanding (MoUs) with China Petroleum Engineering and Construction Corporation (CPECC), which is affiliated to China National Petroleum Corporation (CNPC), as well as with the China National Engineering Company (CNCEC).

ADNOC has awarded three contracts for the procurement of casing and tubing, with a combined scope of AED 13.2 billion ($3.6 billion). The contracts were awarded to a consolidated supplier's establishment, representing Tenaris (from Luxembourg); Abu Dhabi Oilfield Services Company, representing Vallourec (from France); and Habshan Trading Company, representing Marubeni Corporation (from Japan).

Brooge Petroleum and Gas Investment Company (BPGIC) has awarded a contract to build a new oil refinery in Fujairah to SENER, a Spain-based engineering and technology group. The project will produce low-sulfur bunker fuel. The first phase of the planned 250,000 barrel per day (b/d) refinery will be completed in Q1 2020.

BAHRAIN

Natural gas production in Bahrain has increased by 12.4% in H1 2019 to 415.143 million standard cubic feet (mmscf), according to the National Oil and Gas Authority (NOGA). Natural gas production accounts for 69% of Bahrain's total gas production, while Associated Petroleum Gas (APG) represents 31% of production. The Kingdom of Bahrain consumes its entire gas production by supplying power generation plants and the industrial sector.

OMAN

The share of petroleum activities in Oman's Gross Domestic Product (GDP) increased by around 37.1% in 2018, according to the Central Bank of Oman's (CBO) annual report. The petroleum sector was the main driver of accelerated economic growth, as the Omani nominal GDP grew by 12% in 2018, with the petroleum and non-petroleum activities expanding at 37.1% and 2.9%, respectively.

Crude oil and condensate production in Oman amounted to 30.08 million barrels in August, while oil exports totaled 29.74 million barrels. Oil production averaged 970,305 barrels per day (b/d), while exports averaged 959,406 b/d.

BP Oman announced that progress in construction works in the Central Processing Facility (CPF) at the Ghazeer project has reached 69% during August. In a major step towards producing first gas from the project by early 2021. The Ghazeer extension is this second phase of the Khazzan field project in Block 61. Contracts worth $1.1 billion were awarded to Omani-registered companies to work across the Khazzan and Ghazeer projects in 2018.

Petroleum Development Oman (PDO), Oman Shell, Oman LNG, and the Oman Oil-Orpic Group have signed a memorandum of understanding (MoU) to cooperate in developing self-sustaining business models. The five-year agreement aims to boost the level of Omanisation, especially in maintenance and installations activities. The MoU was signed on the sidelines of the World Heavy Oil Congress and Exhibition, held in Muscat between September 2-4.

KUWAIT

Kuwait's crude oil exports decreased by 0.78% year-on-year (YoY) to 366.57 million barrels in H1 2019, compared with 369.47 million barrels in the same period of 2018. Kuwaiti oil exports averages 2.03 million barrels per day (b/d), compared with 2.04 million b/d in H1 2018.

Kuwait Oil Tanker Company (KOTC) has created a plan to prevent possible hazards caused by the spreading misuse of three million gas-cylinders currently in use across the local market. Public entities are cooperating to address this growing problem, as the improper use of gas cylinders is both costly and dangerous.

Kuwait Gulf Oil Company (KGOC) has awarded a KWD 7.63 million ($25.1 million) contract to Al Imtiaz Investment Group. A subsidiary of Al Imtiaz will provide mechanical maintenance services for the joint operations in the Wafrah oilfield through a five-year contract.

LIBYA

Libya has achieved a total of $14.3 billion in oil revenues during the first eight months of the year, as shown by the most recent data of the Central Bank of Libya (CBL). Oil revenues accounted for around 92.66% of the total government income during the eight-month period from January to August 2019.

The Libyan National Oil Corporation (NOC) announced that its revenues rose to $2.1 billion in July, increasing by 23% when compared with the $1.73 billion revenue in June. Revenues rose on the back of an increase in the number of crude oil shipments in the prior month, which were received and settled in July accounts.

Halliburton will resume activities in the oilfields of Sirte, after restoring security and stability. The announcement was made after the Chairman of the Sirte Oil Company (SOC), Nagi Ahfaf, met with Colby Fuser, Halliburton Vice President for Egypt and Libya; and Moataz Yousef, General Manager of Halliburton Libya. Halliburton also intends to resume work with the Arabian Gulf Oil Company (AGOCO) and opening of an office in the city of Benghazi soon.

ECONOMICS OF REFINERIES IN EGYPT:

TRACKING ECONOMIC CONTRIBUTION OF REFINING INDUSTRY (FYs 2016/17 - 2017/18)

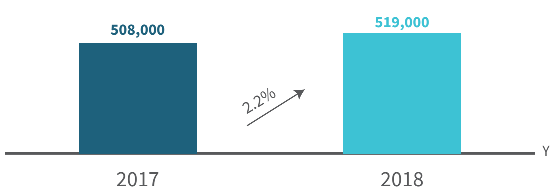
BY **AMINA HUSSIEN, REHAM GAMAL & TASNEEM MADI**

Egypt is ranked as having the largest refining industry in Africa, with a capacity of 23% and a throughput reaching 24.4% of the overall size in the continent. It is worth mentioning that the Egyptian refinery industry in 2018 had increased to 519,000 barrels per day (bbl/d), compared to 508,000 bbl/d in 2017, pushing the country's growth rate to rise by 2.2%, a report by the Energy Information Administration (EIA) has pointed out and data was stated in BP's Annual Statistical Review of 2019.

In **2018**, the Egyptian **refining** capacity represented **23%** of the total **African** refining capacity.

In **2018**, **Egypt's refinery** throughput represented **24.4%** of the total **African** refinery throughput.

The Egyptian Refinery Throughput (b/d)



PROFILE OF EGYPT'S LARGEST REFINERIES:

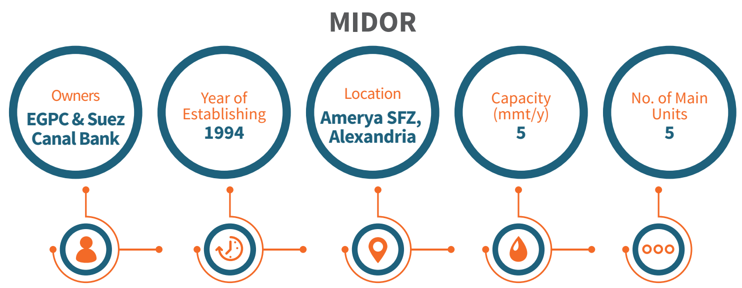
Egypt's 12 operating refineries, with a total capacity of 750 kbbl/d in 2018, has put the country in the rank of the biggest oil refinery in the African continent, according to BP's Annual Statistical Review of 2019.

Egypt possessed **12** operating **refineries**, with a total capacity of **750,000 b/d** in **2018**.

MIDDLE EAST OIL REFINERY (MIDOR)

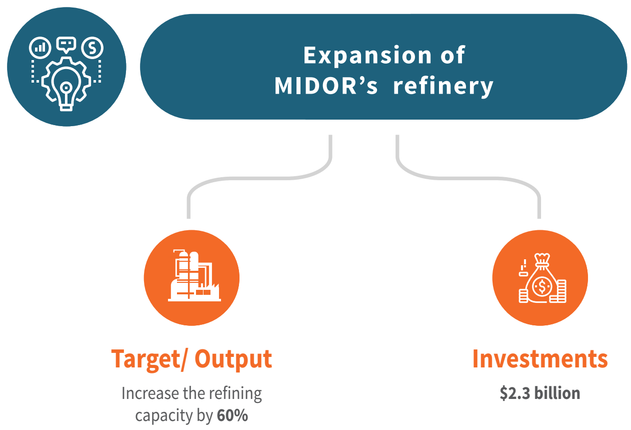
MIDOR refinery was established in 1994 to refine crude oil and to process high-quality petroleum products for the domestic and international markets.

The refinery, located in Borg EL Arab, west of Alexandria, has a total refining capacity of 5 million tons per year (mmt/y).



The distillation units in MIDOR refine both imported crude oil and crude oil coming from the Western Desert fields. MIDOR mainly produces Liquified Petroleum Gas (LPG), naphtha, jet fuel, diesel, sulfur, and coke, according to the company's profile on the Egyptian General Petroleum Corporation's (EGPC) website.

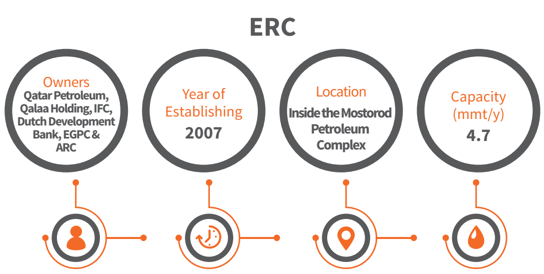
MIDOR's contribution to Egypt's refinery industry is reflected in its new mega project that aims to increase the MIDOR's refining capacity by 60%. The project, costing $2.3 billion, has been launched in 2018 and is scheduled to be completed in Q1 of 2022, the Ministry of Petroleum and Mineral Resources (MoP) has stated in a press release, December 2018.



EGYPTIAN REFINING COMPANY (ERC)

Enjoying its unique status as the only Egyptian refinery managed by the private sector, ERC makes up 76.2% of the refinery's shares. Qatar Petroleum has the majority of the shares, with approximately 30%. Meanwhile, , Qalaa Holding, the International Financial Corporation (IFC), and Dutch Development Bank own 18.8%, 6.4% and 2.2% respectively, while EGPC has a share of around 24%, according to Qalaa Holding's website.

The refinery was established in 2007, with a production portfolio including Euro V diesel, jet fuel, kerosene, reformate, naphtha, LPG and fuel oil, according to ERC's website.

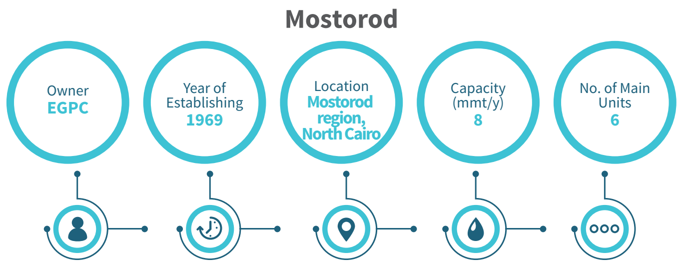


ERC has a production capacity of 4.7 mmt/y of refined products, including 2.3 mmt/y of Euro V diesel, and 600,000 tons per year (t/y) of jet fuel. The refinery is supposed to cover from 30% to 40% of Egypt's current imports of diesel. It is more than 98.8% complete and ready to reach full production in 2H of 2019, Qalaa Holding's website stated.

ERC is more than **98.8%** complete and ready to reach full **production** in **H2 2019**.

CAIRO OIL REFINING COMPANY (CORC) (MOSTOROD REFINERY)

Mostorod refinery, built in 1969, has a refining capacity of 8 mmt/y. The refinery supplies the local market with propane, LPG, naphtha, jet fuel, gas oil, and fuel oil, according to EGPC's website.

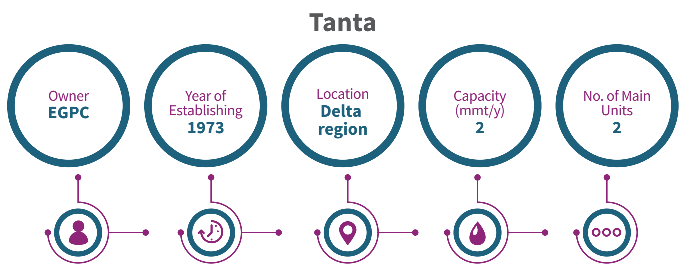


The refinery, which is totally owned by EGPC, has four crude oil distillation units that are fed from the fields of the Gulf of Suez and the Western Desert.

In Fiscal Year (FY) 2019/20, the refinery is expected to produce 82,000 tons of butane; 183,000 tons of naphtha; about 1.2 mmt of different types of benzene; 50,000 tons of kerosene; 520,000 tons of naphtha jet fuel; 1.2 mmt of diesel; 3.6 mmt of mazut; and 20,000 tons of aromatic solvents, stated by the head of the company, Gaber Hassan in a general assembly meeting of public oil companies to approve companies' planning budgets for FY 2019/20, in January 2019.

CAIRO OIL REFINING COMPANY (CORC) (TANTA REFINERY)

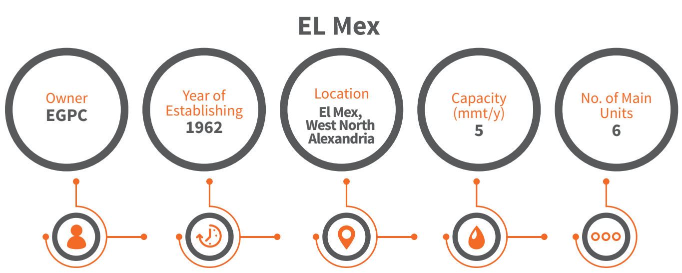
The second CORC refinery, located in Tanta of the Delta region, was built in 1973 with refining capacity of 2 mmt/y.



The refinery has two distillation units that receive crude from the Western Desert and the Nile Delta's crude oil fields, providing the local market with propane, LPG, naphtha, jet fuel, gas oil, and fuel oil.

ALEXANDRIA PETROLEUM COMPANY (APC) (EL MEX REFINERY)

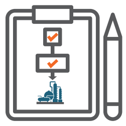
APC was built in 1962 to supply the market with its needs of LPG, kerosene, gas oil, fuel oil, lube oils, and waxes. The refinery, located in El Mex in Alexandria, has a refining capacity of 5 mmt/y, according to EGPC's website.



The refinery has three crude distillation units, one of which is basically to produce the atmospheric residue for lube oil complex.

Moreover, APC has a lube oil complex that was commissioned in 1983 with a capacity of 1.1 mmt/y. It mainly produces Vacuum Gas Oil (VGO), bright stock, waxes, bitumen, and fuel oil which is processed by downstream units.

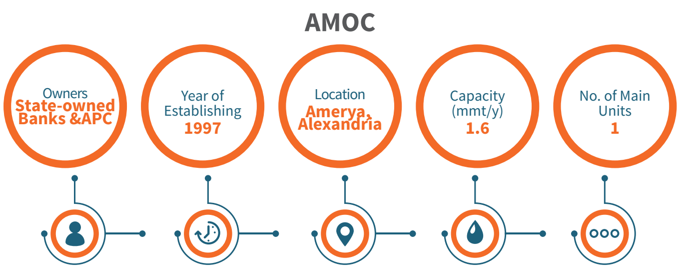
During FY 2019/20, the company is planning to refine 4.9 mmt of crude oil, producing 1.3 mmt of mazut, 1.3 mmt of naphtha, 1.2 mmt of diesel, 485,000 tons of jet fuel, 99,100 tons of butane, 37,000 mmt of solvents, and 6,600 tons of neutral lubricant, which are prepared from 10,000 tons of used lubricants, the company's head, Medhat Bahgat, declared during APC's general assembly meeting to approve the company's planning budget for FY 2019/20, in January 2019.



APC is planning to refine **4.9 mmt** of **crude oil** by **FY 2019/20**.

ALEXANDRIA MINERAL AND OILS COMPANY (AMOC)

AMOC is a shareholding company that was established in 1997. It is owned by APC along with state-owned banks including Banque Misr and the National Bank of Egypt (NBE).



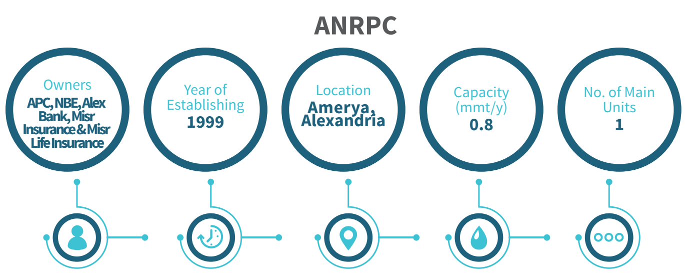
The refinery has a capacity of 1.6 mmt/y which is being utilized to produce LPG, naphtha, VGO, diesel, paraffin wax, automatic transmission fluids, lubricant base oils, and fuel oil, according to AMOC's website.

In FY 2017/18, AMOC's total production recorded 1.63 mmt, the same record of the previous year, according to the sustainability report published by AMOC.

In **FY 2017/18**, **AMOC's** total **production** recorded **1.63 mmt**.

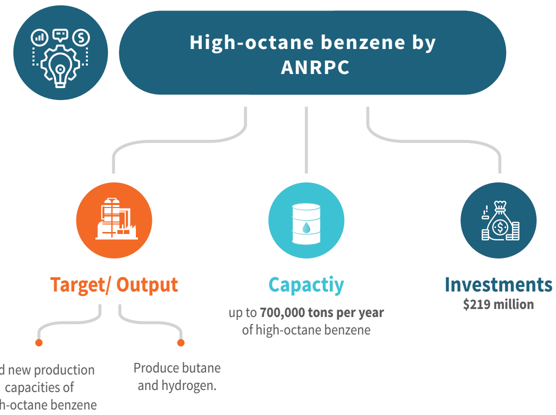
ALEXANDRIA NATIONAL REFINING AND PETROCHEMICALS COMPANY (ANRPC)

ANRPC is a crude oil refinery which is not directly owned by EGPC. The refinery was established in 1999, and owned by APC, which has around 72% of the shares. , Alex Bank and the NBE have also other shares in the company.



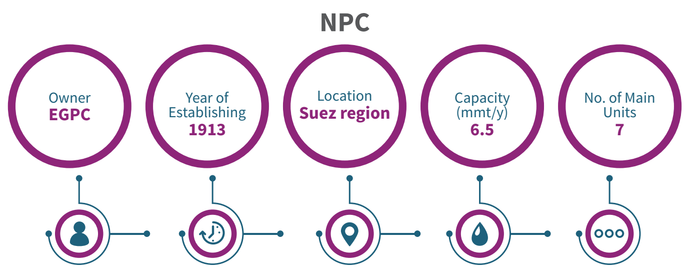
ANRPC is located in Amerya region in Alexandria. It has a refining capacity of 0.8 mmt/y to produce LPG, isomerate and reformate.

In September 2018, a project of up to 700 thousand per year capacity, producing high-octane benzene 92 and 95 at ANRPC was completed. Hence, the project's capacity increased to 1.5 mmt/y, at a cost of $219 million, according to the MoP's press release, December 2018.



NASR PETROLEUM COMPANY (NPC)

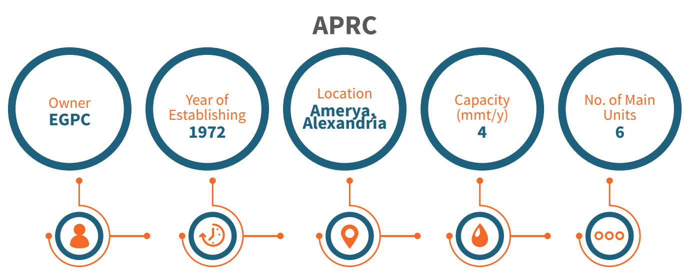
Considered as the oldest refinery in the African continent, NPC which was built in 1913, has a capacity of 6.5 mmt/y, supplying the local market with LPG, kerosene, gas oil, fuel oil, and bitumen.



The refinery, located in Suez region, has four crude oil distillation units, fed mainly by fields of the Gulf of Suez.

AMERYA PETROLEUM REFINING COMPANY (APRC)

APRC was built in 1972 with a refining capacity of 4 mmt/y. The refinery supplies the local market with its needs of LPG, naphtha, jet fuel, kerosene, gas oil, fuel oil, lube oils, and waxes.



APRC has two crude oil distillation units, fed by crude oil fields of the Western Desert. The refinery also has reforming and isomerization complex, lube oil complex, and Light Alkyl Benzene (LAB) complex.

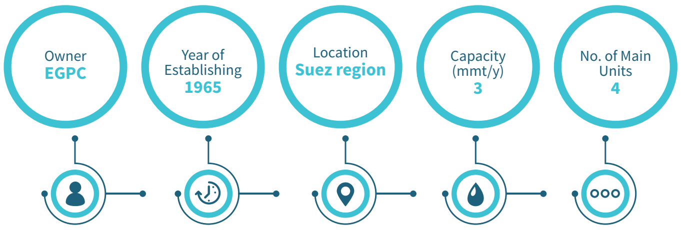
In FY 2019/20, APRC is expected to refine 3.9 mmt of crude oil. The company plans to produce 1.3 mmt of kerosene and diesel, 1.1 mmt of mazut, 341,700 tons of naphtha for export, 143,500 tons of jet fuel, and 80,300 tons of butane. The company will also produce 560,000 tons of 80-octane benzene, 91,300 tons of basic and special lubricants and 73,000 tons of secondary petroleum products, the company's head, Ali Badr stated during APRC's general assembly meeting to approve the company's planning budget for FY 2019/20, in January 2019.

APRC is expected to refine **3.9 mmt** of **crude oil** by **FY 2019/20**.

SUEZ OIL PROCESSING COMPANY (SOPC)

The Suez Refinery was built in 1965 and has a current refining capacity of 3 mmt/y. It supplies the market with LPG, naphtha, gasoline, kerosene, gas oil, and fuel oil.

SOPC



The refinery has two crude oil distillation units, which receive crude feed from the Gulf of Suez. In addition, it has reforming unit that was established in 1983 with a capacity of 0.8 mmt/y and a cokercomplex, which was commissioned in 1966 with a capacity of 1.5 mmt/y.

In the FY 2019/20, SOPC plans to produce 2 mmt/y of various petroleum products. Further, the company is willing to carry out a number of projects, with investments amounting to EGP 700 million, the head of the company, Mohamed Eliwa, stated during SOPC's general assembly meeting to approve the company's planning budget for FY 2019/20, in January 2019.

SOPC is planning to produce **2 mmt/y** of different **petroleum products** by **FY 2019/20**.

ASSIUT OIL REFINING COMPANY (ASORC)

ASORC was established in 1984 with a refining capacity of 2.5 mmt/y. the company feeds the market in Upper Egypt with LPG, propane, naphtha, jet fuel, gas oil, and fuel oil. The refinery has two crude oil distillation units receiving its crude feed from the Gulf of Suez crude oil fields.

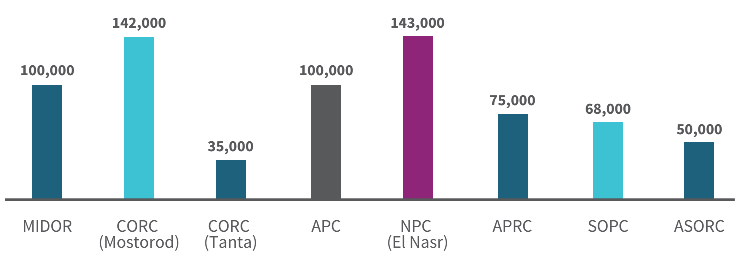
ASORC

In the FY 2019/20, ASORC plans to refine 4.1 million tons of crude oil, producing 2.4 mmt of mazut, over 1 mmt of diesel, 530,500 tons of naphtha, 73,400 tons of jet fuel, and 37,000 tons of butane, the head of the company Mahmoud Hassan declared during ASORC's general assembly meeting to approve the company's planning budget for FY 2019/20, in January 2019.

ASORC is aiming to refine **4.1 mmt** of **crude oil** by **FY 2019/20**.

Egypt's Oil Refineries Capacity in 2018 (b/d)

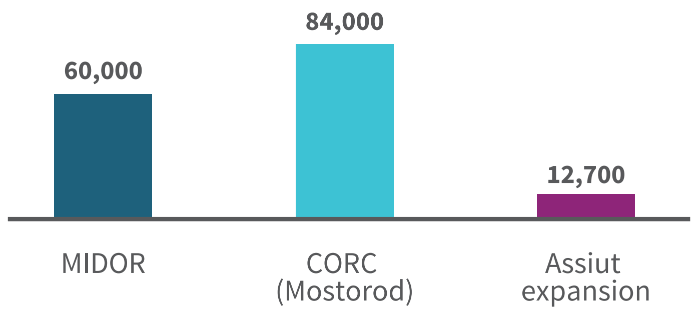
Total 713,000



Planned Refineries' Expansions

Additional Capacity (b/d)

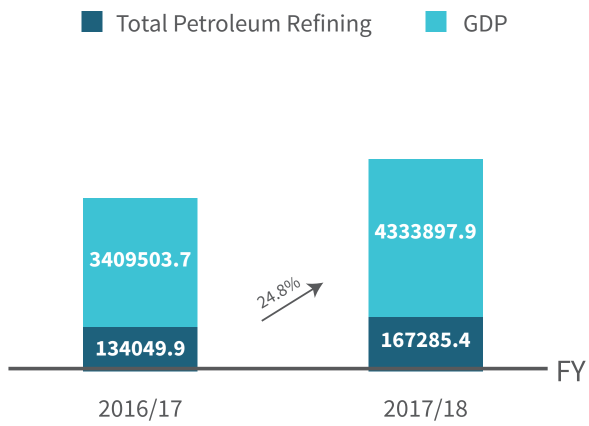
Total 156,700



REFINING INDUSTRY CONTRIBUTION TO GDP

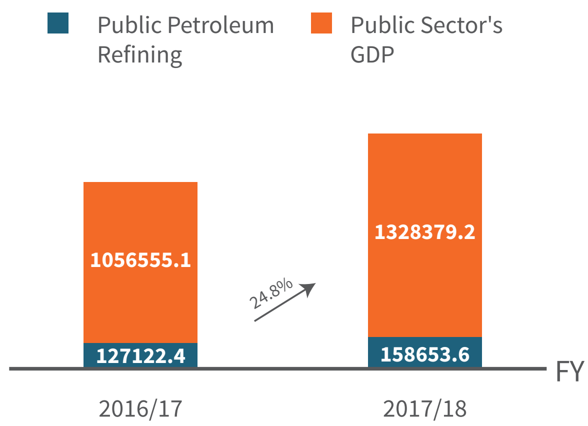
The refining industry witnessed an increasing trend in the previous two FYs 2016/17 and 2017/18. Hence, refining share increased to EGP 167285.4 million in FY 2017/18 compared to EGP 134049.9 million in FY 2016/17 by 24.8%. Such percentage increase contributed by 3.9% to GDP in both years, according to the Central Bank of Egypt's (CBE) Annual Report for FY 2017/18.

Refining Share in GDP (EGP million)



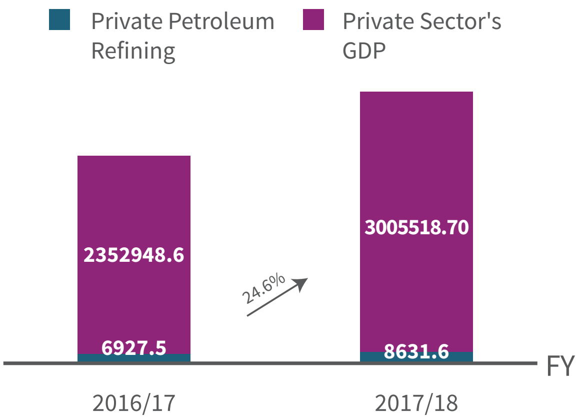
Meanwhile, both public and private sectors have remarkable contributions to the refining industry. The public sector greatly contributes to the refining industry through its public companies. The sector's refining recorded EGP 158653.6 million in FY 2017/18 compared to EGP 127122.4 million in FY 2016/17, as a share in GDP. The sector's contribution to GDP was almost equal in relation to the refining industry in the two successive years, recording about 12% increase in both years, according to the CBE's Annual Report for FY 2017/18.

Public Petroleum Refining Share in Public Sector's GDP



The private sector's overall contribution to the refining industry was less tangible than the public sector. Yet, the sector's share in GDP has increased, reaching EGP 8631.6 million in FY 2017/18, compared to EGP 6927.5 million in FY 2016/17 recording 24.6 % increase in FY 2017/18. Having said so, the sector contributed to GDP in both years by 0.29%, pointed out in the CBE's Annual Report for FY 2017/18.

Private Petroleum Refining Share in Private Sector's GDP



According to each sector's contribution to GDP, it is worth noting that the public sector's contribution in both years was tremendously greater than the private one. Thus, the public sector's contribution exceeded that of the private sector by about 11.54% in FY 2016/17 and by about 11.7% in FY 2017/18.

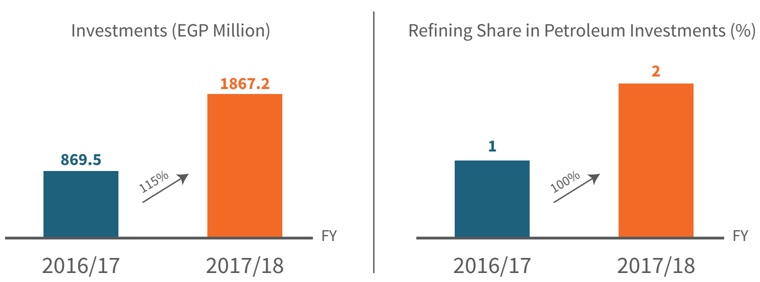
REFINING INDUSTRY INVESTMENTS

Nine out of Egypt's ten refining companies are managed by the state. This indicates that the investments in the refining sector, implemented by the state, are very small when compared to crude oil and natural gas extraction investments, held mainly by International Oil Companies (IOCs).

The refining investments topped to EGP 1867.2 million in FY 2017/18 with 115% increase from EGP 869.5 million in FY 2016/17. The share in total petroleum investments doubled over the two years as it increased from representing 1% of the petroleum investments to 2%, according to the CBE's annual Report for FY 2017/18..

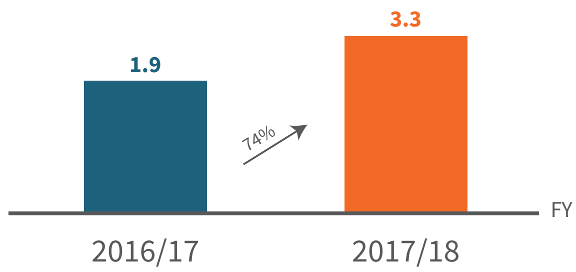
Within the two successive years, no investments in the refining sector were implemented by the private sector, as the sector was dominated by the government.

Implemented Investments in the Refining Sector



Moreover, the investments in refining activities represented 1.9% of the implemented investments in the transformative industries in FY 2016/17, which increased by 74% in the following year to represent 3.3%, stated in the CBE's annual Report for FY 2017/18.

Share in Transformative Industries' Investments (%)



In 2019, Mop has been moving forward towards constructing new refinery and petrochemical projects. For instance, the implementation of a new significant refinery and petrochemical complex in Al-Alamein is underway, with investments amounting to $8.5 billion. Another four new projects in the petrochemical industries are also under progress, at a cost of about $1.5 billion. In the light of the ministry's modernization process, the government is also implementing six other projects over the upcoming four years, with a total investment of about $9 billion, increasing the capacity of the refineries to more than 41 mmt/y, Minister of Petroleum and Mineral Resources Eng. Tarek el Molla declared by, in a general assembly meeting of the Egyptian Ethylene and Derivatives Company (ETHYDCO).

Four new **projects** in the **petrochemical** industries are under progress, at a cost of about **$1.5 billion**.

In addition, two of the biggest refining projects of their kind in Upper Egypt, are under implementation in Assiut. They worth investments of $2.3 billion, including ASORC Project of high octane gasoline production complex, with investments of $450 million and a production capacity of about 660,000 tons per year, of which 650,000 tons are of gasoline, according to MoP's press release on 17 January, 2019.

Two of the biggest **refining projects** are under implementation in **Assiut**, with investments of **$2.3 billion**.

Furthermore, the MoP has shed light on the significance of the refining industry and its contribution in developing the economy within one of its modernization project's pillars. The pillar has two programs aiming at increasing the efficiency of asset utilization, energy sufficiency and improving the operating conditions across the sector.

Egypt's refineries mainly process domestically produced crude oil, where the refined products are sold to local markets. However, as Egypt is becoming a regional energy hub, the petroleum sector is always targeting a boost in the added-value in natural gas and crude oil projects directed to the neighboring countries and even internationally.

THE REAL STORY OF DANA GAS IN EGYPT

EXCLUSIVE INTERVIEW

WITH DANA GAS CEO,
PATRICK ALLMAN-WARD

دانة غاز
DANA GAS

For more than a decade, Dana Gas has achieved remarkable results during its journey in Egypt. Now, with the company's management planning to focus on Iraq's massive reserves, the fifth largest natural gas producers in Egypt are about to enter into a new stage. In an interview with Dana Gas CEO, Patrick Allman-Ward, the strategic review of Dana Gas's assets in Egypt and the awaited sale transaction were discussed.

DANA GAS RECENTLY ANNOUNCED THAT IT IS UNDERTAKING A STRATEGIC REVIEW AND CONSIDERS SELLING ITS ASSETS IN EGYPT. COULD YOU PLEASE EXPLAIN THE MAIN REASONS BEHIND THIS DECISION?

Dana Gas aims to maximize returns to shareholders as the strategic review of our Egyptian assets is part of a process to optimize our portfolio. The quality of our assets in Egypt are excellent and offer both existing production onshore the Nile Delta and exciting exploration growth potential both onshore and offshore. However, we need to compare our investment opportunities in Egypt against our assets in the Kurdistan Region of Iraq (KRI). Since we negotiated the Settlement Agreement with the Kurdistan Regional Government in August 2017, we are now once again in full growth and development mode. We believe that our two fields, Khor Mor and Chemchemal, are world-class assets with in place gas resources of 75 trillion cubic feet (tcf) and in place oil resources of 7 billion barrels. Dana Gas' share of the externally audited 2P reserves amounts to over 1 billion barrel of oil equivalent (boe). This is over 10 times the size of our 2P reserves in Egypt.

The Board has therefore decided, in light of the company's size and resource availability, that we need to evaluate whether we can best focus our attention on developing these massive resources in the KRI and whether the company can best realize value from its assets in Egypt through a sales process rather than continuing to hold them to maturity. In this context, it should also be recognized that the Egyptian government has done an incredible job under difficult circumstances to improve the country's overall macro-economic performance and outlook. Egypt is, once again, a favored investment destination, particularly for the oil and gas industry with significant recent exploration success, the enactment of liberalizing policies, and the potential for Egypt to become a regional gas hub.

WHEN DO YOU EXPECT A DEAL TO TAKE PLACE?

In keeping with the heightened industry interest in Egypt, we have been very pleased with both the number and quality of the companies that have expressed interest in our assets. They are now going through an evaluation and due diligence process and we hope to have bids on the table by the middle of November.

Egypt is clearly an important market for Dana Gas, as evident by investments exceeding $2 billion over a dozen years. Will you be looking for any future presence in Egypt, especially as the Egyptian petroleum sector is flourishing?

Since Dana Gas bought Centurion's assets in 2007, we have drilled 48 exploratory wells with a commercial success rate of over 60%. This has resulted in 30 new pool discoveries in the Nile Delta. We have more than doubled our 2P reserves over this period and increased production by 50%. We have not yet left Egypt, and in the meantime we are committed to continuing our operations in Egypt to maximize production and value for our existing shareholders, our stakeholders and of course, any future potential buyer. At the end of the day, Dana Gas may choose not to sell its Egyptian assets if it believes that the highest bid in an auction of the assets is less than what we believe the asset can generate for its shareholders in the long run.

COULD YOU TELL OUR READERS MORE ABOUT THE RECENT DEVELOPMENTS ACROSS YOUR PORTFOLIO IN THE EGYPTIAN MARKET?

The most recent developments in our Egypt developments have centered on Block 6, our North El Arish offshore concession. We drilled our first well, Merak-1 earlier this year which encountered over 36 meters of sand in its Miocene objective, although unfortunately they were not hydrocarbon bearing. Block 6, however, remains highly prospective as it contains three other material prospects, independent of the results of the first well which collectively have potential resources of 15 tcf. For example, there is the deeper, as yet untested Oligocene reservoir section in Merak, as well as the Galina and Thuraya prospects. Thuraya is a Zohr "look-alike" prospect containing a potential carbonate build-up, which has a very large closure area within Block 6. We, therefore, see a compelling case for continued exploration.

We also have plans for more onshore work during H2 2019, which would involve further work over activities on some of our existing development wells to optimize production and in drilling an additional exploration well in Block 3, with plans for further activities in 2020.

WHAT IS THE CURRENT RATE OF PRODUCTION IN YOUR EGYPT'S ASSETS? HOW MUCH DO YOU ESTIMATE THE COLLECTIVE RESERVES TO BE?

In the H1 2019, Egypt production averaged 34,100 boe/d. An independent survey carried out by Gaffney, Cline & Associates (GCA) showed that Dana Gas Egypt's proved plus probable reserves as of 31 December 2018 was estimated at 90 million barrels of oil equivalent (mmboe).

Do you intend to sell your sole offshore Mediterranean prospect separately from the Nile Delta onshore assets?

The aim of our strategic review is to deliver maximum return to shareholders by optimizing our portfolio. The Board has decided that if it goes through with a sale, it will do so through an auction process and such decisions will only be taken after offers are received.

AS PART OF A BROADER STRATEGY, THE MINISTRY OF PETROLEUM HAS REPAID A BIG PART OF THE COMPANY'S ARREARS. HOW DID THAT REFLECT ON THE COMPANY'S FINANCIAL POSITION IN THE EGYPTIAN MARKET?

We are pleased that the investment climate in Egypt has improved so markedly and that the Egyptian government is paying overdue receivables to oil and gas companies. Egypt's Ministry of Petroleum and Mineral Resources has made good progress in repaying Dana Gas's arrears. In H1 2019, we billed $58 million and collected $81 million payments, reducing our receivables to $117 million.

The reduction in receivables represents a 38% drop from year-end 2018 and is the lowest position we have been at since 2011. To give you an idea of how far we have come, in 2013 the company's receivables position reached over $300 million, which was equal to 30% of the market capitalization at the time. The repayment of arrears has helped us to accelerate our plans to exploit fully the remaining exploration potential in our onshore assets.

WHAT WOULD YOU SAY ARE THE MAIN ACCOMPLISHMENTS THAT DANA GAS HAS ACHIEVED IN EGYPT OVER THE PAST YEARS?

In the past 12 years, we have made tremendous progress in Egypt, most notable of which has been the fact that our 2P reserves have increased by over 120% and our production has increased by 50%. That has made us the fifth-largest gas producer in Egypt. Just as importantly, our activities and investments in Egypt's hydrocarbon sector has boosted this vital sector, aiding in the creation of thousands of jobs and generating billions of dollars of value for the Egyptian government. We are also very proud of our long history of Corporate Social Responsibility (CSR) initiatives that we have carried out in the areas in which we operate in the Nile Delta. We have particularly concentrated on enhancing medical facilities and services, provided educational support, local employment, and business development initiatives.

HOW LIKELY IS IT THAT WE WILL SOON SEE A MERGER BETWEEN DANA GAS AND ANOTHER COMPANY? DO YOU THINK AN ACQUISITION COULD PAVE THE WAY FOR A NEW COMPANY TO ENTER THE EGYPTIAN MARKET FOR THE FIRST TIME?

Dana Gas is always considering opportunities to improve shareholder returns and we will carefully consider all our options should a value enhancing proposal be put on the table. Dana Gas's Egyptian assets would be an excellent opportunity for a new investor seeking to enter into Egypt as they have the benefit of providing significant existing production with excellent exploration growth potential, managed by an existing team of highly dedicated and competent staff of whom I am very proud.

DANA GAS'S EGYPTIAN ASSETS WOULD BE AN EXCELLENT OPPORTUNITY FOR A NEW INVESTOR SEEKING TO ENTER INTO EGYPT.

OIL & GAS FIELD MEETS RENEWABLE ENERGY: A COMPARISON OF REGULATORY FRAMEWORKS

BY **RANA AL KADY**

The oil and gas sector in Egypt has come a long way over the past century, due to the country's advantageous geographical location, its well-developed infrastructure, as well as its potential for new resource discoveries. While there are various laws, agreements and regulatory frameworks to ensure that all attained resources are protected and used in a social, economic and political way, there remain some minor details that could be improved over the long run.

FRAMEWORK OVERVIEW IN THE OIL AND GAS SECTOR

By strengthening the regulatory framework, Egypt's oil and gas sector will have the potential to become more efficient in the future. Currently, the regulatory framework of renewable energy is quite solid in its strategy; as the sector is relatively new and an efficient regulatory framework is required. Nevertheless, should the oil and gas sector apply a similar regulatory framework, the sector would not only improve in its technical efficiency but also in its long-term plans.

It can be noted that Egypt's oil and gas Modernization Project aims to reform and develop the country's production and economic status by ensuring restructuring, which is under the umbrella of pillar number two. In fact, the Modernization Project will not only ameliorate Egypt's current output, but will also serve to accelerate the country's goal to become a regional energy hub.

REGULATORY FRAMEWORK IN RENEWABLE ENERGY SECTOR

It is important to recognize that the renewable energy sector covers many fields such as buildings, industries, and transportation. A regulatory framework is set up by looking deeper into each field in terms of the ways in which renewable energy can be implemented to improve the consumption of energy on a daily basis. For instance, one method used in the building sector to compensate for the investments in renewable energy is the implementation of Feed-in-Tariffs (FiTs). FiTs not only ensure price certainty, but also provide an efficient financial incentive that homeowners could benefit from in the long run.

There are other various international examples of efficient renewable energy regulatory frameworks in different sectors such as buildings, transportation, factories, etc. For instance, an example of efficient renewable regulatory frameworks is implemented in the United Arab Emirates (UAE). The UAE has stringent goals to achieve over the coming 50 years. As a matter of fact, the UAE aims to have Dubai's total energy mix to come from clean energy by a percentage of 7%, 25%, and 75% by 2020, 2030, and 2050, respectively. By implementing the above-mentioned example of stringent goals, the UAE shows, not only its scheme to strive towards a more environmentally-friendly future, but also expresses its support to increase the use of renewable energy in the country.

Another case study to consider is the regulatory framework and goals developed by Morocco. Due to Morocco's abundance in renewable energy resources, the country has developed demanding goals to achieve in the future. For example, by 2020 and 2030, Morocco aims to integrate renewable energy into its energy mix by 42% and 52%, respectively. This means that by 2030, just over half of the country's energy will come from a combination of renewable energy technologies. The legislative framework implemented to support these aims allows for the liberalization of the electricity market as well as regulates power production. These laws are set by the Autorité Nationale de Régulation de l'Électricité (ANRE) under the Moroccan Agency for Solar Energy (MASEN), from which most of the local renewable energy is harnessed.

Generally speaking, regulatory frameworks are constantly developed and amended over time to accommodate for any shifts in economic or social impacts. While renewable energy frameworks are implemented in Egypt, energy efficiency remains to be a topic that is rarely discussed. According to a report published by Regional Center for Renewable Energy and Energy Efficiency (RCREEE), there are currently no general legal framework for any projects particularly pertaining to energy efficiency. Energy efficiency regulations and policies play an important role under renewable energy, as such policies limit energy losses and regulate standards for renewable energy technologies.

In terms of renewable energy, however, Egypt aims to attain 20% of the local energy production from renewable energy by 2020. To support this goal, Egypt has implemented multiple approaches via tenders (which are owned by NREA during design and supply stages of the project), Build Own and Operate (BOO) projects, FiTs via the Egyptian Electricity Transmission Company (EETC), net-metering through grid-connected solar photovoltaic (PV) projects, and even Independent Power Producers

(IPP) to consume their own loads or even sell the excess loads to consumers. These approaches are vital to technically and economically support Egypt's future goals.

A COMPARISON: OIL AND GAS VS. RENEWABLE ENERGY REGULATORY FRAMEWORKS

The use of regulatory frameworks in the oil and gas sector is necessary to ensure that corporate social responsibility remains. Because Egypt strives for national environmental security, it is imperative that the oil and gas sector establishes an efficient regulatory framework even more than that of the renewable energy framework.

Moreover, it can be noticed that renewable energy regulatory frameworks are more updated due to its recent entry into the industry, as opposed to that of the oil and gas sector which has been around for longer with less frequent updates. As a result, there are evident differences between the frameworks in both the oil and gas sector and the renewable energy sector.

For instance, one main difference between both sectors is that while renewable energy projects are usually based on Build, Own, and Operate (BOO) schemes, the oil and gas sector mainly implements a 'concession system', in which case the contractor's ownership of such assets remains only until the stage where such assets are recovered once more.

Another main difference between the two sectors is the way in which prices are set. To be specific, in the renewable energy sector, it is the Ministerial Decree that decides prices of purchased power attained from any renewable energy-based project. However, in the oil and gas sector, the prices of crude oil may be altered based on international crude oil prices; while the price of natural gas is based on a mutual agreement between the purchaser and the seller.

Additionally, it should be noted that any items or equipment that are imported in the oil and gas sector will be relieved from any customs taxes or tariffs. However, in the renewable energy sector, the situation differs; any renewable energy technologies or equipment to be imported will succumb to a 2% customs tariff.

Consequently, the topic of taxes is different in both sectors. In fact, according to legal expert, Essam Taha, "Under the petroleum Concession Agreements, contractors shall not pay the income tax on its net profit and such taxes shall be paid by the national company on behalf of the contractor and shall be exempt from all taxes applied in Egypt. On the other hand, renewable energy projects have promising incentives that can be implemented under the Investment Law. In fact, such incentives will be deducted from the net taxable profits for a period of seven years from the starting date of the project." The deduction from the net taxable profits may range between 30% to 50% of the investment costs; of course, this percentage is dependent upon the geographical area in which the project is established.

Therefore, after carefully assessing the incentives granted to renewable energy projects, it can be concluded that the oil and gas sector's concession agreements have more advantages than those of renewable energy projects. This conclusion indicates there is always more room for improvement in both sectors and that each sector has its own set of advantages and disadvantages.

FUTURE RECOMMENDATIONS

There are various plans of action that have already been formulated for future work. In fact, the Ministry of Petroleum and Mineral Resources had announced during a conference in July 2018 that there are four main points that will be focused on in the long run. The first point includes developing the current legal framework, specifically Law 20, which stipulates the law that governs the Egyptian General Petroleum Corporation (EGPC). The second point discusses reassessing and redeveloping current concession agreements and/or any other forms of relations with International Oil Companies (IOCs). Thirdly, the restructuring of financial ownership between affiliates and state-owned entities is essential in the framework. The final point aims to attempt to integrate a single amalgamated plan as well as a financial statement that the oil and gas sector could include into the local budget. While these points may be difficult to achieve, their development will become beneficial to all entities once attained.

From a design perspective, there are also various areas in the regulatory framework that could be improved. For instance, the focus on value creation is imperative in order to ensure stability in the future. Value creation can be achieved through better efficiency of holding companies, assertive decision making throughout all the levels in an organization, and utilizing resources in an efficient way. It is also important to consider that establishing clear work flows expedites operational procedures and ensures role clarity. More importantly, establishing Key Performance Indicators (KPIs) enable sector companies to have clarity with regards to the tasks at hand and what should be expected of companies in the short and long run. These are examples of recommendations that could be implemented to help improve the regulatory framework.

In conclusion, oil and gas projects have different regulatory frameworks than projects in the renewable energy sector. This may not necessarily indicate any issues, but instead demonstrates the differences in the way in which regulatory frameworks are developed and implemented.

ERADICATING ARREARS AND ESTABLISHING MERGERS AND ACQUISITIONS

BY **MAI EL GHANDOUR**

For a long time, the government's temporary inability to pay all its dues to foreign companies has directly affected business transactions in Egypt. Mergers and Acquisitions (M&A) transactions were inevitably afflicted by these delays, too. However, as the government endeavors in reducing its arrears to International Oil Companies (IOCs), M&As are availing themselves of this opportunity.

THE GRADUAL PHASING OUT OF A LONG-STANDING ISSUE

The data of the Ministry of Petroleum and Mineral Resources reveals that receivables to foreign companies have been piling up throughout the years, to reach a culmination of $6.3 billion in Fiscal Year (FY) 2011/12. A BNP Paribas study on Egypt's petroleum industry showed that the accumulation of the Egyptian General Petroleum Corporation (EGPC) arrears to upstream investors at that time represented around 2% of Egypt's Gross Domestic Product (GDP).

Since then, receivables to IOCs have been strikingly decreasing over a period of about seven years. In FY 2012/13, arrears slightly declined, reaching $5.4 billion. But then in FY 2013/14, they bounced back again to around $ 5.9 billion. The petroleum sector succeeded in reducing these dues in FY 2014/15 to $3.5 billion. And then in FY 2016/17, foreign partners' receivables amounted to roughly $2.4 billion.

Between 2012 and 2018, Egypt had successfully decreased IOCs' arrears by more than 80%, reaching $1.2 billion in FY 2017/18. In February 2019, Egypt paid IOCs another $200 million, bringing arrears down to $1 billion.

Tarek El Molla, Minister of Petroleum and Mineral Resources, said in February 2019, "The efforts of several government agencies and the restoration of the confidence of our partners from IOCs through the reduction of arrears by more than 80%, are reflected by [IOCs'] continues effort and increase of investments in the past period."

In July 2019, the total arrears that the government owed to IOCs dropped to $900 million. This comes as a part of the government's plan to completely wipe out all arrears by the end of 2019. When El Molla was asked in 2016 when will the debt be fully retired, he answered, "We aim to pay off the rest of the dues in a timely manner to keep foreign investor confidence in the Egyptian economy as well as accelerate the development of discovered fields, therefore boosting exploration and development investments, and increasing production."

During the Egypt Oil & Gas (EOG) second Upstream Operational Excellence Convention, Martijn Murphy, Upstream Research Manager at Wood Mackenzie, highlighted the government's "great progress" in paying down arrears to IOCs and linked it to Egypt's high rate of M&As. Murphy further described the country as "one of the most active M&A markets" in the Middle East and North Africa (MENA) region.

A CLOSER LOOK ON M&AS

According to a 2019 report on Egypt's M&A outlook by Matouk Bassiouny and Hennawy Law Firm, published in the International Financial Law Review (IFLR), the year 2018 was a progressive one for M&As in Egypt, where numerous M&A transactions were closed especially in oil and gas downstream, petrochemicals, and renewable energy sectors.

Furthermore, there has been a growing trend among Exploration and Production (E&P) companies and investors to expand geographically and acquire financially distressed assets. And to do so, these companies are increasing their M&A transactions more than ever, as cited by a Deloitte report entitled 'Mergers and Acquisitions in the Oil and Gas Industry, and Current Upstream M&A Issues and Transactions Considerations.'

However, the report further elaborates that M&As in the region face many challenges as E&P companies may experience disruptions with National Oil

Companies (NOCs) or the government. That is why legacy risks remain an off-take agreement with all players involved in an M&A transaction, as buyers and sellers tend to have a hard time settling on pricing due to their different views on risk. Companies, therefore, must get acquainted with the relevant knowhow to make strategic M&As.

The confidential nature of oil and gas contracts in some Middle East countries can make this a little bit more challenging, though, as issues such as fiscal terms and royalty rates are limited to the public.

CREATING A MORE INVESTMENT-FRIENDLY CLIMATE

Speaking of the economic factors in the Egyptian context, the recent reforms have affected almost everybody, especially investors. Arrears have long turned some of the companies reluctant to continue their operations in Egypt, but this is no longer the case.

According to the chapter on Egypt made by Al Tamini & Company, in the Mergers & Acquisitions Review, published in 2018 by the Law Reviews, which provides business-focused legal analysis and insight in the most significant jurisdictions worldwide, the Egyptian government has taken measures and implemented policies that affect almost all types of businesses, with regard to M&A activities.

One of the authors of the report, Mohamed Gabr, Partner and Head of Corporate Commercial at Al Tamini & Company told Egypt Oil & Gas that because of that, M&As are quite improving in Egypt. "Arrears reduction have an indirect impact on M&As as it raises the confidence of investors for sure, and incentivizes investors to increase their activities in Egypt, especially in the oil and gas sector," Gabr said.

In light of the Ministry of Petroleum and Mineral Resources' strategic pillar of the Modernization Project, energy security, financial sustainability, and sector governance are high on the agenda of policy makers. These key reforms endorse Egypt's 2030 vision to build a modernized and self-sustainable industry. With that in mind, arrears reduction puts Egypt on the right track.

Esraa Ahmed, Senior Economist, told Egypt Oil & Gas that "clearing most of the arrears is definitely positive for the overall image, as it boosts investors' confidence. I think that putting arrears on a declining path, already restored investors' confidence. This was evident as the gas sector has been the largest recipient of Foreign Direct Investments (FDIs) during the past years (with around 65% of total FDIs since Q1 FY 2017/18)." Ahmed suggests that there is a low probability that the government would not stick to its plan and pay all its dues by Q4 2019.

Nevertheless, delays have not been totally eradicated yet. As there are always issues behind any deal such as taxes and liabilities, knowing how to do the legal process is more important than anything else. Besides, arrears are well protected by the Egyptian law, and no government in the history of the country has ever before taken a decision to not comply with the law.

WITHIN THE LAW

According to an article entitled 'Arbitration as a Dispute Resolution Mechanism in Mergers and Acquisitions' by Bernd D. Ehle, Lalive Attorneys-at-Law, M&As are almost by definition a complex business transaction, as they entail multifaceted agreements within multiple corporate entities.

It is inevitable that some M&As result in disputes that can only be resolved by a call for arbitration. Other simpler means of dispute resolutions include conciliation and mediation. However, Klaus Sachs, a well-known arbitration specialist, wrote that "nowadays arbitration agreements in international and national M&A transactions are rather the rule than the exception."

In Egypt, nearly 300 disputes with foreign investors had been resolved by 2016, and the remaining cases were already making good progress, as cited in a report on Egypt published by Oxford Business Group. It is important to note that the primary source for M&A financing in Egypt is equity, whether by self-financing from strategic investors, or capital-raising through various types of private equity funds.

M&A transactions in Egypt are governed by the Egyptian Law and mainly regulated by the Civil Code. There are two main codes relevant to M&As. First, the Companies Law 9 and its Executive Regulations, which govern corporate matters in relation to joint-stock and limited liability companies. And second, the Capital Market Law 10 and its Executive Regulations, which address several important corporate matters that include but are not limited to capital increases of joint-stock companies, public offerings of securities and takeover rules pertaining to publicly listed companies.

According to a new group restructuring provision in Law No. 11 of 2013, any capital gains resulting from mergers, demergers, or conversions are subject to tax. Meanwhile, there are other new laws that affect group restructuring, which also directly M&A transactions in the country.

INVESTMENT LAW

Any investment in the country is protected by the Law of Investment. The Law of Investment guarantees "all investments established within the Arab Republic of Egypt shall receive fair and just treatment." The new investment law also includes a dispute resolution mechanism based on international best practices.

The Law also ensures that foreign investors are treated equally and fairly as any national investor. Under a decree issued by the Egyptian Cabinet, an exception can be made to grant the foreign investor a preferential treatment in application of the principle of reciprocity.

In addition, the State shall permit all cash transfers with any convertible currency in order for foreign investments to be freely and promptly transferrable to and from the State.

THE NEW BANKRUPTCY LAW

Investors might turn away from investing in a given country due to the "High Risk Environment". The legal framework of bankruptcy, which is tainted by bureaucracy, high procedures cost and an overly long process, was one of those factors that made Egypt to be considered as a high-risk country for investment.

According to an article on Egypt's New Bankruptcy Law by published in 2018 by Toka Hassan, CRM Specialist at Sharkawy & Sarhan, for a long time, Egyptian bankruptcy regulations used to adopt an approach that deals with the bankrupt as a criminal. However, the new bankruptcy law introduces a new mechanisms such as reorganization. The new law establishes and regulates the reorganization processes within regimes, which creates a win-win situation for all the related parties in the bankruptcy process. Within the law's comprehensive reorganization procedures, the bankruptcy complex procedures are simplified to encourage non-viable companies to invest or continue their businesses in Egypt.

CASE STUDIES

According to a Letter of Intent sent to the International Monetary Fund (IMF) by the authorities of Romania, in addition to a Memorandum of Economic and Financial Policies of the authorities of Romania, in 2004, the Romanian authority identified nearly 22 companies to have unjustified increase in arrears. As a result, the Ministry of Finance along with state-owned companies enforced execution measures against the companies, among which is the second largest refinery, and insisted on opposing any kind reorganization, mergers and acquisitions. Furthermore, the energy sector worked on reducing its arrears as the ministry pledged to pay its historical debts of the gas distribution companies.

Another example is when an NOC in Nigeria, Nigerian National Petroleum Corporation (NNPC), made it a top priority to stick to its arrear payments as to encourage players in the industry to cooperate and invest with each other. During the 2019 Nigeria Oil and Gas Conference and Exhibition (NOG), NNPC Managing Director, Dr. Maikanti Baru, said that these cooperation further bolster investment opportunities, which translates into more M&As, pseudo equity type transactions, in addition to seismic acquisition and processing.

IPOS AS A CATALYST FOR INVESTMENTS IN THE PETROLEUM SECTOR

BY **MOSLEM ALI**

A number of leading petroleum sector companies are at the center stage of the government's Initial Public Offering (IPO) program. Market experts believe the IPO program will revitalize the Egyptian Exchange (EGX) by introducing new companies to the market, raising market capitalization, and allowing a better financing option to more successful companies, especially at a time when interest rates remain relatively high.

The Central Bank of Egypt (CBE) is committed to easing its monetary policy and lowering interest rates, supported by a cooling inflation, which will in turn reduce the cost of financing. Nonetheless, experts believe the benefits of the program will extend beyond allowing for new capital inflows to the participating companies, which are offering additional shares or being listed on EGX for the first time. The program could widen the base of ownership in public companies and encourage more people to invest in the stock market. It would also leverage the companies' performances, and enhance transparency and governance within the public sector.

EGX AND THE NEED FOR NEW IPOS

"IPOs are the main stimulus of the financial basis in stock markets around the world, and EGX has been in dire need for a similar vitality over the last years in order to attract more liquidity," said Mohsen Adel, former Chairman of the General Authority For Investment and Free Zones (GAFI)," who previously served as the EGX Deputy Chairman.

Radwa El Swaify, Head of Research at Pharos Holding, believes that that the IPO program should help boost the stock market, increase foreign investments, and raise public revenues, which in return will support the governmental budget.

Furthermore, the IPO program could definitely attract new national, Arab, and foreign investors into the market by diversifying the offered stocks. "Introducing new companies will help revitalize the market. New companies entered the market in recent years, but others have exited, so the volumes have stagnated for some time. We have around 230 companies, and many of the blue chips are mature companies that are more affected by market conditions rather than their own performance and this has limited opportunities in the market," Mohamed Reda, Solid Capital CEO, told Egypt Oil & Gas, noting that the program is set to be the biggest in Egypt since 2005.

RESUMING THE PROGRAM

Although the program was first announced in 2016, it has been delayed until earlier this year. In March, the first stage of the IPO program saw the offering of an additional 4.5% stake of Eastern Company; a company that was already listed on EGX and enjoys a dominant position in the local tobacco market that is mostly price inelastic, which gives an additional advantage.

Nevertheless, Minister of Finance, Mohamed Maait, has negated delaying the IPO program all together, telling reporters on the sidelines of the recent Euromoney Egypt Conference that it could be resumed soon.

Likewise, the Financial Regulatory Authority (FRA) revealed, in a press event, that four IPOs are expected before the end of the year. The four potential IPOs include two public sector companies, as well as a private sector company with a capital of more than EGP 2 billion, and a medium-sized EGP 50-million company that targets listing on the Nile Stock Exchange (Nilex).

Current market conditions, from the CBE lowering interest rates to a relatively improved situation in emerging markets, allow for continuing the government IPO program now. El Swaify agreed, but weighed down the effects of the global markets situation on the Egyptian financial market since market dynamics now have a bigger role.

Meanwhile, Reda emphasized that choosing the proper time to launch the program is crucial. This comes after settling on the program's final list of companies and the governing body, with different roles by the Ministries of Finance, Investment, and Public Business Sector, as well as the manager of the program could help revive the program.

Reda went on to explain that it all starts with promoting the program, perhaps through an international roadshow, then comes pricing, with a proper fair value evaluation proving to be an essential component in the success of the program. "Discounts could be offered to investors to attract more investments. This could be through a book building," according to Reda.

Lower interest rates and clarity regarding the future of the stamp and capital gains taxes that increase the cost of investing are also essential before resuming the program, Reda noted. He then added that the program will succeed by making one company the pilot for the program, as its success would entice the investors' appetite towards the later offerings.

PETROLEUM SECTOR IPOS

The petroleum sector has recently been the nation's main attractor of foreign direct investments. Egypt topped African economies in terms of Foreign Direct Investment (FDI) inflows during 2018, for the second year in a row. This came despite an 8.2% decline compared with 2017, and was mainly driven by investments in the booming Egyptian oil and gas industry, according to the United Nations Conference on Trade and Development (UNCTAD) World Investment Report 2019.

An agreement was reportedly signed in October 2018 to choose a consortium led by CI Capital, alongside Jefferies International and Emirates NBD, to manage the IPO of the Engineering for the Petroleum and Process Industries (ENPPI).

Listing the company on EGX, for the first time, is set to involve offering 24% of the stake owned by the Egyptian General Petroleum Corporation (EGPC). The deal is set to generate an expected return of around $100-150 million, according to market experts.

Enppi was established in 1978 and has expanded into more than 15 countries around the world, with operations ranging from onshore and offshore projects in the oil and gas industry to refining and petrochemical industries. Over the course of more than four decades, the name of Enppi grew into an internationally renowned provider of fully integrated engineering, procurement, and construction (EPC), and project management services.

Adel expects new IPOs, like Enppi's, to revive EGX and attract individual investors. Having new companies from various sectors, such as the petroleum industry, increases the appeal of the stock market to old and new investors, thus reviving EGX and increasing the market capitalization.

On the other hand, El Swaify believes that "It is not only about the sector, as much as it is about the company itself. We need large cap companies with large free float percentage, strong management and vision, and a strong financial performance. If more of these companies are listed, then foreign investments will increase."

For petroleum sector companies like Enppi, it will not only be about the IPO, as it would allow a sustainable financing option, through capital hikes or offering of additional stakes. Moreover, the standards that listed companies are obligated to follow would definitely help develop the listed companies, by introducing new governance models and enhancing transparency. If any company fails to clearly reveal its financial results and performance indicators to investors and the general public, the company could face penalties from regulatory authorities, Reda stated.

ECONOMIC IMPACT

With the petroleum sector being the main destination of FDI in Egypt, and foreign investments in debt instruments projecting investors' confidence, listing more petroleum sector companies could help attract more investments to the Egyptian stock market.

"New listings on the stock market are at the core of the developmental and financing role played by stock markets to increase the economy's added-value. It takes bourses from being merely speculation markets to an economic framework, which creates a new climate that directs savings to funding developmental and expansion projects, in line with the broader economic system," Adel explained.

"It can increase private sector involvement in the management of these companies, which might add a strategic value," El Swaify further noted, pointing to the enhanced governance and transparency.

"The government targets around $5 billion, which would help EGX enter into a new stage, and with the IPO program, the Egyptian government is revamping the public sector through a new model. Listing a number of the public sector's most successful companies and using revenues to restructure the less successful companies, without any additional burdens on the budget would greatly benefit the Egyptian economy at large," Reda explained.

Experts agreed that the IPOs would send a message to Arab and foreign investors that the Egyptian Exchange is still maintaining its dynamism, supported by a stable financial market. Meanwhile, introducing new investors to the petroleum sector could have financial and strategic benefits, in line with the ongoing Modernization Project that is reshaping the industry as the main driver for a sustainable economic development in Egypt.

EGYPT'S OIL AND GAS MERGERS AND ACQUISITIONS: A PROPELLING POTENTIAL

BY **DINA EL-BEHIRY**

Thanks to the prosperous state in the Egyptian oil and gas industry, the investment climate has altered accordingly. In fact, the current state has attracted many International Oil Companies (IOCs) to implement new projects or even expand their current investments. As a result, the Mergers and Acquisitions' (M&As) transactions in Egypt have witnessed a boom recently.

According to MergerMarket, the value of M&As in Egypt increased from $389 million in 2017 to $1.5 billion in 2018, resulting in an overall increase by nearly 286%. The main driver for such an increase was due to the several deals made in the energy, mining, and utilities sectors. In fact, in 2018, 14 new deals were reached compared to the 10 that were attained in 2017. Moreover, Egypt's share of M&A deals in the Middle East and North Africa (MENA) has increased to 6.3% in 2018, from 2.5% in 2017.

Nevertheless, it is worth mentioning that Mubadala's acquisition to 10% of Eni's shares in Shorouk concession marked one of the most highlighted transactions in 2018. Moreover, in 2019, Mubadala made an agreement with Eni to buy a 20% stake in the Noor offshore concession, in which Eni owns 85% stakes and the remaining 15% is held by Tharwa Petroleum. On the other hand, the economic reforms Egypt has been going through helps push M&As forward, which will motivate more investors to share the benefits of these reforms.

MAJOR M&A TRANSACTIONS

It can be agreed that the overall growing confidence in the Egyptian oil and gas industry has helped initiate M&A deals; 2019 was a proof of that.

One of the most important and recent deals was the merger between Wintershall Holding GmbH (Wintershall) and DEA Deutsche Erdoel AG (DEA). The merger was completed on May 1, 2019 and it established a new company under the name of Wintershall Dea, with headquarters located in Kassel and Hamburg. Wintershall Dea possesses the Exploration and Production (E&P) rights in 13 countries around the world.

United Oil and Gas PLC (UOG) announced its plan to acquire Rockhopper Exploration PLC for $16 million. The deal included a non-operated 22% interest in the Abu Sennan concession in Egypt, in addition to the other existing assets. The transaction comprised a deposit of $300,000, payable on the signing of the sale and purchase agreement, while a further $15.7 million is due upon completion of the transaction. The acquisition is supposed to deliver over 1,100 barrels of oil equivalent per day (boe/d) of net low-cost production with 2.64 million boe net 2P Reserves to UOG.

Energean Oil and Gas inked an agreement to acquire Edison for $750 million. In addition, Energean will pay another $100 million after Italy's Cassiopea field commences operating in 2022. The acquisition of Edison E&P comes in line with Energean's strategy of creating a leading independent, gas-focused E&P company in the Mediterranean.

Dragon Oil, a subsidiary of the Emirates National Oil Company (ENOC), agreed with BP to acquire its stake in the Gulf of Suez Petroleum Company (GUPCO). The deal is expected to be completed after obtaining the Egyptian Ministry of Petroleum's approval in H2 2019. Dragon Oil has considered the deal as part of its strategic priority to expand internationally. In fact, the company has been working on enhancing GUPCO's production assets to exceed the level of 75,000 barrels per day (b/d) through increasing drilling activities and investing in modern technologies to sustain this level for the next ten years.

Furthermore, United Energy Group Limited (UEG) completely acquired Kuwait Energy PLC for more than $650 million. The deal was inked on September 23, 2018, and wrapped up in March 2019. Kuwait Energy holds a working interest of four licenses in Egypt, one of which is governed by a service contract and the other three are governed by production-sharing contracts (PSCs), in East Ras Qattara, Abu Sennan, Burg El Arab, and the Eastern Desert.

SOCO International Company completed the acquisition of Merlon Petroleum El Fayum Company from Merlon International for $136 million in cash, in addition to issuing 65,561,041 new ordinary shares of SOCO to Merlon International. The shares are supposed to be issued with an obligation for Merlon to distribute them between its shareholders within 30 days.

Delek Drilling was seeking to acquire stakes in Egypt's liquefication plants, either Idku or Damietta, to expand its export footprints. Moreover, Delek is considering buying capacities in the two plants instead of acquiring equity stakes. Yet, according to Bloomberg, the Ministry of Petroleum and Mineral Resources representatives did not comment on the matter.

Another deal was made by Inpector Capital BV which announced acquiring Scimitar Production Egypt Ltd to invest in the Egyptian oil and gas sector. The company considered the acquisition of Scimitar as the first step towards new prolific investments.

Furthermore, many M&A deals were made throughout 2018. Noble Energy, Delek Drilling and Egypt East Gas Company acquired a 39% stake in the Eastern Mediterranean Gas (EMG) Company, which owns the subsea EMG pipeline that runs from the Israeli city of Ashkelon to El Arish on Egypt's north coast. The consortium would pay $518 million for the stake; Delek and Noble would provide $185 million each while Egypt East Gas paid the remainder. The agreement could allow the consortium to export natural gas from Israel's Tamar and Leviathan fields in the Mediterranean to Egypt's liquefication facilities.

ADES International Holding Company received a $450 million loan to finance its acquisitions. The European Bank for Reconstruction and Development (EBRD) provided ADES with around $125 million as a part of the total loan value. The loan marked the company's strategy to expand its onshore and offshore drilling fleet in Egypt and the MENA region.

In 2017, many transactions took place as well. The Egyptian General Petroleum Corporation (EGPC) acquired Maersk Drilling Company's 50% stake in the Egyptian Drilling Company for $100 million in cash. Moreover, Total announced the purchase of a 5% stake in the first train of the Liquefied Natural Gas (LNG) project in Idku from French Engie. The agreement was part of a larger transaction worth up to $2 billion that also included other assets in the US, Africa and Europe. Another remarkable deal was by Rosneft in the acquisition of Eni's 30% stakes in Zohr gas field for $1.125 billion. Furthermore, GlobalConnect acquired 25% stake in the Abu Sennan Concession after being approved by the Egyptian government.

Additionally, Cheiron PICO acquired 50% of Sahara North Bahariya Ltd, which owns North Bahariya Concession in the Western Desert. Cheiron paid $83 million to EFG Capital Partners. Besides, Cheiron acquired 100% of French Engie's West El Burullus gas concession, which is located in shallow offshore Mediterranean waters. The company planned to increase the production capacity to reach 100 million cubic feet per day (mmcf/d) in 2020.

In 2016, SDX Energy acquired 300 km^2 of 3D data on the South Disouq asset, located onshore the Nile Delta in Egypt. In 2015, Sea Dragon announced a merger deal with Madison PetroGas, creating a stronger company named SDX Energy.

The oil and gas industry witnessed and will continue to observe many M&A deals. According to Wood Mackenzie, there are many reasons for supporting the occurrence of such deals. One of the main reasons is that the financial position of the oil and gas sector is getting better as the companies' balance sheets are strengthening and costs are under control. Another important reason is the companies' high grading portfolios which will continue to feed the market assets, leading more deals to be formed in the future. For these reasons, according to Wood Mackenzie, the main message for companies that are looking to expand their businesses is that investors will continue to support M&As as long as financing these deals will not negatively impact the businesses and will add to their portfolios.

The M&A deals formed in the Egyptian oil and gas industry could only prove that Egypt is becoming more and more noticeable on the business map by many investors as a potential upcoming destination for future projects.

MERGERS AND ACQUISITIONS IN THE ENERGY SECTOR: AN INTERNATIONAL DIRECTION

PREPARED BY **DINA EL-BEHIRY**

In conjunction with the advancements in modern economic systems, international companies have begun to shift to mergers and acquisitions (M&As). In fact, many companies engage in M&As to exterminate non-profit assets and expand their businesses. Therefore, the world witnesses an upward movement of M&A activities, playing a pivotal role in the integration of national economies. However, because many issues may arise from wrong decisions, managers should be aware of all pros and cons that come with the entire M&A package.

An interesting sample paper discussing the topic of M&As entitled 'Global Trends of International Mergers and Acquisitions in the Energy Sector' in 2017 discusses M&A related patterns that occurred over the past decade. The paper was written by Professor of International Management Department of SHEE, Liubov Galperina and co- authored by Master of International Economics of Department of International Management of SHEE, Yuliia Klen.

The study aims to determine the global trends for M&As of international companies in the global market energy sector in the context of energy market transformation. As a result of the beneficial changes in the energy market, more M&A deals have taken place.

OVERVIEW OF M&AS

M&As are considered to be a growth strategy that companies implement, either through combining two or more firms or one firm takes over the other. According to the Institute for Mergers, Acquisitions and Alliances (IMAA) statistics, the value and number of global M&A deals constantly increases every year. However, trends tend to vary on an annual basis. For example, while the number and value of M&A deals increased from 1995 to 2000, it decreased significantly between 2001 and 2003 due to global economic and financial crises. Despite this, it is worth noting that the value of M&A transactions started to increase again from late 2003. In the same decline occurred once more between 2007 and 2008, with restoration continuing in 2010.

Nevertheless, the M&A processes were revived between 2004 and 2015, with the improvement of the economic situation in the developed countries; this means that the advancements in the economic field have increased companies' abilities to revive and engage in more M&A deals. Many important M&A deals were made in different fields such as telecommunications, pharmaceuticals, oil and gas, food, and even the financial sector. When it comes to the energy sector, the share of M&As was around 13.7% of the total value and about 7.2% of the total number of deals took place between 1985 and 2015.

AREAS OF TRANSFORMATION IN GLOBAL ENERGY MARKETS

M&As have certain features that depend greatly on the development of energy. The progress of certain areas of the energy sector shed light on the sector as an attractive industry for the investors. Accordingly, the transformation of the international energy market impacts the attraction of more M&A deals to be formed in the energy sector.

Another factor behind the shift in M&A deals is the new global program for ensuring a sustainable future and the goals of sustainable development by 193 United Nations (UN) member states in 2015. Additionally, a modern factor is included in the energy market transformation, which is the implementation of the Smart Grid concept in energy power systems. The introduction of Smart Grid technologies helps facilitate optimizing electricity supply, which will reduce energy firms' costs.

The transformation in the energy market can be measured by PESTLE analysis. The PESTLE provides a framework to analyze the factors affecting the performance of the organization. Such kind of analysis is practiced when a new business starts. The PESTLE analysis is based on Political, Economic, Social, Technological, Legal and Environmental factors. These factors impact the efficiency and future of companies engaged in M&A deals. Moreover, the PESTLE analysis consists of external factors that allow for the facilitation of the decision-making processes.

INTERNATIONAL M&AS IN THE ENERGY SECTOR

The value and volume of M&As in the world energy sector is gradually increasing, according to IMAA. Yet, the M&A market in the energy sector is contingent on the general laws related to M&As. Therefore, if the global market is in decline, the value of M&As and volume will experience the same decline as well.

The M&As have many influential features that must be considered. Firstly, the M&A transactions take into consideration national energy and environmental safety to maintain sustainable development. Secondly, the M&A transactions may require longer preparation time in order for significant capital investments to take place in certain areas. Thirdly, each

division in the energy sector is in need of vertical integration; vertical integration allows companies to control processes, reduce overall costs, and implement the transaction efficiently.

It is worth mentioning that in 2016, the value of M&As reached around $292.7 billion, of which $148.7 billion come from the electric power industry, $106 billion from the gas sector, and $38 billion from the renewable energy. Yet in 2015, there was a decline as the M&As value amounted to only $199 billion, of which $84 billion came from the electricity sector, $59.8 billion came from the gas sector, and $55.3 billion came from the renewable energy sector.

Among the different sectors of energy, the oil and gas industry witnessed the most valuable M&A transactions. In 2015, one of the largest transactions occurred between the Dutch-British oil and gas company Royal Dutch Shell Plc and the British gas company BG Group Plc, with a value of $81 billion.

PROSPECTS FOR INTERNATIONAL M&AS DEVELOPMENT

Future M&A deals are expected to be affected by the general global economic conditions; in particular, the conditions of the countries from which operations take place. Moreover, M&A deals are affected by technological developments, as well as environmental policies.

Additionally, energy consumption is expected to increase by 34% from 2014 to 2035 in the Organization for Economic Co-operation and Development (OECD) countries, according to the BP Energy Outlook 2016 report. Additionally, according to PricewaterhouseCoopers (PwC), M&As in the energy sector are forecasted to be positive despite the anticipated deceleration in the growth of the four largest emerging markets (Brazil, Russia, China and South Africa) due to geopolitical risks. Besides, the report of the World Energy Outlook 2016 of the International Energy Agency predicts an increase in energy demand by 30% by 2040, and therefore more investments, amounting of $23 trillion, are expected.

When it comes to renewable energy, a forecast scenario under the Paris Climate Agreement plans to produce 60% of electricity from renewable energy sources by 2040. In addition, annual gas demand is anticipated to grow by 1.5%, while the United States (US) and the European Union (EU) demand from coal will decline in 2040 by 40% and 60%, respectively. Accordingly, the Paris Agreement sees the importance in increasing the use of renewable sources and to invest in more efficient production of energy from oil and gas with low carbon emissions. By doing so, it would be meaningful to conduct M&As in the field of renewable energy, as well as oil and gas.

CONCLUDING REMARKS

The transformation in the world energy market represents the main reason behind the tendency to M&As. Therefore, implementing several M&A deals as a strategy to increase the competitiveness led to bolstering the number and value of such type of deals.

According to the revealed trends, the share of cross-border M&As is expected to surge in the future. Nevertheless, developed countries of Western Europe, North America, the Asia-Pacific region, the developing countries of Central and South America, and some African countries are expected to be the main regions of M&As growth.

THE SOUTH CHINA SEA AND THE CHINESE FOREIGN POLICY

BY **MAI EL GHANDOUR & TASNEEM MADI**

For the past few years, China has been garnering great power potential which is reflected in its assertive foreign policies. China's persistence on dominating the South China Sea (SCS) has resulted in territorial disputes with its neighboring countries and has become a threat to both regional and global energy security. These ongoing disagreements have become "a focal point for big power rivalry", and their repercussions stretch beyond the region.

In essence, Beijing is seeking to be a "big brother" by limiting the rights of Brunei, Indonesia, Malaysia, the Philippines, Taiwan, Thailand, Vietnam and other claimants to exploit the potentially extensive underwater oil and gas resources in the SCS. According to US Secretary of State Mike Pompeo, China is preventing Southeast Asian nations from accessing more than $2.5 trillion in recoverable energy reserves.

It became clear that China is unwilling to adhere to the United Nations Convention on the Law of the Sea (UNCLOS), which is an international law that protects coastal countries' rights, obligations and usage of hydrocarbon resources. As China began to turn a blind eye to the UNCLOS, the country continues to base its claim to sovereign rights in SCS on the nine-dash line, which is a resource-rich U-shaped stretch of water that reaches 2,900 kilometers (km) off of mainland China. This move strongly confines oil exploration activities in the region, and leaves oil and gas ambitions in a delicate situation, where other countries might have to search for oil and gas beyond the SCS.

"BELT ROAD INITIATIVE" (BRI); WHERE THE STORY BEGAN

China's "Belt Road Initiative" (BRI), was launched in 2013, receiving international attention as a global economic and strategic project. The project includes a section dividing transport sources into five corridors across land and sea routes; one of them is the Western Sea Routes extending from the Sea of China to the Indian Ocean. The project aims to improve connectivity on a transcontinental scale, focusing on SCS and tackling its issues. The BRI transport conditions seek to substantially improve trade, foreign investment, and living conditions for citizens in participating countries.

WHY IS SOUTH CHINA SEA IMPORTANT?

Firstly, the SCS covers an enormous part of the Pacific Ocean with an area of about 3.5 million km^2. Moreover, SCS includes two significant commercial transit routes: the strait of Malacca and the Taiwan strait.

Secondly, the total crude oil reserves in the sea was estimated in 2016 to be more than 11.3 billion barrels and natural gas reserves were estimated to reach more than 190 trillion cubic feet (tcf).

Thirdly, SCS is a major route for crude oil shipments and trade, where more than 30% of the global maritime crude oil moves through the sea. Crude oil shipments passing through the strait of Malacca represent 16% of the global maritime trade. Oil trade is about 15 times more than that in Panama Strait, according to US Energy Information Administration's (EIA) data, published in 2016.

Fourthly, the Sea is important for the Middle East, which accounted for more than 70% of total SCS's crude oil shipments in 2016. Total trade value for shipments passing through SCS in 2016 reached $3.37 trillion. Thus, 40% of the global Liquefied Natural Gas (LNG) is transited through the sea in 2017, according to Global Conflict Tracker official website, in September 2019.

NOCS ROLE IN THE SOUTH CHINA SEA

As a part of its nationalist movement, China has been resorting solely to its local resources to reinforce its sovereignty and its image as a great power. Thus, it comes as no surprise that the country heavily depends on National Oil Companies (NOCs).

China declared that all cooperation to develop resources in SCS should be between Chinese NOCs and the “outside countries”, forcing other claimants to enter into Joint Ventures (JVs) with Chinese state-owned oil companies.

As a result, Exploration and Production (E&P) by other NOCs in the region has been hampered as Chinese NOCs interfered in all activities.

IOCS’ ROLE – OR THE LACK THEREOF

China’s ambitions to take over are directly affecting other oil companies’ activities in the region – and the lack thereof.

According to Andrew Harwood, Research Director at Wood Mackenzie, Singapore, International Oil Companies (IOCs) can no longer ignore the fallout from this burgeoning geopolitical squabble. "Red Emperor, which we expected to produce around 25,000 barrels per day (b/d) at peak, would have been a fairly material project for Vietnam in terms of bringing new oil production on stream. The project would have boosted Vietnam's oil output by 15%," Harwood said.

Other IOCs’ have been restricted to operate in SCS or had their activities blocked. For instance, Spanish oil major Repsol has been close to developing a new discovery in SCS and bring it on stream, but has been strictly prevented from doing so. Russia's state-held Rosneft has also been restricted from drilling after the company had acquired a block off Vietnam, which lies within the area outlined by China’s nine-dash line.

The author of the South China Sea, Hayton, further says that IOCs are looking at new investments in Indonesia, Malaysia or Brunei would probably face many challenges that they would have to think twice before even considering any investments with such a risk.

IS CHINA MANIPULATING TRADE TO DOMINATE THE SEA?

China has a dominating international influence through its trade policy, depending generally on its relations with countries on soft power. However, China’s persistent efforts on developing and modernizing its military and tackling a different strategy, especially in SCS, are creating worries for the world countries.

"In theory, none of this should be happening as Vietnam and China have both signed and ratified UNCLOS," says Bill Hayton, an associate fellow at think tank Chatham House's Asia-Pacific program, and author of The South China Sea book. Hayton further explains that "China has not ever made the nature of its claim exactly clear, and this is part of the problem."

China considers SCS and most of the islands within its sovereignty, based on its right to extend its sovereignty over 12 nautical miles, and considers it territorial waters not to be violated.

CHINA AND THE US CONFLICT

SCS plays a pivotal role in commercial navigation for both the US and China. China’s militarization in SCS threatens US interests, trade and power in the region. The Chinese aggressive acts might weaken some important international agreements. One of the US major geopolitical concerns is China’s rise, as China’s Gross Domestic Product (GDP) exceeds that of the US. SCS is used by American companies for goods transportation.

CHINA AND INDIA’S STRUGGLE

South Asia is known for its Indian-Chinese rivalry, with each seeking to expand its influence. There are frequent disputes between them in SCS on oil and gas exploration.

Moreover, China has used Pakistan to prevent India’s rise by establishing the China-Pakistan Corridor and applying other rival strategies.

CHINA AND VIETNAM’S ISSUE

China hacked the Vietnamese waters, targeting the country’s oil and gas. Thus, a large crane ship owned by the China National Offshore Oil Corporation (CNOOC), is used to install oil rings in SCS, moved towards Vietnamese Exclusive Economic Zone (EEZ). It turned out to be a border dispute.

BRUNEI, INDONESIA AND MALAYSIA’ CLAIMS AGAINST CHINA

For almost the same reasons of the Indian-Chinese rivalry, the Malaysian-Chinese disputes exist, lying in sovereignty and trade. About 99% of Brunei is owned by Indonesia and Malaysia. China is trying to control Brunei to influence SCS effectively. Moreover, about 80 % of China’s oil imports passes through the strait of Malacca, in Indonesia then passes by SCS to reach China.

WHICH POWER WILL DOMINATE THE SOUTH CHINA SEA?

SCS issues are complicated, due to the overlapping claims, the large number of states involved, regional security, diplomatic and political issues and the economic interests of the states concerned. The present conflicts will be a factor of instability and misunderstanding between countries and will therefore greatly affect any economic and commercial project in general and the Chinese BRI as well.

China is strained in relations with many of its neighbors with the aim of gaining political, geographical and economic influence. The main BRI benefits is to enhance regional stability and improve China’s energy security. As a positive sign, China’s main declared goal towards the sea is to preserve stability and to resolve all disputes.

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MODERNIZING PROCESS SAFETY MANAGEMENT: SHARING THE VISION

BY **DINA EL-BEHIRY & MAI EL GHANDOUR**

Methanex's vision of sharing the company's own journey towards safer processes, assets and operations, demonstrates commitment to Responsible Care, and to safety within the petrochemicals sector. Methanex Egypt, in partnership with the Egyptian Petrochemicals Holding Company (ECHEM), held the second Process Safety Management (PSM) Conference to highlight the topic's importance within the oil and gas sector. This year's version of the conference was titled 'Modernizing Process Safety Management: Sharing the Vision', was held on September 9, 2019 at the JW Marriott Hotel. The conference was held in attendance of ECHEM Chairman Chemist Saad Helal, Methanex Egypt CEO and Managing Director Mohamed Shindy, as well as more than 350 key leaders and top executives from the petrochemicals and downstream oil and gas industry.

Additionally, the event presented keynote speakers including President of the Institution of Chemical Engineers and Chairman of the UK's Control of Major Hazards (COMAH) Strategic Forum Ken Rivers, Senior Principal Consultant in BakerRisk's Process Safety Group Mike Broadribb, and Director of Process Safety Management at Methanex Corporation Jason Clement.

Inaugurating the event, Helal delivered the opening remarks welcoming the conference's guests, and seized the opportunity to point out the increase in the number of attendees in this year's PSM conference. Helal noted that, "the companies' performance is getting better thanks to the clarified vision we have now which determines our upcoming steps and what we need to develop to cope with the PSM standards we seek reaching."

Helal delivered a message on behalf of H.E, Eng. Tarek El Molla, Minister of Petroleum and Mineral Resources to conference attendees. "During last year's workshop which was attended by over 300 of key industry leaders, our discussions began raising the importance of developing the process safety system within the sector's companies to be in line with the vision of the Ministry of Petroleum and Mineral resources and to cope with the international standards," Helal said on behalf of El Molla. It was also noted that these discussions tackled different elements of process safety and various PSM standards, which, in turn, could lead to envisioning a road map for the future of PSM development.

Helal pointed out that this fits with the Ministry's vision for safety within the sector, adding that "the Ministry of Petroleum and Mineral Resources launched a program to enhance the abilities of the oil and gas sector's young employees who are working in safety and health management, as part of the Modernization Project, to develop young calibers. The program included 74 engineers and chemists from different companies. The participants of the program completed the first phase which allows young calibers to cope with the sector's development."

Concluding the minister's speech, Helal pointed out the minister's key message stating that "today's conference aims to continue the discussions and to exchange experiences to provide recommendations for process safety management."

The conference continued with Mohamed Shindy presenting the conference's welcoming speech, in which he thanked all the guests and speakers for attending. It was also pointed out that "this [conference] comes as a reflection of our commitment to sharing our own vision towards safer processes, assets, and operations," Shindy noted.

"Methanex Egypt and many petrochemicals companies are already on a journey to adopt and embed PSM within our systems. Process safety will only be achieved in our sector when we work together as industry leaders through standardizing sharing experiences and lessons learnt and starting rich discussions and initiatives that help create a solid PSM commitment and culture within our sector companies," the CEO further noted.

LEADERSHIP IN PROCESS SAFETY

Ken Rivers presented the first session of the conference, highlighting leadership as a cornerstone of the PSM development and change within the sector, and "ensuring leaders aren't blind-sided by catastrophic risks and what they can do to make the difference."

"For me, when I talk about process safety, I do not just talk about the intellectual understanding of a business issue. I talk about the emotional and deeply profound meaning of actually keeping people safe," Rivers said. Rivers continued to mention that "the interesting thing is by now, with all that learning, we know how to prevent these accidents from happening," adding that "if you do that continuously, consistently and comprehensively, then you will avoid these accidents that can destroy your business."

Rivers mentioned that as "for the vast majority of us, we have to get hold of safety, and with an improvement engine, you learn how to move from unconscious competence to conscious competence." Rivers pointed out that the unconscious incompetence is a state of mind where everything is in a fantastical state, yet "when I take a mission and the results of it were not as expected, the mind moves to a state of conscious incompetence where I have to think about what I am going to do at this stage. Then, after putting processes, procedures and systems in place, we move to the conscious competence. But this is not the end of the journey as the mind can move to a state of unconscious competence because of values, behavior and mindset", Rivers stated.

During his presentation, Rivers also stressed the importance of the principles of process safety leadership; that process safety leadership is at the core of managing a major hazard business and is vital to ensure that risks are effectively managed. Moreover, engagement of the workforce is needed in order to achieve satisfactory levels of process safety management. Additionally, sharing best practices across industry sectors and learning lessons from relevant incidents in other organizations, are important to build and learn from past corporate knowledge and competence.

Rivers continued, mentioning the mental model where "good practice = common practice," noting that one of the main challenges faced that "we end up talking to the already committed, but the question is how do we reach people not in the room?" Thus, outreach presents one of the most important issues as we need to communicate both horizontally and vertically throughout the organization hierarchy, until new information becomes relevant to all major hazard operators. Additionally, better understanding is necessary to eradicate the barriers to involvement, engagement and the spreading of good practice.

Concluding his presentation, Rivers noted one must not wait for the next incident to happen, rather one must make good practice the everyday common practice.

PROCESS SAFETY AND CULTURAL LESSONS

Mike Broadribb presented the second session tackling process safety and cultural lessons from major incidents. Broadribb witnessed the occurrence of catastrophic disasters in some of

the petroleum and chemical industries, stated that "that is why I am passionate, like Ken, about process safety because I want to try to make a difference, so I spent a lot of my time investigating why these things happen and to help companies avoid them" Broadribb affirmed that the lessons learnt from those incidents are equally applicable to all operations.

Broadribb continued to state that "some of the other lessons [learned] were the enhanced leadership competencies and empowerment" of which leaders and each staff member has to be ready to deal during any state of emergency to handle it successfully. Furthermore, Broadribb added that he "would like to see our operators empowered to stop work whenever they feel it is unsafe," stressing that, "you can never get risks to zero, but we need to lower it as much as we can."

At the end of his session, Broadribb pointed out that "incidents have an impact on workforce and authority," clarifying that human factors influence incidents, and the success of incidents' investigation.

Jason Clement delivered a session entitled 'Sharing Learning from our own Journey,' discussing safety evaluations, which encompass potential scenarios of major accidents, adequacy of safeguarding measures, appropriateness of management system, and emergency awareness. Clement highlighted the importance of engaging senior leaders in process safety by stating, "what I have focused on in Methanex to get our leaders more engaged in process safety is helping them to understand how their role influences process safety and therefore what they are accountable for because we are accountable for our influence". Clements continued, adding that "process safety is not something that we can delegate, we cannot say process safety engineer or process safety function, we all are responsible for the influence that we have on process safety management."

Moreover, Clement mentioned that Methanex was working on "helping our leaders to understand exactly what we want to create in terms of organizational capabilities". Clement stressed that leaders, "need to have a systematic program of activities in our business that is looking into what we do and how we do it to understand what are the hazards we find in our business." Clement noted that leaders need to understand risks scenarios that result from these hazards to bring these risks down to a level where we feel safe afterwards.

Clement concluded his session by pointing out that Methanex has encouraged "many senior leaders to engage in the topic of process safety and they are driving the development of the organizational capabilities", over the course of the last 18 months.

ELNG JOURNEY TOWARDS PSM

The conference continued with Mohamed Magdy, QHSE Senior Managements at the Egyptian Liquefied Natural Gas Company (ELNG), presenting an informative session on the journey of ELNG entitled 'ELNG Journey Towards Process Safety Management.'

Magdy showcased the historical journey of ELNG in creating a well-established process safety management system. From 2002-2004, the project implemented the UK safety approach, which resulted in developing two studies. The first case study discussed safety, "which is a very good and robust document that covers things if we handle them properly, many incidents will not happen," Magdy commented. The second case study incorporated the Quantitative Risk Assessment (QRA). Then, Magdy spoke about an incident that occurred in 2005 which helped raising a serious question about safety culture.

"We had to assess our hazards in all LNG plants in Egypt. We acquired a third-party assistance in building a system to assure that in case of incidents, we have the right resources to act," Magdy said.

Magdy Clarified that their safety revolution began in 2015 when a simple incident happened because of a reporting delay and "the company took many procedures to assure transparency and to deliver a message that it is not about numbers, it is about people." Magdy highlighted the main message, which was that ELNG "has the best systems, the best assets, but people are the key".

Ending the session, Magdy noted that the process safety journey is a continuous one that requires consistent aspiration, drive of leadership, and culture towards excellence. "We may have systems for process safety, but we need to work together to do the function of process safety", Magdy concluded.

OPEN DISCUSSION

Concluding the conference, a panel for open discussions was held with, Mohamed Fouad, Egypt Oil & Gas CEO, as the event's panel moderator, hosting the conference's three keynote speakers, Ken Rivers, Mike Broadribb, and Jason Clement.

Kicking off the discussion, Fouad asked about the safety case entailment and how it can be implemented. Broadribb commented that "in the North Sea, safety case involves the company's systems and contractors. It is a document that identifies current hazards based on measures of oil and gas risks," adding that, "the safety case explains why the platform is designed the way it is." Broadribb continued, stating that since risks cannot be completely eliminated, then "we need to have the tools required to limit risks throughout the life of the facility". "

Rivers also commented on Fouad's question, stating that "if I am going to make process safety an important thing within my organization, then it is something that people need to hear me talk about," adding that, "for me, it starts with high standards of leadership and leaders will come out and having this conversation to make sure that people know that this subject is important."

Following this, Clement discussed the factors affecting safety culture, noting that engagement is one of the critical factors as leaders to be more engaged to PSM. Additionally, transparency is crucial "as we need to have a common understanding of risks that we are running with at the coalface and at the top of the organization. So, achieving transparency is critical," adding that another important factor is accountability which is considered a challenge in the safety space. Thus, "transparency, leadership engagement and accountability are the main block", Clement summarized.

The panel also gave the conference's guests an opportunity to ask questions to the panelists. One of the guests asked about the way to build a two-way courage and trust between leaders and work force. Broadribb was the first to comment, stating that "many leaders are leaders because they are good at giving directions, but also they need to learn to listen to the workforce, their concerns and their problems." Building on that, Rivers said "I think what we can do as leaders that we become more self-aware and I think part of that learning can actually happen when leaders talk to other leaders and through these dialogues, they will learn to listen". Clement also added that "it requires courage from both sides to escalate bad news and to deal with them, so leaders need to be vulnerable and want to know about problems." Another question was raised on how to efficiently develop a structured PSM system. Broadribb pointed out that "the foundation of any PSM is your knowledge, your experience and the design documentation of your facility, so once you understand the design, it is the hazard analysis of that design."

Closing the discussions, Fouad asked for one critical piece of advice each speaker could give the audience with regards to PSM. Broadribb's advice was for leaders to be more aware of the surrounding hazards and risks to do whatever it takes to ensure the success of process safety activities. Rivers' advice was for leaders to note the profound difference one can do by being more curious about process safety, adding that "the opportunity that you have by not just pulling your individual insights but your companies' insights and bringing them all together and pulling that knowledge into a greater vision where you would like the Egyptian process safety to be." Clement's final advice was to "look at your colleagues to contemplate what they mean to you and how you will feel if something happens to your colleagues and use that feeling as a fuel for courage to escalate values and hear bad news to do more." With that, Fouad concluded the conference by thanking all attendees for their participation, and hoped that everyone had learned something that could be applied in their companies to make a difference in process safety management.

DUE DILIGENCE BUILDS TRUST AND CONFIDENCE WHEN ASSETS CHANGE HANDS

The growing oil and gas industry in Egypt is observing existing assets change hands. This has resulted in an increasing demand for due diligence services from trusted advisors like DNV GL.

As the market develops, one of the major opportunities lies in the acquisition of existing assets. A change of hands of assets, however, does not come without its own risks. This is where companies like DNV GL add value with risk management and due diligence support, as well as services for extended life operations.

DNV GL's Area Manager for North Africa, Hisham El Grawany, stated that "the entrance of new and existing companies with ambitions to invest in oil and gas activities has resulted in a growing interest for DNV GL to perform business and technical due diligence".

"The oil and gas industry is characterized by large investments, major technological challenges and significant commercial and political complexity, exposing owners to financial, safety and environmental risks," continues El Grawany. "With this in mind, our customers need to understand the associated risks and rewards when acquiring, investing, divesting or providing project finance. They need to know precisely what is being sold, its condition, and the commercial, technical and environmental risks involved."

The due diligence process involves identifying the main risks while taking different decision gates by reviewing the project documentation to ensure that a reasonable approach has been taken. Confidentiality and local knowledge are of paramount importance in providing independent expert views, project appraisals and business advisory services.

DNV GL is a unique international company with project teams composed of experts covering the entire value chain. The company has a track record in complex due diligence studies and regularly act as independent consultants, engineers and technical advisors to lenders, owners and investors. DNV GL's multi-disciplinary services cover seller, buyer, and project due diligence, depending on the scope of work.

"Our due diligence services give our customers a better understanding of risks and risk mitigations," says El Grawany and adds, "armed with this knowledge, they can decide with confidence to proceed, negotiate new terms or specifications or perhaps cancel transaction."

Due diligences services typically include site assessments to evaluate day-to-day operational and safety risks and the ability to deliver on manning, transport and other critical issues. Overall evaluations and review of governance and operating procedures

including KPIs, procurement, regulatory permits, emission requirements and other environmental issues are also addressed, as are asset integrity reviews and advises on the business and project implications of technical risks. Complete review of capital programmes, project systems, planning and forecasts are also important elements included in DNV GL's due diligence support.

"Risk is a fact of business life. Even world-class risk-management practices will not eliminate all unpleasant surprises, but operators and investors that utilize the due diligence process will have fewer surprises less frequently and of a lesser impact," concludes El Grawany.

SEAHARVEST / MODURESOURCES RIG INSPECTION SERVICES: A NEW NAME FOR THE TEAM YOU HAVE TRUSTED FOR DECADES

In 2018 Seaharvest entered into a partnership agreement with multinational pioneer oil and gas rig inspection company owned by Leo Nagtegaal and Arie Koortens whom are the founding fathers and brains behind the creation of independent rig inspection services with tens of thousands of high quality inspection jobs conducted and managed worldwide . Their valuable experience and insight are key to the new style rig inspection systems developed by ModuResources.

Seaharvest / Moduresources was proud to be awarded Danagas Rig inspection Compiegne consisting of : three phases on the **Drillship Tungsten Explorer** from February 27, 2019 to June 2, 2019, Phase 1 while the unit was quayside in Tenerife South, Spain , Phase 2 while the unite was transit at Malta and Phase 3 after the unite mobilized to Egypt .

The inspection criteria which have been used as reference during the three phases of inspection jobs are internationally recognized standards, with customer's safety and operating standards, the original equipment manufacturer's maintenance and operating specifications and accepted oilfield operating and safety practices.

Our senior management personnel have over 250 years combined extensive industry experience, both in drilling operations and shipyard projects. Together with our highly qualified and experienced specialist engineers and consultants, ModuResources is in the unique position to offer quick, flexible and effective solutions to assist our clients in achieving a safe work environment and optimizing operations to meet or exceed their goals.

MODURESOURCES SERVICES ARE INCLUDED AND NOT LIMITED TO THE FOLLOWING :

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- Rig assessment and valuations
- Intelligent competency program PP (Assessing People and Processes)
- Reactivation and acceptance testing
- Commissioning monitoring, traceability and acceptance
- Integrated Automation and Control Systems (IACS) and Cyber security
- Contract review and analysis
- Incidents and accidents investigation
- Hazardous area and equipment surveys
- BOP and control system acceptance for the well (Rotators)
- Safety case review and assistance
- Training

DEVELOPING THE FINANCIAL PERFORMANCE IN THE PETROLEUM SECTOR

As part of its efforts to reduce its financial debts and encourage foreign investment, the oil and gas sector has taken the following steps:

The Ministry of Petroleum and Mineral Resources has reduced its arrears to foreign partners and is sticking to its financial commitments. Arrears currently amount to $900 million, down from $1.2 billion in Fiscal Year (FY) 2018/19. Paying its financial dues shows the ministry's commitment to its agreements, which further encourages investments in the oil and gas sector.

The Ministry of Petroleum and Mineral Resources is also committed to repaying its loans and opening its Letter of Credit in the domestic market.

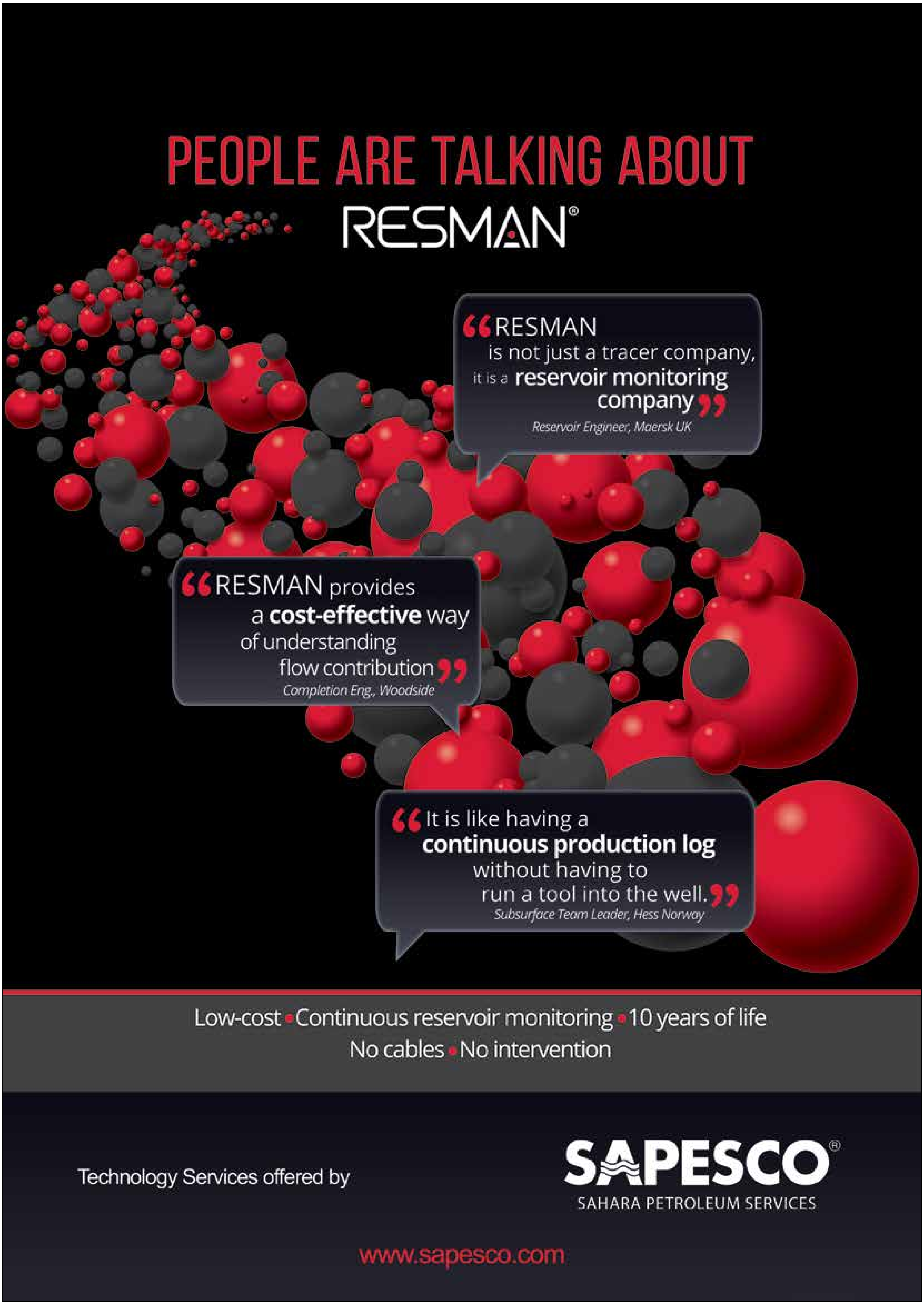
As a result of the recent discoveries in Mediterranean, the oil sector achieved self-sufficiency and turned from being a net importer to a net exporter in September 2018. This has directly increased the foreign exchange rate and decreased the country's external debt.

Refineries in Egypt are also being established and developed, in addition to the establishment of Continuous Catalytic Reforming (CCR) hydrocracking units. These units reduce imports and help finance the Letter of Credit.

In my opinion, the development of the petroleum sector is going in the right direction, where the State is implementing massive projects to reduce imports and achieve self-sufficiency. This will directly encourage International Oil Companies (IOCs) to invest in Egypt.

It is important to note that since January 2019 the Ministry of Petroleum and Mineral Resources started relying on its financial resources instead of relying on loans.

MR. AHMED FARAHAT
General Manager of the Finance Department
Petroleum Sector Expert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PETROLEUM SECTOR MODERNIZATION: BETWEEN MECHANISM AND PROCEDURES

There is no doubt that policies and procedures are a fundamental part of management. However, for many decades, the government standard procedures, policies or practices have been tainted with bureaucracy; where things are done in a certain way because it is the way they have always been done, rather than for specific reasons of operational efficiency.

The most important manifestations of such practices are reflected in complexity of procedures, predominance of administrative routine and indifference to public interests.

The question that arises here is; if bureaucracy has a negative impact on economic activity in general, then how could it affect the petroleum industry, which depends mainly on foreign investment and is considered one of the most important sectors in Egypt?

To answer this question, we have to look at the petroleum sector in Egypt; which consists of many entities. Having some common functions and tasks, however, the common factor among these entities is the overwhelming compliance and adherence to rigid policies and procedures without any flexibility, even if it is at the expense of the public interest or inconsistent with vital interests. This represents a repulsive environment for International Oil Companies (IOCs) and their reluctance to invest in Egypt.

In order to end such bureaucracy, there was a need for a change to create a new vision and initiative towards reform and development. Therefore, his Excellency Eng. Tarek El Molla, Minister of Petroleum and Mineral Resources, launched his pioneering Modernization Project to develop the petroleum sector.

From mid-2014, the Ministry of Petroleum and Mineral Resources has been adopting an integrated reform strategy. The first step of such reform was to abandon bureaucratic practices and address their negative repercussions as they have led to a culture of evading decision-making and responsibility. Furthermore, these bureaucratic practices became embedded in our culture and lifestyle, affecting the management process in the petroleum sector and subsequently having a negative impact on the investment climate.

The ministry's strategy aims to transform Egypt into a regional natural gas hub as there is no doubt that Egypt has the capabilities and potentials to produce energy and export it to the main markets in Europe. In addition, the strategy works on leveraging the country's oil and gas transport network infrastructure, which boosts the trading of petroleum products.

In a period that does not exceed five years, the petroleum sector has been able to jump to unprecedented levels of many successive achievements, from the historical

achievement of Zohr, to achieving natural gas self-sufficiency, in conjunction with increasing crude oil production rates and expanding exploration activities using innovative mechanisms and frameworks like the multi-client projects in the Western Mediterranean, Southern Egypt, the Gulf of Suez and the Red Sea. As a result, the first bid round in four decades was launched, known as Egypt's Offshore Red Sea 2019 International Bid Round, which has attracted many major international exploration companies.

MOSTAFA ABDULGHAFFAR
Asst General Manager For Exploration Studies, Agreements and Exploration
Ganoub El Wadi Petroleum Holding Company (Ganope)

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Annual Inflation Headline CPI

JUL 2019	AUG 2019
8.70%	7.50%

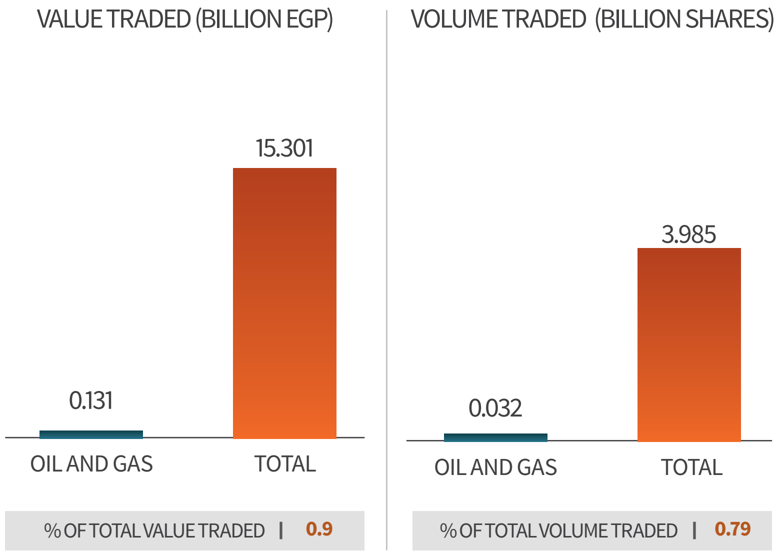
Net International Reserves ($ billion)

JUL 2019	AUG 2019
44.92	44.97

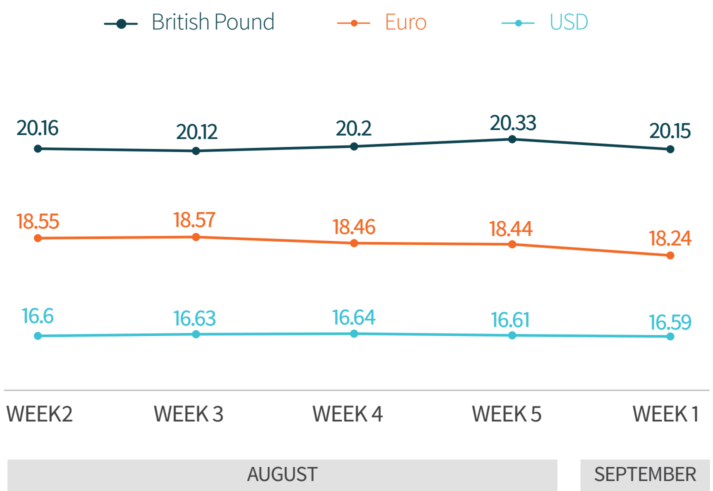
Non-Oil Private Sector PMI (Points)

JUL 2019	AUG 2019
50.3	49.4

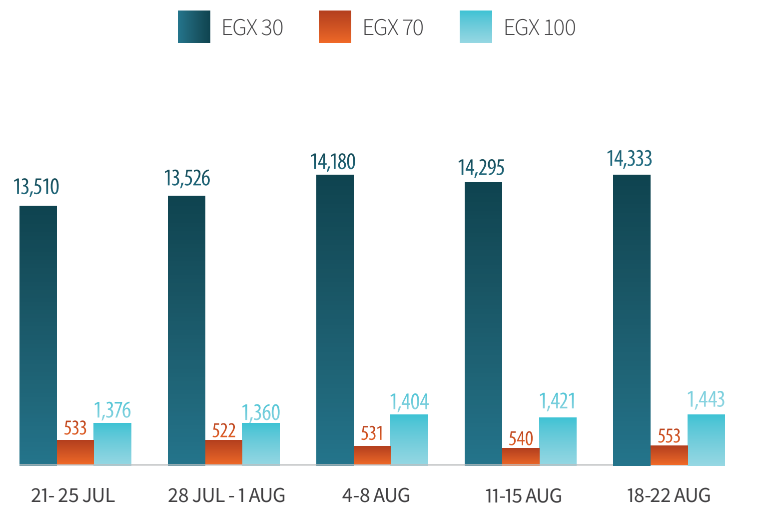
Value and Volume of Shares Traded for Petroleum Sector in August 2019



Exchange Rates



Capital Market Indicators



Performance of Petroleum Companies in the Egyptian Exchange in August 2019

Company	CURRENCY	CLOSE PRICE	YTD PRICE CHANGE (%)
National Drilling	USD	4.96	▲ 9.01
Alexandria Mineral Oils Co.	EGP	4.42	▼ 29.17
Egypt Gas	EGP	65.19	▼ 10.92
Sidi Kerir Petrochemicals	EGP	9.98	▼ 41.71

Source of Raw Data: CBE, Egyptian Exchange, Emirates NDB.

Egypt's Economic Growth *

FY 2019/20
4.5%

FY 2021/22
6%

* Estimated by The Economic Intelligence Unit.

Egypt's Average Annual Economic Growth*

6.8%

* Estimated by Harvard Institution for International Development (HIID).

Egypt's Targeted GDP Growth Rate*

2022
8%

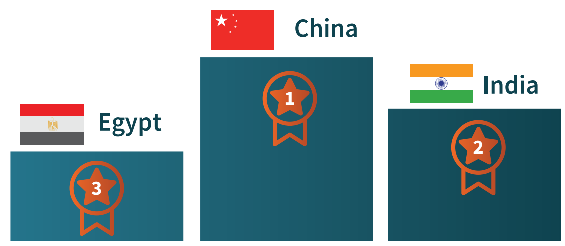
* Targeted by the Presidency of the Council of Ministers

Moody's Credit Rating of Egypt

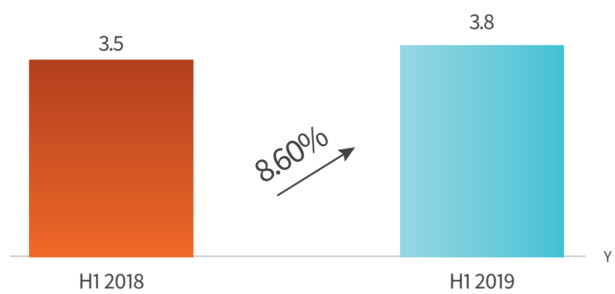
B2

Stable Outlook

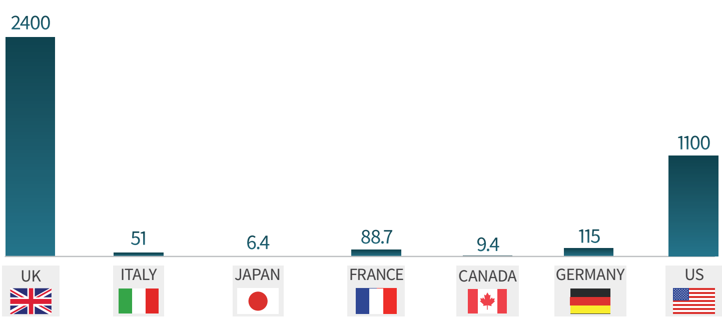
Global GDP Growth Rates in Q1 of 2019



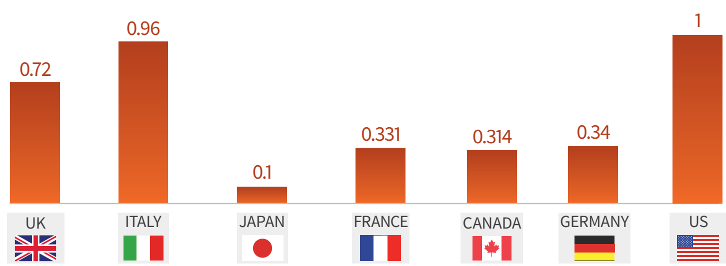
Egypt's Exports to the G-7 ($ billion) (YoY)



The G-7 Investments in Egypt in H1 2019 ($ million)



Egyptian Exports to the G-7 by Country in H1 2019 ($ billion)



Source of Raw Data: MPMAR, The Economic Intelligence Unit, MIIC, CAPMAS, The Economist, Moody's.

GUPCO's average production from Ras Shouqair field reached **61,700 b/d** in **FY 2018/19**.

Atoll's **4th** well will be completed by **Q1 2020**.

The number of **diesel-powered** microbuses, minibuses, and buses is **240,000**, until August **2019**.

17 Crude oil and **natural gas** exploration agreements approval, in **August 2019**.

35-40%
by the end of **2019**

Al Manar Group
Annual Growth Rate

Katameya Field

Production Start: **Q2 of 2020**

Initial Rate: **60 mscf/d**

Zohr's total investments

$10.6 billion since 2017

$3 billion in FY 2018/19

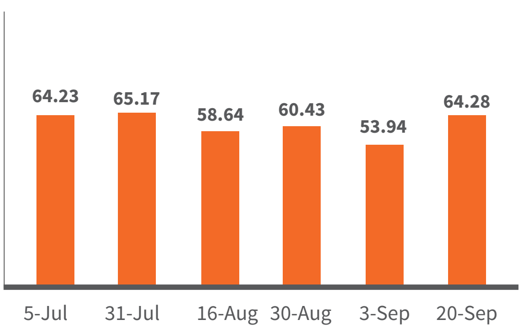
MoP Plans

Issue new exploration tender in the West Mediterranean in **Q1** of **2020**.

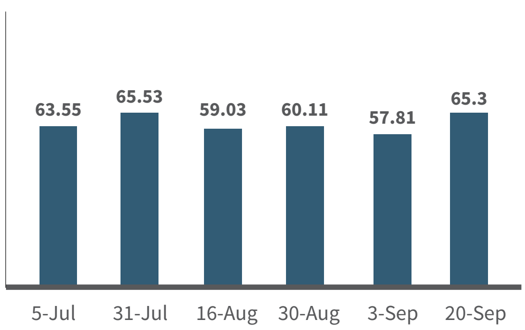
Natural gas output increase by **11.8%** by the end of **2019**.

Drilling of **two** wells in Atoll and Katameya fields.
Investments **$289 million**.

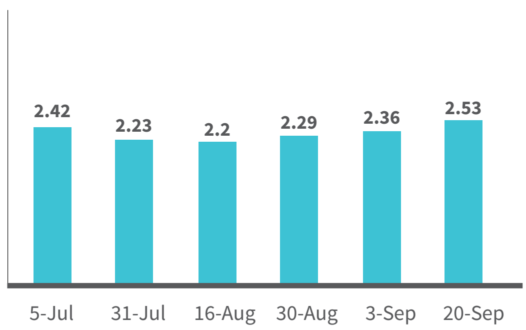
BRENT PRICES



OPEC BASKET PRICES



NATURAL GAS PRICES

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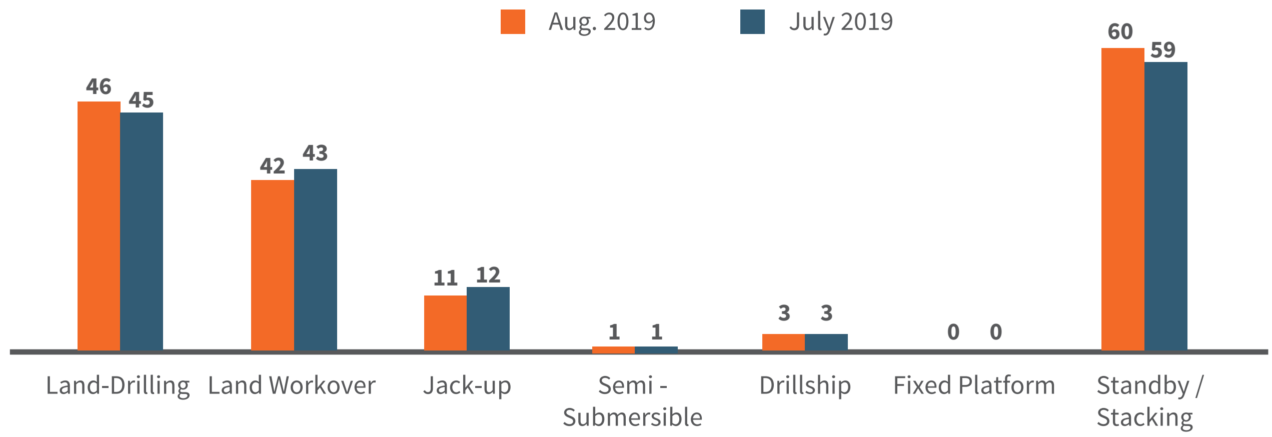
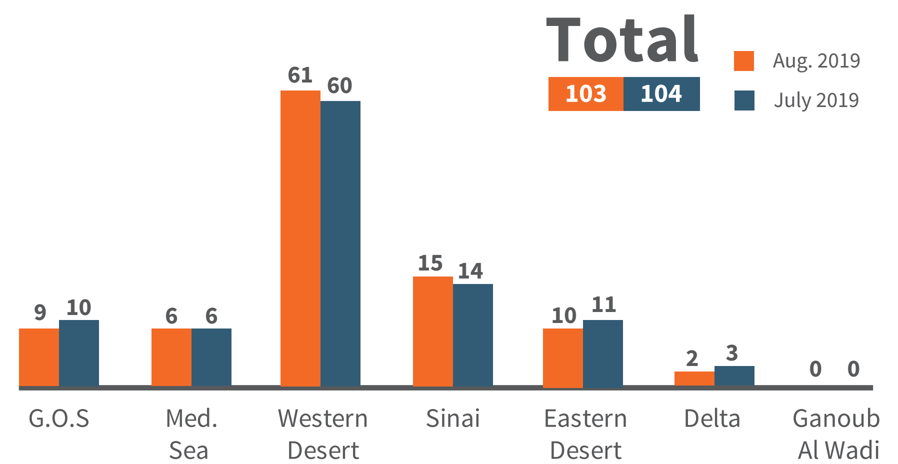
EGYPT RIG COUNT PER TYPE Aug. 2019



Total

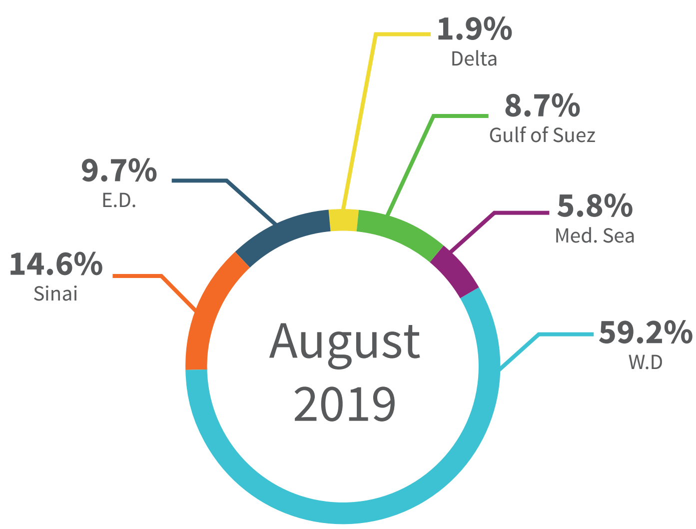
163	163

EGYPT RIG COUNT PER AREA Aug. 2019



The difference between the total of rigs per area and per type is due to the Stand By / Stacking number.

Distribution of Rigs



Egypt Production Aug.2019

Total

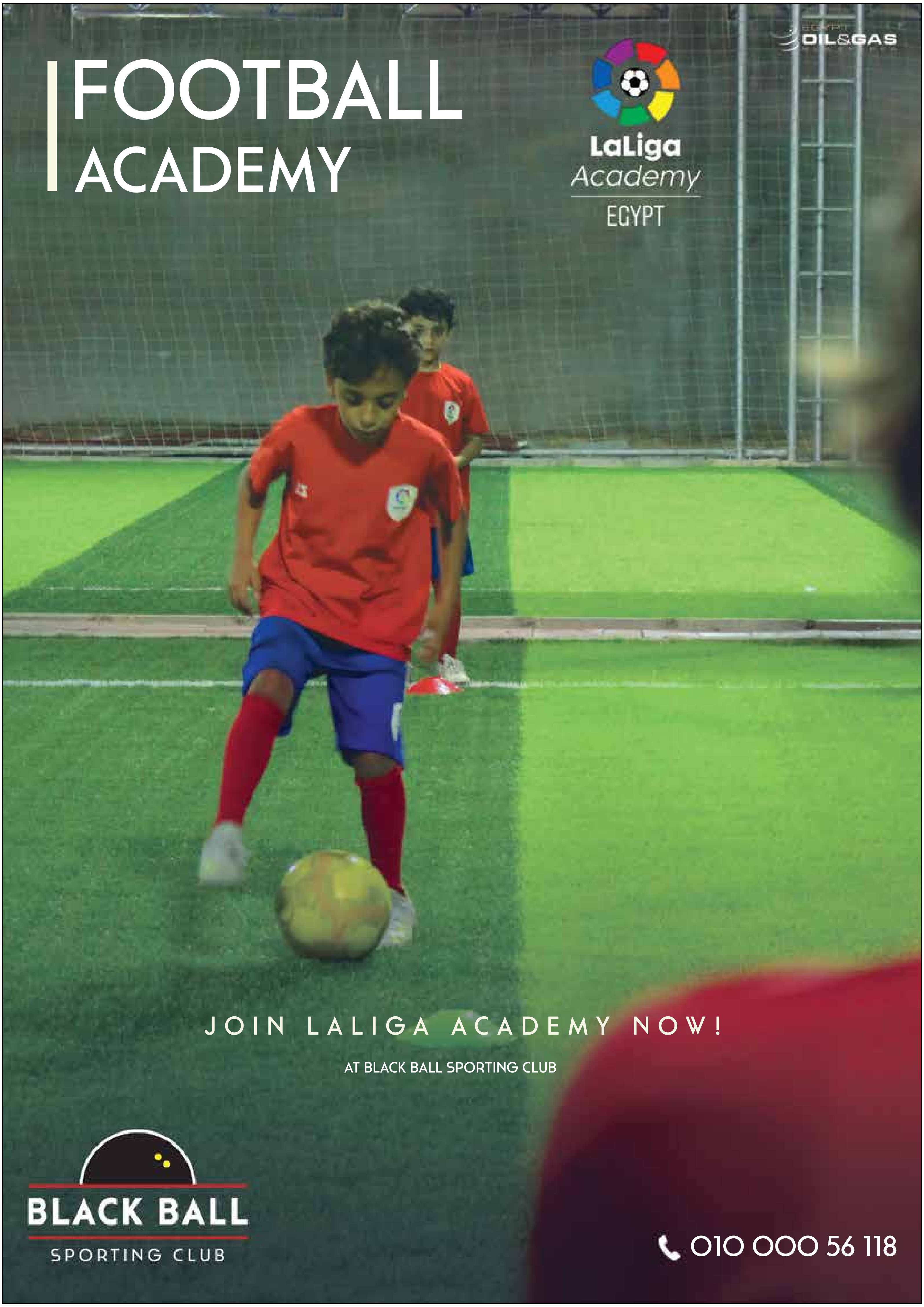
544,344	B/D
6.9146	BCF/D
6746	MCF/D
80,525	B/D

Numbers are calculated per day on average.

	CRUDE OIL	GAS	SOLD GAS	CONDENSATES
MEDITERRANEAN SEA	423	4.4020	4295	29,530
EASTERN DESERT	67,858	0.0110	11	75
WESTERN DESERT	301,794	1.2154	1186	37,425
GULF OF SUEZ	123,709	0.0876	85	1,931
DELTA	180	1.1985	1169	11,025
SINAI	50,203	0	0	539
UPPER EGYPT	177	0	0	0

Drilling Update Aug. 2019

REGION	COMPANY	WELL	WELL TYPE	RIG	DEPTH	WELL INVESTMENTS
EASTERN DESERT	GPC	HH 83/2B	Development	ADMARINE-3	6,555	3.988 M$
	GPC	HNW- 5	Development	ST - 9	5,155	1.738 M$
WESTERN DESERT	AGIBA	KARNAK-5	Development	WF - 147	8,235	1.100 M$
	AGIBA	MEL-132	Development	WF - 161	6,557	1.020 M$
	BAPETCO	OBA SW-B	EXP	EDC - 84	14,239	2.900 M$
	BAPETCO	BED 18-N	W.Inj.	EDC - 50	12,165	1.900 M$
	KHALDA	KAH C-186	Development	EDC - 61	10,918	1.700 M$
		PTAH-31	Development	EDC - 54	12,800	2.010 M$
		KADE.AQSA-1X	EXP	EDC - 58	15,310	3.100 M$
	GPC	T-EAST-1X	EXP	EDC - 16	9,794	1.010 M$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