Egypt's Leading Oil And Gas Monthly Publication
August 2019 - **48** Pages - Issue **152**
www.egyptoil-gas.com

EGYPT
OIL&GAS
NEWSPAPER

EGYPT'S MAJOR ROLE WITHIN A GLOBAL PORTFOLIO:

INTERVIEW WITH **MARIO MEHREN,** CHAIRMAN OF THE BOARD AND CEO OF **WINTERSHALL DEA**

EGYPT'S ENERGY SUBSIDY REFORMS

GETTING **RID** OF THE ELEPHANT IN **THE ROOM**

P. 24

UNDER THE HIGH PATRONAGE OF **HE. ENG. TAREK EL MOLLA**
MINISTER OF PETROLEUM & MINERAL RESOURCES - ARAB REPUBLIC OF EGYPT

PART OF THE EGYPTIAN OIL AND GAS SECTOR
MODERNIZATION PROGRAM

IMPROVING **BROWNFIELD** PERFORMANCE

UPSTREAM TECHNICAL CONVENTION

SKY EXECUTIVE RESORT 1-3 DECEMBER 2019

CONTINUING TO BUILD A STRONGER
EGYPTIAN UPSTREAM INDUSTRY

- Strategic Panel Discussions
- Technical Workshop
- Young Professionals Day
- Operations Excellence Awards

ORGANIZED BY

EGYPT OIL&GAS NEWSPAPER

TECHNICALLY PREPARED BY

EGYPT OIL AND GAS TECHNICAL COMMITTEE

OFFICIAL RESEARCH PARTNER

Wood Mackenzie
A Verisk Business

PLATINUM SPONSORS

APEX INTERNATIONAL ENERGY

CHEIRON

TransGlobe Energy CORPORATION

GOLD SPONSORS

wintershall dea

SILVER SPONSORS

mos

SHAWCOR

TECHNICAL WORKSHOP SPONSOR

Kuwait Energy

DELEGATE BAG & NAME TAG SPONSOR

BAKER HUGHES a GE company

We provide an extensive portfolio of hydrate inhibition technologies

Our team of technology and chemistry experts design robust solutions for removal and handling of salts and other impurities from the most challenging fields. We provide critically important feasibility studies, concept definitions, and front-end engineering design (FEED) that enable our customers to make sound decisions based on relevant cost and time considerations.

Learn more at **nov.com/wellstreamprocessing**

NOV Completion & Production Solutions

© 2019 National Oilwell Varco | All rights reserved

EDITOR'S **LETTER**

In 2014, Egypt started a rigorous energy subsidy reform program, as reducing the budget deficit became high on the country's agenda. Fast-forward five years, and the country has successfully liberalized fuel prices by implementing an automatic fuel price indexation mechanism. In this issue, our team offers you a wide range of features, info-graphics and reports covering the economic reforms achieved in the energy sector.

In the industry insights section, we discuss the future of alternative fuel vehicles in Egypt, the international implementations of the automatic fuel pricing indexation mechanism, and the implications of getting rid of fossil fuel subsidies. The issue further includes a report on the importance of the Suez Canal as a path for hydrocarbons.

In addition, Egypt Oil & Gas interviewed Mario Mehren, Chairman of the Board and Chief Executive Officer (CEO) of Wintershall Dea, to discuss the merger between Wintershall and Dea, in addition to the German company's future plans globally and in Egypt. This comes in light of Mehren's visit to Egypt. The issue also offers a full coverage of Wintershall Dea's Gala Dinner attended by HE Tarek El Molla, Egypt's Minister of Petroleum and Mineral Resources.

Last but not least, Egypt Oil & Gas CSR Subcommittee shares with you the success achieved by the petroleum sector's blood donation campaign in numbers. Wishing you all a pleasant and informative reading.

MAHINAZ EL BAZ

Acting Editor-In-Chief
Research & Analysis Manager

INSIDE THIS ISSUE

EGYPT OIL&GAS NEWSPAPER

Egypt's Leading Oil And Gas Monthly Publication

PROUDLY THE OFFICIAL PUBLICATION

EGYPS
EGYPT PETROLEUM SHOW

Research & Analysis Manager
MAHINAZ EL BAZ
Managing Editor
MOSLEM ALI
Editors
DINA EL-BEHIRY
MAI EL GHANDOUR
Staff Writers
YARA ELMELIGY
AMIRA MARWAN
Research Analysts
AMINA HUSSEIN
REHAM GAMAL
TASNEEM MADI
Chief Reporter
WAEL EL-SERAG
Business Development Director
AYMAN RADY
Creative Art Director
OMAR GHAZAL
Art Director
MAGED KHATTAB
Graphic Designers
MARIAN WAEL
YASMIN MEGAHED
3D Visualizers
MINA BOUSHRA
MONA ASHRY
3D Designer
EMAD MOHSEN
Photographer
AMIR WILLIAM
Operations & Financial M.
ABDALLAH ELGOHARY
Marketing Executive
MENNA MOHY
Senior Digital Marketing Specialist
MAMDOUH ABDELHAMID
Web Master
OLFAT KAMEL
IT Specialist
AHMED ABDULLAH
Administration
TAGHREED MOUNIR
Accountants
MAHMOUD KHALIL
MOHAMED NAGY
Production Advisor
MOHAMED TANTAWY
Legal Advisor
MOHAMED IBRAHIM
Distribution Officers
MAHSOUB KENZI
MOHAMED EL-SAYED
MAHMOUD NABIL

PUBLISHER **MOHAMED FOUAD**

This publication was founded by **MOHAMED FOUAD** AND **OMAR DONIA.** All rights to editorial matters in the newspaper are reserved by Egypt Oil and Gas and no article may be reproduced or transmitted in whole or in part by any means without prior written permission from the publisher.

13D Sherif Salama Street - Lasilky Division - New Maadi, Cairo, Egypt

(+20) 2 25164776 (+20) 2 25172052 (+20) 2 27547569

(+20) 2 25172053

www.egyptoil-gas.com

info@egyptoil-gas.com

/EgyptOilandGas /EgyptOilandGas /Egypt-Oil-&-Gas /EgyptOilandGas /EgyptOilandGas

Close the Loop on Your Managed Pressure Drilling Operations

WITH THE MARINE SENTRY™ RCD 3000 ROTATING CONTROL DEVICE

Learn More at Booth #1353

halliburton.com/geobalance

HALLIBURTON | Testing & Subsea

EMGF SECOND MEETING CONCLUDES IN CAIRO

The Second Ministerial Meeting of the East Mediterranean Gas Forum (EMGF) was held in Cairo on July 24-25, as per the invitation of H.E Eng. Tarek El Molla, the Minister of Petroleum and Mineral Resources. The Cypriot, Greek, Palestinian, Israeli, and Italian energy ministers, as well as a representative of the Jordanian Minister of Energy, attended the meeting, representing the founding members of the regional forum. US Secretary of Energy Rick Perry also attended the meeting as a special guest of honor, alongside the representatives of France, the European Union, and the World Bank. The ministers decided on the forum's governing rules and procedures and committed to achieving the goal of enhancing regional cooperation in the energy sector and make the best use of available resources, paving the way for a sustainable regional natural gas market. Furthermore, the meeting discussed cooperation to gradually develop the natural gas infrastructure in the region to accelerate the economic utilization of current reserves and facilitate future discoveries.

OIL PRODUCTION TO REACH 720,000 B/D BY 2020

The petroleum sector seeks to raise its daily crude oil production to reach 720,000 barrels per day (b/d) by the end of fiscal year (FY) 2019/2020, according to Abed Ezz El Regal, Head of Egyptian General Petroleum Corporation (EGPC). He added that the current production rate is around 675,000 b/d, which was accomplished after introducing new explorations that led to a production increase during FY 2017/2018. He pointed out to the petroleum sector's efforts in maintaining Egypt's petroleum production at a minimum rate of 670,000 b/d while facing a shortage in mature wells, as the sector intensifies its exploration for new wells. Ezz El Regal also added that the targeted crude oil production relies on new exploration areas like East Bahria in Qarun fields as well as facilitating the production in Southwest of Meliha and intensifying the fields' development processes in the Western Desert.

EGYPT TO EXPORT 2 BCF/D OF NATURAL GAS BY END OF 2019

The Egyptian government is working on exporting around 2 billion cubic feet per day (bcf/d) of natural gas by the end of 2019, the Minister of Petroleum, Tarek El Molla, told Al Arabiya in an interview. He added that all export facilities will be working in full capacity, especially after having a production surplus of natural gas. Regarding the Lebanese request to import Egypt's natural gas, El Molla commented that the two countries are still negotiating about cooperation forms, stressing on the importance of exporting natural gas to Lebanon, either through liquefied natural gas shipments or others, to fulfill their gas needs.

EL SISI APPROVES EGYPT-CYPRUS GAS PIPELINE

Presidential decree number 537 for the year 2019 issued on July 4 stated the approval of the governmental agreement between Egypt and Cyprus to establish a direct natural gas subsea pipeline. The pipeline will transport natural gas from the Aphrodite gas field to Egypt's liquefaction facilities at Idku and Damietta, and re-export it as liquefied natural gas (LNG). The agreement between the two countries was signed on September 19, 2018 in Nicosia and the Parliament approved it on March 11, 2019. Under the agreement, the two parties do not have the right to impose in the conditions related to natural gas obtaining, usage, destination, transport, or supply. The agreement states that the health, safety and environment (HSE) standards applied in the project should not be less than the European Union (EU)'s HSE standards.

PETROLEUM PRODUCTS EXPORTS' VALUE JUMPS BY 231% IN APRIL

The value of petroleum products exports hiked by 231.1% and crude oil by 35%, increasing the value of the total exports by 0.5% to reach $2.58 billion in April 2019, against $2.57 billion in the same month of the previous year, according to the monthly bulletin of April 2019 by the Central Agency for Public Mobilization and Statistics (CAPMAS) issued. The value of imports dropped during April 2019 compared with the same month of the previous year, as petroleum products imports declined by 6.0%. Egypt's trade deficit increased by 6.8% year-on-year (YoY), reaching $3.87 billion in April 2019, compared to $3.63 billion for the same month last year.

DIESEL CONSUMPTION REACHES 1.18 M TONS PER MONTH

Diesel consumption across Egypt reached 1.18 million tons per month before liberating fuel prices. Supplies have been recently increased to about 1.2 million tons a month in order to meet any increases in demand to ensure market stability. The current diesel production rate stands at 500,000 tons per month, covering around 45% of the local consumption. The source also noted that butane consumption reached 332,000 tons, with production covering about 50% of local demand.

EGYPT PUMPS 1.2 M TONS OF DIESEL ACROSS GOVERNORATES

The petroleum sector increased the diesel supply across Egypt's governorates to reach 1.2 million tons per month following the new fuel prices, according to a source in the Egyptian General Petroleum Corporation (EGPC). The source indicated that the current diesel production rate from the local refineries is estimated to be 500,000 tons per month, fulfilling 45% of the monthly consumption rate. The source also added that the butane consumption rate in June reached 332,000 tons that satisfy 50% of the household and commercial demand. The sector has increased the amount of diesel to fulfill any increase in demand until the market reaches stability, given the fact that the new prices might affect the consumption rate.

EGYPT RECORDS FIRST HYDROCARBON TRADE SURPLUS IN FIVE YEARS: CBE

Egypt's hydrocarbon trade balance registered an $800 million surplus during Q4 2018, its first since Q4 2013, according to the Central Bank of Egypt (CBE). Petroleum exports surged to $3.2 billion, increasing by 60% year-on-year and (YoY) and 14.3% quarter-on-quarter (QoQ). Meanwhile, imports declined to $2.4 billion during Q4 2018, decreasing by nearly 46% YoY and 33% QoQ. The hydrocarbon trade balance continued to improve for the fourth consecutive quarter, which was mainly attributed to lower imports, and the accelerating annual pace of domestic natural gas production. Natural gas extractions contributed by 1.1% on the gross domestic product (GDP) growth rate, which stood at 5.5% during Q4 2018. Thus, it was the main drive for a boost in the public sector contribution to the GDP at 1.9%, compared with 1.4% in Q3 2018, and 1.6% in Q4 2017. The report also pointed to the rise in crude oil prices and the slowdown in global economic growth, which recorded 2.5% in Q4 2018, compared with 2.7% during Q3 2018, and 3.2% in Q4 2017, its highest level since 2011.

EGYPT REDUCES IOC ARREARS TO $900 M: EL MOLLA

The total arrears that shall be collected by international oil companies (IOCs) dropped to $900 million by the end of June 2019, according to the Minister of Petroleum and Mineral Resources, Tarek El Molla. The arrears decreased by 25% compared to $1.2 billion in fiscal year (FY) 2017/2018 and by 62.5% compared to $2.4 billion in June 2017. El Molla added that the total monthly payments by Egypt to IOCs stood at $700 million, and it is expected for the arrears to be settled by the end of 2019. Arrears had accumulated after 2011 and then started declining in 2014 as Egypt began seeking ways to eliminate them and be a regional energy hub. IOCs have been investing in the Egyptian petroleum sector in addition to collecting a proportion out of the gas and petroleum fields' production until they get all their receivables settled.

EGYPT ADDS 3.9 M HOUSEHOLDS TO NATURAL GAS GRID IN FIVE YEARS

The Ministry of Petroleum and Mineral Resources announced linking around 3.9 million households, 7,801 commercial units, and 266 factories to the national natural gas grid over the past five years. The ministry noted that around 10 million households across 26 Egyptian governorates were connected to the gas grid; with around 1.2 million households in areas across Upper Egypt that was not connected to the grid before. In conjunction with the ministry's plan to ease the cost on citizens, the ministry launched in July 2018 an installments initiative, under which citizens will pay around EGP 30 in monthly fees for six years without interest.


MARIDIVE
GROUP
mos
MARIDIVE
OFFSHORE
PROJECTS
OCEAN MARINE
MARITIDE
VM
PROVIDING A
WIDE RANGE
OF SERVICES
MARINE WORKS
OFFSHORE CONSTRUCTION
SURVEY
DIVING SERVICES
MARIDIVE 235
ENDLESS SEA, ENDLESS GROWTH...
www.maridivegroup.net

TOWN GAS TO DELIVER NATURAL GAS TO 35,000 CUSTOMERS

Town Gas aims to deliver natural gas to approximately 35,000 commercial customers and bakeries by the end of December 2019. According to an official source at Town Gas, the annual increase of commercial enterprises that will work with gas ranges between 4,000 and 5,000 customers. This comes in line with the government's aim to reduce the consumption of butane and replace it with natural gas instead. The source added that natural gas reached 31,000 commercial customers and bakeries in 2018, in all areas of the company. Also, the total number of housing units connected to natural gas since the beginning of the activity until Q1 2019 amounted to about 9.5 million housing units. Moreover, the national project to deliver gas to households connected cities and areas with a high density population for the first time, the source pointed out.

EL MOLLA DISCUSSES OIL IMPORTS, INVESTMENTS WITH KPC

Minister of Petroleum Tarek El Molla has emphasized the strong ties between Egypt and Kuwait as he received a delegation from the Kuwait Petroleum Corporation (KPC). Abdulnasser Al-Fulaij, the Managing Director for International Marketing at KPC led the Kuwaiti delegation. The meeting discussed refining Kuwaiti crude oil in Egyptian refineries, as well as importing petroleum products, and Kuwaiti investments in Egypt. El Molla stated that bilateral relations between the Egyptian petroleum sector and KPC are continuously improving, especially with the two sides showing mutual commitment and dedication. The minister also reviewed investment opportunities in the petroleum sector, as Egypt transforms into a regional energy hub and a center for natural gas trade.

EGYPT, US DISCUSS PETROLEUM SECTOR COOPERATION

Minister of Petroleum and Mineral Resources, Tarek El Molla, met Myron Brilliant, Executive Vice President and Head of International Affairs of the US Chamber, to discuss the US cooperation in the petroleum sector. Brilliant praised the petroleum sector efforts' outcomes throughout the last years as El Molla ensured that the sector is full of investment opportunities that encourage international oil companies (IOCs) to increase their activities in Egypt. The meeting focused on the sector's outstanding performance in different aspects of petroleum production throughout the previous years, which led to increasing petroleum exports to the US by 44%, reaching $176.9 million during 2019, compared to 2018 when it was $122.9 million. In addition, the minister reviewed the HR Management Pillar Development Program that prepares future young leaders to join the petroleum sector. Furthermore, he represented establishing the New Gas Regulatory Authority as a major factor in turning Egypt to a regional energy hub.

ENI ANNOUNCES NEW PRODUCTION FROM WESTERN DESERT, NEW NEAR FIELD DISCOVERIES

Eni announced that production from South West Meleiha development lease has started. In addition, two near oil fields have been discovered in the Meleiha development lease in Western Desert. Production is expected to be boosted by around 7,000 barrels of oil equivalent per day (boe/d) in September, up from 5,000 boe/d. Eni, through Petrobel, has successfully drilled a new structure on the Sidri South exploration prospect in the Gulf of Suez in the Abu Rudeis Sidri development lease, which resulted in another oil discovery. The new discovery may hold up to 200 million boe in place. Eni has further successfully drilled and tested the El Qar'a-NE1 well in the Nile Delta area. This well found gas in the sandstones of the Abu Madi formation, with 17 million standard cubic feet per day (mmscf/d) of associated condensates.

PETROBEL ANNOUNCES NEW GAS DISCOVERY IN NILE DELTA

Belayim Petroleum Company (Petrobel) announced that it has successfully achieved a natural gas discovery in the Nile Delta concession area, and is working to start production at a rate of 20 million standard cubic feet per day (mscf/d). A report presented to the Minister of Petroleum Tarek El Molla, by Petrobel Chairman Atef Hassan showed the results of exploratory drilling in El Qaraa (South East 1), which started back in May. Drilling the exploratory well, was carried out a minimum cost, and resulted in discovering natural gas reserves, with an initial estimated production rate of 17 mscf/d. Petrobel is working to link the well to production facilities in the area, as well as the gas treatment plant in Abu Madi, in order to make the best use of the existing infrastructure and maximize the economic feasibility of the new discovery, and link it to the national natural gas grid.

PETROLEUM SECTOR BLOOD DONATION CAMPAIGN SEES HUGE TURNOUT

The Egyptian petroleum sector's first nationwide blood donation campaign has witnessed remarkable participation, with 4,426 donors lining up in 78 company premises and 13 fields across nine governorates, which could help save the lives of around 13,280 patients. The campaign was held under the patronage of the Minister of Petroleum and Mineral Resources, Tarek El Molla, who inaugurated the campaign by being the first donor on June 18. The Ministry of Petroleum and Mineral Resources along with the Egypt Oil & Gas Corporate Social Responsibility (EOG CSR) Subcommittee organized the campaign, in cooperation with the Egyptian National Blood Transfusion Services and the Ministry of Health and Population. Cairo governorate accounted for more than half of the donors, followed by Alexandria, Port Said, Marsa Matrouh, the Red Sea, Suez, Damietta, South Sinai, and Kafr El Sheikh. The campaign was concluded on July 4 and marked the first joint activity between the sector's national oil companies (NOCs) and international oil companies (IOCs). San Misr led the participating NOCs with 223 donors, followed by Town Gas and AMOC. Meanwhile, Apache and Schlumberger were the biggest participating IOCs, with Khalda Petroleum and Petrobel leading the list of participating joint ventures (JVs).

MINISTRY OF PETROLEUM TO ESTABLISH $8.031 B REFINING PROJECTS

The Ministry of Petroleum is currently implementing $8.031 billion worth of projects in the refineries across Egypt to increase its refining capacity and to achieve the best efficiency in the petroleum products productivity. El Molla pointed out that the Middle East Oil Refinery (MIDOR) expansion project will increase the production capacity by 60% with investments of around $2.3 billion. The minister also said that a fuel and diesel production complex is being established in Assiut to convert 2.5 million tons of oil into high-quality petroleum products, in addition to utilizing the Red Sea National Company for Refining and Petrochemicals to benefit from the surplus and undeveloped capacities and convert 2.5 million tons a year into high-quality products. A 60/70 asphalt production plant is also being implemented to establish a distillation unit with a capacity of 726,000 tons per year of mazut and about 396,000 tons per year of 60/70 asphalt to cover the needs of the local market with investments of about $79.4 million. El Molla pointed out to accomplishing a high-octane fuel production unit in Assiut Oil Refining Company (ASORC) to produce 800 thousand tons per year of high-octane gasoline to meet the needs of Upper Egypt's petroleum products with investments of $450 million. He also said that ASORC is being rejuvenated by building a new unit which will produce 1.5 million tons of butane a year to enlarge the Vapor Recovery Units (VRU) amounts to recover the medium distillate gases especially the diesel, butane and fuel to fulfill the local market's needs.

SUMED SUCCESSFULLY RUNS NINE NEW WAREHOUSES

Arab Petroleum Pipelines Company (SUMED) has succeeded testing nine overland warehouses with a total capacity of 300,000 cubic meters, according to an official source in the petroleum sector. The source added that this comes to serve the governmental efforts in turning Egypt to a regional hub in the gas and petroleum trade. SUMED has previously started implementing several projects that are worth of $415 million, including warehouses, setting up a port that receives liquified natural gas (LNG), in addition to building facilities that receive butane, diesel and crude oil carriers.

PETROLEUM ARROWS CONTROLS 23% OF PRODUCT TRANSPORTATION

Petroleum Arrows has a share of around 23% in the petroleum products transportation market across Egyptian governorates, according to company Chairman Ahmed Abdel Motteleb. The company has increased petroleum products transportation rates by wwww4% during 2019, Abdel Motteleb noted. Petroleum Arrows also plays a pivotal role in transporting petroleum products to national projects implemented, such as the Suez Canal and the New Administrative Capital, alongside its works on the Zohr natural gas field, the Chairman further noted, adding that the company is transporting around 8.5 million liters of petroleum products per day.

subsea 7

A WORLD-LEADING SEABED-TO-SURFACE PARTNER

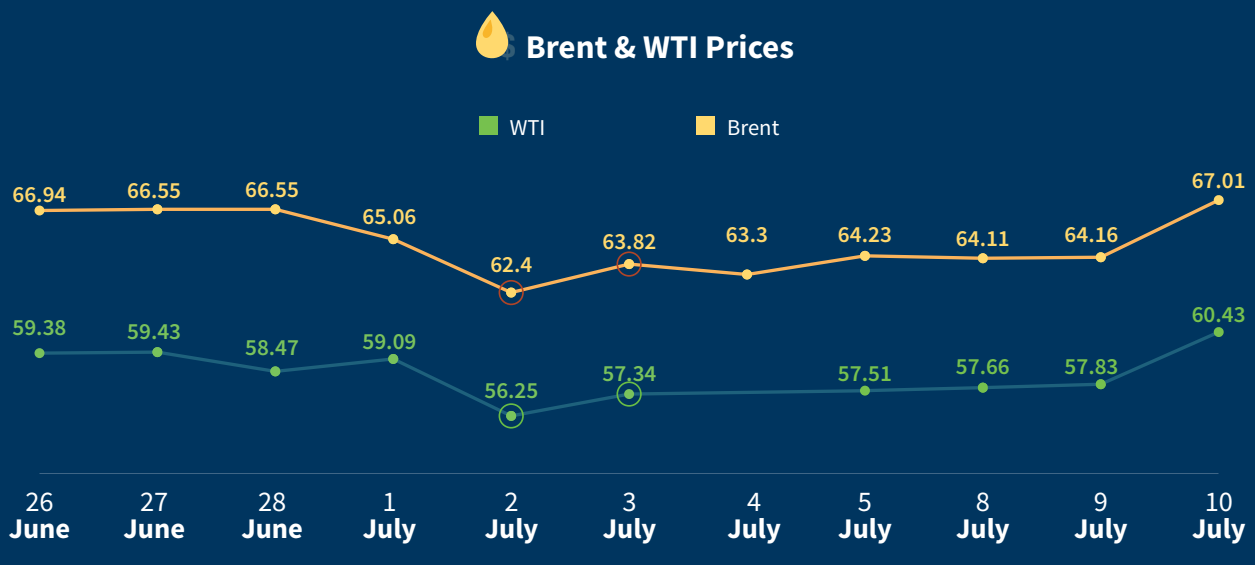
Subsea 7 is one of the world's leading global contractors in seabed to surface engineering, construction and services to the offshore energy industry. We offer a strong track record of excellence in project management, supported by early engagement with clients, a strong focus on providing cost-effective solutions and innovative commercial models through our alliances and collaborative partnerships.

Subsea 7 is proud to be part of the development and the success of the oil and gas industry in Egypt.

www.subsea7.com

SUBSIDIES ELIMINATION:

THE FOLLOWING IS A COMPILATION OF ALL RECENT UPDATES THROUGHOUT THE WORLD REGARDING FUEL SUBSIDY REFORM.



EGYPT

EGYPT INTRODUCES NEW FUEL PRICING INDEXATION MECHANISM

Egypt will start applying the new fuel pricing indexation mechanism to all petroleum products from Q4 2019. According to a ministry official, the government will still support butane cylinders, in addition to petroleum products provided to bakeries and power stations, without applying the new fuel pricing indexation mechanism to them. The mechanism, which was introduced on 95-Octane in April 2019, will see the government re-price fuel by as much as 10% each quarter, bringing the prices in line with international markets. The announcement was made after the Egyptian Cabinet declared the new fuel prices with increases that range from 16% to 30%, which came into effect on July 5.

EGYPT ANNOUNCES NEW FUEL PRICES

The Egyptian Cabinet announced the new fuel prices, with increases from 16% to 30. The new prices of 95-Octane fuel rose from EGP 7.75 to EGP 9 per liter, while the price of 92-Octane fuel hiked by 18.5% to EGP 8 per liter instead of EGP 6.75. The price of 80-Octane jumped by 22.7% from EGP 5.5 to EGP 6.75 per liter. Meanwhile, diesel increased by 22.7% to EGP 6.75 per liter. The price of cooking gas cylinders rose by 30% to EGP 65 for domestic use and EGP 130 for commercial use. The estimated allocations for fuel subsidies in the fiscal year (FY) 2018/19 budget plan were around EGP 89 billion, and the country had planned to allocate EGP 52.9 billion for fuel subsidies in FY 2019/20. The new pricing officially came into effect on July 5 at 9 AM.

EGYPT'S BIGGEST BUDGET SEES EGP 52.9 B PETROLEUM SUBSIDIES

Petroleum product subsidies have been set at EGP 52.9 billion in the public budget for fiscal year (FY) 2019/20, decreasing by EGP 35 billion, around 39.8%, compared to the previous year. The House of Representatives has approved the government-proposed draft budget for FY 2019/20, which is the biggest in the country's history with an expenditure of EGP 1.6 trillion. Meanwhile, electricity subsidies have been set at EGP 4 billion, with EGP 3.5 billion allocated for natural gas delivery, with total subsidies standing at EGP 149 billion, of which EGP 89 billion will be directed to basic commodities. Fuel subsidies reached EGP 60.1 billion during the first nine months of FY 2018/19, and dropped by 19.1% to reach EGP 89.075 million in FY 2018/19, compared to EGP 110.148 million in FY 2017/18, as shown by the Ministry of Finance data.

CRUDE PRICE IN EGYPT TO RANGE BETWEEN $64-68

Crude oil prices are expected to range between $64-68 per barrel, under the hedging mechanism applied in the current fiscal year. The Egyptian government has signed the hedging agreement with JPMorgan Chase and Citibank to sidestep the state budget the global oil prices fluctuations, with an average price of around $70 for global crude oil price. According to a government official, the hedging contract is annual and allows for revising global crude oil prices quarterly. Under the current state budget, the government has estimated the crude oil price to be around $68 per barrel, up from $67 in the previous year budget which was edited to be $74. According to the Ministry of Finance, each $1 above the selected average price will add around EGP 2.3 billion to the government's expenditure, therefore, the Ministry of Finance as well as the Ministry of Petroleum began revising the crude oil prices in global markets to amend the hedging contracts, especially after the global price decrease to less than $70 per barrel last year.

A GLOBAL VIEW

OPEC

OPEC AND ALLIES EXTEND PRODUCTION CUTS TO MARCH 2020

The Organization of the Petroleum Exporting Countries (OPEC) has agreed to extend oil production cuts until March 2020, during their meeting in Vienna on July 1. Meanwhile, forecasted oil demand growth for 2019 has declined to 1.14 million barrels per day (b/d), while non-OPEC supply is expected to grow at a robust pace of 2.14 million b/d, year-on-year, according to OPEC's figures.

Furthermore, on July 2nd OPEC and its allies, known as OPEC+, agreed to extend the production cut agreement during their sixth ministerial meeting. The decision extends the agreed upon deal during the fifth OPEC and non-OPEC Ministerial Meeting in December 2018, which entails reducing oil output by 1.2 million barrels per day (b/d) until June 30, for an additional period of nine months, starting from July 1, 2019 to March 31, 2020.

The Joint Ministerial Monitoring Committee (JMMC) will monitor the implementation of the resolution, in light of the supply and demand balance and report back to the members. The meeting was held under the Co-Chairmanship of OPEC's current President, Manuel Salvador Quevedo Fernandez, Venezuela's Minister of Petroleum, and the Russian Minister of Energy, Alexander Novak. The next OPEC and non-OPEC Ministerial Meeting has been scheduled for December 6, 2019.

INTERNATIONAL

ZIMBABWE'S FUEL PRICES INCREASE, INFLATION RATE HITS 176% IN JUNE 2019

The Zimbabwe Energy Regulatory Authority (Zera) has marginally increased the price of petrol and diesel by Zimbabwe Dollars (ZWL$) 0.29 and ZWL$ 0.18, respectively, with immediate effect as the local currency continues to plunge against the US dollar. The country's inflation rate doubled hitting 175.7% in June, compared to 97.9% recorded a month earlier. According to Zimbabwe's statistics bureau, the prices have increased by around 39.9% in June. Furthermore, Zimbabwe's Ministry of Treasury expects these changes could help lowering the country's inflation rates. The Minister of Finance and Economic Development Mthuli Ncube anticipates that the inflation rate may reach less than 10% by the end of 2019.

SAUDI ARABIA RAISES GASOLINE PRICES

Gasoline prices in Saudi Arabia witnessed another increase in July and remain subject to changes in global export prices. Saudi Aramco announced that it is raising domestic prices of 91-Octane gasoline to SAR 1.53 ($0.41) per liter up from SAR 1.44 ($0.38), while 95-Octane gasoline prices were hiked to SAR 2.18 from SAR 2.10. Fuel price adjustments are in line with the government's plans to reform energy and water prices, and that they were subject to changes in global exports prices, according to Saudi Aramco. A similar move was announced in April, as 95-Octane gasoline prices were increased to SAR 2.10 from SAR 2.02, while the prices for 91-Octane were raised to SAR 1.44 from SAR 1.37.

ARAMCO LOWERS PRICES FOR ASIAN MARKETS

Saudi Aramco set the official selling price (OSP) of its Arab light crude oil sold to Asian markets during August at $2.45 a barrel. That price for Arab Super Light crude was set at a premium of $4.45 a barrel while the OSP for Arab Extra Light crude was at a premium of $2.65 a barrel. The price is lower than the previous month by 25 cents per barrel. Prices for Asia are affected by the monthly average price of Platts Dubai and the Oman Dubai Mercantile Exchange (DME). Saudi Aramco will soon reveal its first-ever earnings call, as the financial results announcement for H1 2019 has been scheduled for August 2019. Aramco announced in April that it has achieved a net income of around $111 billion during 2018, making it the world's most profitable company. The move came as part of the steps to launch the initial public offering (IPO) for the world's biggest oil company, which was first announced in 2016 and has been delayed ever since but is expected to take place by early 2021.

UAE ANNOUNCES NEW FUEL PRICES IN JULY 2019

The United Arab Emirates (UAE) Minister of Energy and Industry, Suhail Al Mazroui, announced new fuel prices, effective July. Per-liter prices for Super 98 is set at $0.63 (Dh2.30), down from $0.69 (Dh2.53) and Special 95 is set at $0.59 (Dh2.18) from $0.66 (Dh2.42). Diesel price has been fixed at $0.64 (Dh2.35), a decrease from $0.70 (Dh2.56) in June.

ENPPI WINS SAUDI CONTRACT WORTH $500 M

Enppi has won a major international bid for the implementation of a new petrochemical project in Saudi Arabia with more than $500 million, the Ministry of Petroleum said in a statement. Enppi's scope of work in the project will include basic and detailed designs, implementation work, and procurement, boosting the total volume of the company's operations in Saudi Arabia's oil project to more than $1.25 billion. The Egyptian Minister of Petroleum, Tarek El Molla, received a report from the head of ENPPI, Alaa Hijazi, illustrating that the company won the bid after competing with a number of international companies.

TOTAL TO PUMP INVESTMENTS IN EGYPT

French energy giant Total looks to increase its exploration and production (E&P) activities in the West Mediterranean and the Red Sea, as well as raising its overall investments in Egypt. According to Patrick Pouyanne, Chairman and CEO of Total, the company aims to build more fuel stations and infrastructure for transporting, storing, and distributing petroleum products. Furthermore, Total discussed ways of developing human resources within the Middle Management Performance Program to further enhance the oil and gas sector. This comes in light of the increasing demand on Total's 95-octane gasoline, in addition to the company's high sales of its gas stations across Egypt.

ENI, BP TO EXPORT GAS THROUGH IDKU LIQUEFACTION PLANT

The Ministry of Petroleum has allowed Eni and BP to export natural gas from their respective shares in the Zohr and North Alexandria fields through the Idku liquefaction plant after meeting the local market needs and achieving a surplus. The decision comes in line with the fields' development projects, which enable foreign partners to export natural gas after obtaining the ministry's approval. Exporting natural gas enables foreign companies to achieve significant financial gains as the liquefied gas shipments are sold according to international prices. Moreover, developing the second stage of the Zohr field will take place in July and is expected to increase the total natural gas production to about 2.95 billion cubic feet per day (bcf/d) from the current level of 2.7 bcf/d.

TOWN GAS TO DELIVER GAS TO 40,000 HOUSING UNITS

Town Gas is delivering natural gas to 40,000 housing units in new areas that are not connected to the national grid yet. This announcement was made as Yasser Bahnas, the head of Town Gas, visited Helwan to follow up on natural gas delivery and ensure reaching all households in the area. Bahnas evaluated the level of customer services and employees' readiness to deal with emergency cases. The visit ended with a meeting to discuss the challenges facing the gas delivery process and ensuring the delivery to about 30,000 housing units in New Cairo.

ENI COMPLETES ZOHR GAS PROCESSING UNIT

Eni finished establishing processing units for the Zohr natural gas field in May 2019, boosting its processing capacity to 3.2 billion cubic feet per day (bcf/d) of natural gas. The processing plants established for Zohr are combined into a 400 million standard cubic feet per day (mmscf/d) temporary processing unit, in addition to seven units with a capacity of 2.8 bcf/d, with investments of around $5 billion. Zohr gas field's total output reached 2.3 bcf/d, compared to 2.1 bcf/d at the beginning of 2019, the source said, adding that each well in Zohr produces an average of 250 mmscf/d of natural gas.

BP TO SELL GUPCO STAKE TO DRAGON OIL

British Petroleum (BP) is close to selling its stake in an Egyptian oil and gas firm to Dragon Oil for over $600 million, industry and banking sources stated. The transaction is set to take place in the coming weeks and would be the end of BP's 50 years journey in the Gulf of Suez Petroleum Company (GUPCO). Dragon Oil, which is a subsidiary of Dubai's Emirates National Oil Company (ENOC), revealed that it plans to expand its operations internationally and to increase its output to 300,000 barrels of oil equivalent per day (boe/d) by 2025.

EGAS TO PUT 11 GAS EXPLORATION BLOCKS FOR BID ROUNDS

The Egyptian Natural Gas Holding Company (EGAS) plans to put 11 natural gas exploration blocks for bid rounds in the western Mediterranean by Q1 2020, according to a source from the company. EGAS has finalized seismic studies and scans, and is waiting for the Ministry of Petroleum's approval to set a date for the bid rounds. The company has indicated that there is an abundant amount of natural gas for exploration and production (E&P) in the 11 blocks.

PETROJET COMPLETES MAJOR PROJECTS IN SUEZ CANAL

The Ministry of Petroleum revealed that Petrojet has successfully implemented a number of projects valued at EGP 22 billion, in coordination with the Armed Forces Engineering Authority. Projects included two 4.8-kilometer Suez Canal tunnels in Ismailia, which were inaugurated by President Abdel Fattah El-Sisi in May, after being completed in record time. Less than three years instead of an estimated five to seven years. Moreover, Petrojet participated in establishing a new 500-meter pier at East Port Said, as well as the second phase of the Egyptian Holding Company for Silos and Storage national project among other projects.

MIDOR PRODUCTION TO REACH 8 M TONS ANNUALLY

The production of the Middle East Oil Refinery (MIDOR) plant will exceed 7 million tons annually by the end of the expansion works. The refining capacity will increase by about 60% once the expansion and development work of the plant is completed with total investments of $2.2 billion. The petroleum sector plans to implement six new projects to develop refineries in Cairo, Alexandria, Suez, and Assuit, which will contribute to increasing the refining capacity to 41 million tons per year, with gasoline and diesel production reaching 3.6 million tons and 8.6 million tons annually respectively. This comes in light of the Ministry of Petroleum's work program to develop the refining industry, which includes a number of strategic projects that will increase the domestic production of petroleum products in order to meet the growing domestic demand and reduce imports.

WILD WELL BRINGS NEW RESPONSE EQUIPMENT TO EGYPT

Wild Well is introducing new equipment for specialized well intervention to Egypt, with an intervention kit that includes a 15K Valve Drilling package, a medium pressure Hot Tap package (rated for 5000 psi or less), and a Cryogenic Freeze package to meet the client's regional needs. The equipment arrived in Egypt on April 22 and is now available for local operators, providing them with both response and preventative measures during critical well operations. The equipment is stored in a warehouse in Alexandria Free Zone where the strategic location enables the equipment to be deployed quickly to any work locations, including the Mediterranean, Western Desert, and Gulf of Suez in order to support the customers' operations.

QALAA HOLDINGS RECEIVES $120 M FOR ERC

Qalaa Holdings has completed a $120 million funding round for its subsidiary, the Egyptian Refining Company (ERC), bringing the total capital investments of ERC to $1.5 billion and the total investment cost to $4.4 billion. The final tranche was requested by ERC's project finance lenders and is divided into $70 million for capital increase and $50 million for shareholders' loan. According to Qalaa Chairperson and Founder, Ahmed Heikal, the funding will cover ERC's first finance debt installment and part of the second debt installment, which is 99.6% completed and is set to begin full commercial operations by Q3 2019. The refinery's production capacity is 4.7 million tons of refined products and high-quality oil derivatives, which include 2.3 million tons of European-standard diesel and 600,000 tons of mazut-based jet fuel.

"TOGETHER, YOUR PARTNERS IN EGYPT"

PAN MARINE GROUP

WE SERVE YOU WHEREVER YOU ARE

PAN MARINE GROUP is a ONE-STOP service provider to our clients in Egypt through the following four companies:

1- Pan Marine Shipping Services
2- Pan Marine Logistics Services
3- Pan Marine Petroleum Services FZ
4- Medkon Lines Egypt S.A.E

Our customers are our greatest asset; we aim to provide them with a one-stop service in the most economical way through understanding their needs, solving their problems, and being a supportive consultant.

ALEX | CAIRO | DAMIETTA
PORT SAID | RAS GHAREB
SAFAGA | ABU QIR | SUEZ

www.pan-marine.net

VROON OFFSHORE SERVICES

....CONNECTING MARKETS

VROON OFFSHORE SERVICES excels in the provision of diverse services and solutions for key offshore-support needs, including platform supply, emergency response and rescue, anchor handling tug supply, walk to work, crew transfer and subsea support. In addition, Vroon Offshore Services offers a wide range of complementary offshore services.

With our versatile fleet and highly qualified and experienced colleagues, we are committed to providing safe, reliable and cost-effective services.

Vroon Offshore Services is an international operator with a strong geographical presence in Northern Europe, the Mediterranean, North Africa, the Indian Ocean and Asian regions.

ABERDEEN | DENHELDER | GENOA | SINGAPORE

Leaders in Safety

MACN

www.vroonoffshore.com

Head Office: Marhaba Tower, Fouad St., Off Horeiya Road, Alexandria 21131, Egypt
Tel.: +2033913820 (10 Lines) Fax: +2033913829 Email: Offshore@pan-marine.net

SAUDI ARABIA

Saudi Arabia, the world's top crude oil exporter, produced 9.782 million barrels per day (b/d) in June up from 9.67 million b/d in May. A recent survey showed that the Organization of the Petroleum Exporting Countries (OPEC) output fell to a new five-year low, as it amounted to a total of 29.6 million b/d in June, down by 170,000 b/d compared with May, recording its lowest level since April 2014. OPEC and its allies, known as OPEC+, agreed to extend the production cut agreement during their sixth ministerial meeting in Vienna on July 2. However, Saudi Arabia has kept its crude production below the deal's output target of 10.3 million b/d.

Saudi Basic Industries Corporation (SABIC) has extended its joint venture (JV) with the Japan Saudi Arabia Methanol Company (JSMC) in the Saudi Methanol Company (Arrazi) for another 20 years, after receiving regulatory approvals. SABIC will own 75% of the JV's shares, while JSMC will hold the remaining 25% stake. The financial impact of extending the JV will be in effect in Q2 2019. In addition, Arrazi's financial results will depend on the new ownership structure.

Saudi Aramco signed a memorandum of understanding (MoU) with S-Oil, one of South Korea's top refiners by capacity, to provide technical advice on a $6-billion petrochemical plant. The MoU took place as Saudi Crown Prince Mohammed bin Salman visited South Korea this week to boost economic ties between the two countries. The plant is anticipated to be completed by 2024, with a capacity of 1.5 million tons per year and olefin downstream facilities in the plant.

Saudi Aramco has signed 12 agreements worth billions of dollars with South Korea. The agreements were signed with a diverse set of companies that work on ship building, engine manufacturing, refining, petrochemicals, and crude supply, sales, and storage. This comes as part of Aramco's long-term strategy for downstream growth and diversification.

Saudi Aramco has awarded 34 contracts with a total value of $18 billion for the engineering, procurement, and construction of the Marjan and Berri increment programs. The aim is to increase Marjan and Berri oilfields' production capacity by 550,000 b/d of Arabian crude oil and 2.5 billion standard cubic feet per day (bscf/d) of gas. The Marjan increment program is expected to include a new offshore gas oil separation plant, and 24 offshore oil, gas and water injection platforms, as well as expanding Tanajib onshore oil facilities and construct a new gas plant. On the other hand, the Berri increment program consists of a new gas oil separation plant in Abu Ali Island, additional gas processing facilities at the Khursaniyah gas plant, a new water injection facility, two drilling islands, 11 oil and water offshore platforms and nine onshore oil production and water supply drill sites.

Saudi Aramco is once again preparing for its potential initial public offering (IPO). It was announced in 2016 and scheduled for H2 2018. The first time Aramco sold bonds was in April, and the huge demand for Aramco's bond offering allowed it to borrow at a lower interest rate. It is worth noting that the Crown Prince of Saudi Arabia, Mohammed bin Salman, recently expressed his commitment to go through with the IPO of Saudi Aramco. Saudi Arabia targets to raise a record $100 billion by selling a 5% stake in Aramco. The plan is based on the ability of the kingdom to reach the $2 trillion valuation it has been seeking for the company.

UAE

The Abu Dhabi National Oil Company (ADNOC) announced that it has closed a pipeline infrastructure investment agreement with BlackRock and KKR. The companies signed the initial agreement in February 2019 to invest $4 billion into the midstream pipeline assets. The Abu Dhabi Retirement Pensions and Benefits Fund (ADRPBF) then agreed to further invest $300 million, which is expected in Q4 2019. Under the agreement, a new entity is formed, ADNOC Oil Pipelines, in which ADNOC dominates a 57% stake, while BlackRock and KKR own a combined 40% stake, and ADRPBF owns 3%. ADNOC Oil Pipelines leases 18 pipelines with a total length of over 750 km, and a total aggregate capacity of approximately 13,000 million barrels per day (b/d), transporting stabilized crude oil and condensate across ADNOC's offshore and onshore upstream concessions, for a 23-year period.

Al Dhafra Petroleum, a joint venture between ADNOC, the Korea National Oil Company (KNOC), and GS Energy announced it has begun producing crude oil from Abu Dhabi's Haliba field. Haliba field, located along the southeast border of Abu Dhabi, will produce 4 million b/d by the end of 2020. ADNOC see that production will increase to 40,000 b/d by the end of 2019. In addition, it discovered potential resources in three new fields, Al Humrah, Bu Tasah, and Bu Nikhelah, in its concession area. Al Dhafra Petroleum, one of ADNOC's youngest operating companies, embarked on an extensive appraisal program in Haliba field that enabled it to discover 1.1 billion barrels of original oil in place (OOIP), a significant increase from the 180 million initially estimated.

Indonesia aims to attract more than $5 billion of investments in the oil and gas sector from the United Arab Emirates (UAE) and the Middle East. The UAE government is interested in investing in Indonesia, engaging in joint investments for a multi-billion dollar action plan. Cooperation could help create many job opportunities in Indonesia. Indonesia's Pertamina recently revealed plans to increase production from its oil and natural gas production fields in Algeria by 10% in 2019 and 2020. Indonesia is expected to double its refining capacity to 2 million b/d by the end of 2026.

Dana Gas has purchased 368,250 shares as part of the buy-back program for around $95,140. It is worth noting that the buy-back program, in which Dana Gas is allowed to buy up to 10% of its shares, was approved by the UAE's Securities and Commodities Authority (SCA) in May. The repurchased shares account for around 0.0053% of the total subscribed capital shares. The value of the transaction stood at about $0.26 (AED 0.949) per share. During Q1 2019, Dana Gas reported a 150% surge in net profits, as the company's net profit reached around $35 million in the three-month period that ended in March, up from $14 million in Q1 2018. Revenues stood at $119 million during the first three months of 2019, compared to $120 million achieved last year, while production totaled 68,700 barrels of oil equivalent per day (boe/d).

The Abu Dhabi Department of Energy (DoE) in cooperation with the Abu Dhabi Digital Authority (ADDA) has launched its new instant licensing services through the Abu Dhabi Government Services System (TAMM). Licenses will be issued by Tamm within one working day, as the service aims at enhancing Abu Dhabi's digital transformation journey and support DoE's effort regarding customer experience, allowing businesses in Abu Dhabi to benefit from free-of-charge two-year licenses that facilitate the minimum requirements and operational steps. The purpose of this mutual venture is to create technologies that can better serve small-size energy businesses in Abu Dhabi.

ADNOC has hired Bank of America Merrill Lynch and Mizuho Financial Group to manage the lease of its natural gas pipeline assets, which are worth an estimated $12-15 billion. The UAE-based company recently finalized an agreement for a pipeline infrastructure investment with BlackRock and KKR for a total of $4 billion, with the Abu Dhabi Retirement Pensions and Benefits Fund (ADRPBF) agreeing to invest $300 million.

OMAN

Four new hydrocarbon and petrochemical projects worth $2.5 billion will be implemented on a new reclaimed land from the sea as a part of the Sohar South expansion project of Sohar Port and Freezone (SOHAR). Sohar has launched a tender for the land reclamation which is expected to add around 250 hectares to SOHAR's petrochemicals cluster. A two-year framework is anticipated to complete the land's dredging and reclamation and the projects are envisioned to be implemented in three years. Trescorp, a Singapore-based oil and petroleum products trading firm, is expected to be among the first tenants with investments around $600 million in the new terminal.

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 French company's oilfields in the British North Sea are set to produce 25,000 barrels of oil equivalent per day (boe/d) in 2019. The deal will be carried through a subsidiary of the two groups called Petrogas NEO UK, as part of the plan to increase its production to more than 100,000 boe/d within two to three years.

McDermott International announced it was awarded a contract by Total Oman E&P Development in partnership with Oman Oil Company (OOC) to provide front-end engineering design (FEED) services for the Sohar LNG Bunkering Project in Oman. This contract will make Oman a regional liquefied natural gas (LNG) bunkering hub capable of supplying LNG as a fuel to marine vessels. Work will include fully defining the onshore mid-scale LNG facilities and preparing a competitive tender for the engineering, procurement, supply, construction and commissioning phase.

BAHRAIN

Bahrain's National Oil and Gas Holding Company (NOGA Holding) and Baker Hughes, a GE Company (BHGE) have signed a memorandum of understanding (MoU). This MoU is expected to enhance cooperation between Bahrain and BHGE in the oil and gas sector. In addition, this agreement will allow BHGE to explore opportunities, increase efficiency levels, and contribute positive and constructive support for the process of economic growth in the Kingdom of Bahrain. NOGA Holding is the investment and business development arm of the Bahraini National Oil and Gas Authority (NOGA), which is responsible for all petroleum and gas related issues in Bahrain.

Bahrain-based Oak Group Holdings has reached a deal to generate and inject biogas into the UK gas grid. The 25-year agreement with Cadent Gas, one of Britain's natural gas grid operators includes the supply of over 12 million homes and businesses with natural gas. The Bahraini company will invest around $100m to build, own, and operate (BOO) an initial three waste-to-energy plants in the UK, which will collectively inject up to 6,000 kilograms per hour of biogas.

KEEPING AN EYE ON THE **SUEZ CANAL** AS A PATH FOR HYDROCARBONS (2014-2018)

BY **AMINA HUSSEIN, REHAM GAMAL, AND TASNEEM MADI**

By possessing an exceptional geographic location, Egypt plays a major role in the international trade of Hydrocarbons . For instance, Liquefied Natural Gas (LNG) flowing through the Suez Canal reached 1.2 trillion cubic feet (tcf) in 2018, amounting 9% of total worldwide LNG trade, as explained in Alexandria Bank's 2018 Report "The Suez Canal after the expansion: Analysis of the traffic, competitiveness indicators, the challenges of the BRI and the role of the Free Zone." The African country has the potential to be an energy hub to the main markets in Europe through the operation of the Suez Canal and SUMED Pipeline. They both transport 98% of the Arab Gulf oil products exported to the European Union (EU) and the United States (US), according to published data by the Ministry of Petroleum and Mineral Resources (MoP). Moreover, the Suez Canal plays an important role in supporting the external position of Egypt, as between July and March 2018/19 the canal's receipts reached $4.3 billion pushing the service balance to record a surplus of $9.8 billion, according to the Central Bank of Egypt (CBE).

TOTAL HYDROCARBON FLOWS THROUGH THE SUEZ CANAL

The Suez Canal has two convoys: a northbound convoy that transports from the Persian Gulf to the EU and the US; and a southbound convoy that heads from North Africa & neighboring countries along the Mediterranean Sea to Asia, according to the Energy Information Administration (EIA)'s Country Analysis Brief: Egypt 2018.

To better facilitate the global connection, fast passage projects were implemented to execute the shipment process, connecting the EU with all overseas neighboring ports such as Alexandria and West Port Said Ports as well as other promising ports on the Red Sea including Ras Shukhair, Al Adabia, and El Sokhna Ports. Moreover, the country aims to increase storage capacity in these ports, by exploiting the infrastructure of the National Grids, to meet international and domestic needs, according to official statements by the MoP.

Over the period from 2014 to 2018, total hydrocarbon flows passing through the Suez Canal convoys saw an increasing trend, where the flows rose from 203.8 million tons (mmt) in 2014 reaching 261.61 mmt in 2018, according to the Suez Canal Authority (SCA)'s data.

1. TOTAL OIL AND PRODUCTS FLOWS

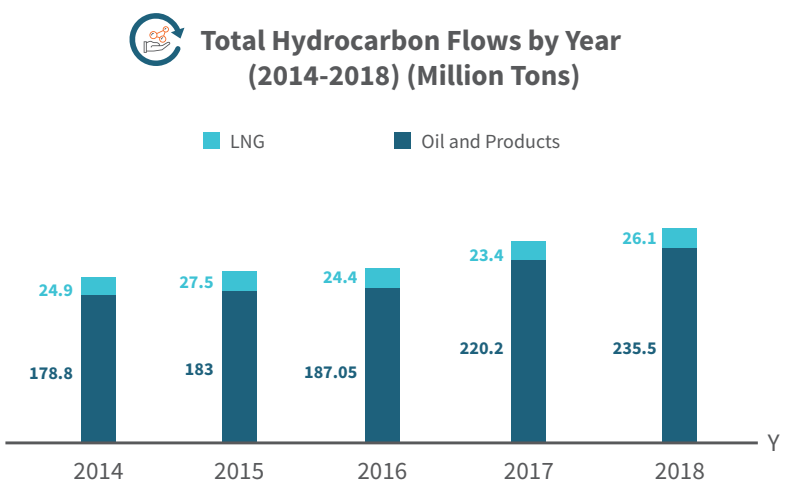
Over the comparison period, total oil and products flows through the canal witnessed an increasing trend where it raised from 178.9 mmt in 2014 reaching 235.5 mmt in 2018 with an overall growth of 31.6%, accordingly, 2018 represented the year with the largest transported quantities of oil and products. Totally, oil and products flows reached 1,004.6 mmt representing 89% of hydrocarbon shipments. It is noteworthy that transported crude oil recorded 480.4 mmt, representing 48% of the total transported oil and products, according to the SCA's data.

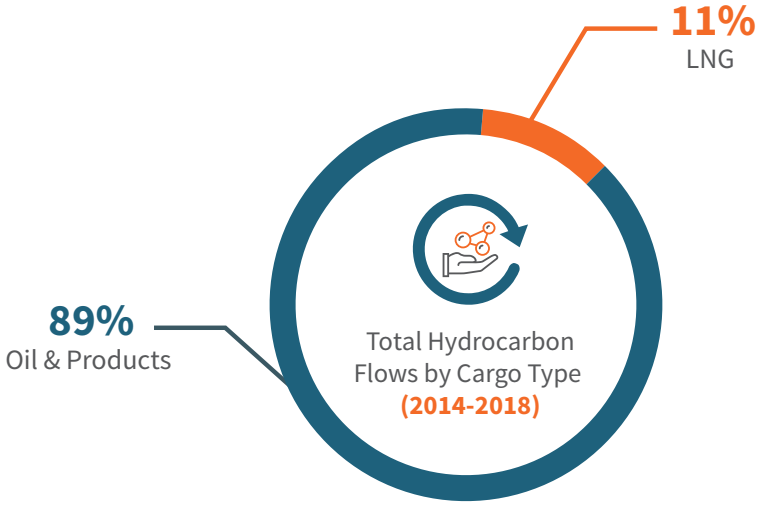
Crude oil is the **highest** transported hydrocarbon product through the southbound and northbound convoys between **(2014-2018)** by **28%** and **53%**, respectively.

2. TOTAL LIQUEFIED NATURAL GAS FLOWS

The Suez Canal has LNG flows in both directions as well. It is worth mentioning that northbound LNG flows come mostly from Qatar and is exported to European markets. On the other hand, southbound LNG primarily flows from Nigeria, France, Trinidad, and Tobago and is generally exported to Egypt, Jordan and Japan, stated by the EIA, Country Analysis Brief: Egypt 2018.

Over the comparison period, total LNG flows witnessed a fluctuating trend. The flows increased from 24.9 mmt in 2014 to 27.6 mmt in 2015, mainly due to the canal's expansion followed by successive declines to reach 23.4 mmt in 2017. Yet, they increased in 2018 reaching the maximum at an amount of 26.1 mmt. It is noteworthy that, over the comparison period, northbound and southbound LNG flows totaled 126.4 mmt, sharing by only 11% of hydrocarbon flows, explained by the SCA's data.

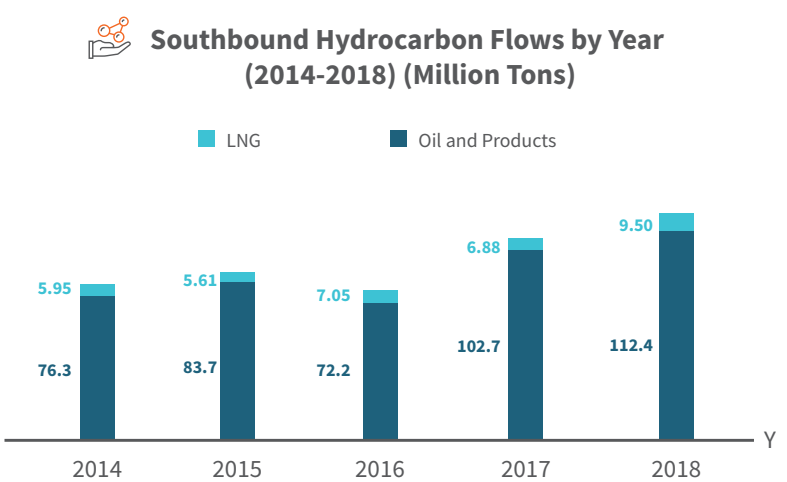




SOUTHBOUND HYDROCARBON FLOWS

From 2014 to 2018, southbound total hydrocarbon flows witnessed a fluctuating trend. The flows grew by 9% in 2015, and then declined by 11% in 2016, yet they increased in 2017 and 2018 by 38% and 11%, respectively. It is worth mentioning that 2018 remarked the highest year of transporting hydrocarbons through the southbound. In total, southbound hydrocarbon flows recorded 482.4 mmt of which oil and products represented 93%, while LNG represented the remaining 7%, explained by the SCA's data.

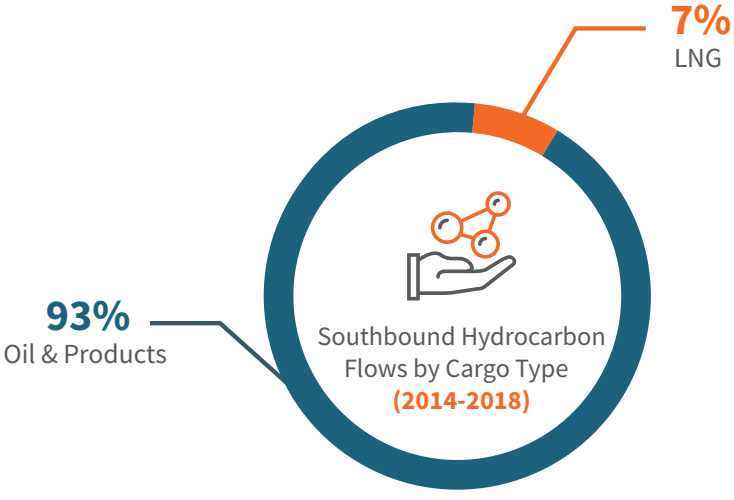
Between **(2014-2018)**, Southbound hydrocarbon flows recorded a total of **482.4 mmt**.



Over the comparison period, southbound oil and products flows saw a fluctuating trend as well. First, they rose by 10% in 2015, declined by 14% in 2016 and then remarkably increased in 2017 by 42% when Russia doubled its exports through southbound convoy and slightly increased in 2018 by 9%, the SCA reported.

On the other side, southbound LNG flows witnessed a fluctuating trend, yet, opposite to that of the oil and products flows'. The LNG flows slightly decreased by 6% in 2015, increased in 2016 by 26%, faintly declined by 2% in 2017 and noticeably increased by 38% in 2018, stated by the SCA's data.

Crude oil and fuel oils represented the highest two transported oil products southbound by about 28% each. On the contrary, Gas Oil & Diesel Oil and Liquified Petroleum Gas (LPG) represented the least transported oil products southbound by 2% and 2.5%, respectively, according to the SCA's data.

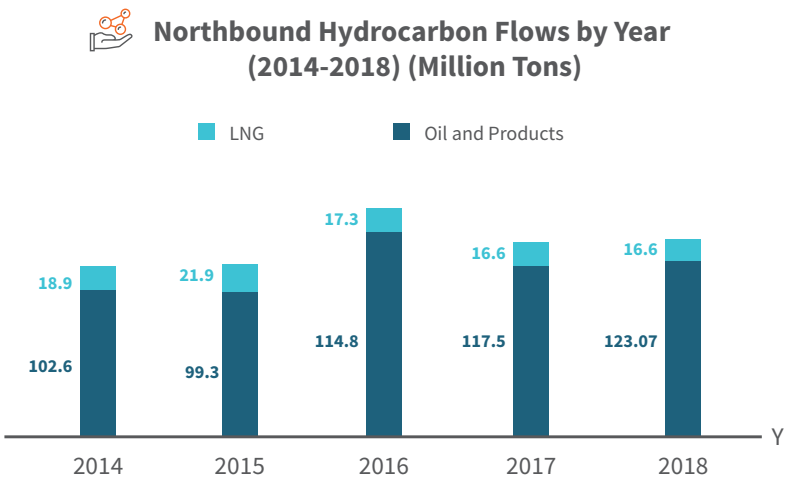


NORTHBOUND HYDROCARBON FLOWS

Over the period from 2014 to 2018, northbound hydrocarbon flows' overall trend slightly declined to 121.2 mmt in 2015 down from 121.5 mmt in 2014. Since 2015, the trend has taken an increasing direction for the transported hydrocarbons to reach 139.7 mmt in 2018, remarking the largest amount transported over the whole period, explained by the SCA.

The hydrocarbon flows through the northbound of the canal over the referred five years recorded a total of 648.6 mmt. Noticeably, the northbound oil and products represented 86% of the total hydrocarbon flows, while LNG represented the remaining 14%, the SCA stated. Noticeably, oil and products share is greater than LNG's as Saudi Arabia, Iraq, and Iran are the top countries exporting through the northbound.

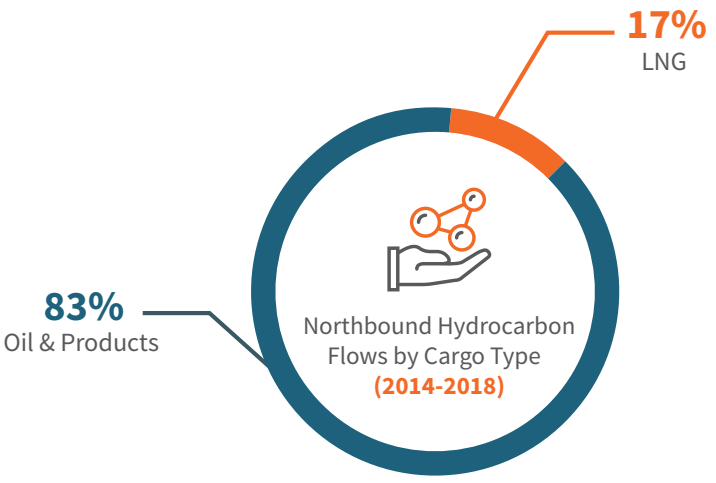
Between **(2014-2018)**, Northbound hydrocarbon flows recorded a total of **648.64 mmt**.



Over the referred period, northbound oil and products flows witnessed an increasing trend. First, they declined by 3% in 2015, yet they steadily increased in 2016, 2017 and 2018 by 16%, 2% and 5%, respectively, as reported by the SCA.

On the contrary, northbound LNG flows witnessed a slightly fluctuating trend. They first rose by 16% in 2015, then remarkably decreased in 2016, 2017 by 21%, 5%, respectively and slightly rose in 2018 by 0.3%, according to the SCA.

Crude oil is considered the highest transported hydrocarbon product through the northbound at a major amount of 342.7 mmt, representing 53% of total transported hydrocarbons. On the other hand, Naphta has a minor share in the total hydrocarbon flows with only 0.11%, stated by the SCA.



MAIN EXPORTING AND IMPORTING DESTINATIONS

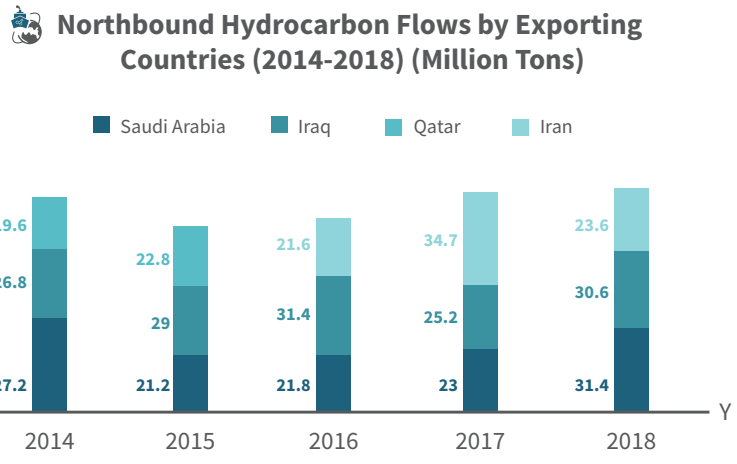
1. NORTHBOUND TOP EXPORTERS AND IMPORTERS

Over the comparison period, only four countries, dominated the crude oil, products, and LNG exports through northbound, namely: Saudi Arabia, Iraq, Iran, and Qatar, reported by the SCA.

According to the SCA's figures, in 2014, Saudi Arabia came first with 27.2 mmt of which all were oil and products. It was followed by Iraq, which exported 26.8 mmt. In addition, Qatar came in third place with 19.6 mmt. Within the next two years, Iraq took over the top, moving Saudi Arabia to the second place, by exporting approximately 29 mmt and 31.4 mmt, consecutively.

In 2017, Iran came first by exporting 34.7 mmt oil and products, which was the largest amount exported through northbound convoy between 2014 and 2018. While in 2018, Saudi Arabia came back to its position with 31.4 mmt of exported oil and products, stated by the SCA.

As for Qatar, it came in the third place twice. The first time was in 2014 with 19.6 mmt of which 90% were LNG. In 2015, Qatar's hydrocarbon exports through the Suez Canal reached 22.8 mmt where 93% of which is LNG, the SCA reported.



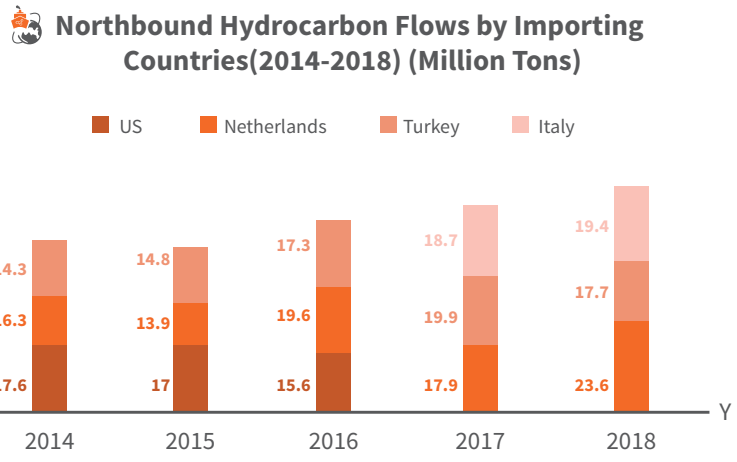
On the other hand, The US, Turkey, and the Netherlands along with Italy were the top importing oil, products and LNG countries through the Suez Canal northbound convoy, the SCA reported.

From 2014 to 2015, the US was on top of the importing countries from the northbound convoy with 17.6 mmt and 16.98 mmt, respectively. Observably, most of the US hydrocarbon imports are oil, products, as in 2014 it imported only 0.114 mmt of LNG, while in 2015, the amount of imported LNG was only 0.12 mmt, the SCA elaborated.

In 2016, the Netherlands dominated the hydrocarbon imports passing through northbound convoy with 19.6 mmt, of which 100% was oil and products. Besides, Turkey increased its imports, moving the Netherlands to rank the second and occupying the first place, in 2017 by importing 19.9 mmt, the SCA stated.

Finally, in 2018, the Netherlands was able to reclaim its position on the top of the importing countries by importing 23.4 mmt of oil and products and 0.278 mmt of LNG, totaling 23.6mmt, remarking the largest amount imported through northbound convoy over the comparison period, reported by the SCA.

Concerning the Italian participation, Italy entered this race in 2017 in the third place, with 18.7 mmt, and kept its position in 2018 by importing a total of 19.4 mmt, explained by the SCA.



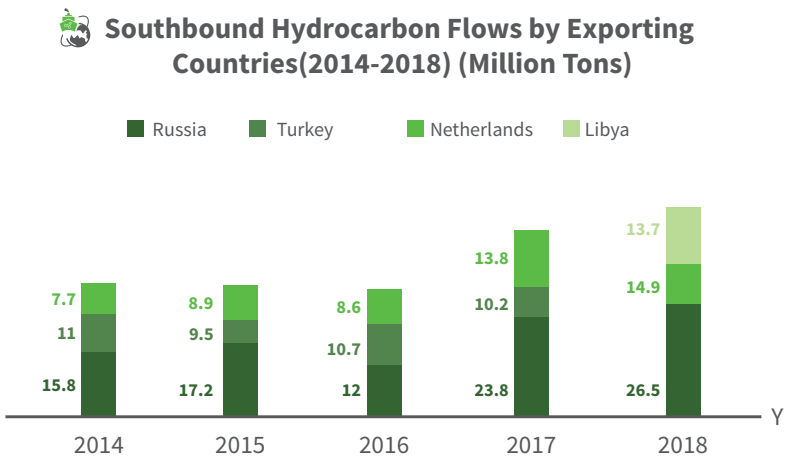
2. SOUTHBOUND TOP EXPORTERS AND IMPORTERS

As for the southbound, Russia, Turkey, and the Netherlands were the main hydrocarbon exporters over the referred period, the SCA reported.

Russia dominated the top over the referred five years, as in 2014 it exported 15.8 mmt through southbound convoy that increased by 68.8% over the whole period to reach 26.5 mmt, which remarked the largest amount of hydrocarbon exports passing through the Suez Canal southbound, the SCA stated.

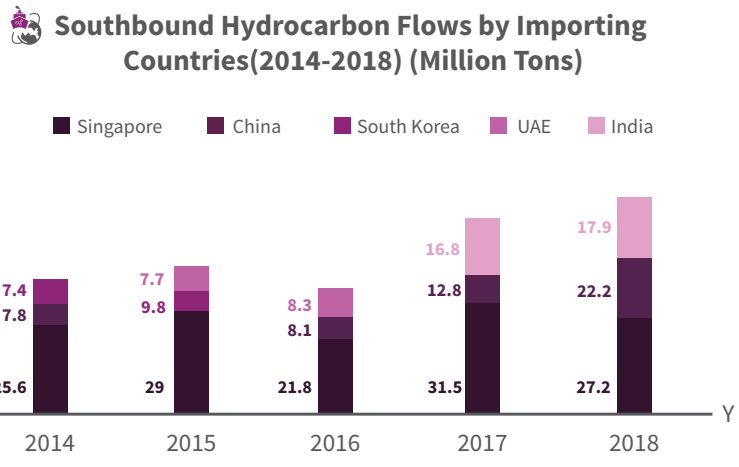
Generally, the rank of hydrocarbons exporting countries through southbound convoy was constant from 2014 to 2016, starting with Russia followed by Turkey and finally the Netherlands. However, in 2017, the Netherlands and Turkey exchanged positions. The Netherlands maintained a 93% increase in its exports through southbound convoy as it increased from 7.7 mmt in 2014 to 14.9 mmt in 2018, according to the SCA's annual reports, according to the SCA.

Over the comparison period, Turkey's hydrocarbon exports through southbound convoy decreased by 7% from 11.02 mmt in 2014 to 10.21 mmt in 2017. In 2018, Libya was able to take over Turkey's third place with 13.7 mmt, as referred by the SCA.



The list of main importing players through southbound convoy was more diversified. It contained five different countries that alternated their positions repeatedly, namely: Singapore, China, South Korea, the UAE, and India. However, Singapore remained on the top of these countries over the whole period. Singapore's hydrocarbon imports increased by 6.6% from 25.6 mmt in 2014 to record 27.2 mmt in 2018. Moreover, Singapore recorded 31.5 mmt in 2017, which is the largest amount of hydrocarbon imports passing through the southbound over the comparison period, the SCA stated.

India started to join the top importing countries in 2017, with a relatively significant amount of 16.8 mmt that made it in the second place. In 2018, the amount imported by India increased to 17.9 mmt, however, it was in the third place as China's imports recorded 22.2 mmt making it rank the second, the SCA reported.



The Suez Canal significantly participates in the growth of the Egyptian petroleum sector, by strengthening Egypt's global position and supporting the MoP's modernization project to convert Egypt to a regional energy hub. For instance, LNG flows through the Suez Canal in both directions represented 9% of the global LNG trade, according to the EIA.

Furthermore, the expansion of the canal in 2015 increased the canal's traffic in terms of number of ships and quantities of transported goods, which was reflected on the petroleum trade movements. Between 2015 and 2018, the total hydrocarbon flows increased by 19.5%. Moreover, in April 2019, oil tankers represented 26 % of the total passing ships in the Canal Suez, according to the Central Agency for Public Mobilization and Statistics (CAPMAS) figures.

One source for all your power and automation needs

ABB offers products, systems and services across the entire hydrocarbon value chain. We provide our customers an integrated approach for automation and electrical needs that reduces cost, keeps customers on schedule, and minimizes risk. ABB has a strong track record for optimized execution in this industry and ensuring reliable operations, functional safety, system availability and compliance with environmental requirements. **abb.com/africa**

ABB

EGYPT'S MAJOR ROLE WITHIN A GLOBAL PORTFOLIO:

INTERVIEW WITH **MARIO MEHREN**, CHAIRMAN OF THE BOARD AND CHIEF EXECUTIVE OFFICER (CEO) OF **WINTERSHALL DEA**

Ever since Wintershall Dea was officially formed in May, the company laid out ambitious plans for growth, including in Egypt, where it committed to invest $500 million over two years, building on a prestigious portfolio that dates back to the 1970s. Egypt Oil & Gas spoke to Wintershall Dea's Chairman of the Board and Chief Executive Officer (CEO), Mario Mehren, during his visit to Egypt to discuss the company's expansion strategy in the Egyptian market.

THE WINTERSHALL DEA MERGER CREATED THE LARGEST INDEPENDENT OIL AND GAS COMPANY IN EUROPE. HOW DOES THE NEW COMPANY DIFFERENTIATE AND POSITION ITSELF IN BOTH EUROPEAN AND MIDDLE EASTERN MARKETS?

With the merger of two German companies steeped in tradition, we have created Europe's leading independent gas and oil company. And we will continue our growth path. Over the next three to four years, we want to increase our global production from the current 590,000 barrels of oil equivalent per day (boe/d) to 750,000-800,000 boe/d, within our existing portfolio. This will happen primarily in Norway, Russia, the MENA region, and in Latin America. The larger Wintershall Dea now has the strength, know-how, and international presence to be competitive on the world market and is even more attractive as an operator and partner in licenses and projects for both, IOCs and NOCs. Wintershall Dea is big enough to be relevant and at the same time, we are independent, agile, and flexible enough for complex tasks. In short: We are smart, not just big.

WHERE DOES EGYPT FIT IN THE NEW COMPANY PLANS FOR THE FUTURE? HOW SIGNIFICANT IS THE EGYPTIAN MARKET IN YOUR GLOBAL PORTFOLIO?

Looking at the world map, we now have activities in four regions and 13 countries: Our work extends from the Norwegian North Sea to the world's southernmost production platform on the coast of Tierra del Fuego in Argentina, from the Siberian permafrost to the heat of the Sahara. Egypt plays an important role within our global portfolio. It has been one of the company's core countries for decades. To be precise, we are active in Egypt since 1974. We have a solid portfolio in the country: Operated oil production in the Gulf of Suez, we are producing gas from our own-operated Disouq project, and we are partner with BP in one of the most important energy projects of the country, West Nile Delta.

We are glad that we were awarded an onshore exploration license during the latest bid round. We currently work with full steam on boosting our production significantly. Egypt currently ranks fifth in Wintershall Dea's global portfolio in terms of production volumes, with the chance to become number four by end of the year, after the startup of the Raven field in the West Nile Delta.

LAST YEAR, DEA PROMISED TO DOUBLE ITS PRODUCTION IN EGYPT. DO YOU STILL COMMIT TO THIS TARGET?

As I said, we are working on boosting our production significantly and are committed to our targets. We are investing more than $500 million in our Egyptian assets during the period from 2018 to 2020. Currently, we are conducting an extensive work program in all own-operated assets. In West Nile Delta, we have now four gas fields producing and Raven, the biggest piece, is planned to come on stream during H2 2019. So yes, we are still committed to this target and on track.

Egypt is transforming into a regional energy hub and the center for natural gas trade in the East Mediterranean. How would that benefit Wintershall Dea, and what role can the company play to help achieve this strategic goal?

Indeed, Egypt's oil and gas industry is developing impressively. Within a few years only, Egypt has turned from being an importer of natural gas to an exporting country. This was achieved, among others, through the reforms implemented in the country's oil and gas sector and the swift development of large offshore gas discoveries, like Zohr and West Nile Delta, where we are involved.

The investment climate in Egypt improved significantly, and new options come up. As Wintershall Dea, we are set for growth on a global scale and are therefore looking for attractive business opportunities. I think that the Eastern Mediterranean region is under-explored when it comes to gas. It is an interesting region and Egypt is well-positioned to serve as an Energy Hub due to its well-established export facilities, which would offer convenient export routes. Therefore, I think the initiative taken by Egypt under the leadership of H.E Eng. Tarek El Molla to establish the East Mediterranean Gas Forum (EMGF), is very good. As a long-term investor and partner, Wintershall Dea will continue to support Egypt on this way.

THERE HAVE BEEN STRONG TIES AND COOPERATION BETWEEN EGYPT AND GERMANY FOR DECADES. IS WINTERSHALL DEA'S EXPANSION IN THE EGYPTIAN MARKET A SIGN OF THE CONTINUITY OF GERMAN INVESTMENTS IN EGYPT AND THE LONG-TERM PARTNERSHIP?

Wintershall Dea is one of the most important German investors in the country, and a long-term one. We are the only German gas and oil company in the country, but there are of course more business ties between our countries. Only a few weeks ago, a large delegation of the Egyptian Cabinet, headed by Prime Minister Mostafa Madbouly, visited Berlin, to meet with the German Federal Minister for Economic Affairs and Energy, Peter Altmaier, and to further strengthen the German-Egyptian business relations. This is good news.

YOU ARE PLANNING AN INITIAL PUBLIC OFFERING (IPO) IN 2020, ARE THERE ANY UPDATES ON THE LISTING THAT YOU COULD SHARE WITH OUR READERS?

Yes, indeed, we are currently working hard to be IPO-ready by the mid of 2020. When the IPO will happen will very much depend on the overall market conditions at the time, both in terms of equity markets and commodity prices.

AFTER ALMOST 44 YEARS OF OPERATIONS IN EGYPT, YOU APPOINTED THE FIRST EGYPTIAN COUNTRY MANAGER LAST YEAR, AND SINCE YOU OPERATE IN 13 COUNTRIES AROUND THE GLOBE, HOW IMPORTANT IS DEVELOPING THE LOCAL WORKFORCE?

I am happy that we have Sameh Sabry on top of our business in Egypt! Wintershall Dea needs the best employees for our challenging projects worldwide. We therefore invest in the knowledge and skills of our staff. Promotion of talent and the continuous development of the workforce where it is needed plays an important role for us.

We have also a special young talent program, where trainees gather practical experience in operational business at our different international locations, as part of a 1.5 to 2-year program. The program enjoys great popularity and the young talents are optimally prepared for a later international assignment with us.

> "WE ARE ACTIVE IN EGYPT SINCE 1974. WE HAVE A SOLID PORTFOLIO IN THE COUNTRY: OPERATED OIL PRODUCTION IN THE GULF OF SUEZ, WE ARE PRODUCING GAS FROM OUR OWN-OPERATED DISOUQ PROJECT, AND WE ARE PARTNER WITH BP IN ONE OF THE MOST IMPORTANT ENERGY PROJECTS OF THE COUNTRY, WEST NILE DELTA."

INTRODUCTION OF EUROPE'S LEADING INDEPENDENT GAS AND OIL COMPANY TO EGYPT

BY **MAI EL GHANDOUR**

During his first visit to Egypt, Chairman of the Board and Chief Executive Officer (CEO) Mario Mehren reinforced Wintershall Dea's commitment to the country. The company invited representatives from the oil and gas industry, German stakeholders and diplomats for a one-of-a-kind Gala Dinner at the monumental venue of the Citadel of Salah El Din in Cairo.

The event was held under the patronage of H.E Eng. Tarek El Molla and the Embassy of the Federal Republic of Germany. The Minister, Wintershall Dea's CEO and Senior Vice President and Managing Director Egypt Sameh Sabry gave the guests an insight into the newly formed company and the latest political developments in Egypt. The evening was rounded off by an entertainment program amid an awe-inspiring scenery.

Mario Mehren highlighted Wintershall Dea's positive experiences in Egypt, saying that the country plays a vital role in the company's portfolio. He further mentioned the current investment program that was announced earlier, as the company is spending 500 Million Euros in Egypt to double its production. With regard to the prep up for the Raven field in West Nile Delta he said, "together with operator BP, we are working for the Raven field to come on stream. That will help us to boost our gas production. This shows you how we are set for growth in Egypt."

Mehren highlighted, that he is pleased, having operational activities in Egypt. ""It is really a big pleasure to be a part of the Egyptian oil and gas industry and part of the community here," he added.

Tarek El Molla expressed his gratitude for the formation of Wintershall Dea, saying "we are very enthusiastic about this merger and the plans it has for the Egyptian oil and gas sector, hoping that this strong alignment will bring Wintershall Dea to Egypt's stock list of international oil companies (IOCs)."

Mario Mehren stressed the minister's role along with the Ministry of Petroleum and Mineral Resources are playing in the creation of an East-Med gas hub and how the merger could contribute to this development. "This is a fantastic and visionary idea, both as a gas strategy and from a political strategy perspective.. I think this have all the ingredients to become one of the success stories in the future for Egypt but also

"THE MINISTRY OF PETROLEUM AND MINERAL RESOURCES IS READY TO SUPPORT AND HELP ELIMINATE ANY OBSTACLE TO HELP REALIZE WINTERSHALL DEA HUGE GOALS IN EGYPT"

H.E ENG. TAREK EL MOLLA
Minister of Petroleum & Mineral Resources - Arab Republic of Egypt

"SO NOW WE ARE WINTERSHALL DEA AND IT IS REALLY A BIG PLEASURE TO BE A PART OF THE EGYPTIAN OIL AND GAS INDUSTRY AND PART OF THE COMMUNITY HERE"

MR. MARIO MEHREN
Chairman of the Board and Chief Executive Officer (CEO) of Wintershall Dea

> EGYPT IS OFFERING A VERY WIDE LANDSCAPE OF OPPORTUNITIES AND ITS IMPROVING BUSINESS CLIMATE AS WELL AS WELL-ESTABLISHED INFRASTRUCTURE, VERY GOOD TALENTS AND HUMAN CAPABILITIES

ENG. SAMEH SABRY
Senior Vice President, Managing Director of Wintershall Dea Egypt

for the cooperation between Egypt and the European Union, which we know will have a significant demand for gas. So Minister, I thank you for this visionary initiative."

The CEO further elaborated on the future prospects, particularly in terms of gas production, which are very positive for Egypt and for the company alike saying, "we have seen very interesting discoveries in Egypt, but also in other areas of this region, and therefore, I am convinced that there is a very impressive resource base available. And that makes the East-Med a very interesting place for a future gas hub." Moreover, he said that Egypt is very well placed because of its infrastructure that is already available and especially the liquified natural gas (LNG) facilities to ship gas to Europe.

The Egyptian Managing Director Sameh Sabry said, that Wintershall Dea's journey in Egypt has come a very long way. The company went by different names throughout its 45 years of history in Egypt and is arguably one of the longest standing German investors in the country. Since then, the company have produced more than 650 million barrels of oil equivalent (boe), he explained.

Sameh Sabry also shared his thoughts on the ever-growing level of improvement in the business community, which shapes the Egyptian petroleum industry. "We have seen the solid steps taken to convert Egypt into a regional hub for the East-Med, which is not only unlocking opportunities in Egypt, but also unlocking opportunities in the region. We have seen the Modernization Project that his Excellency has been supporting, and this is in terms of improving the capabilities of the people as well as the investment climate that is very welcome."

Pointing to the new company set-up of Wintershall Dea, Sabry stated: "Size matters. So this comes with additional resources and there is a clear plan for growth. On the other side, Egypt is offering a very wide landscape of opportunities and its improving business climate as well as well-established infrastructure, very good talents and human capabilities".

Sonke Siemon, Charge d' affaires of the German Embassy in Egypt said during his speech that the energy sector is pivotal for political stability. "Without affordable and reliable access to energy, there is no stability available. We need therefore reliable and constant energy supply for the population and for business, and I am very proud of Wintershall Dea's contribution to this big endeavor, that Egypt has in front of it."

Mario Mehren concluded in his speech that the company's greatest achievements lie within the traditional engineering virtues and the willingness to break new grounds, which reflects the company's motto "Minds of engineers, pioneers at heart."

As the day was coming to an end, the minister said, "the Ministry of Petroleum and Mineral Resources is ready to support and help eliminate any obstacle to help realize Wintershall Dea huge goals in Egypt."

THE FUTURE OF ALTERNATIVE FUEL VEHICLES IN EGYPT

BY **MOSLEM ALI**

In 2003, a new company was founded but had only a 10% chance of success, according to its current CEO. Today, it has manufactured nearly 720,000 units and delivered a record of 95,200 cars in Q2 2019. This company is Tesla, and its main product is electric cars.

Last year, the global electric car fleet exceeded 5.1 million, rising by two million cars compared with 2017. China remains the world's largest electric car market, which resulted from Beijing spending about $60 billion to support the industry over the last decade. India plans to become the first country with 100% electric vehicles (EVs) as the government eases financing by granting an income tax deduction of more than $2,000 on EVs loan interests. The United States also supports the industry through a tax credit between $2,500 and $7,500 for each new EV purchase from any manufacturer that has sold less than 200,000 units.

Meanwhile, the global demand for natural gas vehicles (NGVs) is expected to register a compound annual growth rate (CAGR) of 3% between 2018 and 2025, according to a report by the Grand View Research that cited rising support from governments worldwide for the adoption of NGVs among primary growth stimulants.

In Egypt, the number of NGVs is steadily growing. At a rate of around 2,600 cars per month, Egypt has successfully converted 270,000 vehicles by last March. Meanwhile, the Egyptian Natural Gas Holding Company (EGAS) has set a target to convert another 40,000 vehicles by June 2020. On the other hand, electric cars remain relatively rare in Egypt, with around 1,000 cars in total. However, the first charging station for EVs in Egypt was inaugurated in 2018 on the Cairo-Suez Road and was the seed for a growing network. Therefore, private sector investments and government support are establishing the needed infrastructure and regulatory frameworks for alternative fuel vehicles in Egypt.

NATIONAL STRATEGY

The Egyptian government plans to increase the use of alternative fuels to reduce dependence on conventional fuels, such as gasoline and diesel, by introducing electric and hybrid vehicles in both public and private transportation, with an increased focus on converting more vehicles to run on natural gas.

President Abdel Fattah El Sisi has directed the government to convert all public buses to be fueled by natural gas to limit carbon emissions and to encourage more citizens to convert their cars through 71 centers across 22 governorates. The Cabinet is working with the Ministry of Petroleum and Natural Resources, through the Natural Gas Vehicles Company (Car Gas) and GASTEC, to complete the transformation, according to a press statement by Prime Minister Mostafa Madbouly.

Furthermore, the President has requested the localization of the EV industry, and a recent deal with Mercedes-Benz, not only signaled the return of the German giant to Egypt, but will introduce its locally-assembled EVs to the market. Another partnership agreement with China will see the manufacturing of 2,000 electric buses in Egypt by the Ministry of Military Production in cooperation with China's Foton Motor, the company that will deliver 50 electric buses to Egypt later this year.

In July, the Cabinet reviewed updates on the hybrid and bi-fuel conversion program, and increasing natural gas filling stations. The Egyptian government expects these plans to have positive economic and environmental outcomes, as natural gas is a cleaner fuel. Switching to natural gas reduces carbon monoxide emissions by 86%, carbon dioxide by 21%, and significantly reduces sulfur dioxide emissions and eliminates lead emissions. This could help reduce pollution and improve air quality, especially in the congested capital that is home to around 20 million people.

In addition, a presidential decree in 2018 exempted electric cars from customs and granted NGVs a 35% reduction on tariffs. Moreover, the Ministry of Finance has set the duty on imported electric cars at as little as EGP 15 ($0.9), while in May, the Ministry of Interior announced that it would provide electric car owners with temporary registration plates until the needed regular procedures are completed.

Efforts to transform the fuel industry are more clear in public transportation, with a plan to convert all taxis and minibusses to run on bi-fuel, both gasoline and natural gas, through a three-phase project that will commence in September 2019 until the end of 2022. Financing is now easier due to an initiative by the Central Bank of Egypt (CBE) to provide low-interest loans for taxi drivers to transform their vehicles to run on natural gas. Another plan by the Cairo Transport Authority (CTA) will transform all buses in Cairo to run on natural gas and electricity within three years, with the first fleet of electric buses set to enter service by early 2020. Cairo already received 10 natural gas buses, as the first batch of 121 that will be delivered by mid-2020. In Alexandria, 14 electric buses recently hit Egyptian roads for the first time in the country.

BROAD IMPACTS

"Alternative fuels can help secure sufficient fuel supplies for years, especially since Egypt has already achieved self-sufficiency in electricity. Moreover, reducing dependency on mazut can help free up upgraded refineries to focus on producing higher-quality fuels," according to Dr. Hafez El Salmawy, Energy Engineering Professor and former Managing Director of the Egyptian Electric Utility and Consumer Protection Regulatory Agency (EgyptERA).

El Salamawy believes stability and policy continuity are two main keys to ensure significant progress, noting that it is always easier to transform the public transport system to use alternative fuels, such as natural gas or electricity. "There are about 24 bus garages in Cairo. Building charging stations in each garage could ease the process. Research conducted by some of my students showed that electric buses could reduce the cost of public transportation on the long-term by around 40%, with gradual transformation reducing the payback period. Another benefit is that bus batteries can serve as a 300-megawatt (MW) reserve for the power grid," El Salmawy said.

Electric buses also do not burn fuel during waiting time, which enhances efficiency and reduces emissions and the carbon footprint, the professor explained.

"I hope the government could soon issue a policy paper to present its efforts in this domain, by setting the short and long term targets for alternative fuels in Egypt. It all comes down to studying the added-value and identifying the best ways to capitalize on sources," El Salmawy noted, explaining his hopes of comprehensively framing government initiatives to boost support for its plans. "Efficiency is not only about switching fuels, it is rather about how the various components of the energy sector integrate to achieve the vision," El Salamawy added.

OVERCOMING THE INFRASTRUCTURE CHALLENGE

The private sector is also playing a part in achieving the targeted transformation by building a solid infrastructure for EVs. Revolta was the first, and so far the only, company

to invest in building charging stations. It has set a target to "push electric vehicles technology into the Egyptian market as soon as possible," which explains why it is also selling new and used EVs from brands such as Tesla, Volkswagen, and Kia.

Revolta is already working on the second phase of its plan to cover Egyptian roads with charging stations, which is expected to be completed by 2020. The company's network has now reached 72 stations, after the first phase saw the establishment of 65 charging stations across seven governorates, Revolta's Business development Director Ezz Ibrahim said.

Furthermore, the company is targeting to build 345 stations by 2020, reaching Upper Egypt and covering 90% of the country's main roads and streets. Ibrahim explained this target as having a station every 90 kilometers, thus allowing users to complete their trips without worrying about their batteries running out, since current battery capacities allow a range of 100 to 150 kilometers on a single charge. The plan includes fast-charging stations, where car batteries can be fully charged in 45 minutes or less. Other chargers usually take an hour to an hour and a half, which is why the company is mostly placing them in stations near malls, cinemas, and shopping centers, where users can spend this time doing their regular activities instead of just waiting, Ibrahim noted.

The 2020 target translates into a capacity of 10,000 cars per day. When asked, when will we see this number of electric cars in Egypt? Ibrahim said that he expects it will only take two or three years, as he believes it is only a matter of time before EVs prove a strong presence in the Egyptian market, especially with the increasing government support.

Discussing the motives that can help users switch to electric cars, Revolta's Business Development Director emphasized that the overall running cost is 70% to 80% cheaper than a conventional gasoline-powered vehicle, due to reduced fuel, maintenance, and spare part costs. "The environmental concern could also be a motive for many users to make this choice," he further explained.

New cities are another supporting factor for the company's plan to expand in the market, as Egypt is building a number of smart new cities led by the New Administrative Capital and New Alamien, where including EV charging stations in these cities development and design plans paves an easier way compared with old urban communities. In this regard, Ibrahim noted Revolta's recent deal with Orascom Construction and Hassan Allam to build charging stations in the New Capital's Business District that will include 20 towers, led by the iconic tallest building in Africa.

Having the infrastructure will not only make it easier for users to charge their cars, it could promote sales and more manufacturers introducing their electric car models in the Egyptian market. Talks with Tesla showed the company's plan to enter the market as soon as the total number of Tesla cars in Egypt reach about 200, from a current 30, Ibrahim explained.

Besides a variety of Tesla models, Volkswagen e-Golf, and Kia Soul EV; Revolta has sold a number of Hyundai Ioniq and Nissan Leaf models, while other dealers have introduced the BMW i3, Chevrolet Bolt and Spark, as well as the Ford Focus EV. European and Chinese electric cars are expected to increase in the market, especially due to the exemption of custom tariffs.

EXPANDING IN REGIONAL MARKETS

Revolta is not only focusing on growing its activities locally, it is also working on expanding regionally in markets such as Lebanon and Jordan, with the latter being one of the biggest markets in the region with around 25,000 EVs. This explains why Revolta is building seven charging stations in South Sinai on the road between Egypt and Jordan, according to Ibrahim.

Moreover, Ibrahim explained that Revolta, a partner to Schneider Electric and ABB, is nearing an agreement with an Egyptian investor and an Asian investment fund to establish a $10-million joint venture (JV) that will manufacture electric car chargers for the first time in Egypt. Work on the project is expected to commence early next year. Revolta also wants to develop its own fully integrated software, which can help drivers identify the nearest charging station. "Exporting chargers, cables, and software solutions can enhance Egypt's position as a regional energy hub."

POSITIVE OUTLOOK

As Egypt is taking more steps to renovate both the transportation and energy sectors, experts believe the future may yet hold game-changing technologies that would simply redefine the concept of motor vehicles. "The two biggest revolutions in transport are electrification and autonomy. Both are happening at the same time. I think on the long-term, no one will buy a car unless it is autonomous (self-driving). [Otherwise,] It will be like having a manually-operated elevator," Tesla CEO, Elon Musk said in the same interview with the BBC where he pointed to the abysmal chance of success that Tesla had when it started.

By 2040, all cars on most roads around the world are expected to be electric, with a dozen countries led by France and the UK already committing to phase out and ban fossil fuel vehicles by that time in adherence to the Paris Climate Agreement targets. Meanwhile, Egypt is showing signs of catching up with the global trend. Combating climate change, reducing emissions and air pollution stand among the goals of the national sustainable development strategy, known as Egypt Vision 2030.

The rationale behind the plans to increase the use of electricity and natural gas in powering vehicles is driven by Egypt successfully achieving self-sufficiency of both. Although imported fuels were a burden on the public budget and foreign exchange reserves for years. Egypt expects to achieve self-sufficiency of gasoline and diesel by 2022 and start exporting by 2023, thanks to an overhaul of refineries that currently cover over 70% of the local market demand. Nonetheless, using alternative fuels is not about meeting the rising demand only, but also ensuring long-term sustainability.

GETTING RID OF THE ELEPHANT IN THE ROOM

BY **MAI EL GHANDOUR**

Setting a robust national fuel price could be the first step taken towards a more sustainable future, however, there's a multi-billion-dollar elephant in the room.

Fossil fuel subsidies (FFS) tend to incentivize the production and consumption of more fossil fuels without any rationalization to energy waste management. This creates aloofness towards fuel prices as governments around the world subsidize fossil fuel with billions of dollars every year. These subsidies can be economically inefficient for many reasons. One of them is manifested in the latest International Monetary Fund (IMF) study on FFS, which projects that eliminating FFSs could raise global economic welfare by $1.8 trillion.

Fossil fuels, which consist primarily of coal, oil and natural gas, currently comprise over 80% of the global energy supply. Tim Grosser, New Zealand's Ambassador to the US and former Minister of Trade and Climate Change Issues in New Zealand, pointed out that "it is completely incoherent for the world to be tentatively coordinating actions to put a price on carbon, while simultaneously massively subsidizing the consumption of carbon."

Likewise, as Jim Yong Kim, Former President of the World Bank, puts it, "fossil fuel subsidies send out a terrible signal: burn more carbon." Thus, governments are now starting to realize the unpaid burden on economies and health created by FFS. Hence, reforms have started to emerge to phase out FFS, as well as provide consumers with a reason to save energy efficiently and promote the commercialization of renewable energy and other clean technologies.

THE HOAX OF FREEDOM MOLECULES

Last June, a new name for fossil fuels made headlines in the US. The Trump Administration and US Department of Energy (DOE) rebranded fossil fuels as "Molecules of US Freedom." The move was criticized by the media and was seen as downright "Orwellian". Paradoxically, this was said at the Tenth Clean Energy Ministerial (CEM10) in Vancouver, Canada where the DOE said it was "highlighting its efforts to advance clean energy" along with ministers who gathered to accelerate their goals towards a clean energy future.

The Washington Post commented on this saying that, "the choice of words is the latest linguistic flourish from an administration promoting an energy dominance agenda — that is, one in which the United States focuses on expanding all forms of energy production, including fossil fuels, in an effort to make the country a net energy exporter."

Fossil fuels and nuclear energy around the world have been getting subsidies for decades. According to the 2015 working paper by the International Monetary Fund (IMF) entitled "How large are global energy subsidies?", fossil fuels receive an approximate of $5.3 trillion of subsidies globally each year, which is equivalent to 6.5% of the global gross domestic product (GDP).

This entails a double standard when it comes to FFS coming from developed countries that endorse sustainability. According to 2016 estimates by the International Institute for Sustainable Development's Global Subsidies Initiative, in 2020, Canadian consumers are forecasted to pay between $18 and $30 per ton of fuel. Meanwhile, oil and gas producers subsidize fossil fuel production at $19 per tonne. Thus, fossil fuel subsidies pull in the opposite direction of fuel prices. This system is like raising cigarette taxes

whilst subsidizing tobacco companies. It simply does not make sense.

According to Energy subsidy reform for growth and equity in Egypt: The approach matters, an article published in June 2019 by Breisinger et al., phasing out energy subsidies is high on the agenda of policymakers in several Middle Eastern and North African countries. This is mainly because energy subsidies often come with several side effects, particularly in developing countries where subsidies often contribute to large fiscal deficits.

Several studies investigated the impact of Egypt's 2014 energy subsidy reform, suggesting that the reform may lead to structural economic adjustment and boost economic growth in the longer run. For a relatively small country, Egypt used to face an infinitely elastic world supply at fixed world prices, Breisinger et al. wrote.

FUEL SUBSIDIES VS RENEWABLE ENERGY SUBSIDIES

It is important to note that renewable energy also receives subsidies, but not in the same degree. Jake Richerdson, author at Cleantechnica, wrote in 2018 that there is a misconception surrounding renewable energy subsidies aimed to silence those who advocate for clean energy. The misconception is that all of the renewable energy growth in recent years is attributable to subsidies. But in reality, fossil fuels and nuclear power have received much more government subsidies historically speaking than renewables ever did.

According to the Direct Federal Financial Interventions and Subsidies in Energy in Fiscal Year 2016 published by the US Energy Information Administration (EIA) in 2018, fossil fuel subsidies outstrip renewable energy subsidies by nearly ten-fold. Studies by the International Energy Agency (IEA) estimated that the value of global fossil fuel subsidies was $490 billion in 2014, with a subsidy rate of 21% on fossil fuel products.

The impact of this inefficiency results in a fiscal burden of inefficient fossil fuel subsidies that weighs heavily on the economies of some developing countries, squeezing the resources that could be available for other industries. Haidy Riad, Sustainable Development Economist at Ministry of Planning Monitoring, told Egypt Oil & Gas, that fossil fuel subsidies "distort markets and disincentivize investments in renewable energy and energy efficiency."

Breisinger et al. suggest that fossil fuel subsidies should not simply be eliminated entirely, but rather reallocated toward more sustainable categories, such as infrastructure, education, health, or renewable energy sectors, such as biofuels. Malaysia, for example, is completely removing all fuel subsidies and using the saved funding to cut the budget deficit and spend it on education, health, and other service sectors.

Riad further revealed to Egypt Oil & Gas that renewable energy companies have struggled in Egypt to expand their market, as growth has been hampered by the lack of support from local banks for renewable energy projects, the high cost of needed station components and little interest from citizens.

CAPITALIZING ON SDGS

As leaders began to revisit their fossil fuel subsidy reforms (FFSR), they also started seeking ways to "rationalize and phase out inefficient fossil fuel subsidies that encourage wasteful consumption over the medium term," according to the United Nations Framework Convention on Climate Change (UNCCC). FFSR began to constantly appear in any agreement involving both developing and developed countries that promotes development. This was followed by the inclusion of FFSR as part of the Sustainable Development Goals adopted by the UN General Assembly in September 2009.

That way, phasing-out fossil-fuel subsidies represented a triple-win situation. It would enhance energy security, reduce emissions of greenhouse gases and bring improved fiscal space for governments. This should further provide nations with an incentive to make subsidy reform a key policy within wider and more comprehensive strategies to achieve sustainable development.

As per Egypt's Renewable Energy Outlook conducted by the International Renewable Energy Agency in 2018, one of the main goals to ensure the security of supply aims to include the rationalization of demand and reformation of energy subsidies without putting excessive financial costs onto citizens.

In a 2016 paper entitled "The G7's Pledge to End Fossil Fuel Subsidies by 2025: Mere Rhetoric or a Sign of Post-Paris Momentum?" published by the European Society of International Law, it is explained that despite the intergovernmental agreements to phase out FFSs, FFSs remains prevalent worldwide.

Global fossil fuel consumption subsidies increased from $409 billion in 2010 to $493 billion in 2014, according to the IEA. The paper further discusses the governments' failures to induce the phasing out of FFSs, as it can be attributed to a number of issues, including: the lack of a precise definition of FFSs; the lack of mechanisms to improve transparency; the lack of specific timelines for phasing out FFSs; the lack of monitoring and surveillance mechanisms; and the lack of enforceable commitments.

In 2015, a report titled "Empty Promises" published by the Overseas Development Institute (ODI) and Oil Change International (OCI) described the huge number of subsidies to the oil, gas and coal industry as a "publicly financed bailout for some of the world's largest, most carbon-intensive and polluting companies." According to the authors of the report, G20, made up of the world´s 20 wealthiest countries, awarded the industry with over $444 billion worth of subsidies for the production of fossil fuels alone. Internationally, this figure increases to at least $775 billion when more countries and consumer subsidies are included.

THE ROAD TO EGYPT'S VISION 2030

The IMF data reveal a simple and stunning truth: that fossil fuel subsidy reform alone would deliver far more funds than is required for global energy transformation.

In Egypt's Renewable Energy Outlook, it is estimated that power provided by renewables would free up depleting hydrocarbon reserves, reducing distortion of the energy markets by alleviating the heavy burden subsidies place on government finance and investment.

"Egypt's Vision 2030 aims to achieve a diversified, competitive and balanced economy within the framework of sustainable development. Renewable energy has a central role to play. Egypt's ambition to become an energy hub between Europe, Asia, and Africa by expanding grid interconnections across the Arab region and beyond," Riad told Egypt Oil & Gas.

According to Riad, in order to meet the burgeoning energy demand, the Egyptian government has set an energy diversification strategy known as the Integrated Sustainable Energy Strategy (ISES) to 2035, that aims at ensuring the continuous security and stability of the country's energy supply. The country's achievements can be seen as the total installed capacity of renewables amounts to 3.7 gigawatts (GW), including 2.8 GW of hydropower and around 0.9 GW of solar and wind power. "Egypt is home to a wide array of untapped solar and wind resources, and according to the ISES 2035, renewable energy capacity should contribute 42% of power capacity by 2035," she said.

"However, the successful realization of such deployment would require significant adjustments to Egypt's sustainable energy strategy. Eliminating such subsidies would relieve the government of a heavy financial burden, which has been a strain amid diminishing state revenues. For Egypt to capture the complete benefits of renewables, the government must consider both financial and technical challenges," Riad concluded.

AUTOMATIC FUEL PRICING INDEXATION MECHANISM: AN INTERNATIONAL TREND

BY **DINA EL-BEHIRY**

Many developing countries around the world subsidize fuel products to sidestep local impact of fluctuating global oil prices. However, on a macroeconomic level, subsidies by default tend to have a taxing impact on the national budget.

As a way out of that conundrum, some developing countries have changed their direction to an automatic fuel pricing indexation mechanism, which allows them to reflect fluctuations in global fuel prices domestically. Under the mechanism, domestic prices are determined according to a formula of the summation of the import price of fuel products, domestic wholesale and retail distribution margins, and fuel taxes. Accordingly, domestic prices will change regularly to fully reflect the changing waves in global fuel prices, according to the International Monetary Fund Paper (IMF), titled: Automatic Fuel Pricing Mechanisms with Price Smoothing: Design, Implementation, and Fiscal Implications.

The mechanism primarily aims to reflect the global fuel prices changes domestically in a way that will help control fuel tax revenues and eliminate the provision of any fuel subsidies. Additionally, the mechanism will put governments under control, meaning that they will not be able to change domestic fuel prices randomly or at irregular intervals, the IMF paper added.

MECHANISM STRUCTURE

As per the IMF paper, to guarantee a transparent and successful implementation of the automatic fuel pricing indexation mechanism a number of steps need to be considered. The first step depends on specifying a clear pricing formula that establishes a link between retail prices and import prices, that formula will be based on import costs, distribution margins, and tax levels.

The second is to determine a certain timeline to update the components of the price structure accordingly, in addition to selecting a rule to determine when and by how much retail prices are supposed to change.

Reflecting the international fuel prices variations in the domestic one is crucial to prevent fuel prices subsidies, yet some governments prefer applying that mechanism gradually to avoid sudden sharp increases in domestic fuel prices for political and social reasons. Hence, fuel prices will change at specific intervals. To do so, governments tend to adopt price smoothing approaches, under which suppliers always receive fuel prices that reflect the actual import and distribution costs as agreed in the formula.

Furthermore, there are different smoothing pricing mechanisms including price band (PB) and moving average (MA). For the PB, it determines a maximum limit for the retail price changes. Caps can be set as

a proportion of the current retail price or in absolute amounts, but absolute caps can become less effective as international prices change. On the other hand, there is the MA mechanism which bases retail price adjustments on changes in the average of past import costs.

When it comes to selecting an appropriate smoothing mechanism, it will depend mainly on how the government views the trade-off between price and financial volatility as the greater smoothing of domestic prices, the greater tax volatility will be, the two factors are negatively related. Hence, "the choice among smoothing mechanisms will depend sensitively on the precise weights given to each of these objectives," the IMF paper clarified, adding that from a political economy point of view, selecting a pricing mechanism that avoids large prices' increase, especially when they turn out to be temporary, is required. Yet, from a fiscal management perspective, mechanisms that avoid large decreases in tax levels may be preferable as well. Furthermore, in the context of price smoothing mechanisms, additional tax modification rules may be essential especially under prolonged large increases in international fuel prices.

TRANSITION PHASE

To properly apply the automatic fuel pricing indexation mechanism, many governments need to adopt a transition strategy to implement it successfully. According to the IMF paper, the first thing that governments have to consider is adopting an appropriate pricing formula that they will be working accordingly to guarantee transparency while pricing the governments- controlled products. Additionally, many governments tend to make a cost structure study, as a part of the pricing formula, to update the various cost components at regular intervals. Cost structures should be identified for all fuel products where they do not currently exist to ensure transparent pricing and to avoid hidden taxes or subsidies.

Additionally, governments must determine the reference price, benchmarking local fuel product prices with international trade price levels, as well as specifying the smoothing pricing approach that will be followed and the timeline required for proper price adjustments. Moreover, it is worth considering the responsibilities that each of the parties involved in implementing the pricing mechanism bear as it is necessary to announce the procedures required to follow price changes to have a timely implementation of the mechanism.

To further reinforce the mechanism implementation, there are some additional measures. First, the pricing formula margins can be updated according to the cost structure study findings. Moreover, governments should consider creating an entity to be mainly responsible for monitoring the pricing mechanism. Moreover, some countries tend to achieve liberalized fuel product supply and pricing as in a liberalized market, the regulator's main role will be to ensure a fair competition among suppliers and efficient operations, in addition, the formula under liberalized pricing will be part of the regulation process to notice the presence of uncompetitive pricing practices.

On the other side, governments should pay attention to the social impact of applying such a mechanism on households. The IMF paper has mentioned a review by Arze del Granado, Coady, and Gillingham (2012), it found out that on average, a $0.25 per liter increase in domestic prices decreases household real incomes by 5%, with this impact being similar across all income groups. Therefore, it is important that reform strategies include measures to mitigate this adverse impact and ensure having an effective social safety net. Yet, countries that do not have social safety nets should follow a gradual application for that mechanism to provide more protection to the households.

INTERNATIONAL EXPERIENCES

Many countries have directed to cutting fuel subsidies through using the automatic fuel pricing indexation mechanism with paying attention to the effects on households, according to the IMF paper.

One of these countries is Jordan. The country began implementing a gradual reduction in fuel subsidies since 2005, and by 2008, it managed to achieve a full pass-through for the international prices on the domestic ones which contributed to achieving improvements in public finance. Yet, Jordan considered protecting its households from the negative impacts of the mechanism through increasing the minimum wage, in addition to giving a one-time bonus to low-income government employees and pensioners. Moreover, the government provided the low-income households with cash transfers as well as announcing a plan to increase funding to the National Aid Fund as part of a program to improve the design and implementation of this national safety net program with World Bank assistance.

Another country followed the mechanism is Indonesia. According to the IMF Paper, the Indonesian government began the fuel prices' increase from 2005 when it doubled the prices and continued cutting subsidies in May 2008 in which prices of fuel products were increased by 25–33%.

Yet, the country took precautionary measures for its households through initiating a temporary cash transfer program to 19 million poor families in 2005, as well as adopting a similar cash transfer program in 2008 for seven months. On the other side, the Indonesian government reallocates subsidies' saving in other fields including education, health, and infrastructure.

In 2007, Gabon followed the mechanism as well by increasing gasoline and diesel prices by 26%. Looking at the impacts on the households, Gabon worked on protecting them through different measures including the resumption of the National Social Guarantee Fund cash payments to the poor, as well as expanding the mass public transport network in Libreville.

EGYPT FOLLOWING THE MECHANISM

Egypt has followed the new automatic fuel pricing indexation mechanism as well to manage the market efficiently. June 2018 has witnessed approving the Prime Minister, Mostafa Madbouly on applying the mechanism. The IMF supported that transition in their third economic review as a way to enable Egypt relieving public budget from unexpected fluctuations and direct the resources to more vulnerable categories. "Applying the mechanism is a complementary procedure to the subsidies' elimination strategy adopted by the Egyptian government, especially if it targets maintaining a 100% cost recovery to guarantee having a complete elimination," Esraa Ahmed, Senior Economist at Shuaa commented. Moreover, Pascal Devaux, MENA Senior Economist at BNP Paribas agreed, clarifying that "the government managed to adopt this reform on time, given the sustained level of inflation, it was not easy from a political point of view."

As an initial step to implement the mechanism in Egypt, the Ministry of Petroleum and Mineral Resources selected a 10% price cap, as a ceiling and floor, for the fuel prices' change. "According to the indexation mechanism settled by the government, price adjustments will occur quarterly and there is a 10% cap on each adjustment," Devaux noted, in addition, Ahmed added that "the government need to announce the pricing formula that will be followed to assure a transparent implementation for the mechanism."

As an initial step, the Minister of Petroleum announced in January that the mechanism will be implemented on 95-octane gasoline in April with revising the price every three months to currently in July reach EGP 9, up from EGP 7.75. After that, the government decided to implement the indexation mechanism on all petroleum products starting from Q4 2019, with using the same 10% price cap, a ministry official told Reuters last July. According to the ministry official, the government will not implement the mechanism on some categories. It will continue to support butane cylinders, as well as the petroleum products provided to bakeries and power stations. "At the beginning, the market suffered from a shock because of the sudden increase in fuel prices, but after that, the market began to accept these changes," Esraa stated.

With an eye on the impact of applying the mechanism on inflation rates, Devaux stated that under that mechanism "the link between inflation and variation in oil prices will increase, but the way it will influence depends on the oil price trend."

Moreover, Ahmed expected that "implementing the mechanism will push inflation rate up sharply, especially after the market gets used to absorb these changes, and also due to the percentage change cap determined by the government," adding that the government will manage a successful implementation for the mechanism if it continues monitoring the market to prevent any "unnecessary" price increases. Currently, the Cabinet is reviewing the violations received by the unified government complaints system that followed the new prices of petroleum products.

Egypt will continue to implement the economic reform program as the government is keen to achieve economic prosperity. "This reform of fuel prices is a key element as fuel subsidies was a strong constraint for public finance. The mobilized funds can be more useful in other kinds of fiscal expenditures," Devaux commented, "it should contribute to the reduction in the fiscal deficit."

IMPACT OF BREXIT:

A NEW POLITICAL ECONOMY IN PETROLEUM INDUSTRY?

PREPARED **BY TASNEEM MADI**

Since 2016, Brexit negotiations started when the United Kingdom (UK) voted for separation from the European Union (EU) in a landmark referendum, where 51.9% voted to leave the EU against 48.1% voted to remain in the EU. On March 2017, Article 50 of the European Union's Treaty was implemented and negotiations between UK and EU started to take place in April 2017. It was announced that England's separation from the EU would be in March 2019, two years after the start of the exit process. However, due to the inability to reach a deal, the time of the Brexit was postponed to April 12 then postponed again to October 31. During the mentioned period, Theresa May resigned last June.

WHAT IS NEXT?

The future can be summed up in five different scenarios: Brexit deal, no-Deal Brexit, no Brexit, calling for another extension for Brexit, and finally holding Parliamentary Elections earlier than the decided date.

A DEAL BREXIT (EXITING EU WITH A DEAL)

Those supporting the first scenario explain that a deal might preserve the rights of trade for both sides UK and EU and to be a hedge against any severe fluctuations, giving time for changes to take place through temporary agreements and rules. Accordingly, the oil and gas industry will be able to resist any disturbances, as per the Oil and Gas UK's economic report, 2018.

NO-DEAL BREXIT (EXITING EU WITHOUT A DEAL)

The no-deal Brexit implications are mainly concentrated in hydrocarbon licensing and environmental issues established regime will continue to operate normally and legislative changes will not affect energy sector businesses. The businesses engaged in the sector are required to ensure the continued licensing (by the Oil and Gas Authority) to explore oil and gas reserves before leaving the EU. In this case, the UK would cut all ties with the EU with no transition period and no guarantees on citizens' rights of residence, causing some disruptions to businesses in the short-term. Without an agreement on trade, the UK would trade with the EU under World Trade Organization (WTO) rules, according to a document released by UK 's parliament titled "Running an oil or gas business if there's no Brexit deal."

NO BREXIT (CANCELLING BREXIT)

Canceling Brexit and staying in the EU will require UK law change and referendum. For the oil and gas industry, they will keep working as they were before, according to a May article by The Guardian.

CALLING FOR ANOTHER EXTENSION FOR BREXIT

May's successor might renegotiate the terms of exiting with Brussels reaching a new agreement through which Brexit can be achieved. However, it is unlikely for the coming prime minister to put the agreement in front of the parliament for voting, as to Brussels' that the current issue is the fourth one and the last one. As per the negotiated agreement, the oil and gas sector's impact will be accordingly determined, noted an article by the Royal Institute of International Affairs, published last July.

HOLDING PARLIAMENTARY ELECTIONS EARLIER THAN THE DECIDED DATE

It is expected that May's departure means early Parliamentary elections. The referred scenario is the best one for the Labor Party. Labour Party leader (Chief), Jeremy Corbyn told Metro, a UK-based newspaper last July that it is an essential step to start early elections so people will be able to determine their future. The impact on the oil and gas industry will be defined after the voting results will be declared.

DIFFERENT COUNTRIES, TERRITORIES AND REGIONS OPINIONS

It was declared by Simon Coveney, Republic of Ireland minister for foreign affairs and trade on July 2017 that a no-deal Brexit would be very harmful and destructive for Britain, Ireland, and the EU as well. It will affect Britain, Ireland and the EU's economy badly. It is important to set transitional agreements, that was through his interview with the Senior Digital Editor at ChathamHouse, The Royal Institute of International Affairs in July 2017.

Trump is clear about his support of Brexit, according to many US media platforms.

UK OIL PRICES

Brent oil prices increased by 29% during H1 2018, which averaged more than $ 70 per barrel, compared to 2017, according to the 2018 UK's Oil and Gas economic report.

Although Brexit represents a source of great uncertainty for different markets and had caused oil prices to fluctuate in the short-term, the UK's oil and gas industry reflected that the sector will be confident in the post-Brexit UK. Brexit's direct impact on oil prices might be negligible.

PETROLEUM EXPORTS AND IMPORTS

Generally, UK's oil and gas industry is viewed stable; however, UK's future trading relationship with the EU might have some negative impact on business and investor confidence. UK's oil and gas industry position can be summarized into two main potential Brexit scenarios, according to a report published by Oil and Gas UK's economic report, 2018, they are:

The first is if the UK can negotiate international trade deals and has minimal EU tariffs, where the oil and gas industry trading costs might decrease by around £100 million per year.

The other scenario is to follow back the WTO rules, where the oil and gas industry trading costs might increase by around £500 million per year.

PETROLEUM COMPANIES

Despite all arcane conditions, some major companies declared their commitment to UK. For instance, the Norwegian Oil Company Equinor executive vice-president announced in December 2018 their commitment in developing oil and gas projects in UK and are planning to drill three wells in 2019. Moreover, it was stated by Andrew Reid, Westwood Global Energy Group CEO, that the global oil and gas business is complex enough that make it hard to be affected by Brexit, published in Offshore Technology. In 2016, Bob Dudley, British Petroleum (BP) CEO, assured that investing in UK will not be beneficial if UK exited EU, claiming to BBC that Britain would be in danger of losing influence on the world stage. However, in 2019, Dudley declared through CNBC that British oil and gas giant BP has no plans to leave the UK, regardless of the final Brexit outcome.

On the other hand, Grey Clark, UK business secretary, pointed out that leaving the EU would cause a lot of disturbances to oilfield services companies operating in the North-East. There is a considerable percentage of the total oil and gas and offshore workforce (around 5 % of the total oil and gas workforce, and around 7 % of the offshore workforce) belong to EU countries, which will make some difficulties in accessing issue, cited by a document released by UK parliament, covering a number of UK industries, including oil and gas, titled by 'Running an oil or gas business if there's no Brexit deal.

To sum up, Theresa May's resignation represents a small part in the Brexit issue. There are other factors causing the Brexit delay process as the parties' opinion mismatch. Thus, the Brexit issue will depend in small part on the future prime minister. Most presented expectations show that the oil and gas industry might not be affected severely. The British pound might be weakened and the workforce from other EU countries might be harmed as well if no access were provided to them. In order to reduce the impact of Brexit on the UK oil and gas industry, it is recommended by Oil and Gas UK in its economic report, 2018 to preserve the workforce rights in accessing the market, to protect energy trading and internal energy market and take into consideration Europe's voice for the industry.

OPEC

OFFSHORE PROTECTION ENGINEERING CO.

"SUBSEA PROTECTION SOLUTIONS"

We are the leading manufacturer and supplier of protection and stabilization products for subsea assets in Oil & Gas industry in Egypt.

We provide the following services:

GET IN TOUCH

www.opecegy.com
info@opecegy.com

ISO 9001
BUREAU VERITAS
Certification

UKAS

ENERGY SUBSIDY REFORM PROGRAM: THE FULL PICTURE

BY **DINA EL BEHIRY, AMINA HUSSEIN**

Energy subsidy reform is a main pillar of Egypt's economic reform program. The government has implemented the last round of subsidy cuts in June 2019 and the subsidy's system reform is supposed to be ongoing until 2020. It is worth noting that according to the Middle East and North Africa (IFPRI) paper "Phasing Out Energy Subsidies as Part of Egypt's Economic Reform Program: Impacts and Policy Implications," the first wave of the fuel subsidy cuts began in 2014 by increasing diesel prices by 64%, 80-octane gasoline by 80%, and 92-octane gasoline by 40%. Overall prices averaged at a 50% increase; however, despite the increase, fuel products remained heavily subsidized; hence, the government continued its fiscal reform by implementing further cuts.

Currently, the reform of fuel subsidies in Egypt is on track and the North African country is a step away from eliminating subsidies completely as a way out of the economic conundrum back during fiscal year (FY) 2015/16 which was caused by high deficits, overestimated exchange rates, diminishing gross international reserves, and low economic growth. The program aims to restore macroeconomic stability, promote inclusive growth, and enhance business climate to attract more investors. The success of the reform program relies on achieving many pillars including the flotation of the exchange rate, phasing out energy subsidies, and the introduction of a value-added tax (VAT), according to the IFPRI paper.

FUEL SUBSIDY REFORM PROGRAM

While the fuel subsidy cuts began prior to the International Monetary Fund (IMF) loan deal, the IMF agreement encouraged a steady and sharp decrease in subsidies over four more rounds in November 2016, June 2017, June 2018, and lastly July 2019, according to published data by Ministry of Finance (MoF).

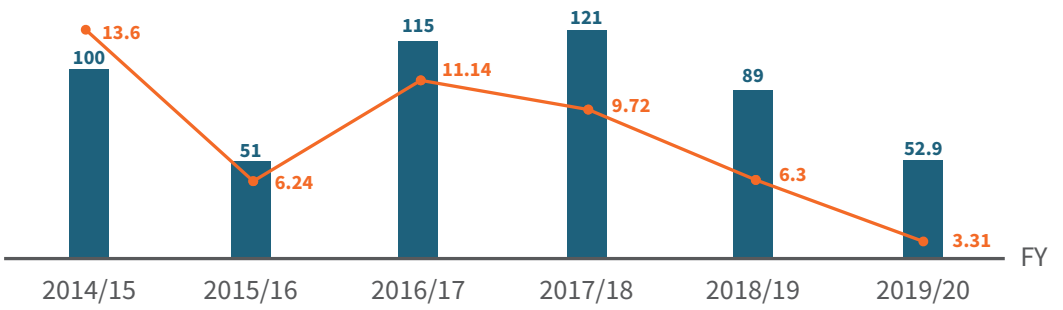
Over the comparison period, which begins from FY 2014/15 to FY 2019/20, fuel subsidies' budget as a share in total expenditures had a decreasing trend. However, in FY 2016/17, the share significantly increased hitting 11.14%, that was mainly due to the implementation of free floating exchange rates, Tarek El Molla, Minister of Petroleum and Mineral Resources told Reuters in August 2017.

Furthermore, the state budget was ratified last June, introducing further cuts in fuel subsidies by around 40%, reaching EGP 52.9 billion in FY 2019/20, down from EGP 89 billion in FY 2018/19, the planned FY 2019/20 budget showed.

Fuel Subsidy Cuts Timeline

		Increases in Fuel Prices
01	FY 2014/15	50%
02	Nov. 2016	34 - 47%
03	June 2017	43- 100%
04	June 2018	17- 66%
05	July 2019	16- 30%

Fuel Subsidy Allocations from FY 2014/15- 2019/20



Fuel Prices Increase in July 2019

Fuel Prices (EGP/Liter)

	Before		After	
95-octane	7.75	16.1%	9	
92-octane	6.75	18.5%	8	
80-octane	5.5	22.7%	6.75	
Diesel & Kerosene	5.5	22.7%	6.75	
Household Cylinders	50	30%	65	
Commercial-use Cylinders	100	30%	130	
Natural Gas- Car Use (EGP / m³)	2	75%	3.5	
Mazut (EGP /ton)	3500	28.6%	4500	

Natural Gas- Household Use (EGP / m³)

	Before		After
0-30 m³	1.75	34.3%	2.35
30-60 m³	2.5	24%	3.1
Over 60 m³	3	20%	3.6

As a result of cutting fuel subsidies, petroleum products' prices rose. In July, 92-octane gasoline price hit EGP 8, up from EGP 6.75 with an increase of around 18.5%. Additionally, an increase of around 22.7% occurred in the prices of 80-octane gasoline, diesel, and kerosene to reach EGP 6.75, up from EGP 5.5. In addition, household cylinders price rose by around 30%, the Ministry of Petroleum and Mineral Resources declared, adding that the price of natural gas used in households increased from 20% to hit 34.3%. Looking at the gas-vehicles, the natural gas price increased by 75%, from EGP 2 to EGP 3.5 per cubic meter (m^3); which represents the lowest fuel type priced recently. Despite having the highest increase, in terms of price, it has the lowest, representing an incentive to turn vehicles to gas-powered ones.

Regarding Brent crude global price, it reached $66.55 per barrel in June 2019 (1,116.9 EGP), in addition, the global natural gas price recorded an increase to hit around $2.31 per million British thermal unit (mmBtu) (38.77 EGP), according to Bloomberg data. It is worth noting that the Organization of the Petroleum Exporting Countries (OPEC) and its allies have decided, during their sixth ministerial meeting in Vienna summit held in July, to continue oil production cut agreement to reduce it to 1.2 million barrels per day (mmbbl/d) for an additional period of nine months, starting from July 1, 2019 to March 31, 2020 which is expected to increase the prices globally.

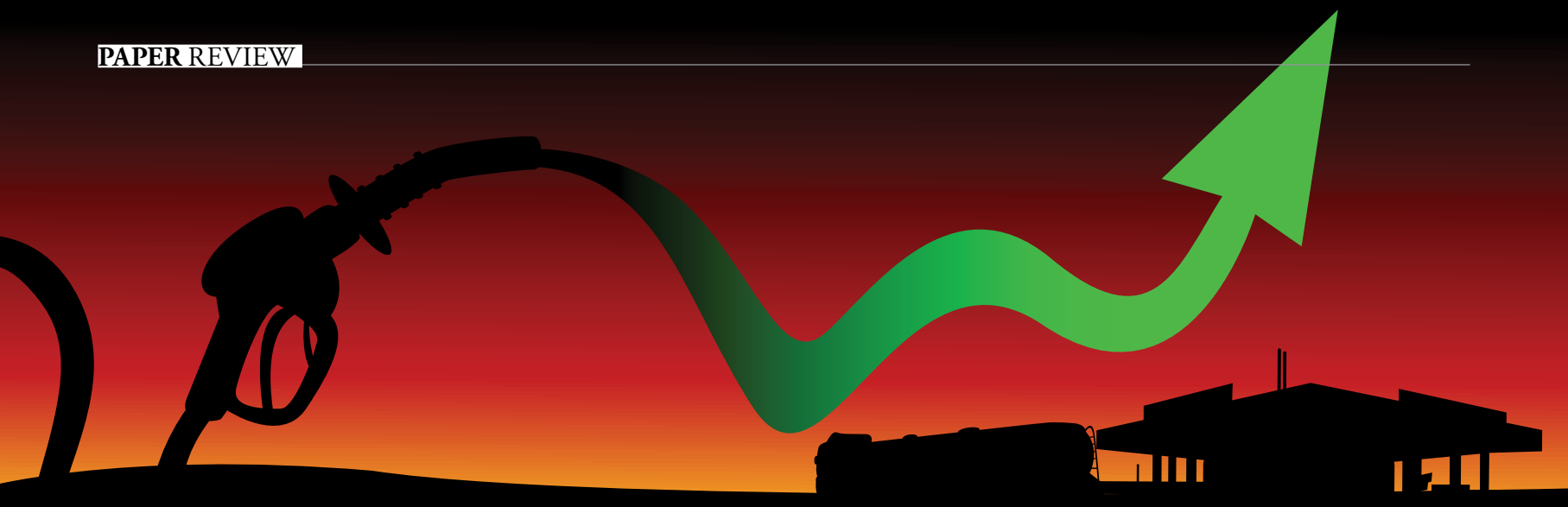
AUTOMATIC FUEL PRICING INDEXATION MECHANISM

In conjunction with the government steps to apply the fuel subsidy reform program, December 2018 witnessed the approval of the Prime Minister Moustafa Madbouly to implement a new automatic price indexation mechanism for 95-octane gasoline with the first price adjustment scheduled at the end of March 2019, according to the IMF fourth country review. The Ministry of Petroleum and Mineral Resources began implementing the mechanism on 95-octane gasoline in April 2019. The price was revised three months later in July 2019 and increased to reach EGP 9, up from EGP 7.75.

It is worth noting that the price indexation for other fuel products was introduced in June 2019 with the first price adjustments scheduled to be by the end of September, the IMF review added. Under the mechanism, the price of fuel products will fluctuate along with the international prices. However, the price changes will be kept at ±10% band and petroleum products will be re-priced on a quarterly basis.

On the other hand, the government will continue to support butane cylinders as well as the petroleum products provided to bakeries and power stations, without applying the new mechanism on them.

It is expected that fuel subsidies will cost around EGP 26.8 billion in FY 2020/21. As a percentage of the gross domestic product (GDP), fuel subsidies anticipated to decline from 1% in FY 2019/20 to 0.4% in FY 2020/21, according to the IMF fourth country review.



ECONOMIC, SOCIAL IMPACTS OF PHASING-OUT ENERGY SUBSIDIES IN EGYPT

BY: **DINA EL-BEHIRY**

Energy subsidies are a common component in many low- and middle-income countries, yet its provision contributes to large fiscal deficits, averting resources away from growth-promotion and poverty-reduction expenditure categories. In addition, subsidies provision is expected to create a social bias as the poorest quintiles are the least to benefit from them as well as an economic bias in favor of capital- and energy-intensive industries. Accordingly, many developing countries have initiated energy subsidy reform programs recently, such as Egypt, Jordan, and Sudan.

Several studies were prepared to examine the impact of Egypt's 2014 energy subsidy reform program and its impact economically and socially, one of them is "Energy subsidy reform for growth and equity in Egypt: The approach matters," published by Elsevier Ltd last February and written by Clemens Breisinger, Country Program Leader at International Policy Research Institute (IFPRI), Askar Mukashov, Junior Researcher at Kiel Institute for the World Economy, Mariam Raouf, Research Associate at International Policy Research Institute (IFPRI), and Manfred Wiebelt, development Economist at Kiel Institute for the World Economy.

This paper is built on previous studies investigating Egypt's economic adjustments associated with a recently announced plan for a complete phase-out of energy subsidies in combination with a new social protection program for the most vulnerable households.

EGYPT'S ECONOMIC STRUCTURE

Egypt began the first rounds of cutting energy subsidies in 2012 and 2013, which affected mainly the prices of liquefied petroleum gas (LPG), gasoline, natural gas, and diesel, yet the subsidy-to-cost ratio remained high. In 2014, Egypt began implementing the economic reform program to restore the economy's stability. The energy subsidy reform program is one of the economic program's main pillars which targets reaching 100% of the price-to-cost ratio of the energy commodities via the gradual increase of registered prices. As a result, the fiscal deficit of fiscal year (FY) 2016/17 declined to 10.9% of the gross domestic product (GDP) and the government paid great attention to protect the households by increasing food subsidies amount and introducing cash transfers programs.

Despite the increase in prices, energy was still heavily subsidized because of the flotation and currency devaluation of the Egyptian pound in 2016, hence, energy subsidies share in the government expenditure were projected to increase from 6.4% in FY 2016/17 to 11.6% in FY 2017/18.

Considering the Egyptian economic structure, the energy sector makes up to 20% of total production; of which crude oil, natural gas, petroleum products, and electricity contribute to around 5.6%, 3.1%, 9%, and 2.9% of the total output, respectively.

THE DCGE MODEL

The paper's analysis is based on an energy-focused, dynamic, computable general equilibrium (DCGE) model, which has been standardized to a modified version of the Egyptian social accounting matrix (SAM) for FY 2012/13. SAM represents the initial equilibrium position of the Egyptian economy in FY 2012/13 and provides numerical values to several key parameters of the analytical model.

In the model, producers are price takers in output and input markets, primary factor demands are derived from constant elasticity of substitution value-added functions, while intermediate input demand by commodity groups is determined by a Leontief fixed-coefficient technology. For crude oil and natural gas, the output is determined by given investments under Leontief production technology. The model contains seven labor groups which are unskilled, semiskilled, and skilled labor in both urban and rural regions, as well as mixed labor, assuming that all labor types, except mixed labor, are fully employed and receive the same wage in every sector. Capital is assumed to be fixed and sector-specific, with a total amount of available investment determined by the level of savings in the economy.

The model simulated three different scenarios to isolate the subsidy reform impacts and to consider social measure. The first scenario is the baseline scenario that assumes fixed prices for the fuel commodities. The second one is the energy subsidy reform scenario that includes two stages of energy subsidy reform one in 2014-2017 and the other is in 2014-2025, then, the third one is the energy subsidy, food subsidy, and cash transfers reform scenario that assumes an increase in food subsidies and cash transfers from the government.

PROJECTED IMPACT

Coming to the DCGE model results, under the assumed scenarios, the energy price increase affects the real GDP negatively in the short-term, yet it turns to be positive in the long-term. The model assumed having fixed wages under the subsidy cuts, it led to increasing the real wages in the short-run, but it will cause an unemployment increase in the log-run as producers will tend to reduce production which will cause in return to release workers and reduce real GDP as well. Moreover, following the phase-out of subsidies in the period of 2018-2021 will help reallocate resources to less energy-intensive sectors. During that period, real GDP is estimated to increase between 0.6% and 1.8%. Furthermore, subsidy savings usage to consumption or investment matters and affects the foreign trade balance. If the savings are used in both, imports will decline by 1.8% and 3.3% in the short run and long run, respectively.

At the same time, the mining and construction sectors are expected to benefit from the reform program in both short and long terms, affecting the real GDP positively. Yet, other manufacturing sectors that depend on energy inputs will suffer from the highest real income losses.

The impact on households is expected to be negative, lowering private consumption by 1.4% to 6.5%, in addition to increasing the cost of public services and hampering households' income generation and growth. Rural households will be exposed to stronger negative impact of higher energy prices than urban ones. Yet, to mitigate poor households from these negative impacts, the government has increased food subsidies and introduced cash transfer programs.

POLICY RECOMMENDATIONS

Few countries around the world have implemented comparable reform programs to the one launched in Egypt. Politically, the government role, under these programs, is crucial to keep things under control. The major lesson learned from the countries implementing similar programs is protecting the poor from the subsidy program negative impacts.

In Egypt's case, positive outcomes are resulting from the economic reform program including the improvements in the current account balance and budget deficit, as well as an accelerating economic growth rate. The paper suggests that these positive impacts are likely to continue if the reform program is sustained, yet it will take time.

تحت رعاية صاحب السمو الشيخ خليفة بن زايد آل نهيان رئيس دولة الإمارات العربية المتحدة
UNDER THE PATRONAGE OF H.H. SHEIKH KHALIFA BIN ZAYED AL NAHYAN, PRESIDENT OF THE UNITED ARAB EMIRATES

Host

أديبك ADIPEC | أدنوك ADNOC

Abu Dhabi International Petroleum Exhibition & Conference

11 - 14 November 2019

Supporters

وزارة الطاقة والصناعة MINISTRY OF ENERGY & INDUSTRY
دائرة النقل DEPARTMENT OF TRANSPORT
غرفة أبوظبي ABU DHABI CHAMBER
مصدر Masdar A MUBADALA COMPANY
دائرة الثقافة والسياحة DEPARTMENT OF CULTURE AND TOURISM
دائرة التعليم والمعرفة DEPARTMENT OF EDUCATION AND KNOWLEDGE

REGISTER BEFORE **FRIDAY 30 AUGUST 2019**
AND SAVE $400 ON YOUR DELEGATE PASS

Oil&Gas 4.0
Strategic Conference Programme

An emerging agenda for the oil and gas industry

Oil and Gas 4.0 means rethinking how our industry adopts and applies technology, attracts and retains talent, shows environmental leadership and reshapes partnerships to create a prosperous and sustainable future.

TECHNOLOGY
How the industry is driving innovations and digital and technological transformation in the 4th Industrial Age

PEOPLE
How the industry needs to tackle increasing competition across industries for STEM talent and change perceptions as we look to attract a digitally native workforce

ENVIRONMENT LEADERSHIP
How the industry is committed to being a leading part of the solution to environmental concerns

PARTNERSHIP
How new partnerships are emerging from a shifts in the global energy map, capital flows and industrial convergence

DOWNLOAD THE PROGRAMME HERE www.adipec.com/strategic

3 EASY WAYS TO REGISTER FOR THE ADIPEC CONFERENCES:
Tel: +971 2 697 0526 Email: adipec.delegate@dmgevents.com Web: www.adipec.com/confreg

Strategic Partner: ARAB DEVELOPMENT
Partners: CNPC, ExxonMobil, LUKOIL, TOTAL
Platinum Sponsors: INPEX Group, JODCO, Occidental

Official Hotel Partner: Emirates Palace
ADIPEC Host City: Abu Dhabi
Venue Partner: ADNEC
Official Broadcast Partner: CNBC
Official Media Partner: Pipeline
ADIPEC Organised By: dmg::events

PETROLEUM SECTOR BLOOD DONATION CAMPAIGN TARGET ACHIEVED

BY **DINA EL-BEHIRY**

As a response to the appeal of Hala Zayed, Minister of Health and Population, to raise awareness on the importance on blood donation, the Ministry of Petroleum and Mineral Resources initiated the sector's first blood donation campaign. The major campaign was held under the patronage of the Minister of Petroleum and Mineral Resources, Tarek El Molla, and took place from June 18 to July 4.

The campaign was organized by the Ministry of Petroleum and Egypt Oil & Gas Corporate Social Responsibility (EOG CSR) Subcommittee, in collaboration with the Egyptian National Blood Transfusion Services and the Ministry of Health and Population.

In recognition of the campaign's importance and the core role played by the ministry, El Molla inaugurated the campaign on June 18 by being the first donor.

It is worth mentioning that the campaign is the inaugural activity by the EOG CSR Subcommittee, which was launched to promote CSR awareness across the petroleum sector and encourage participation in social programs and community services.

CAMPAIGN GOALS

The campaign served several pivotal goals, chief of which is saving the lives of many emergency patients across Egypt. The mass campaign has successfully raised awareness on the importance of blood donation not just within the sector but far beyond. The campaign has also ensured the social print of the oil and gas sector.

PARTICIPATING ENTITIES

The blood donation campaign represents the first joint CSR cooperation activity between national oil companies (NOCs), international oil companies (IOCs), and Joint Ventures (JV), under the umbrella of the Petroleum Ministry. Across Egypt's governorates, many companies took part in the campaign through the creation of donation points in the headquarters, bases, fields, and refineries, responding to El Molla's kick-off of the blood donation campaign.

After achieving such a massive success, there is a need to develop more strategies to reduce individuals' fear and motivate them to be part of more blood donation campaigns. In addition, there is a need to spread a philosophy of care based on humanization to increase awareness about voluntary blood donation and its importance.

REMARKABLE RESULTS

Although the blood donation campaign was the first to be organized in the oil and gas sector, it received great acclaim from all the sector's workers. Around 4,426 donors from 78 premises and 13 fields participated across different governorates, saving around 13,280 patients.

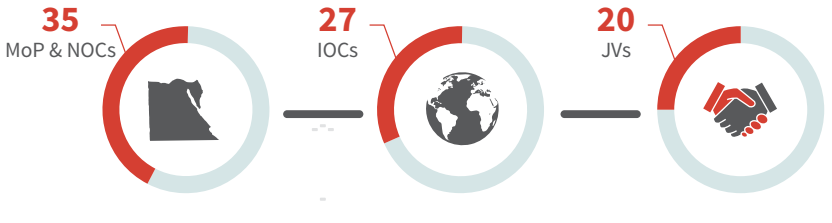
Cairo had the highest percentage of participation for more than half of the donors which is around 60%, followed by Alexandria, Port Said, Marsa Matrouh, the Red Sea, Suez, Damietta, South Sinai, and Kafr El Sheikh.

From the companies' perspective, out of 35 participating NOCs, San Misr took the lead with 223 donors, followed by Town Gas and AMOC. Meanwhile, from Apache and Schlumberger were the biggest participating IOCs, with Khalda Petroleum and Petrobel leading the list of 20 participating joint ventures (JVs).

CAMPAIGN STATISTICS

Total Blood Donation
4,426 Donors

78 Premises | **13** Fields | **9 Governorates** Partcipated



ORGANIZED BY

EGYPT OIL & GAS
CSR SUBCOMMITTEE
Part of EOG Technical Committee

In cooperation with

تحت رعاية فخامة الرئيس عبد الفتاح السيسي رئيس جمهورية مصر العربية
HELD UNDER THE PATRONAGE OF HIS EXCELLENCY ABDEL FATTAH EL SISI, PRESIDENT OF THE ARAB REPUBLIC OF EGYPT

EGYPS
EGYPT PETROLEUM SHOW

11 - 13 FEBRUARY 2020 | EGYPT INTERNATIONAL EXHIBITION CENTER

SUPPORTED BY

وزارة البترول والثروة المعدنية
Ministry of Petroleum & Mineral Resources

BE PART OF NORTH AFRICA & THE MEDITERRANEAN'S MOST IMPORTANT OIL & GAS EXHIBITION & CONFERENCE

www.egyps.com/bookastand

TOP 4 REASONS TO EXHIBIT

GAIN
entry into new markets and create opportunities for your business to win new contracts

MEET
with key oil and gas project owners and buyers to generate prospects for your business

INCREASE
your brand awareness as a key industry player in the region

GENERATE
new sales leads and showcase your products to 30,000+ attending trade professionals

EGYPS 2020 EXHIBITION & CONFERENCE IN NUMBERS

- **33,000** Gross SQM Exhibition space
- **30,000+** Attendees
- **450** Exhibiting Companies
- **17** International Oil Companies
- **10** National Oil Companies
- **17** Country Pavilions
- **1,600+** Conference Delegates
- **270+** Conference Speakers

BOOK YOUR STAND TODAY

+971 4 248 3214 | egyps.sales@dmgevents.com | www.egyps.com/bookastand

SUPPORTED BY: EGPC, EGAS, Ganope, Echem (Egyptian Petrochemicals Holding Company)

DIAMOND SPONSOR: Kuwait Energy

GOLD SPONSORS: Baker Hughes a GE company, Schlumberger

SILVER SPONSORS: Halliburton, Edison Exploration & Production, McDermott, Life Is On Schneider Electric

BRONZE SPONSOR: TechnipFMC

ORGANISED BY: dmg events

CASE STUDY: TRANSITION TO INCIDENT-FREE OPERATIONS FOR A NEW REFINERY IN EGYPT

In the oil and gas industry, risk and integrity management are critical aspects of designing, constructing, commissioning, and operating assets. Identifying potential risks upfront and putting measures in place for mitigating those risks, can not only prevent huge damage-related costs, it can save lives.

The transition from construction to operations phase is usually encountered with unique but anticipated challenges. These challenges are related to all aspects involving the transition and cover implementation, organization, technical assurance, as well as people and risk management, to name a few. In efforts to control and mitigate these challenges in a newly-constructed and untested refinery, Egyptian operators seek DNV GL's world-renowned expertise to execute, monitor, and ensure a smooth transition to operators. The process of this prevention scheme is highly detailed, structured, synchronized, and thus proven reliable and pivotal to all CAPEX to OPEX phases.

DNV GL adopts various approaches and industry standards to tackle the CAPEX to OPEX transition. The common factors within all standards lie within certain elements and activities, that regularly exist due to their vital importance in assuring safety. Executed by technical consultants, safety assurance is not only confined to personnel involved, but also encompasses the environment, assets, and reputation of the company.

Some of the activities that DNV GL offers as part of managing and controlling risks are:

- Execution of studies such as HAZID, HAZOP, SIL, QRA, Bow-Tie, RBI, RCM, RAM, and various HSE cases.
- Identification of Safety Critical Elements (SCEs) and the development of performance standards.
- Technical integrity verification for all barriers.
- Pre-start up safety reviews (PSSR) to identify major hazards.
- Development of operating and maintenance procedures for the new facilities.

In a recent project, DNV GL assisted an Egyptian operator in the transition from CAPEX to OPEX phase, resulting in a 100% incident-free operation for the refinery since opening. Equipped with newly adapted and developed operating procedures, continuity of business operations in an uninterrupted manner was achieved as a result of these systematic transition activities. All stakeholders in the operational phase were equipped with the confidence that the following are in place:

- All risks have been identified with plans and processes in place for their mitigation.
- All major accident hazards have been identified.
- There are adequate processes in place that ensure assets are safe and fit for purpose.

In addition, the knowledge of understanding, managing, and mitigating risks have been transferred to the company's operations team under the appropriate DNV GL supervision.

DNV GL is a global technical advisory company driven by the purpose of safeguarding life, property, and the environment. With a 0% incident occurrence rate, DNV GL has successfully enabled refineries in Egypt to carry-out their operating processes as accurately and technically-cohesive as could be ensured.

FEELING CONFIDENT ABOUT YOUR FUTURE?

We think you should be.

Oil and gas has an important role to play in the energy transition. While demand for hydrocarbons will peak over the next two decades, significant investment will be needed to add new oil and gas production capacity and operate existing assets safely and efficiently.

Egypt has a bright future as an energy hub in this transition and DNV GL is building trust and confidence in the development and operation of Egypt's oil and gas infrastructure. As the technical advisor to the oil and gas industry, we create best practice for projects and operations by drawing on more than 150 years of deep technical expertise.

DNV GL´s suite of annual *Energy Transition Outlook reports* has been downloaded more than 100.000 times. Get your FREE copy at eto.dnvgl.com

Follow us on social media @dnvgl

Contact us: Cairo Business Plaza building, 424 - Sector 3, North 90th Street, 11835 New Cairo. Phone: +202 23066063. Email: cairo.oilandgas@dnvgl.com

www.dnvgl.com/oilgas

SAFER, SMARTER, GREENER

DNV·GL

SAPESCO SUCCEEDS IN COMMISSIONING AL-TINA,

NEW CAPITAL PIPELINE

Being one of the biggest players in the pre-commissioning and commissioning services to contribute in performing mega projects in Egypt, **SAPESCO Industrial Services** has successfully performed commissioning services for AL-Tina, New capital (42" X 73 Km) Pipeline (2nd stage). With its resources and capabilities, **SAPESCO** has completed the final dewatering, drying and nitrogen purging services for the pipeline in a safe and professional manner. The plan for the pipeline was to conduct the commissioning services (pipeline drying and Nitrogen purging to start up) of a gas pipeline with a total length of 165 km on two stages.The mentioned project was awarded by GASCO to Petrojet whom has done a great job in its scope of work which was significantly appreciated by GASCO. On the other hand, Petrojet assigned SIS the commissioning part in this mega project, which was greatly appreciated as well from both GASCO and Petrojet.

The mentioned project was awarded by GASCO to Petrojet whom has done a great job - within its scope - and was significantly appreciated by GASCO. On the other hand, Petrojet assigned **SAPESCO Industrial Services** the commissioning part in this mega project, which was greatly appreciated as well from both GASCO and Petrojet.

It is worth mentioning that **SAPESCO** is currently providing pre-commissioning and commissioning services to numerous power plants and petrochemical projects in Egypt.

SAPESCO is committed to contribute professionally in the success of mega projects through providing the most competent manpower along with state-of-the-art equipment to complete as per each project's schedule, despite the difficulties and obstacles that may be encountered.

ODFJELL WELL SERVICES, SEAHARVEST / CWD (ADVANCED CASING DEPLOYMENT)

FIRST DEFUSE REAMER RUN IN EGYPT GETS CASING TO BOTTOM

Odfjell Well Services along with Seaharvest successfully ran the first defuse reamer in Egypt for Nospco using the latest Casing while Drilling (CwD) technology, comprising of an Enhanced Casing Installation System and a range of Advanced Casing Deployment Tools with high performance DEFUSE reamers.

The Advanced Casing Deployment - DEFUSE - High Speed Reamer which was utilized in the process is a 9-5/8" DEFUSE High Speed Reamer coupled with high-speed and hydraulic horsepower to rotate a jetted casing shoe.

OBJECTIVE

The aim was to run the 9 5/8" 47 ppf, Vam Top casing from surface down to section TD at 1,933 meters MD.

Accordingly, the Defuse tool would be utilized to ream past potential hole challenges such as well instability, sloughing and caving.

EXECUTION

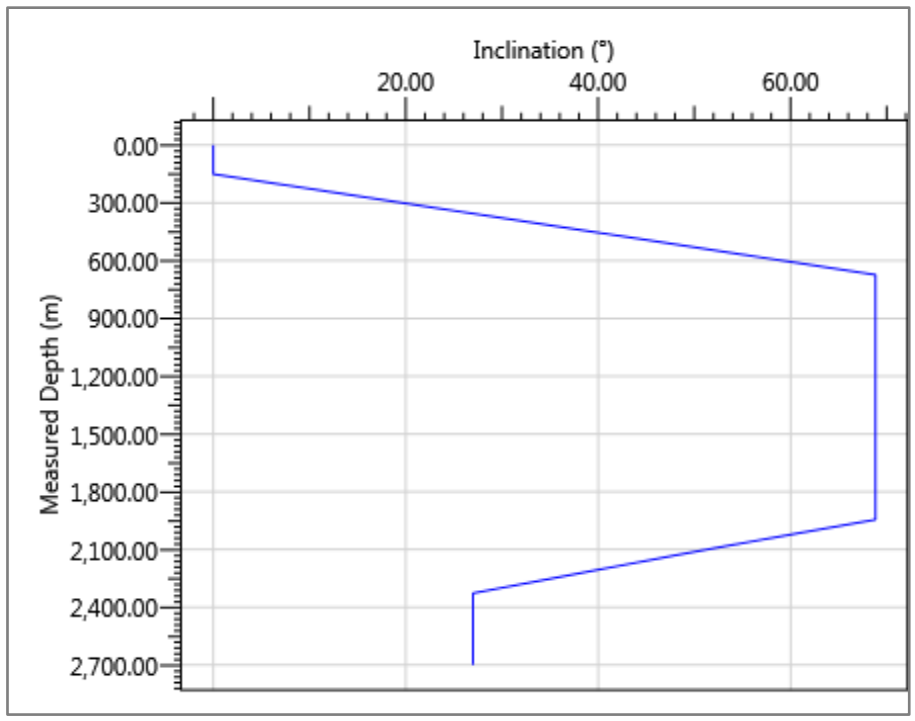
Defuse tool was surface tested to 250 GPM and worked as expected.

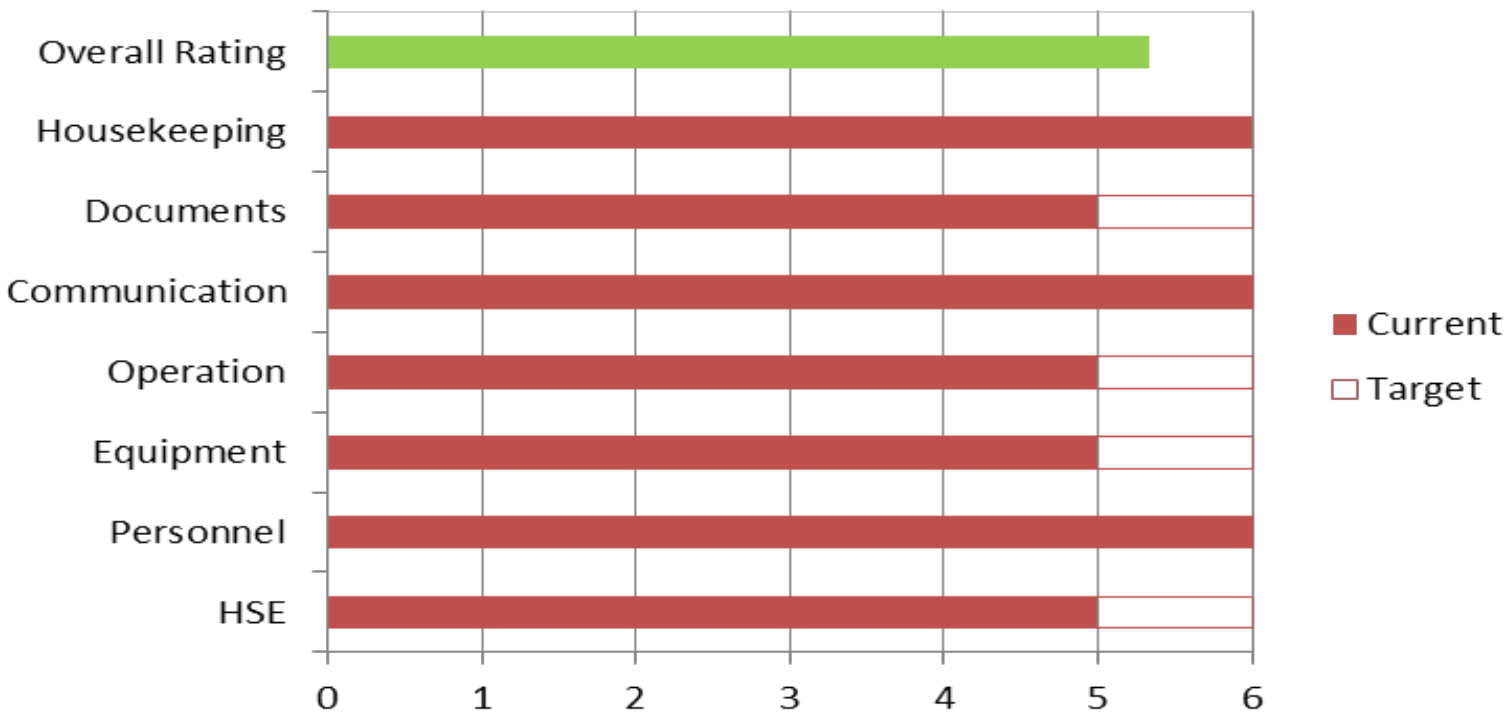
Circulation was maintained at max of 210 GPM during RIH and the casing was washed down and landed at 1,933 meters TD without any issues.

Casing was cemented in place and Defuse reamer was drilled out.

PROJECT RESULTS

First Defuse Reamer in Egypt has successfully achieved casing to bottom. Results were satisfactory and client was impressed with the tool performance.





INCENTIVES FOR UNCONVENTIONAL DEVELOPMENT

Conventional or easy oil and gas discoveries are becoming rare, increasing the need to develop the more challenging unconventional hydrocarbon resources. The definition of conventional and unconventional varies with time depending on technical competency and economics.

Economically, unconventional reservoirs are defined based on the rate of return, specific costs, the EROEI index (energy returned / energy invested). Another definition of unconventional reservoirs based on a purely economic context: "It is located in a reservoir with properties that prevent its recovery by conventional practice at current prices."

The differences between conventional and unconventional petroleum activity originate mainly from the techniques used for their exploration and exploitation, their respective risks, costs, and possible impact on the environment, in particular when the extraction of unconventional petroleum requires using hydraulic fracturing, a technique known in the industry but not approved in some countries.

Up to now, most upstream petroleum laws, regulations, contracts, and fiscal regimes were drafted having in mind only conventional petroleum activity, ignoring the specificities of unconventional petroleum, which was not of commercial interest at that time.

Egypt has major investments in unconventional reservoirs, a small amount of which is being produced e.g. Obaiyed field, and other projects are being planned for development. This will benefit the Egyptian economy by providing additional sources for oil production to satisfy the domestic market and creating a surplus in natural gas. To date, the legal framework in Egypt has not directly addressed the regulation of unconventional oil and gas development.

The current fiscal system in Egypt is considered regressive and deterrent to investment in unconventional projects. Some improvements of economic terms should be introduced in this model, or perhaps a new model, as in some countries such as India.

The most important items in the current model are the economic terms Bonus, cost recovery limit, profit oil split cost amortization, and gas price.

Regarding the price for the gas produced from unconventional projects, it is better to link the gas price to the investment and profits from such projects.

A bonus should be linked to the cumulative production to avoid any advanced payments before commercial such as signature bonus. Cost recovery pool should be increased due to the required huge investment in such a project. Cost amortization should be as minimum as possible to allow the reinvestment of CAPEX in the same project.

Finally, the level of the profit split should be greater than the current levels in the existing model.

All these terms should attract more international oil companies (IOCs) and support investment in unconventional projects.

HANY SHAKER
General Manager
Feasibility Studies & Project Evaluation
Production Department (EGPC)

THE ARGUMENT OF LOCAL ENERGY SUBSIDIES

Energy subsidies are measures that keep prices for consumers below market levels. This can take more than one form such as direct financial transfers; preferential tax treatments; trade restrictions; energy-related services provided by the government at less than full cost; and regulation of the energy sector.

Subsidies tend to have many benefits; security of supply is one of the key benefits as it ensures adequate domestic supply by supporting local production and reducing import dependency. Subsidies can also be used as a tool to stimulate particular economic sectors or segments of the population.

Environmental improvement is another benefit of subsidies, as it reduces pollution.

There are several arguments, however, against energy subsidies. Some subsidies counter the goal of sustainable development, as they may lead to higher consumption and waste, exacerbating the harmful effects of energy use on the environment, create a heavy burden on government finances , weaken the potential for economies to grow, and undermine private and public investment in the energy sector.

Impeding the expansion of distribution networks and the development of more environmentally benign energy technologies is another argument against subsidies.

Furthermore, energy subsidies often go to capital intensive projects at the expense of smaller or distributed alternatives.

As for Egypt; it is obvious that the removal of fuel subsidies as an anticipated decision within the economic reforms plan adopted by the Egyptian government raises many inquiries and concerns among different sectors, especially investors who are the cornerstone for development and job creation in Egypt. They wonder how such a measure would impact their production costs, and thus sales and competitive advantage on the global scale.

That's why energy subsidies require coordination and integrated implementation, especially in light of different stakeholders, globalization and increased interconnectedness of energy policies.

MOHAMED EL HAYTHEM
M.Phil., DBA, MBA
General Manager, Foreign Companies' Control, EGPC

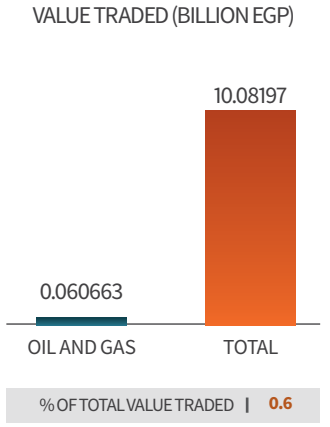
Annual Inflation Headline CPI

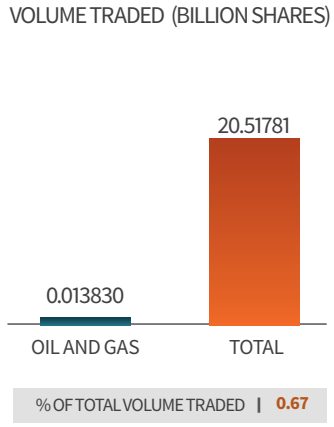
MAY 2019	JUN 2019
14.1%	**9.4%**

Net International Reserves ($ billion)

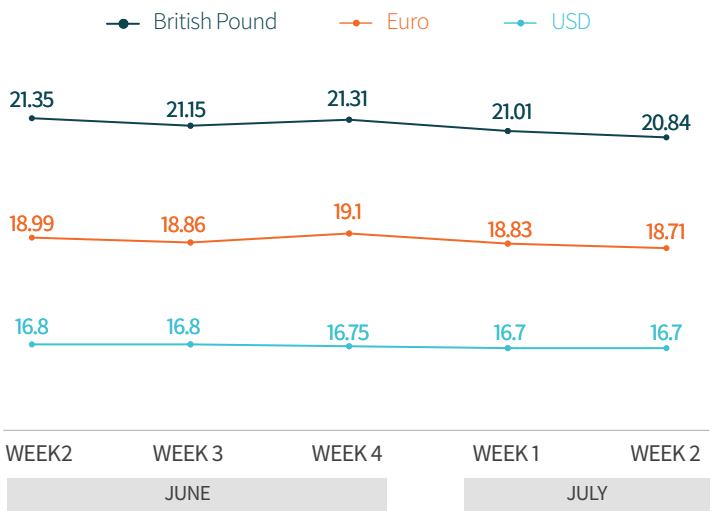
MAY 2019	JUN 2019
44.27	**44.35**

Value and Volume of Shares Traded for Oil and Gas Sector in June 2019

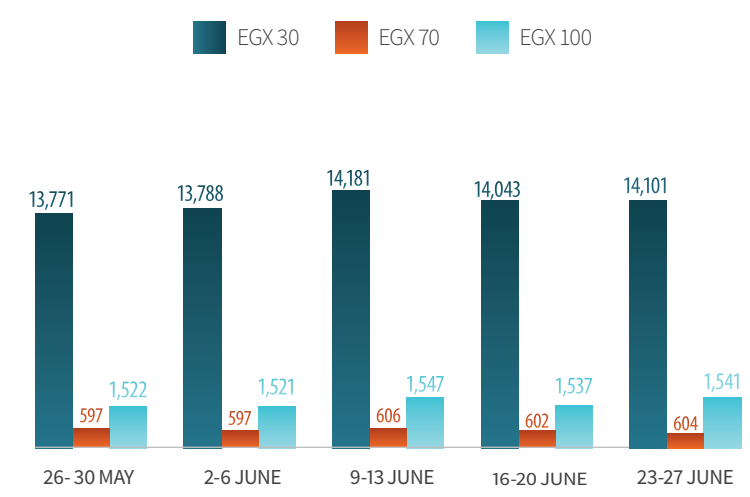




Exchange Rates



Capital Market Indicators



Oil and Gas Companies Listed in the Egyptian Exchange

National Drilling

CURRENCY	CLOSE PRICE
USD	**4.96**

YTD PRICE CHANGE (%) ▲ **9.01**

Alexandria Mineral Oils Co.

CURRENCY	CLOSE PRICE
EGP	**4.5**

YTD PRICE CHANGE (%) ▼ **27.88**

Egypt Gas

CURRENCY	CLOSE PRICE
EGP	**69.47**

YTD PRICE CHANGE (%) ▼ **5.07**

Sidi Kerir Petrochemicals

CURRENCY	CLOSE PRICE
EGP	**11.2**

YTD PRICE CHANGE (%) ▼ **34.58**

Source of Raw Data: CBE, Egyptian Exchange.

EGYPT OIL&GAS RESEARCH & ANALYSIS

BOP PERFORMANCE IN **JULY-MARCH 2018/19**

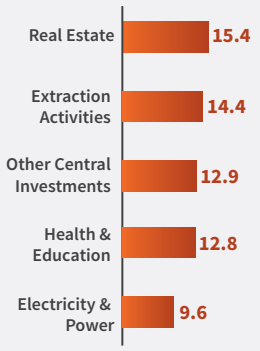
- Overall deficit of **$351.2 million**.
- **SERVICES BALANCE ACHIEVED A SURPLUS OF $9.8 BILLION DUE TO:**
  - Surplus of **$7.3 billion** in Travel Balance
  - Increase of **2.8%** in Suez Canal receipts to **$4.3 billion**
- Merchandise Exports increased by **11.2%** to reach **$20.9 billion**.
- Total FDI inflows recorded **$10.2 billion**.
- Remittances of Egyptians Abroad reached **$18.21 billion**.

BUDGET OBJECTIVES IN **FY 2019/20**

The budget remarks the biggest in history with **EGP 1.6 trillion** expenditures.

- Achieve primary surplus of **2%** of GDP, similar to FY 2018/19
- Reduce the budget deficit to **7.2%** compared to **8.2%** in FY 2018/19
- Increase GDP growth rate to **6%**, in comparison to **5.6%** in FY 2018/19

Top Sectors' Shares in Planned Investments (%)



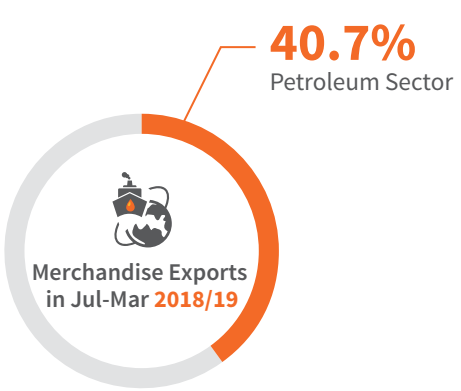
Total government revenues targeted to reach **EGP 1134.4 billion**.

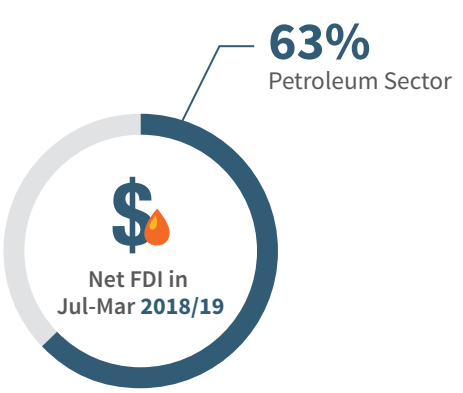
Source of Raw Data: CBE, Ministry of Finance, The Egyptian Cabinet.

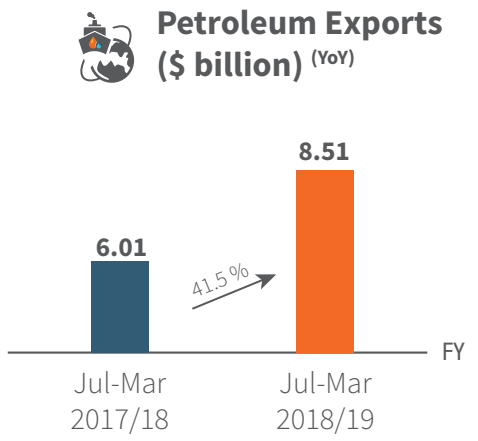
Petrobal achieved an oil discovery in the **Abu Rudeis** concession area in **Sinai**.

Energean signed an agreement to acquire Edison for **$750 million**.

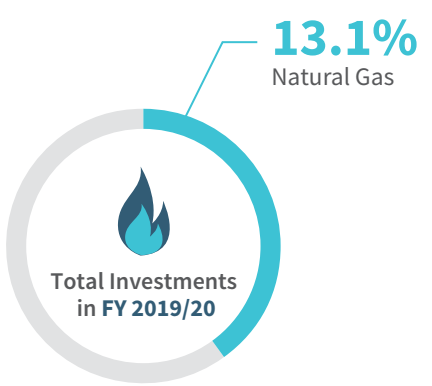
The hydrocarbon trade balance recorded **$800 million** surplus during **Q4 2018**, its first since **Q4 2013**.





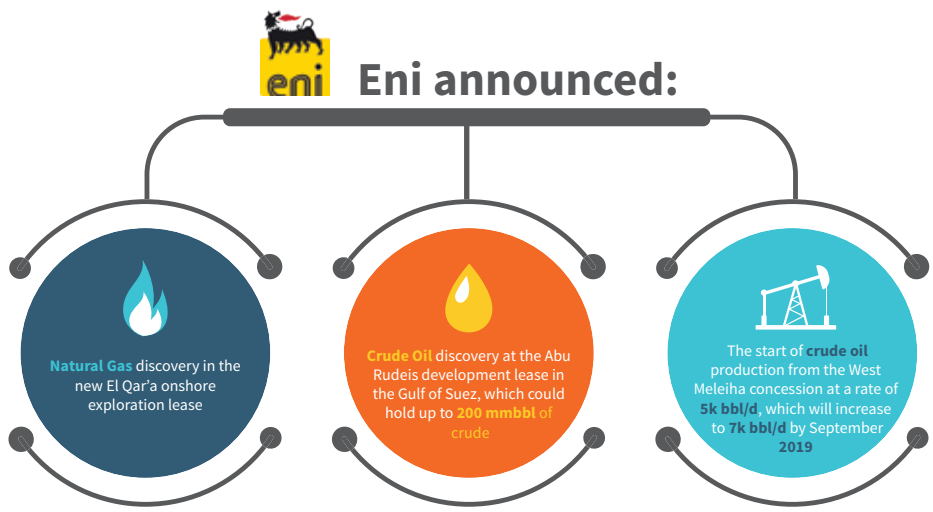


Arrears to IOCs dropped by **25%** to **$900 million** by the end of **June 2019**.



The MoP plans to raise the total daily crude oil production to reach **720,000 b/d** by the end of **FY 2019/20**.

EGPC's surplus in **FY 2019/20** budget is estimated to be **EGP 19.3 million**.



EGPC's current crude oil and condensates production is between **660,000** and **670,000 b/d**.

EGPC plans to increase the production of crude oil and condensates to nearly **710,000 b/d** by **mid-2020**.

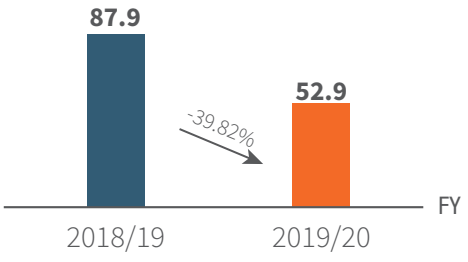
The MoP will implement **11** projects to develop natural gas fields with investments of **$15 billion**, by H2 of 2022.

Enppi won a **$500 million** worth turnkey project in Saudi Arabia, in **June 2019**.

The MoP's arrears to Dana Gas decreased by **38%**, in **June 2019**, to reach **$125 million**, the lowest since 2011.

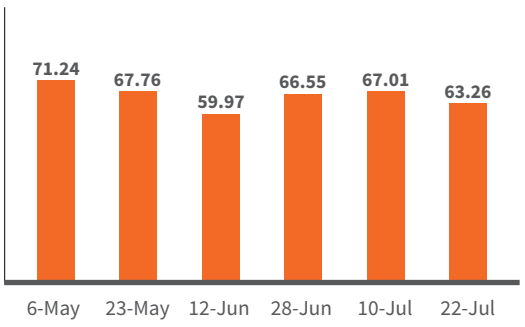
GUPCO production in **2019** reached **63,000 b/d** through **11** concessions and exploration areas.

Petroleum Products Subsidies (EGP billion) (YoY)

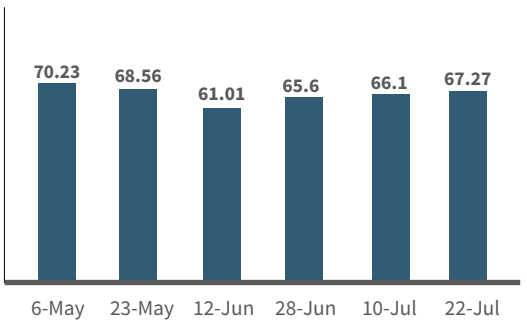


SDX Energy made crude oil discovery at its **Rabul 7 well** in the West Gharib concession, which was drilled to a total depth of **5,323 feet** and encountered **134 feet** of net heavy oil.

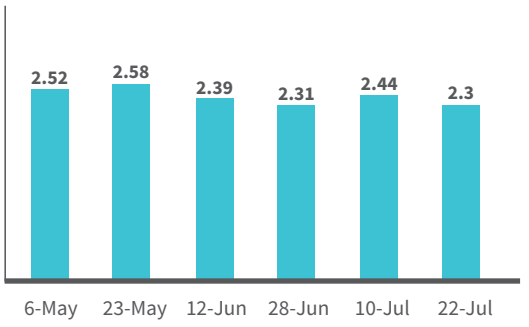
BRENT PRICES



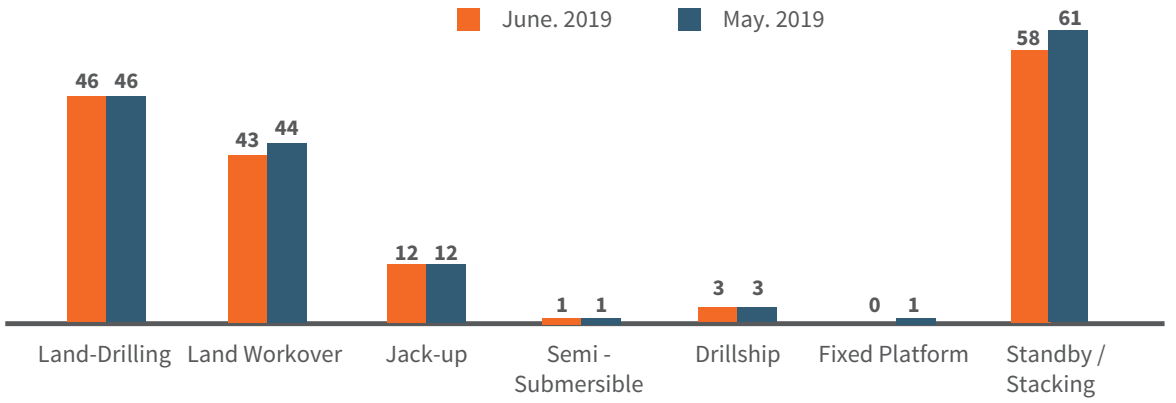
OPEC BASKET PRICES



NATURAL GAS PRICES



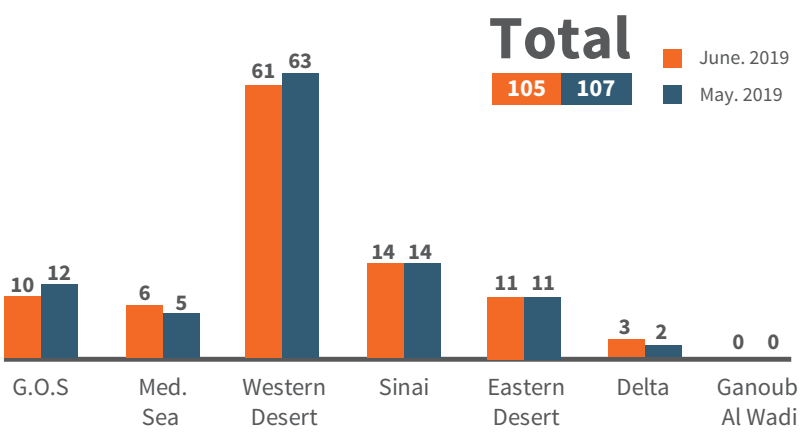
EGYPT RIG COUNT PER TYPE June 2019



Total

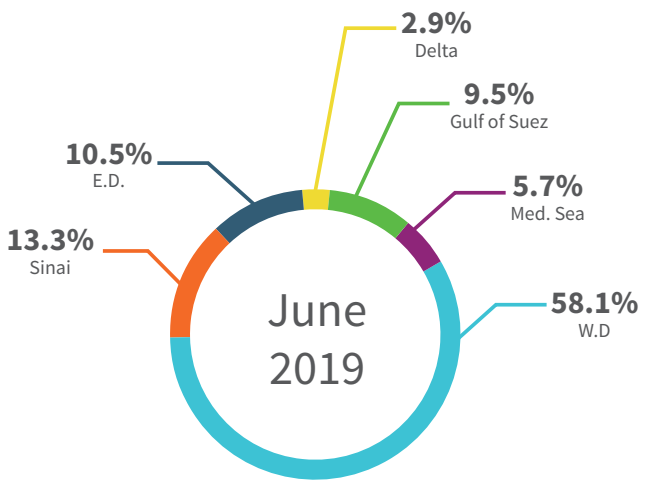
163	168

EGYPT RIG COUNT PER AREA June 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 June 2019

Total

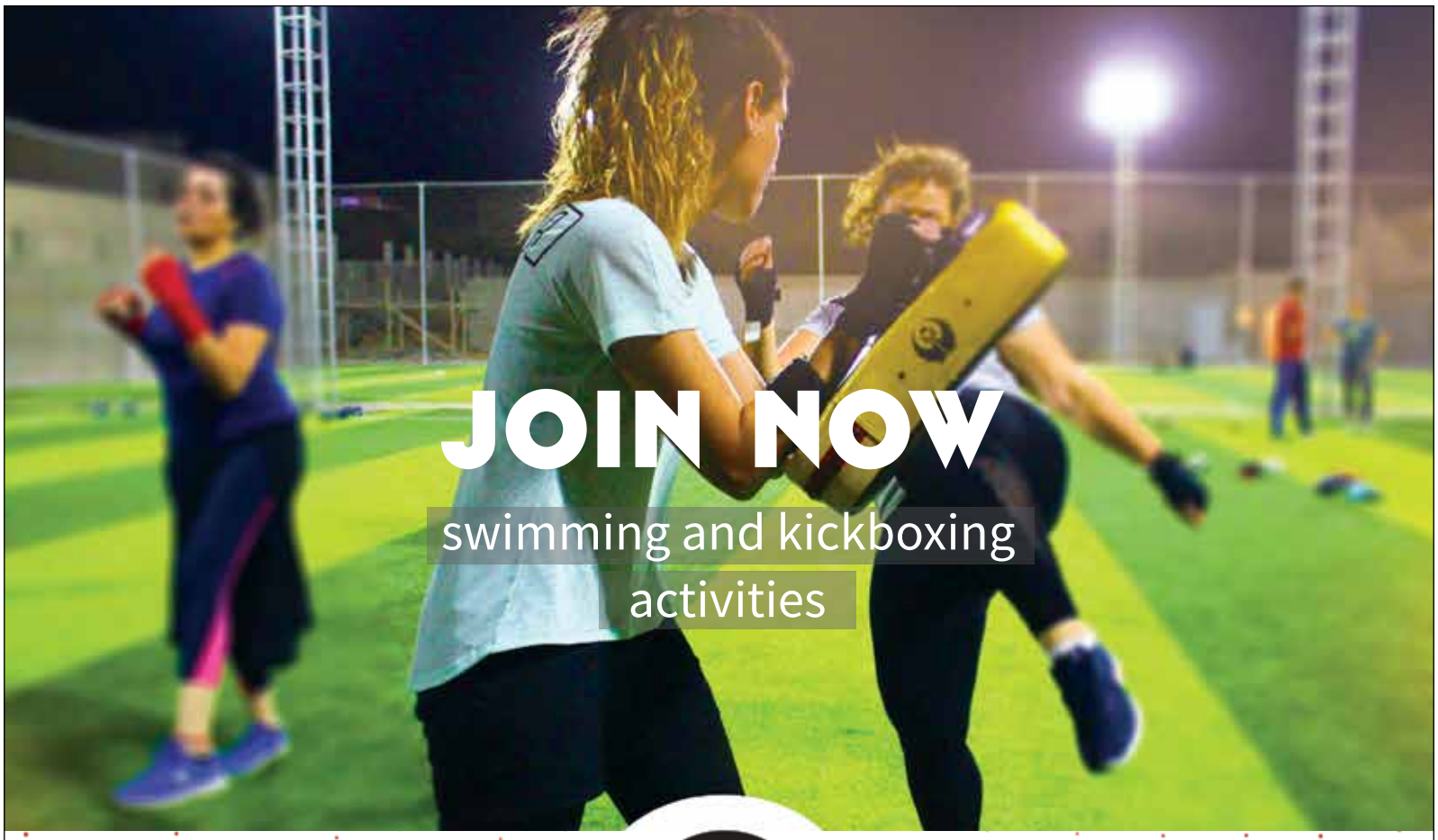
555,085	B/D
6.7885	BCF/D
6623	MCF/D
82,734	B/D

Numbers are calculated per day on average.

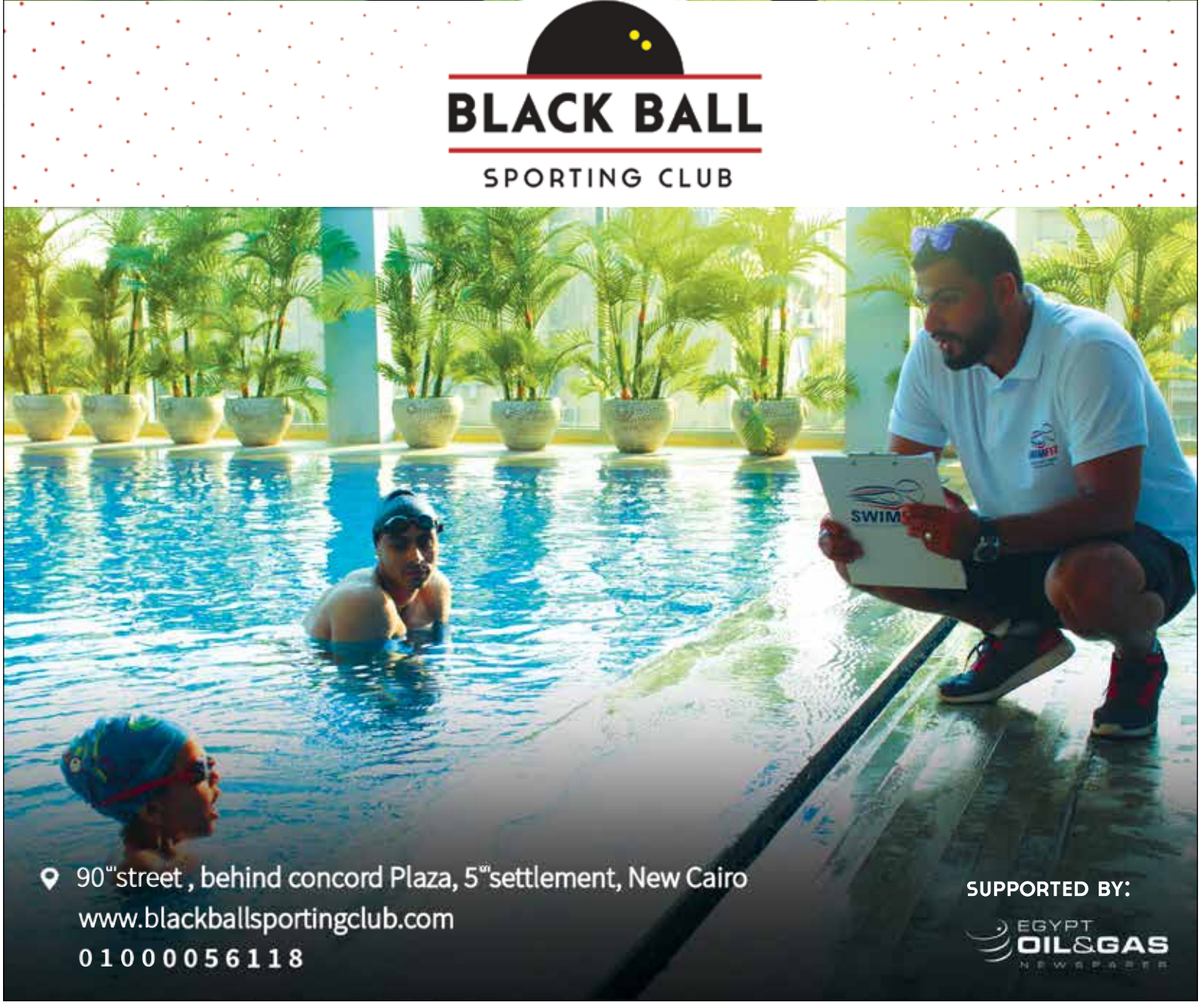
	CRUDE OIL	GAS	SOLD GAS	CONDENSATES
MEDITERRANEAN SEA	481	4.1680	4066	29,304
EASTERN DESERT	67,639	0.0122	12	78
WESTERN DESERT	309,048	1.2339	1204	39,498
GULF OF SUEZ	128,772	0.0923	90	1,855
DELTA	123	1.2821	1251	11,459
SINAI	48,832	0	0	540
UPPER EGYPT	190	0	0	0

Drilling Update June 2019

REGION	COMPANY	WELL	WELL TYPE	RIG	DEPTH	WELL INVESTMENTS
EASTERN DESERT	WEST BAKR	H-30	Development	EDC-66	5,430	1.100 M$
	GPC	HNW-3	Development	ST-9	5,200	1.217 M$
		HH 83/2C	Development	ADMARINE-3	9,394	2.376 M$
SINAI	PETROBEL	SIDRI-23	EXP	EDC-55	9,597	4.600 M$
		113-191 ST-1	Development	ST-3	9,184	3.100 M$
WESTERN DESERT	KHALDA	KENZ-54	Development	EDC-57	13,100	2.481 M$
		PTAH-32	Development	VEDC-17	12,800	2.600 M$
		HERUNEFER W-13	Development	EDC-58	14,850	2.172 M$
		KAHRAMAN C-181&ST	Development	EDC-61	10,175	1.640 M$
		BAT-3X	EXP	EDC-54	9,982	1.646 M$



BLACK BALL
SPORTING CLUB



A LINE HAS BEEN DRAWN.
BETWEEN THE SAME WAY
BETWEEN A COMPANY
BETWEEN MAINSTREAM
TODAY, A LINE HAS BEEN DRAWN.
AND THE PAST IS ON ONE SIDE

AND A NEW WAY.
AND A CHANGE AGENT.
AND FULLSTREAM.

AND WE'RE ON THE OTHER.

BAKER HUGHES
a GE company

From the reservoir to the refinery. From the depths of the sea to the power of the cloud. BHGE is now the first and only fullstream provider to the oil and gas industry, leverating the best minds and most intelligent machines to invent smarter ways to bring energy to the world.

Learn more at **bhge.com**