EGYPT OIL&GAS NEWSPAPER

Egypt's Leading Oil And Gas Monthly Publication

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THE FUTURE OF NATURAL GAS INDUSTRY IN EGYPT

The Reality of Enhanced Oil Recovery in Egypt

Rentier States: Feeling the Pressure

Foreign Investment in Egypt: Motivations and Methods of Encouragement

Will Foreign Investments Tip the Scales for Egypt's Oil Industry?

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The convention identifies means to accesses additional reserves by enhancing and increasing oil production. With EOR and water flooding techniques, 30 to 60 percent ormore of the reservoir's original oil can be extracted compared to 20 to 40 percent using primary recovery.

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Dr.Mahmoud Dabbous, IPR Group Chairman
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Eng. Ahmed el Nakkadi, Schlumberger Vice President

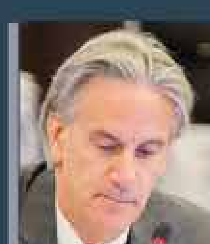
What Executives Say About Egypt Oil & Gas

We commend this outstanding publication and wish it continued success in its journalistic mission to inform others about Egypt's petroleum industry and to communicate positively with foreign petroleum companies operating in Egypt.

SHERIF ISMAIL
Prime Minister

I consider Egypt Oil & Gas one of our critical tools enabling us reaching our success locally & globally.

TAREK EL MOLLA
Minister of Petroleum and Mineral Resources



"Egypt Oil & Gas successfully brought together the leadership and technical experts from the government, IOC's, local companies and the service providers for three days of productive dialogue, lessons learned and technology transfer.
Thanks for your industry support Egypt Oil & Gas Team."

THOMAS MAHER
Vice-President & General Manager – Apache

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EDITOR'S NOTE

"Oil" and "investment," two key words that are often heard echoing throughout state entities nowadays. It is no secret that one of the main plans the government has to resolve the energy shortage on long term is through enhancing investment in the exploration and development of new fields, as well as boosting production in existing ones. One of the prominent methods used in this regard is enhanced oil recovery (EOR), in this issue we chose to focus on both EOR and the investments fueling the industry.

The main culprits affecting investment flow in the secto are oil prices, and payment of dues; another topic highlighted through this month's issue is the effect of the general economic performance, including that of other sectors such as tourism. To some extent the problem is cyclical, adding to the equation the dollar shortage. In this issue the topic is analyzed from two angles, why Egypt is a great option for foreign investors, and to what extent will the oil industry in fact advance with the investment it is receiving.

According to experts without applying production enhancement technologies, Egypt may not manage to increase its production by much relying on investment alone. In this issue, we examine the reality of EOR in Egypt, to what extent it is applied, it's benefits, and the results this angle could generate for the economy.

On an aggregate level, this month's issue delved into the effect of the prolonged oil price decline on countries that rely significantly on crude exports, examining how the stronger countries are being tested, and how the poorer ones are surviving.

We couldn't close the issue without highlighting a major industry event that took place this February, the Egyptian Gas Association's (EGA) executive roundtable, headed by the Ministry of Petroleum and Resources, Tarek El Molla. The roundtable focused on the future of the gas industry in Egypt, and it is the first roundtable for the association.

On a personal note, this is my last issue as Editor in Chief for Egypt Oil and Gas. In fact as I write these lines we are preparing the issue for print. While my journey with the publication was not long, it was one of my greatest. I learned a great deal working with smart, goal oriented team that knows how to achieve anything. I truly wish them all the best on their journey.

As always thank you for your support and readership.

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EGYPT OIL&GAS NEWSPAPER

Petroleum Ministry Decides Against IPOs for Petrochemical Projects

The Ministry of Petroleum and Mineral Resources has changed its plans to generate capital for petrochemical projects through the Egyptian Exchange, reported Daily News Egypt.

An official at the Egyptian Petrochemicals Holding Company (ECHEM) said that the idea of financing new projects through IPOs was abandoned due to the low amount of interest expected. New petrochemical projects are in need of large investments and as such, IPO will not be sufficient to cover their costs. ECHEM has begun negotiations with a number of countries to finance those projects.

Current Prime Minister, Sherif Ismail, during his time as minister of petroleum, announced that the ministry was considering launching an initial public offering (IPO) for petrochemical projects to raise funds, reported Reuters.

In early 2015, the legislative law of EGX was amended to allow state-owned projects to collect necessary financing by holding an IPO, leading Ismail to announce the government's intentions to offer some petroleum related projects such as the projects of Egyptian Petrochemicals Holding Company (ECHEM), informed Masress. Misr Oil Processing and Fertilizers Company (MOPCO) then listed in EGX with a capital of EGP 2.3b. This followed with EGX's statement in which it announced that it began negotiations with three additional petroleum companies; Middle East Oil Refinery MIDOR, the Egyptian Company for Refrigeration (Gas Cool), and El-Neel Oil Marketing Company to be listed on the Egyptian stock exchange with a combined total capital of EGP 8.5b. MIDOR's plan was to list shares worth $1.1b while Gas Cool planned to list share worth EGP 125.5m. El-Nile would have offered EGP 50m, added Ahram Online. However, not all IPOs were successful.

Despite holding major conferences to market the role of the EGX in raising capital, EGX has not been approached by new companies since the beginning of 2016, neither state-owned nor private.

In September 2015, ministry stated that its plans to launch petrochemical projects would require investments of EGP 90b ($11.4b), informed Mubasher. Previously, Ganoub El-Wadi Petroleum Holding Co. signed an MoU with UAE-based Enmaa Al Ain for Development and Investment Co. to establish new projects amounting to $3.5b. Meanwhile, the Alexandria Ethylene Complex was scheduled to enter the production phase with an investment of $9.1b.

El Molla Meets with Heads of 40 Companies

Minister of Petroleum and Mineral Resources, Tarek El-Molla, met with the heads of 40 joint venture companies to discuss different methods of boosting oil and gas production in Egypt, reported Egypt Oil & Gas.

During the meeting El Molla emphasized the importance of unorthodox thinking and resorting to modern mechanisms to increase oil and gas production rates, deal with the natural decline rate of production, the decrease in the general spending of petroleum companies, and the challenge of the global decline in oil prices, which is expected to continue during the coming period to avoid any negative consequences.

The minister explained that the focus of the ministry at the current stage is boosting production rates, in order to face the continuous increase in domestic consumption of petroleum products and natural gas.

He also called for foreign partners to abide by exploration timelines, collaborate with the state in the development of new fields, and the implementation of new infrastructure projects that will speed up linking those fields.

During the meeting, the importance of the presence of company heads at production sites was noted as continuous communication with employees to explain the current difficult situation, and to deliver the message to the workers with full transparency was needed.

The minister also called for the swift conclusion of the study on the integration of small neighboring oil companies in concession areas in order to reduce expenses. He also stressed the importance of periodic maintenance of equipment and reviewing the security measures of oil facilities to preserve lives and production assets.

Egypt's CBE and Riyadh to Secure Energy Imports

The Central Bank of Egypt (CBE) opened a commercial letter of credit of $400m for the Egyptian General Petroleum Corporation (EGPC). The amount will be directed towards paying for imports of petroleum products and liquefied natural gas (LNG) for the coming three months, a government official told Daily News Egypt.

Part of the amount will go to Saudi Aramco, which will supply Egypt with petroleum products for the coming three months –starting February 2016, based on a recent Cairo-Riyadh agreement. Egypt and Saudi Arabia have reached a deal to supply the country with a monthly 800,000 tons of petroleum products for three months starting from February 2016, an EGPC official told Reuters. "Saudi Arabia is giving us 180,000 tons of gasoline, 150,000 tons of fuel oil and 470,000 tons of diesel," the EGPC official. Saudi Arabia has promised to help to meet Egypt's petroleum needs for the next five years. The agreement includes payment facilities for Egypt and an interest rate of 1%.

According to the source, it is in Egypt's best interest not to exceed the given credit of $400m, in order to avoid negatively affecting the country's foreign currency reserves, adding that EGPC collects its dollar requirements through its own resources.

The CBE announced that the volume of foreign currency reserves increased to $16.445b by the end of 2015, compared to $16.422b in November last year, marking an increase of about $23m.

Sisi: Construction of Nuclear Plant to Begin in a Few Weeks

Egyptian President Abdel Fattah El Sisi announced that construction of the country's nuclear power plant will begin in a few weeks, reported State Information Service.

The announcement was made during the president's speech to the newly elected parliament. This is the first time Sisi addressed the House of Representatives since taking office in June 2014.

"We have attained an unprecedented achievement in the history of Egypt through upgrading the national power network. We managed to overcome the severe dearth of energy and we have signed the contract for setting up Dabaa nuclear power station that will start within the coming few weeks," asserted the president.

Several Russian teams visited Egypt during the past month to determine the exact location of the project, based on the soil nature, most likely on the Mediterranean, according to the State Information Service. Russian experts will start examining the soil on which the plant will be situated to guarantee the safety of the project.

Egypt and Russia were expected to sign the main contracts in February 2016 for setting up Egypt's first nuclear plant in Dabaa, Russian Ambassador in Cairo, Serge Kirpichenko, announced earlier.

On 19th November 2015, Egypt and Russia signed an agreement to build a nuclear plant in the city of Dabaa alongside the Mediterranean coast. The plant, expected to be finalized in 2022, will consist of four third-generation reactors for power generation, according to Reuters. The Russian government will provide a loan to Egypt to cover the unreported cost of the project. The loan will be repaid over 35 years. President Sisi stated that "the country and the balance sheet will not bear the cost of building this plant. It will be paid back through the actual production of electricity that will be generated," Ahram reported.

Egypt seeks to quickly expand and diversify its energy sources – looking to ramp up production through alternative, nuclear, and fossil fuels to meet domestic demand. In addition, Cairo seeks to rebuild its political relationship with Moscow after the "terrorist incident," Sisi acknowledged in his announcement.

The Government Owes the Electricity Ministry EGP 10.8b

The ministry of electricity is owed by state entities EGP 10.8b, an official at the ministry of electricity told Al Mal.

The majority of the debt is owed by the Holding Company for Water and Wastewater (HCWW), where its debt to the ministry of electricity amounts to EGP 5.3b. The Ministry of Religious Endowment owes around EGP 3b. The remainder of the amount is owed by the administrative machinery in different ministries, one of which is the tourism ministry which owes EGP 560m, accumulated between 2010 and 2016. The official said that the debts owed by municipalities, affiliated to the ministry of local development, total EGP 775m.The Cabinet, however, issued a decision in November 2015 to postpone payment of dues owed by tourism sector to governmental agencies, including electricity, water, sanitary, gas and insurance for 6 months. The dues, according to the decision, shall be paid in installments over 24 months without interest until the tourism sector recovers.

DANA GAS NEWS

Dana Gas Sponsors Major Event

Dana Gas had the pleasure of sponsoring one of this year's most prominent events, titled "A Commitment to Development: The Private Sector's Role in Inclusive Growth." The conference was organized by the American Chamber of commerce and the United Nation Development Program (UNDP).

In attendance were H.E Former President of Mexico, Felipe Calderón, Minister of Petroleum and Mineral Resources, Tarek El Molla, Minister of Investment, Ashraf Salman, Minister of Industry, Foreign Trade and SMEs Tarek Kabil, Minister of Social Solidarity, Ghada Waly, Minister of Supply and Internal Trade, Khaled Hanafi, as well as the Head of the Financial regulatory authority.

The conference, held on 7th of February 2016, was tailored to act as an essential driver for economic growth and job creation, helping to raise awareness, creating a better understanding of policy making, as well as offering the space for sharing experiences and networking.

The proceedings were attended by 600 high level attendees including ten ambassadors, a number of key government figures, and a multitude of senior management figures from Egypt's private sector.

Dana Gas Sponsors Oil Minister Luncheon Meeting

The American Chamber of Commerce organized a luncheon meeting, hosting the Minister of Petroleum and Mineral Resources, Tarek El Molla, as the guest speaker.

The event was sponsored by Dana Gas, and was held on January 11 2016 at Four Seasons Nile Plaza.

All Fertilizer and Cement Factories to Shift to Coal

The Ministerial Economic Committee has agreed to broaden the use of coal as an alternative fuel for natural gas in all fertilizer and cement factories. The decision is expected to be gradually applied, as appropriate storage to accommodate the needed amount of coal venues has not been set until now, a source at the ministry of petroleum told Egypt Oil & Gas.

The government is keen on expanding the use of coal as an energy source in the manufacturing and consumption sectors that currently use natural gas. This is due to its expected contribution to the resolution of 40% of the energy crises in Egypt, the official added, and the provision of gas to power plants in order to avoid frequent power outages in the summer.

Over the past year factories and the Egyptian government struggled alike with fluctuations in the availability of natural gas for the manufacturing sector.

In May of 2015, it was reported by Daily News Egypt that 90% of cement factories in Egypt have agreed to shift to coal as their main source of energy, the Head of the Industrial Development Authority, Ismail Gaber, announced at Egypt's first coal conference.

In November, President Abdel Fatah el Sisi announced that shortages in supply faced by factories will be resolved by the end of the month. A statement that was shortly followed by EGAS confirming to Egypt Oil & Gas a decision to pump 700 mcf of gas to factories that are suffering from gas shortages.

In December 2015, EGAS notified energy intensive factories that they will reduce gas supply by 15% from the contracted quantity due to the current low pressure of gas in the National Grid, reported Al-Borsa. An EGAS official explained that the full natural gas needs of the industrial sector would be re-pumped by the end of 2015, after the pressure in the network returned back to normal.

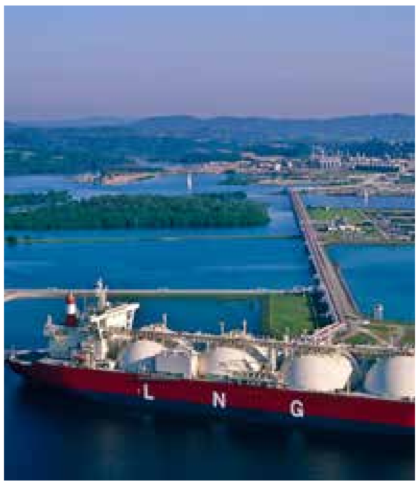
The Ministerial Economic Committee will draw out the general framework for economic and monetary policies, as well methods of attracting investment opportunities to Egypt.

Ministry of Petroleum Announces the Launch of PetroShorouk

Minister of Petroleum and Mineral Resources, Tarek El Molla approved the formation of the joint venture company, PetroShorouk Petroleum, for the development of the Zohr field. The joint venture is between the Egyptian Natural Gas Holding Company (EGAS) and IEOC, the Ministry of Petroleum made the announcement in a press release. Petrojet and Ennpi have been assigned as main contractors in addition to the Italian company Saipem to execute the project. Investments for the development of Zohr have been estimated at $12b. Zohr field is planned to begin production before the end of 2017, reaching a peak production of 2.7 tcf by 2019. Zohr field was discovered 30th of August 2015, and is considered to be one of the largest discoveries for Egypt and in the Mediterranean area.

EGAS Decreases Gas Imports by 7%

The Egyptian Natural Gas Holding Company (EGAS) decreased the volume of imported gas by approximately 7%, to reach 650 mcfd compared to 700 mcfd in January. The decline was due to the decrease in domestic consumption, a senior official at EGAS told Daily News Egypt.The source added that a liquefied natural gas shipment (LNG) is on its way to Ain Sokhna port, and it is expected to add approximately 500 mcfd for a week. EGAS is planned import 80 LNG shipments during 2016, worth around $2.5b to $3b. The shipments will secure 1 bcfd for energy generation as well as the industrial sector.



DRILLING

NORPETCO

NORPETCO, a joint venture between EGPC and Sahari Oil Company, has completed drilling a new crude oil development well in its concession area in the Western Desert. The production rate of GPC in January 2016 was 319,173 barrels of oil/month.

ABRAR S-7 ST-1

The well was drilled at a depth of 6774ft utilizing the ECDC-2 rig. Investments surrounding the project are estimated at $1.374m.

BAPETCO

BAPETCO, a joint venture between EGPC and Shell, has completed drilling a new exploratory gas well in its concession area in the Western Desert. The oil production rate of GPC last January was 1,528,349 barrels / month, while the natural gas production was 233,0714 barrels/ month.

OBA J-14-A

The well was drilled at a depth of 14403ft utilizing the EDC-42 rig. Investments surrounding the project are estimated at $3.311m.

QARUN

Qarun, a joint venture between EGPC and Apache, has completed drilling a new oil development well in its concession area in the Western Desert. The production rate of Qarun in January 2016 was 1,128,636 barrels of oil/month.

AMANA-2X ST

The well was drilled at a depth of 8230ft utilizing the EDC-64 rig. Investments surrounding the project are estimated at $950,000.

HAMRA-39

The well was drilled at a depth of 6300ft utilizing the EDC-64 rig. Investments surrounding the project are estimated at $1m.

PETROSILAH

PETROSILAH, a joint venture between EGPC and MERLON, has completed drilling new oil development wells in its concession area in the Western Desert. The production rate of Khalda in January 2016 was 387,358 barrels of oil.

SILAH-25

The well was drilled at a depth of 7550ft utilizing the IPR-1 rig. Investments surrounding the project are estimated at $1.410m.

N.SILAH D-3

The well was drilled at a depth of 8230ft utilizing the IPR-1-2 rig. Investments surrounding the project are estimated at $1.326m.

BP

BP, a search and exploration company, has completed drilling a new oil development well in its concession area in the Mediterranean Sea.

TAURUS N-3

The well was drilled at a depth of 7122ft utilizing the DISCOV-2 rig. Investments surrounding the project are estimated at $19.038m.

PETROSANNAN

PETROSANNAN, a joint venture between EGPC and Ukranian Naftogaz, has completed drilling a new oil development well in its concession area in the Western Desert. The production rate of GPC last January 2016 was 236,422 barrels of oil/month.

AESE3 1/11

The well was drilled at a depth of 10662ft utilizing the SHAMS-2 rig. Investments surrounding the project are estimated at $2.037m.

KHALDA

Khalda, a joint venture between EGPC and Apache, has completed drilling new oil-development wells in its concession area in the Western Desert. The production rate of Khalda in January 2016 was 4,696,887 barrels of oil in January 2016.

PTAH-9

The well was drilled at a depth of 13300ft utilizing the EDC-57 rig. Investments surrounding the project are estimated at $3.872m.

WD-33-20

The development well was drilled at a depth of 12300ft. utilizing the EDC-1 rig. Investments surrounding the project are estimated to be $1.784m.

PINOT S-2

The exploration well was drilled at a depth of 6900ft. utilizing the EDC-65 rig. Investments surrounding the project are estimated to be $90,000.

GPC

GPC, a public sector company, has completed drilling a new crude oil development well its concession area in the Western Desert. The production rate of GPC in January 2016 was 1,285,090 barrels of oil/month.

HF 36/7E in

The well was drilled at a depth of 7762ft utilizing the ST- 4 rig. Investments surrounding the project are estimated at $2m.

Iran to Increase Crude Volumes Shipped to Europe

Iran will start shipping 300,000 b/d of crude to Europe, which is 54% of the total volume it had sent before the European Union's import embargo in 2012, according to Bloomberg.
National Iranian Oil Company (NIOC) and Greek's largest refinery, Hellenic Petroleum (ELPE) had also reached a long-term agreement to immediately start the shipment of Iranian oil to Greece, marking the first sale of Islamic Republic's crude to Europe, following the lifting of sanctions, The Wall Street Journal reported.
European refiners, Spanish Compania Espanola de Petroleos, France's Total SA, and Russia's Lukoil PJSC have all provisionally booked cargoes of Iranian crude from Kharg Island to sail to European ports in February, according to shipping reports compiled by Bloomberg.
Paris-based Total SA has agreed to buy about 160,000b/d, the Iranian Oil Ministry stated. The company also expressed interest in developing the South Azadegan oil field in western Iran near the border with Iraq and in a liquid natural gas project. Agreements with Italian Eni SpA are yet to be signed, but some 100,000b/d is expected to be shipped. Italy's Saras SpA refinery is also interested in buying additional 60,000 to 70,000b/d, wrote Bloomberg in related news.
The cargoes show that Iran is to quickly re-establish its relationship with European customers, excluding Turkey, seeking to increase the level of exports to the continent to 550,000b/d, the pre-sanction levels, according to data compiled by Petromatrix.
The country may not regain entire market share prior to sanctions because it has lost business to Iraq, Petromatrix added. However, Tehran is ready to sweeten the terms of its oil development contracts to attract foreign investments estimated at more than $40b in total to flow into the country after the nuclear sanctions were lifted in January, according to the Daily Star.
Iran has also signed multiple contracts with European countries, Russia, Spain, and Italy, for exploration of Iranian oilfields and development of oil and gas projects, reported The Tehran Times.
In addition, Iranian Minister of Petroleum, Bijan Zangeneh, said that foreign firms which owe the country its oil money are ready to settle their debts in euros, as Tehran demanded, with Greece's Hellenic Petroleum, Italy's Saras, and Royal Dutch Shell owing Iran in total about $4b, according to Shana News.

Libya Loses $68b in Oil Revenues Due to Instability

Amid discussions to form a unity government in Libya, the head of the country's national oil company, Mustafa Sanalla, urged reconciliation and stated that the country had lost $68b in oil production and exports since 2013 due to attacks on its oil ports amid political instability, Al Arabiya reported.
Sanalla made the comments just after the internationally recognized parliament rejected initial plans to move toward a unified government. "This problem in Libya, it is not so sophisticated. We have two factions in Libya. They are not looking (out) for the interests of Libya, unfortunately," Sanalla said.
Officials from the Libyan oil company have sought to return investment to the country quickly after political reconciliation is made. However, January has seen a string of attacks on Libya's oil infrastructure by the Islamic State. Sanalla leveled criticism not just at the Islamic State (IS), but at the Petroleum Facilities Guard (PFG) meant to protect energy facilities. He said that the PFG has become a 'private army' for its head, Ibrahim Jadran, and "they have tried to sell oil themselves." He insisted on the need to unify and professionalize the protection force.
Meanwhile, IS threatens to attack more oil ports in the country mentioning Brega, Tobruk, Es Serir, Jallo, and Al-Kufra, The North Africa Post reported.

UAE, India to Sign New Energy Agreements

India and the UAE envision signing a number of new agreements to boost bilateral cooperation in energy sector, notably in oil, gas and renewables projects, Zawya reported following Abu Dhabi Crown Prince, His Highness Shaikh Mohammad Bin Zayed Al Nahyan's visit to Mumbai. Following the August 2015 visit of Indian Prime Minister, Narendra Modi, to the Emirates, the UAE agreed to participate in developing India's strategic petroleum and gas reserves, upstream and downstream sectors. The UAE sees to enhance cooperation across a variety of sectors, including energy, the Khaleej Times informed. India imports about 270,000 of crude oil per day, with the UAE being the sixth-largest supplier of the commodity to the country.

Israel on Verge of New Offshore Gas Finds

Israel is on the verge of new major gas finds in its territorial waters, said Reuters. An Israeli exploration group led by Isramco Negev and Modiin Energy cited a "best estimate" resource report for two offshore fields, Daniel East and Daniel West, saying there were indications of 8.9tcf of natural gas in total. The fields are believed to contain 1.1tcf and 7.8tcf, respectively, according to Haaretz.
If the Daniel fields are developed, Isramco and Modiin could become rivals to Israel's Noble and Delek companies that had been enjoying a near monopoly via the existing Tamar and Leviathan gas fields. Until now, the Israeli natural gas agenda in the East Mediterranean, dominated by Noble Energy and Delek, led to protests over the near-monopoly-arrangements. Noble and Delek were thus forced to sell some of their shares to third partners to quiet anti-monopoly objections, according to the Jerusalem Post, with Noble Energy expected to further downsize its share to 25% and Delek made to exit the Tamar basin entirely within six years.
With the new finds, Isramco and Modiin would have the gas reserves needed to compete with the Noble-Delek partnership over supplying electricity production in Israel.

Oman Extends BP's Khazzan Gas Field Agreement

Global oil giant BP has signed a deal with the Omani government and the state-owned Oman Oil company to develop the second phase of the Khazzan gas field project in the license area of Block 61, extended under the amended exploration and production sharing agreement until 2017, reported Gulf Business. The estimated cost for the project's Phases 1 and 2 is around $16b. The second phase of development will access additional resources in the area that have been identified by drilling activity and it is expected to come online in 2020. In combination with the Phase 1 of the block, sanctioned in December 2013 and scheduled to deliver first gas in 2017, it is designated to provide in total 1.5bcf/d of gas, which is equivalent to 40% of Oman's current overall domestic gas production.

Iraq to Boost Oil Production Tackling Decline in Oil Revenues

The Iraqi Oil Minister was quoted by Al-Arabiya as saying that Iraq would boost oil production and exports regardless of Iran's return to the market, even though this is expected to further depress oil prices. "Until now, the demand on our oil is more than our offer, even with the return of Iran," he explained. Baghdad thus plans to increase its oil output from the country's southern region to over 4mb/d in 2016, up by 400,000b/d.

The minister added that Iraq would also offer competitive prices for its additional output, adding that contracts had already been made with Chinese refineries for this year.

Iraq has recorded a rise in exports from its southern oil fields of an average of 3.285mb/d in January, up from 3.215mb/d in the previous month, Al Arabiya wrote. Iraq's total oil revenues reached $2.26b, down by more than $650m in the last month of 2015 due to plunging crude prices, the oil ministry announced, according to Middle East Online. The country sold as much as 101.84m barrels of oil at the price of $22.21 a barrel of southern crude, down from $29.84 a barrel in December 2015.

Baghdad has halted export through its northern oil pipeline to Ceyhan in Turkey for the fourth consecutive month, while autonomous Kurdistan Regional Government has ramped up its own independent oil sales via the port since mid June 2015. A dispute between KRG and the Iraq's central government has been escalating over oil export rights and budget payments.

In addition, Baghdad's oil revenues have seen a decline as the country was hit hard by the plunge in global oil prices and caught in the midst of a war against Islamic State controlling swathes of its northern and western territories.

The Iraqi Oil Ministry is therefore holding talks with foreign oil companies debating alteration to the signed agreements in an attempt to switch from the currently used service agreements model to a revenue-sharing model that reflects on the global oil prices, reported Reuters. A new revenue-sharing system is designed to prevent this financial disadvantage, under which fees will rise and decline in correlation with crude prices in the global marketplace.

Morocco Switches on First Phase of World's Largest Solar Plant

Morocco's King Mohammed VI inaugurated country's first solar power plant on February 4th as part of the country's goal to boost clean energy output. The power plant will be located on the edge of the Saharan desert, and is expected to be completed in 2018, Hurriyet Daily News reported.

After an unexplained last-minute delay in December, Morocco has switched Noor 1 in Ouarzazate, the first phase of a concentrated solar power plant, that will become the world's largest plant when completed. The project's next phases – Noor 2 and Noor 3 – are to follow in 2016 and 2017, respectively. A call for tenders was also open for Noor 4. Upon completion, the project is expected to provide electricity for 1.1m people, according to The Guardian.

Noor 1 provides 160 MW of the overall goal of 580 MW capacity, helping Morocco to save hundreds of thousands of tons of carbon emissions per year.

The North African country plans to generate 42% of its energy from renewable energy by 2020, with one-third of the total coming from solar, wind and hydropower apiece. It also aims to reduce its greenhouse gas emissions by 32% by 2030.

Morocco has scarce oil and gas reserves, and is the biggest importer of energy in the MENA region.

Jordan, Algeria in Talks over Energy Cooperation, LNG Imports

Jordan and Algeria discuss bilateral energy cooperation and prospects for importing liquefied natural gas from the North African nation, Petra News Agency reported. Jordanian Ministry of Energy and Mineral Resources held talks with Algerian officials from state-run Sonatrach company in mid February. This bilateral initiative comes as part of the Kingdom's efforts to diversify natural gas supply cost of which is much cheaper compared with other oil derivatives. Attempts to diversify energy resources come as Jordan's 2014 energy bill reached as high as 20% of country's GDP, an official statement read. National Electric Power Company of Jordan (NEPCO) has been importing LNG in recent months via the AlSheikh Sabah LNG terminal at Aqaba, according to Natural Gas Asia.

Aramco Will not Reduce Oil and Gas Investments

Saudi Aramco announced it would not reduce its new investment in oil and gas production capacity despite the financial strain caused by low oil prices, reported Reuters. Aramco's Chairman, Khalid al-Falih, explained that the company had been able to cut costs enough to maintain the current levels of investment. He said that Saudi Arabia could survive a low oil price for "a long, long time," wrote Trade Arabia.

Aramco Head also revealed that no final decision had been made on selling shares in the company, nor whether the stakes sold will be in downstream ventures only, or they will include the upstream sector as well.

The objective of the Aramco IPO sale was not to generate cash for the Saudi government, but to promote the Saudi private sector, Al-Falih insisted, according to Trade Arabia.

In addition, Saudi Aramco has also held talks with banks about creating a program that would include selling Islamic bonds (sukuk) over the next years, wrote Bloomberg. Issuing Islamic bonds will occur for the first time for the company.

Previously, Aramco was selling its debts of $1b by issuing sukuk by Aramco Total Refining & Petrochemical Company, a joint venture with France's Total SA known as Satorp.

Iran Produces New Rare Gas Product Pentane

Iran has produced a new strategic and rare gas product called pentane, as the first country in the MENA region, having developed the new technology, Iranian Offshore Oil Company (IOOC) announced according to the Fars News Agency. Pentane has a wide range of applications in chemical and petrochemical industries. Its price is higher than that of crude oil. The Siri NGL Refinery, producing the new gas condensate, has a capacity of 300b/d of pentane. According to Siri's officials, achieving the new breakthrough can help Iran gain an upper hand in the market. Tehran has thus overtaken gas major exporters such as Qatar and Saudi Arabia, the Mehr News Agency wrote.

Lebanon Approves US Firm's Bid for $339m Power Plant

Lebanon's Ministry of Energy and Water has approved a bid made by US firm Primesouth to operate and maintain the Zahrani and Deir Amar power plants, resulting in a five-year contract worth $339m, reported Business News. The two power plants have a combined power generation capacity of 900MW, which is 40% of country's total production. Primesouth will take the place of the original contract holder, Malaysian firm YTL Power Services, whose contract, valued at $256m, expires on 15th February. Primesouth is a world leader in power plant services and was up against another US firm, HPI, as well as India's KSSR, wrote Trade Arabia.

Oman Targets 990,000b/d Level of Oil Production in 2016

The Omani Oil Ministry announced that the country's oil production in 2016 will target the level of 990,000b/d, up from almost 993,000bpd in 2015, by stepping up the use of enhanced oil recovery (EOR) techniques in its maturing assets and heavy oilfields, Times of Oman reported.

The ministry added that its plan to also halve economy's dependence on oil in five years, which was recently publicized by the Supreme Council for Planning, will be difficult to achieve.

Petroleum Development Oman (PDO) also plans to exceed oil production from last year's levels and is projecting an output of 600,000b/d in 2016. PDO's Managing Director, Raoul Restucci, said that the company planned to drill more than 500 wells this year, which is approximately the same scope of drilling work the company performed last year.

Oman's oil and gas market is believed to flourish despite the global oil prices crisis thanks to government's purposeful commitment to invest in new project developments, exploration, and production, Energy Global reported.

Development of the Khazzan tight gas project and Amal West's heavy oil extraction is estimated to further boost Oman's production in the coming years. In addition, Oman has also announced plans for bids to build the $6b Duqm refinery and petrochemical complex to help diversify country's oil revenues, wrote Muscat Daily.

World Bank Reports Decline in MENA's Economic Growth

A World Bank's recently published report on the Middle East and North Africa stated that 2015 economic growth in the region came to only 2.6%, falling short of a 2.8% forecast in October, as war, terrorism, and cheap oil took their toll, Arab Times Online reported.

The plunge in oil prices is causing major problem for the region's oil exporters, with government revenue dropping and budget deficits increasing. "The richest oil exporters in the region, Saudi Arabia, Qatar, Kuwait, and United Arab Emirates, have large reserves that will enable them to run deficits over the coming years, although not far beyond that," the World Bank (WB) clarified.

The report was issued as the WB is in talks with some oil producers in other regions, including Azerbaijan, Nigeria, and Angola, in regard to financing economies to balance out the negative impact of plummeting oil prices.

The WB also said in the report that to date the Syrian war had inflicted some $35b in lost output on the region, measured in 2007 prices, while the devastating economic impact is still climbing, Middle East Eye added.

The World Bank added that "a peace settlement in Syria, Iraq, Libya, and Yemen could lead to a swift rebound in oil output, allowing them to increase fiscal space, improve current account balances, and boost economic growth in the medium term with positive spillovers to the neighboring countries," reported Al Bawaba.

Kuwait Committed to its Planned $100b Oil Investment

Kuwait is committed to its petroleum investment plans despite the prospect of low oil prices persisting, reported Arabian Business. Kuwait Petroleum Corporation (KPC) CEO, Nizar al-Adsani, said that the company was anticipating "an expenditure of $100b over the next five years, of which half is already committed to specific identified projects". The projects include the Memorandum of Understanding (MoU) that KPC has signed with two Korean Credit Agencies, K-sure and KOEXIM, for a total of $11b to finance upstream, downstream, petrochemical, and transportation operations, Al-Adsani said. According to KPC CEO, the company is also looking into other means of financing its investment plans through bonds, Islamic bonds (sukuk) as well as project bonds, given the current global oil price context.

Iran Starts Nuclear Power Cooperation with Russia and China

Iran is launching nuclear power cooperation with Russia and China following the end of sanctions. Tehran will launch work on the second and third power units at the Bushehr nuclear power plant, in cooperation with Russia's Rosatom State Nuclear Energy Corporation, said Trade Arabia. The total investment is $11b with a capacity of 1,050 MW for each of the two new Bushehr power units. The second unit is scheduled for March, while work on the third will begin in the next two years. Meanwhile, Iran has also reached a nuclear agreement with China to modernize the Arak heavy-water reactor and build 100MW power plants, Press TV informed.

BP, Statoil, Algerian Sonatrach Launch In Salah Gas Production

The global giant, BP, together with the Algerian company, Sonatrach, and the Norwegian major, Statoil – the three joint venture partners in In Salah Gas Field – have commenced production from the In Salah Southern Fields (ISSF) project in Algeria, Energy Business Review reported. The Southern Fields project involves the development of four dry gas fields: Gour Mahmoud, In Salah, Garet el Befinat, and Hassi Moumene. Over the next two months, the firms plan to begin production from the Hassi Moumene and Garet el Befinat fields, increasing the production to 14.1mm3/d. The In Salah Gas Fields are estimated to hold recoverable resources of 159bm3. Developing the ISSF will maintain JV's planned production at 9bm3/y, according to Energy Global. This part of the project is the latest stage in the development of seven gas fields in central Algeria.

Drilling of 26 southern field wells began in 2014 and is scheduled to continue until 2018. The project's scope includes a new 500mft/d of gas dehydration central processing facility close to Hassi Moumene and brownfield modifications to existing processing facilities at Reg, Teg, and Krechba. It further covers 150 km of carbon steel export pipelines and 160 km of 13% chrome corrosion resistant alloy infield flowlines. The joint venture commenced production in 2004 from three fields in the north of the area: Krechba, Teguentour, and Reg.

Iran to Build $1.8b Refinery in Spain

As recent sanctions relief allows Tehran to resume oil delivery to Europe, Iran reveals plans to build a $1.8b refinery in Spain with intended capacity to produce 120,000b/d of oil, Press TV informed. National Iranian Oil Refining and Distribution Company (NIORDC) and Spain's Magtel have agreed to team up for the construction of a refinery in the southern port city of Algeciras. The companies also signed a Memorandum of Understanding to assign feasibility studies on the project to an international auditing firm, according to Trade Arabia. This is following upon a recent Iranian delegation visit to Spain, during which the countries debated future bilateral cooperation. In addition, Iran has also received proposals for buying or building overseas refineries in the Asian, European, African, and American countries. Investing in overseas refineries is one of the most common ways used by oil producing countries to boost crude exports, noted NIORDC's CEO, Abbas Kazemi. None of the anticipated deals has been finalized yet. Currently, some Gulf states, world's major oil exporters, own a remarkable number of oil refineries globally, which has greatly increased their clout in global energy markets. The lifting of sanctions on Iran following the implementation of Tehran's nuclear deal with world powers in January, enables Iran to resume crude oil exports to Europe, halted since 2012.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Saudi Arabia, Russia, Qatar, Venezuela Agree to Freeze Oil Output

The global oil market has witnessed first coordinated move in years to boost crude prices. Oil ministers of Saudi Arabia and Russia, Ali Al-Naimi and Alexander Novak, held talks in Qatar on 16th February and agreed to freeze output to tackle a global glut, Bloomberg wrote. Riyadh and Moscow stated that the deal was contingent on other oil producers.

Saudi Arabia, Qatar, Kuwait, and Venezuela, all members of the Organization of the Petroleum Exporting Countries (OPEC), joined them in the production freeze, The Wall Street Journal reported.

The Saudi minister said that freezing production at January levels was an adequate measure, the beginning of a process that will be assessed and new steps to stabilize the market could be considered in the next few months, Reuters informed.

The reports initially sparked a rally in the commodity, but then reality set in. Indications that Iraq and Iran have no plans to slash production dampened hopes for a global reduction in oil output — and oil prices relinquished earlier gains, slipping into negative territory, according to USA Today. Further talks are expected to be held with Iraq and Iran in February. Any hope of sealing a global deal has foundered on Iran's position, Reuters informed, as Tehran insists on raising crude supply in attempts to reinstate the country in the global oil market.

Nonetheless, the pact marked a significant departure for Saudi Arabia and OPEC from their initially intransigent positions in oil price policies, after more than a year of letting oil prices fall to their lowest levels in more than a decade. OPEC had previously decided to increase its collective output ceiling to 31.5mb/d from the previous 30mb/d and continues feeding into the global oil glut, wrote Press TV. The Saudi Kingdom and OPEC are reported to have abandoned their traditional role of pulling back output when prices fall, reasoning that surging production elsewhere would fill the void.

Venezuela has been the hardest-hit major producer and its Oil Minister, Eulogio Del Pino, had launched a global tour of talks with oil majors proposing to summon a joint OPEC and non-OPEC emergency meeting to stabilize the market, currently flooded with a surplus of 2mb/d.

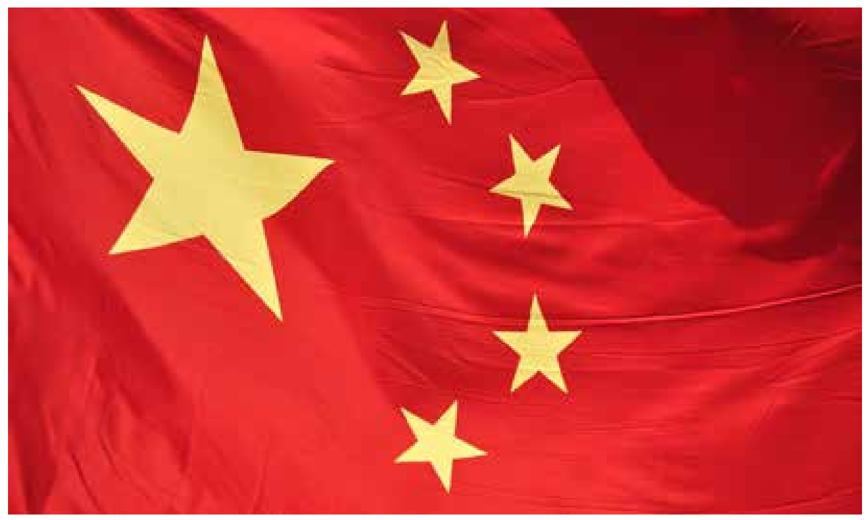
China Sees Decline in Crude Imports and Fuel Exports

China records crude imports drop over 4. 6%, net fuel exports fall by 76% month-on-month in January and gross fuel exports decline by 30% month-on-month, informed Bloomberg citing calculations based on General Administration of Customs. China's net oil products exports tumbled to a seven-month low amid speculation refiners chose to sell more fuel at home due to cold weather and growing demand, as well as after the government decided to stop lowering fuel prices when crude traded below $40 a barrel, analysts at Citigroup Inc. said.

Previously, China had awarded more than 1.8m b/d of export quotas to four independent refiners, known as teapots, in Q1, double as much as in the same period in 2015. Utilizing the designated quotas in the next couple of months will likely help to rebound exports, Barclays Plc's analytical report indicated. Refining rates could slow further as China Petroleum & Chemical Corp. plans to lower its oil-processing target by 1.2% this year due to competition from independent refiners, Oil and Gas 360 informed.

The world's largest energy consumer in January cut imports by 4.6% to about 6.3mb/d, according to the same set of data cited by Bloomberg in a related report.

The country's total exports declined 11.2% in January from a year earlier, while overall imports tumbled 18.8%, adding to economic challenges confronting the world's biggest trading nation.



Mexico Slowing Deepwater Oil Auctions

Mexican regulators announced that they would continue easing the pace of oil auctions on deepwater and shale production for private investors – in line with the country's controversial energy reform – due to oil prices slump,The Wall Street Journal reported. Energy officials stated that the process will be slowed in expectations for the oil price market to swing back to more profitable numbers. Following the three oil auctions for onshore and offshore blocks in 2015, that were relatively small to garner much interest by state-owned Pemex, the country will halt the fourth auction, originally scheduled for 2016. The auction, which was initially planned to focus on production bids for deepwater areas already discovered in the Gulf of Mexico, will necessarily be switched to merely exploration operations, which will postpone deepwater production by at least a decade, Rigzone explained.

African Development Bank Announces $12b for Energy Projects

The African Development Bank Group has unveiled what it calls a 'New Deal on Energy for Africa' at the World Economic Forum in Davos, Switzerland, All Africa reported. The bank will spend $12b on the project over the next five years. President of the African Development Bank (AfDB), Akinwumi Adesina, said he expected nearly $50b in additional funding to come from other stakeholders.

The bank calls the plan a transformative, partnership-driven effort to universal access to energy in Africa by 2025, especially through assisting African governments in strengthening energy policy, regulation, and sector governance. "The African Development Bank is working with governments, the private sector, bilateral, and multilateral agencies – several of whom are represented here – to develop a Transformative Partnership on Energy for Africa. This will provide a platform for public private partnerships for innovative financing for Africa's energy sector," Adesina explained.

AfDB's Head also added that "The 'New Deal on Energy for Africa' sets the ambitious target of universal access by 2025, which means bringing modern energy to 900 million people in sub-Saharan Africa, to cover for those who do not currently have access as well as the expected population growth. This implies a step change in the way that the Bank, African countries, development partners, and the private sector approach the energy sector on the continent."

EU Seeks Power over States' Gas Contracts with Gazprom

The European Commission (EC) has proposed a draft bill to enable Brussels to assess and potentially vet all intergovernmental gas contract drafts that the EU countries would aim to conclude with Russia prior to the signing, in order to ramp up the efforts to curb the influence of Moscow's Gazprom, The Financial Times reported.

The Commission intends to require all partners signing long-term deals of more than one year with external energy providers to report to Brussels on the terms, volumes of supplies, and consequences of the termination of the contracts, added New Europe.

As Gazprom supplies 30% of Europe's gas, Brussels is concerned with Moscow's purported dominance in the market to such a degree that it enforces illegal clauses in supply contracts with eastern European states, some of which are fully dependent on Russia's gas shipments. One of the problematic clauses in the energy agreements, to which Brussels had raised objection in recent years, was forbidding the unilateral resale of Russian gas by an importing country. The EU perceives such stipulation as infringing upon the open market and EU competition laws.

While the EC is attempting to protect the internal market and enhance the EU's energy security with the draft bill, some diplomats expect it to trigger resistance form larger EU countries, as Gazprom had previously agreed in talks with the EU to end this practice.

The new measure comes on the background of an ongoing anti-trust case opened by the EC in April 2015 against the Russian company, after eight eastern European countries complained about Gazprom having increased gas prices, unlike in dealings with Western Europe.

Meanwhile, the Russian natural gas producer, Gazprom, is seeking to increase gas supplies to Europe and Turkey by 2% to record levels in 2016, ahead of an upcoming meeting with investors, Bloomberg reported. The company also projects a more ambitious growth in 2018, according to its non-public budget.

The gas exports to most of the EU countries and Turkey is seen to rise to the level of 162.6 bcm this year, up from 159.4 bcm in 2015, with an estimated surge of supply volumes at 166.1 bcm in 2017 and 166.3bcm in 2018.

Nigeria Asks for $3.5b Emergency Loans from World Bank, AfDB

Nigeria has asked the World Bank (WB) and the African Development Bank (AfDB) for $3.5b in emergency loans to fill a growing gap in its budget in the latest sign of the economic damage being wrought on oil-rich nations by tumbling crude prices, Bloomberg reported. The loans, for which a formal request is still to be made, would be tied to specific capital projects, according to Finance Minister, Kemi Adeosun.

The minister stated earlier that the Nigerian authorities would borrow about $5b in external loans from multilateral agencies and the Eurobond market to plug record budget gap.

The request from the government of President Muhammadu Buhari is intended to help fund a $11b state deficit, deepened by a hefty increase in public spending as the west African country attempts to stimulate a slowing economy, the Financial Times wrote.

Nigeria is Africa's biggest oil producer and relies on crude for almost all of its exports and 70% of government's revenues. Oversupply of oil, caused by exceptionally high production in the Middle East coupled with the shale boom in the US has led to a glut causing oil prices drop to 12-year lows in early January, which reduced oil demand from emerging markets in particular, the International Business Times added.

The Future of Natural Gas Industry in Egypt

By Nataša Kubíková

The Egyptian Gas Association (EGA) held an executive roundtable - The Future of Natural Gas Industry in Egypt - with the presence of Minister of Petroleum and Natural Resources, Tarek El Molla, on 23rd February, 2016.

Gas industry leaders and top delegates of major gas companies in Egypt shook hands at the Four Seasons Hotel in Cairo, with high expectations for future collaboration on issues affecting the natural gas industry in the country. The event addressed Egypt's aspiration for the role of a regional gas industry hub and focused on the most burning questions that affect Egyptian government's policy in line with the processes of liberalization of the natural gas market, reforms and strategy that would attract future foreign investments in the sector.

In the opening remarks, EGA Chairman and Board Member, Engineer Khaled Abu Bakr, defined the main objective of the event which was to address the ways in which the business community together with the Egyptian government could work together on the reform to bring more value added to the industry.

Gas Flaring

The presentations started with the European Bank for Reconstruction and Development (EBRD) that introduced its findings of a recent study on gas flaring, conducted in close cooperation with EGAS, EGPC, GANOPE and Oil Ministry. EBRD's Senior Banker for Natural Resources, Gabriel de Lastours explained: "The objective of the study has been to estimate the amount of flaring from the oil fields in Egypt and to propose a viable solution to recover the gas."

The amount of associated petroleum gas flared from oil fields in Egypt every year reaches the level of 1.7bcm, based on the 2012 statistics. Senior Banker added that "it is important to highlight that Egypt has high flare intensity as compared to its oil production, for example higher than in Saudi Arabia." The Western Desert has higher flaring intensity, comprising about 50% of country's overall production, but represents about 60% of the flaring. "One third of the flaring in the country is done by seven large fields, which produce more than 5mcf/d of gas, but more importantly there are about 66 fields that produce less than 5mcf/d of gas in flare and this is the real challenge for Egypt." According to de Lastours, the study estimated that a $2b investment is needed to bring the flaring from the existing producing fields to zero.

The EBRD has financed four oil companies - Merlon, PICO, IPR, and Kuwait Energy - in two years that have reached flaring reduction with a variety of solutions such as gas fired power generators, connecting pipeline to near-by processing plants, LPG stripping units, the banker added. The EBRD has demonstrated through these finances that "there is a business rational to recover the gas," stated de Lastours.

According to de Lastours, the improvement in addressing flaring problems is achievable by introducing 'gas clauses' in all existing agreements, defining flaring regulations, monitoring and reporting on

flaring, and providing preferential access to infrastructure for companies investing in gas fields. The EBRD concluded that "the main challenge is the small scale flaring and there are number of new small scale modular technologies, which are not fully deployed in Egypt," said de Lastours.

Gas Industry Objectives and Reforms

Minister of Petroleum, Tarek El Molla opened the roundtable by defining Egypt's major objective for the future of the gas industry. He asserted that "part of the business activities that we are doing now as oil and gas business and specifically in gas is that we are, unfortunately, importing gas and unfortunately importing LNG. And I do not think that this is one of our objectives or targets." Egypt's goal is to expand gas production, he added.

In his speech, El Molla stated that Egypt has been witnessing a significant development in the past years, as a result of which there emerged a necessity for the government to adopt "a strong set of integrated strategies" and search for additional energy resources. "The government has formally taken some decisive measures to further patch up the energy sector. These measures are mostly disclosed under the pillars of the new energy strategy," said El Molla.

In line with the strategy, the government has implemented the first year of a five-year plan in energy subsidy reforms, reduced IOCs' arrears from $6.3b to $3b, modified upstream agreements, renegotiated gas prices for the government to sign more than 64 production sharing agreements, with ten more agreements in the pipeline, accelerated oil and gas exploration projects, secured LNG imports, expanded and upgraded refineries, initiated gas market reform as the government adopted a new gas law.

Attempts to reconstruct gas industry come across numerous challenges in recent years due to fuel subsidies, growing demand, which has put increasing pressure on available fuel supplies, and disruption to investment climate that caused slowdown of exploration and production. "Critical new developments in particular in the major North Alex field, the West Nile Delta, were delayed while no new exploration and production agreements were signed between 2010 and 2013," the Minister added. Further, "increasing field development costs in the deep water of the Mediterranean has caused further challenges," and "contributed to flattening gas production," said El Molla.

The government has tackled the challenges. It has accelerated production from the existing gas fields, marked new discoveries, issued new bid rounds for exploration and production under the joint venture model, signed new energy import contracts, diversified power generation mix, and adopted the new gas law.

In a concluding note, Minister El Molla said that "Egypt holds the key to the Mediterranean gas future by deciding to create a new Eastern Mediterranean gas hub based on its existing exporting infrastructure. Creating a new Eastern Mediterranean gas hub would benefit all players involved, allowing Egypt to enhance its role in the region and secure revenue from the transit scheme, and neighboring countries to fully exploit their gas reserves. It would also present an opportunity for Europe where imports requirements will grow post 2020 due to the declining domestic production and expiration of long term contracts."

Gas Industry to Benefit from Low Oil Prices

Metas Energy President, Arshad Sufi kicked off the discussion by saying that the industry in the past year and a half has seen "a panic setting in because of dropping oil prices" that resulted in "crisis of confidence" accompanied with waiting and hoping that the prices will go up. Drawing parallels to the business tactics used at the times when a barrel of oil was traded for $18, Sufi explained that it was possible to "keep the industry lucrative, as cost of development and production was very low compared to today's standards," and he proposed to follow suit this time.

Minister El Molla confirmed that the government had been following this tactic by "engaging with our partners and really trying to incentify them for them to choose investing in Egypt rather than in other markets," as recent agreements have demonstrated.

Focus on High Risk Exploration Areas

Beach Petroleum's Country Manager, Samir Abdel Moaty, drew attention to the length of data collection on more demanding exploration areas such as the western part of the Mediterranean and the Red Sea. He proposed to encourage more companies to join in despite high risk by accelerating provision of relevant information to IOCs before acquiring concessions. This would decrease their costs and reduce the cycle time, said Moaty.

In response, GANOPE Chairman, Engineer Abu Bakr Ibrahim, stated that in the Red Sea area, the exploration activities were low and there were only seven companies expressing their interest in the area. "The seismic and geological data is very poor, so right now we are planning to acquire multi-client permission," said the Chairman.

Minister El Molla added that the EGAS is pursuing the same steps. He said that "we are trying to do it differently, utilizing this multi-client concept, which has not been implemented before and we are working on that in order to prepare for new bid rounds whenever this study will be completed," as the country is seeking to accelerate the process.

Gas Pricing in Liberalization Environment

Edison General Manager (GM), Maurizio Coratella, contributed to the discussion raising the issue of gas pricing. According to GM's views, even in the $30 - $40 environment, the government can still play a major role in attracting investors. "As far as it will be capable of neutralizing the 'gas formulas' from the Brent affect, this could be the best message to investors, together with the arrears issues, which is the other side of the concerns," he said. This "will definitely boost and incentify IOCs investing in the gas market."

The Oil Minister said that Egypt is facing "the current challenge of reducing a big portion of arrears nowadays," having promoted the issue to the top levels of government's and presidency's agenda.

Gas Market Liberalization

ENGIE's Managing Director (MD), Johannes Finborud, stressed that the industry was in a bad situation due to oil price developments, and that "has affected the room for maneuver for companies that also operate in Egypt" due to limited cash flow. He proposed to create market oriented approaches along the lines of market liberalization so that the gas industry investors will be able to sell gas freely. In addition, MD Finborud noted that "with the development going forward, we need to look at more long term solutions, so that the companies can form partnerships with private companies here in Egypt," which he thinks "is going to be the key to continue investments from foreign companies."

In his comment on the pace of the gas market liberalization processes, Minister El Molla stated that Egypt had started the implementation of deregulation phases in the gas sector in early 1990s. The energy subsidy "has grown to an extent that it has become like a taboo that nobody is able to touch," and this was sidelining "the price of commodity itself, which is something that is not sustainable and is not reformed," said the Minister.

In light of the developments, Egypt projected LNG imports, however, the country has "not received a series of fully compliant independent importers of gas," according to the Minister. This was a step forward, which needed to include the role of the gas price itself, but this turned out to be a weak point. The Minister emphasized that for any further deregulation processes, there is a need to "pave the way and prepare the ground to a fully deregulated independent market" by facilitating the restructuring, diversification, or IPOs. In regard to the gas sector deregulation program, the minister concluded that "this first phase, which is industry and domestic usage, except electricity, can be done in the coming two three years."

In concluding remarks on the liberalization processes, EGA Chairman, Abu Bakr, emphasized that on the way towards a sustainable market, "the government and the stakeholder of the industry are in total agreement about the direction. What is very important and positive is that both sides, IOCs and the government, see the importance of not committing mistakes on the liberalization."

Integrated Gas Strategy

In addition, PICO International Petroleum CEO, Ian Hewitt, noted that for the country to achieve a sustainable market, "there needs to be a properly integrated gas pipeline for the companies, probably for the five to ten year time frame." This would also allow Egypt to establish itself as a regional gas hub.

According to El Molla, the government is pursuing two key activities in order to fulfill this ambition. The goal is to increase gas production in five to ten years. "We are focusing on issuing very careful bid rounds whereby we make sure that we meet the expectations of bidders and partners, therefore we move to have discussions before issuing bid rounds in order to hear and listen to their thoughts regarding the areas where we can tender for," which will define the volume of exploration activities, affect future discoveries and ultimately production, the Minister reiterated.

As a result of instability, the gas sector has seen delays in projects implementation leading to a sharp decline in production, up until now, said the minister. Therefore, "we had to take a decision of starting importing LNG, which is not sustainable, and it is not our ultimate goal," the Oil Minister, El Molla, explained. The government's target for the upcoming period of five years is to address the supply-demand disparities in the gas sector.

"The government is also putting up aggressive plans in increasing power generation, matching those together, we see that with the big discovery of Zohr, with North Alex, and other numerous developments with each of your companies, we will still be importing gas up until year 2021, and even 2022," El Molla clarified. Therefore, "adding big volumes in production will not close the gap between needs in the domestic market and our production, however, it will reduce the level of importation", the minister added. The government is currently updating the strategy looking beyond 2022, aiming at ultimately eliminating the imports.

Implementing Energy Mix

Introducing another aspect of the market liberalization, Kamel El Sawi, the Country Manager (CM) for Kuwait Energy in Egypt, promoted a change in the energy mix to help the government start the liberalization. Currently, oil and gas industry is representing 90% of energy mix in Egypt. In attempts to reduce budgetary burden on the Petroleum Ministry, El Sawi proposes to reduce the portion to the maximum of 50%.

The Petroleum Minister informed that the Ministry of Electricity had been implementing the 2025 strategy by reducing power generation dependence on oil and gas by 70%. Furthermore, the ministry is also transforming all its open and simple cycles to combine cycles with the renewables as well as encouraging other activities aiming for nuclear-, coal-, and solar-powered plants, explained El Molla, which is estimated to come online within less than ten years, projected the minister.

Concluding Remarks

H.E. Dr. Hamdy El Banbi, EGA's Honorary Chairman, concluded that in the gas industry, "the challenges are still the same." He suggested further that Egypt should "work on all the challenges, which were mentioned today, in parallel." "We try to minimize the costs, we try to increase production, we try to do liberalization from one part or another, but we should not wait until everything is well established," instead continue working on all areas simultaneously, Dr. El Banbi reiterated. "One of the most important things to do at present time is to concentrate on increasing production at minimal cost," as he concluded.

In a closing note, Engineer Abu Bakr confirmed to the audience that EGA "will do our utmost effort to continue this opening channel of discussion and building together a positive way." He expressed the view that "Egypt is the best country so far at this stage in the area available for investment and increasing its investment in oil and gas."

The Chairman took the opportunity to announce that the EGA was honored to award Honorary Membership to Minister El Molla.

Will Foreign Investments Tip the Scales for Egypt's Oil Industry?

By Eduard Cousin

Five years of political instability and internal struggles have dealt a huge blow to the already fragile Egyptian economy. A reality that manifested itself in the dwindling foreign currency reserves of the Egyptian state, threatening its capacity to import goods and pay debts to foreign partners.

The Egyptian government since President Abdel Fattah Al Sisi took office focused on two pillars to lure foreign currency into the country, and subsequently boost its economy: Foreign Direct Investment, and tourism.

The March Economic Summit was a manifestation of the former. Egypt bringing world leaders and CEOs together in Sharm El Sheikh to enhance its reputation as a business friendly country, and sign investment deals. Thereby, the new investment law is aimed at easing the legal and administrative barriers for foreign investments.

Meanwhile, the Ministry of Tourism has stepped up efforts to revive tourism, which prior to the revolution was a very important pillar of Egypt's economy. Strict travel advised by foreign countries were initially eased, and several campaigns, such as 'Egypt Live the Magic', and 'This is Egypt' were launched to put Egypt back on the map as a prime tourism destination. However, two major incidents have put the tourism industry back on the brink. In September, 10 Mexican tourists were mistakenly killed by the army, who had confused them for terrorists, in the Western Desert. In October, a plane carrying Russian tourists crashed in Sinai, killing all its 224 passengers. Extremist group 'Islamic State' claimed it had planted a bomb on board. While Egypt still doubts this, Western countries and Russia do consider a bomb as the cause of the crash, and temporarily suspended flights to Sharm El-Sheikh.

It remains vital to revive Egypt's tourism sector as soon as possible, but due to these incidents it is unrealistic that tourism be the sector that lure in the urgently needed foreign currency, therefore, eyes are now on investments.

Several sectors have great potential for Egypt in terms of investments, such as real estate and agriculture; however, one stands out: The oil and gas industry.

Egypt has 4,400 mmbbl of proven oil reserves, and produced approximately 695,000 b/d in 2015, a decline from 708,000 barrels in 2014 and 2013. Since a peak in the mid-90s, when production stood at 900,000 b/d, production has steadily decreased.

Natural gas reserves stood at 77 tcf in January 2015, excluding the recent discovery of the giant gas field in the Mediterranean by Italian company Eni. Egypt used to be a gas exporting country, exporting 15,700 mcm on a production of 47,800 mcm in 2007; however, due to increased domestic demand and a decline in production over the past years, the country was forced to start importing LNG in 2015 to meet domestic demands.

The problem is not confined to the exploration capacity; also refining capacity has declined by 28% from 2009 to 2013. Oddly enough, as a country with significant oil and gas reserves, the historical low oil prices have a benefit for Egypt in terms of imports. On the other hand, several tenders for oil and gas companies in ten areas were postponed due to the fall in oil prices last December.

In any case, halting the decline in production, and turn it into an increase, is of great importance to improve the state's fiscal situation, and subsequently boost the economy. In order to do so, Egypt needs foreign partners to invest in its production facilities.

Conversely, a significant contributor to the declining production is believed to be foreign companies holding back investments, due to outstanding debts owed from the Egyptian state. These debts in return stem from the liquidity shortage the country is suffering from. If Egypt wants to move forward, this cycle needs to be broken.

The government seems to be aware of that. It has put great effort to pay debts to foreign partners, and at the same time lure in further investments to boost its production facilities.

In December 2014, then-Petroleum Minister Sherif Ismail said debts to foreign companies had decreased to \$3.1b, after payments in December 2013 amounting to \$1.5b, \$1.4b in October 2014, and \$2.1b December 2014. Unfortunately, since then the situation has not changed much, with \$3b outstanding debts at December 2015, registering a new rise after standing at \$2.7b in October 2015.

Minister of Petroleum Tarek El Molla is aware of the threat outstanding arrears present. As minister he continues the path he set as chairman of the Egyptian General Petroleum Cooperation (EGPC): Lure in foreign investments to provide the necessary impulse for the industry.

In a January statement the Ministry of Petroleum said investments in the oil and gas sector were expected to exceed \$7b in the fiscal year 2016/2017, and agreements were signed with 63 companies for exploration, with total investments of minimum \$14b.

Moreover, Egypt is eyeing to exploit deep-water fields in the Mediterranean, most notably the Zohr field, discovered by Eni last August. The Italian company announced that the 'super giant' gas field may hold 30 tcf of gas, equivalent to 5.5b bbl of oil making it the largest ever in the Mediterranean. Investments to develop the field are estimated at \$12b. In mid-February, Eni had invested its first \$4b in developing four wells.

The ministry in cooperation with foreign partners plans to implement five new deep-water exploitation projects, including Zohr, over the next five years, with investments totaling \$35b.

Besides the Zohr field, Eni had already signed a \$2b agreement in June 2015 for other fields. Another \$2b deal was sealed in November. Considering the strong business ties between Italy and Egypt, besides Eni also for example Italcementi.

Next to Eni, the other major international players in oil and gas exploration in Egypt are BP, Apache, and BG. In the near future, the Italian company Edison could join these companies as it is expected to announce a new major gas discovery.

At the Egypt Economic Development Conference in March 2015 BP signed a deal to invest \$12b over the next four years in developing gas resources in the West Nile Delta. Production is planned to start in 2017; in addition, BP signed a Heads of Agreement in November 2015 to develop the offshore Atoll field.

According to BP's official website, the company produces almost 10% of Egypt's annual oil production, and 30% of the country's gas production.

Similarly, at the conference, BG signed a \$4b gas deal following the conference, to be invested in the next 3-4 year. UAE's Dana Gas signed a \$450m deal to develop wells and pipelines.

In addition to the major international oil companies, another stream of oil money flows to Egypt from the Gulf. Besides direct Gulf support of up \$30b in cash deposits, loans and petroleum shipments over the past 2.5 years, King Salman of Saudi Arabia has recently ordered \$8b worth of investments in Egypt's oil industry. The details of the investment remain yet unclear.

The question is, will it be enough? However impressive investment announcements may look, it still remains hard to believe that they will reach their full potential. With the low oil price, companies are cautious with expenditures.

Again, Egypt is looking to Saudi Arabia. Both countries are in negotiation of a five-year agreement to provide Egypt with petroleum products to meet its demands. The terms of the agreement would be generous for Egypt, with a long-term repayment schedule and low interest rate. This way, at least Egypt doesn't need to spend more of it's spare foreign money to fulfill its domestic petroleum needs.

Saudi Arabia resources are however not endless either, harmed by the low oil prices, costly war in Yemen, and entry of Iran as an oil producer in the international markets. The Kingdom seems so far hesitant to move forward with the deal, with a meeting between Egypt's president Al-Sisi and King Salman being postponed to April. In the meantime, Saudi Arabia is to provide Egypt with 800,000 tons of petroleum products per month, over a period of three months.

Egypt's potential is great, but in the coming period it will still have to balance with multiple stakeholders to keep its head above the water. Willingness of foreign companies, as well as readiness of Gulf countries to keep oil and money flowing towards the country will remain crucial.

THE REALITY OF ENHANCED OIL RECOVERY IN EGYPT

By Nataša Kubíková

Egypt is in a competition with itself. It is trying to expand incoming investments, and it is striving to win back trust of foreign oil companies. Attempts to open up investment environment for old and new oil majors keep stumbling across fiscal and monetary uncertainties that the Egyptian government is currently facing. The government is negotiating deals that would be attractive for oil investors and help them broaden their business operations in the country.

Despite striking incentives, these initiatives are met with a lack of interest from investors. While there are many reason behind this, one of them is the fact that the focus of the negotiations lies in boosting exploration and development of new wells. The development of mature oil fields and technological advances are less of a priority for the Egyptian government. Yet, foreign companies' interest in alternative unconventional development of matured oil fields is increasing. The incoming investments in the oil industry remain focused on exploration of new fields due to the existing structural conditions in Egypt. The development and enhancement technology investments in the existing fields appear to be limited.

Investments and Incentives

Egypt has managed to ensure stable oil production at the level of around 510,000b/d, according to the US Energy Information Administration's (EIA) statistics, while consumption has seen a rising curve, exceeding production output. The use of enhanced oil recovery (EOR) techniques at mature fields has helped to ease production decline from the peak level of 900,000b/d in the mid 1990s. In the first decade of 2000s, oil production from the Western Desert fields and offshore areas, as well as from other relatively small fields in the Gulf of Suez, Eastern Desert, Sinai, Mediterranean Sea, Nile Delta, and Upper Egypt. These fields also contributed to keeping oil output afloat. Nevertheless, further oil investments are needed, given the rising demand from the Egyptian market. The flow of investment appears to be difficult to sustain in the current global oil environment.

Offshore licensing rounds had so far failed to sparkle as established oil players saw no reason to deepen their involvement in Egypt, a country plagued by financial and economic problems, according to Upstream, the international oil & gas newspaper. The Egyptian government therefore sought to amend the investment environment in the oil sector. While some reforms were launched by Sherif Ismail, the then Oil Minister, currently Egypt's Prime Minister, his priorities included reducing mounting debts to international oil companies (IOCs) and offering attractive prices for the development of offshore areas.

As a result, Eni, one of the sector's major players, boosted offshore exploration that resulted in the discovery of the super-giant Zohr field in August 2015. BP stepped up investment on its flagship, the $12b West Nile Delta project. Shell made five new hydrocarbon discoveries in the Obaiyed area, West Sitra, and Alam El-Shawish concessions, in 2014, all located in the Western Desert. And last year, Shell made a number of additional discoveries. As shelved projects were revived and offshore exploration resumed, the strategy has proved itself efficient. The investment offerings, according to the oil ministry, were intended to secure local demand at reasonable price, the financial commitment of which remains unclear until now.

"Encouraging exploration by amending drilling restrictions and cutting the costs of drilling by up to 45%."

Currently, on the side of incentives, Egypt is struggling to find ways in which to boost its payment capacities and straighten its debts to IOCs. Financial aid packages from the Gulf countries, having previously covered most urgent dues have come to an end, which has proved that their treasuries are not there to overtake Egypt's external financial obligations fully. While the loans from Saudi Arabia, Kuwait, and the UAE helped to re-pay more than $2b to international players in 2015, the plummeting oil prices are restraining funds from the Gulf to help Cairo fulfill its plan to clear its debt by the start of 2016. The debt remains at the current level of $3.8b. The authorities are still in turmoil striving to overcome burdensome deficiencies in investments.

Oil Production Rise as a Strategic Plan

At the beginning of 2016, the government has been able to bring forward a five-year comprehensive plan of the Petroleum Ministry for the oil recovery industry, as published by the Daily News Egypt. In this way, the ministry seeks to tackle increasing oil and gas demand. It focuses on strategies to encounter the demand-supply gap and reduce the shortage rate from 9m tons in the current fiscal year to merely 3m tons of shortage by 2021. According to ministerial estimates, demand will surge by 22% to over 100m tones of oil and gas in the next five years. The real challenge is amplified by the fact that a majority of oil and gas fields are beginning to decline in yield, or have been exploited reaching maturity. As Oil Minister, Tarek El Molla, told Daily News Egypt, exploration efforts to discover new reservoirs, that would substitute matured fields, usually take three to five years, with an additional period of one to two years needed to develop a new well. The peak of production comes first after altogether between six to eight years from the point the well is drilled.

To address the increase in demand and the paucity of maturing wells, the ministry also launched new exploration and discovery initiatives by issuing international auctions to attract more investments in 2016. The government expects to sign around 25 new petroleum agreements worth $4.5b to expand development and production projects at a fast pace. This would mean that a production map for drilling in new reserves areas will be outlined to better meet local market needs. Having proposed the moves, the government is still well aware of the drawbacks.

Oil Minister, El Molla, said in January that sharp decline of oil prices had had negative impact on IOCs working in Egypt, as the Kuwait News Agency wrote. "This decline is a major challenge for the foreign oil companies working in Egypt in financing investments in fields of research, exploration and speed in which oil fields are developed, with the objective of maintaining and increasing reserve, as well as the country's oil and gas production," El Molla explained. He then stressed that in the given setting the importance is to help cut costs of production and explorations for IOCs to lure them in the country. This has become the government's policy.

The Chairman of the Egyptian General Petroleum Corporation (EGPC), Mohamed Al Masry, confirms the importance of cutting expenses for oil investors. In the current state, the only ICO that did not withdraw its capital from Egypt was Shell. "Shell pledged investments of 113% in 2016, while other investors reduced their funds by 20%-25%, said Al Masry. Egypt is therefore trying to find ways to boost IOCs' interest in exploration in the country offering incentives. Al Masry told Egypt Oil & Gas that the government is "encouraging exploration by amending drilling restrictions and cutting the costs of drilling by up to 45%." This allows for IOCs to drill two wells instead of one and reduce their investments in five-year periods to help them get their cash back and improve oil fields exploration capacities, as Al Masry elaborated.

Following this strategy, IOCs' investments in Egypt's oil sector in the next fiscal year are likely to amount to around $7.5b in addition to infrastructure projects worth EGP 548m. The Ministry of Petroleum expects overall energy investments in the fields of research, exploration, development, refinement, petrochemicals, infrastructure, pipeline extensions, and delivering natural gas to households to amount to $16b during this year.

In addition, the Ministry of Petroleum has recently taken further measures to strengthen the investment climate and build confidence of foreign partners. It has announced to hold international tenders for 11 oil and gas exploration blocks in the Mediterranean and Nile Delta in 2016. It has also called for three new international bids for petroleum and gas research to the Egyptian General Petroleum Corporation (EGPC), Egyptian Natural Gas Holding Company (EGAS), and the South Valley Holding Company for Petroleum in both land and marine areas, according to ministry's officials quoted by Daily News Egypt.

In spite of these positive outcomes, Egypt will unlikely see crude and condensate production boosting above the current daily levels in the near future, unless the country adopts a more comprehensive strategy.

One of the reasons for this is that there is a massive discrepancy between the levels of investments in new explorations, and the volumes of investments directed to the development of the existing fields. The adopted strategy has so far been unable to account for the differences. What emerges resembles a desperate call for new players in Egypt to come to rescue, whereas strategic planning as for alternative methods that would allow relying on domestic resources is lagging behind. An active approach is needed to implement technologies and methods such as enhanced oil recovery (EOR) that would contribute to the expansion of oil output. While on average, conventional production extracts some 30% of the initial oil in a reservoir, EOR targets an overall 70% of recovery.

Enhanced Oil Recovery

The EOR refers to the process of producing hydrocarbons in an oil field in unconventional methods and reservoir re-pressurizing schemes such as displacement of oil by miscible gas injections or waterflooding with soluble chemicals, explains Corex, world's leading Core Analysis provider for solutions reducing drilling costs, optimizing recovery and increasing the length of the production life of a field. EOR promises more than just reservoir optimization.

The interest in application of EOR has increased globally due to the fact that most of mature oilfields cannot maintain their production unless EOR treatment is deployed, Corex website elaborates. Similarly, some of so called 'un-easy' oil reserves require EOR from early stages to meet production level. However, the complication that EOR presents stem from complex approaches that are needed. For designing a suitable EOR scheme to maximize optimization of an oil field, it is essential to understand the oil trapping mechanisms, reservoir rock properties and to undertake relevant laboratory studies on micro and macro levels.

Recently conducted studies that were examining the most appropriate EOR methods for oil fields in Egypt suggest best EOR solutions for the country. According to the study 'An Integrated Approach for the Application of the Enhanced Oil Recovery Projects' published by the Cairo University's Petroleum Engineering Department in an academic journal in 2014, it appears that the CO_2 injection (miscible flooding), immiscible gas injection, and Alkali Surfactant-Polymer injection may be most suitable for the Egyptian oil fields. The study further shows that CO_2EOR could help Egypt to increase the recovery factor by 5% to 15 % and reduce the emissions of CO_2 simultaneously.

Given the global trend, there is no reason to believe that IOCs' investments would be opting for targeting solely new fields rather than further developing present ones. Some oil majors such as BP or Shell have been developing and deploying EOR schemes worldwide. And EOR would be undoubtedly a promising approach in Egypt as well.

As Royal Dutch Shell's reports indicate, the known basins in the Eastern Desert, the Delta, and the Gulf of Suez are gradually being depleted. Although there are potential oil and gas deposits yet to be found, the interest in further enhancing oil output from present fields is immense. Shell's Country Chair and Managing Director, Jeroen Regtien, told Daily News Egypt in an exclusive interview that the conventional, so called 'easy' oil and gas fields are declining or are more difficult to be found. Even though there are reportedly many unexplored areas, the conundrum over conventional sources extraction may suggest that investing solely in new massive exploration projects could backfire.

Instead, as Shell notes, deploying new technology and drilling expensive wells are needed to unlock more difficult - 'uneasy' - oil and gas resources. According to Regtien, "one technology that will contribute to extracting more oil out of a reservoir is enhanced oil recovery, as for a variety of reasons conventional methods still leave well over 50% of the oil in place." Shell, with its increased investment plan, is keen to introduce EOR in its Egyptian operations, which "require new technology, new ways of working, large investments and agreements which accommodate long development and production periods," Shell Head added.

While EOR implementation may inflict higher costs and be more time-consuming, as BP explains on its website, there are valuable advantages to promote this technological approach for Egypt. In doing so, BP is developing cost-effective EOR schemes that may in complex economic calculations deliver better results than the above mentioned framework of establishing new oil wells in the course of up to eight years.

Therefore, sidelining EOR to a non-priority policy position Egypt may be missing out on a proven opportunity that could generate considerable benefits in years to come. Therefore, given the current market conditions, in which foreign investors' interest in the EOR technology application is large, could be exploited better. The fact that the EOR does not hinge upon high or low oil prices, may encourage the government to better assess positive implications of the EOR to be included in an overall strategy for the oil sector. As BP analysis clarifies, in a time of lower oil prices, resource holders look to international oil companies to bring technologies that sustain or even increase production rates to maintain national incomes. EOR technologies can help achieve this, even though they incur additional costs at present and may increase operational complexity. If Egypt is to adopt a comprehensive strategic approach, EOR may provide viable solutions and a sustainable path for enhancing its oil outputs from the mature fields.

According to EGPC Chairman, Mohamed Al Masry, "all IOCs working in Egypt have already applied the EOR technologies and they are successfully extracting some 65% of oil reservoirs. The target for Egypt is to increase the level to 70%, which is a maximum to be achieved through EOR technologies", Al Masry added. The Egyptian oil sector authorities are looking into the implementation of the enhanced oil recovery. The processes are ongoing presently regardless of the declining oil prices, the Chairman concluded. Nonetheless, currently, there are no specific strategies as to how to promote EOR technological approaches to the top ranks of Egypt's Oil Ministry's plan.

"The target for Egypt is to increase the level [of extraction] to 70%, which is a maximum to be achieved through EOR technologies."

For this to take place, the government would need to address the remaining structural obstacles such as the current investment climate in Egypt, in particular the applied model of production sharing contract (PSC). While PSC is suitable for investors in conventional oil extraction, it is difficult for the companies "to make reasonable returns on their investments" when it comes to exploring and developing more difficult resources that "have higher costs, are associated with higher uncertainty, and take longer period to develop using more expensive technology," Shell's Head Regtien also told Daily News Egypt.

Amendments to the current legislation controlling the IOCs' investment schemes in the country may open new doors for a more sustainable oil recovery and promise better prospects for Egypt's increasing oil demand. It may also allow for circumventing processes that are contingent upon the oil price slump and generate economic prospect for the country in a long run.

Rentier States:
Feeling the Pressure

By Robert Barron

In political science, the term "rentier state" refers to a state that derives the majority of government revenues from the sale of domestic resources to external clients. Today, the term almost exclusively applies to the world's major oil-producing states, particularly in the Middle East, Africa and Latin America, which boast massive state-controlled oil and gas reserves and firms to utilize them. Academics hypothesize on the effects of rentier economics on democratic, institutional, economic and human development, the general consensus being that the practice is rarely a good thing – the debate over the "oil curse" is a common one. While a rentier economic system may not be ideal for a number of reasons, perhaps the most critical challenge rentier states face is dependence on oil exports and the risk of declining oil prices, which directly affects government coffers. As of mid-February, oil prices are down around 70% since 2014, reaching near 13 year lows. Could this be the crisis that spurs lasting changes?

The sharp decline in the oil price has led to rumblings about political and economic reform in the rentier states. Generally, the states which carry this label share a number of characteristics. These are states with substantial oil and gas reserves, almost always controlled by a government employing state-controlled companies to produce and sell refined or unrefined oil and gas. Proceeds from these sales are usually relied upon for public services. In most cases, government budgets are heavily, if not almost entirely, dependent on energy sales and rentier state governments are usually less than democratic, prompting the discussion of whether oil is to blame. Followers of energy news over the past year have certainly noticed the increasing signs of distress facing oil states in the Middle East, Africa and Latin America. There are signs that many of these states are changing the way they think about energy and the policies surrounding it, which may have lasting implications even after oil prices recover.

The Effect of Dwindling Oil Prices

Around the world, budgets of the oil states are being squeezed, as countries have watched in surprise and panic as oil prices plummet past almost everyone's estimates. In Saudi Arabia, perhaps the country most capable of handling low oil prices due to the state's massive savings, the government has cut its budget by 14% this year. The kingdom ran a $98b deficit in the previous fiscal year, which it hopes to reduce to $86b in the year ahead. However, most states cannot fall back on sovereign wealth funds as the Saudis can, and have watched as reserves evaporate. In Nigeria, currency reserves are at their lowest levels in decades. As oil sales constitute 70% of Nigeria's public revenue, the country has been debating necessary changes to the national budget through most of 2016. The original budget, released in December, called for a tripling of capital expenditures and the doubling of Nigeria's deficit, assuming a $38 per barrel oil price. When prices hit $30 per barrel, the president recalled the budget, later ordering a probe to evaluate the extent of budget padding across Nigeria's ministries in the hope of making spending more efficient. Despite assurances that Nigeria is not seeking an "emergency" loan, rumors remain that the World Bank and African Development Bank will soon offer a $3.5b to assist the country.

These are only the most high profile in

a long line of recent cases where governments have expanded budgets in years of high prices, only to now be feeling pressure as prices are the lowest in nearly a decade and a half. The result has been crisis in many states and recalculations in the rest. In Venezuela, where oil constitutes 95% of exports, the government is obligated to make $11b in debt payments in 2016. Such a level of debt in the face of low prices, especially for Venezuela's heavy crude, has pushed analysts to predict that "the question is not if Venezuela will default, but when they will default." Kazakhstan, which planned its 2016 budget at a $40 per barrel oil price, is reevaluating its budget to assess options with a price as low as $16, according to the Prime Minister. Bahrain's Energy Minister stated "the Bahraini budget for 2016 was based [on] $50 per barrel," prompting the kingdom to reevaluate spending. In Azerbaijan, where energy exports constitute 75% of the national budget, the government is in discussions with the IMF for up to $3b in assistance. Angola, which expected a $40 per barrel price in its 2016 budget, held negotiations with the World Bank in late January to discuss assistance. Mexico has announced that its budget will be cut considerably, but has not yet specified the amount. In Ecuador, the government budgeted $673m for oil income in 2016, compared to $3b in 2015. Kuwaiti officials expect a budget deficit of up to 60% this year at a $25 per barrel oil price.

The Rest of the Equation

Finding ways to fill these holes in national budgets has not been easy, as raising oil prices does not seem possible at the moment. OPEC, or at least major players within the organization, have been unwilling to cut production as a means of raising prices, at least partially with the goal of squeezing out shale producers in the US. And beyond the coordination required to cut production, which despite the February 16th OPEC agreement to stabilize production seems unlikely to happen soon, state revenues would likely to decline with decreased production, foes of the Gulf States such as Iran and Russia will benefit, and shale players would return to profitability – all potential deal breakers for the GCC states. For the next year, it seems that debt and varying levels of austerity will become the name of the game in the rentier states, although it is uncertain how far many states are willing to go. Will the policies developed follow a short-term approach, or longer-term reform and adjustment? At the moment, there seems to be some of both.

The economic reforms being pursued are reflective of the rentier state system, which critics argue promotes inflated budgets and a lack of accountability. The debates surrounding these cuts are interesting – reflecting the trade-offs and "social contracts" common in these systems: limited political participation, economic opportunity and social space in return for government services and goods. As budgets are cut, what programs will go to the chopping block? If expensive public services are rolled back, will governments be forced into greater accountability and into providing greater political and economic freedoms, or will they become more brutal, cracking down on dissent that stems from austerity and economic stagnation? How the balance will change has yet to be seen.

In Saudi Arabia, where the government budget will be cut 15% this year, subsidies are being cut and new taxes are being introduced, while education and social spending have been largely left alone. Similar measures are being taken throughout the Gulf, where by some estimates oil revenues accounted for 85% of government revenues in 2014, and where citizens have developed expectations about government obligations, having almost never faced taxes. Economic adjustments such as these are important steps in achieving greater sustainability, but have led to questions in the press and among analysts about how the political systems of the Gulf States might change. "In Saudi Arabia and the Gulf we are selfish. It's all about what people get from the government. We treat the government as a father who must look after us. Prince Mohammed is doing what Thatcher did in Britain. That is a part of the solution, though it is not just an economic problem but a political one too," Saudi politician Haifa al-Hababi told The Guardian. Saud al-Tamamy, a political scientist at King Saud University, argued that "no one talks about income tax so the representation-taxation equation is inapplicable in the Saudi case [...] The word representation has a different meaning here." In a piece called "The Gulf's New Social Contract," Emerati columnist Sultan al Qassemi argued that new taxes may start a destabilizing process in the Gulf, stating that "income taxes may sound good on paper, but their implementation and repercussions will be complex and unpredictable." By most estimations, political changes in the Persian Gulf will be slow, as states continue to spend heavily to coopt potential opposition and crackdown on dissent to coerce opponents. However, new taxes, government repression, sectarian tensions, economic stagnation and high unemployment lead many to believe the regime may feel the pressure to change, or face more threatening internal strife in the future.

Most other rentier states do not have the benefits of the Gulf States – lacking the resources and wealth funds of the GCC states. Particularly notable as of late, Nigeria is an interesting case – seeking to avoid cutting public services and subsidies and to continue the state's development priorities in the face of low energy prices. Despite declining revenues and the government's dependence on oil sales for 70% of its income, the original proposed budget for this year was almost 22% larger than 2015. The Buhari government proposed a stimulus package for 2016 which required substantial spending on public works, housing, power sector development and other areas of development that will benefit local governments and the Nigerian population. But with oil prices low and Buhari now seeking to reevaluate spending, Nigeria will need international assistance and budget cuts to meet the goals of the stimulus package. And as international donors will likely require, at the least, greater flexibility of the currency, the Nigerian Naira will likely be substantially devalued, leading to inflation which may undermine some of the goals of the stimulus package.

In many other states, there are undoubtedly signs that populations are feeling pinched, but that the governments have yet to find solutions. In Angola, where oil constitutes 95% of exports, the government budget has been cut 40%. The austerity program begun in 2015 has led to a health crisis, as public sanitation, water sanitation and health care providers are not being paid, leading to government security forces being tasked with resolving the crisis and maintaining stability. Throughout Central Asia – in Kazakhstan, Turkmenistan, Uzbekistan, Tajikistan and Kyrgyzstan – where government revenues are reliant either on energy sales directly or on remittances from citizens working in energy fields abroad, cuts in government services have led to protests. Unable or unwilling to offer reform, the governments of these states have cracked down on dissent. In Algeria, the government has recently signed political and economic reforms, in part due to the age of President Bouteflika, but also due to a 41% drop in oil revenues which constitute 60% of the state budget and 95% of the state's exports. Reforms to the political process, intelligence services and social freedoms have been seen by many Algerians as superficial, and have not overcome cuts made to Algeria's subsidy system, high unemployment and poverty. The country saw several protests in 2015, with some analysts predicting the possibility of a "delayed Arab Spring" in Algeria. Despite the differences in the strategies and situations of the wealthy and poorer rentier states, the measures being taken showcase the difficult balancing act these states are undertaking.

A Way Out

The other interesting trend among rentier governments has been reform of state oil firms, the golden geese of any rentier economy. News has broken across the world about reform measures to be taken in state oil firms, sometimes going as far as privatization. The highest profile case of this of late has been the news that Saudi Aramco, by some measures the world's most valuable company, is considering an IPO on a portion of the firm. In an article in The Economist called "Sale of the Century," King Salman said he was "enthusiastic" about the idea. As the kingdom relies on oil for 73% of its national budget, the move has been promoted as a possible breath of fresh air for the company and Saudi economy, bolstering the Saudi stock market and improving transparency. Prince Muhammad bin Salman, now managing many areas of the government, said the move would "counter corruption, if any."

And Saudi Arabia is not alone. Rumors have abounded that Russia is working to sell portions of Rosneft, its massive state oil firm struggling due to low oil prices. In early February, Russian and international media reported that the Kremlin plans to sell portions of Rosneft and Bashneft, among other state-owned firms. While the details are still murky, the move is a far cry from Putin's former "national champions" doctrine, which saw Russia's state resource firms as an important means of international influence. Putin famously reacquired majority stakes in Russia's firms after a decade of oligarch control in the 1990s. Relatedly, Kazakhstan is in the process of partially privatizing a number of state firms, including the KazMunaiGaz oil and gas company, Samruk-Energy and company subsidiaries. Petrobras, Brazil's massive state oil firm which has fallen on hard times with the rest of the country, may see its benefits as a state-owned company eroded over the next year. Without the capital to pay for new development and production, the Brazilian senate is in discussions to end Petrobras' status as sole operator in pre-salt oil fields and other joint venture requirements, in an effort to stimulate investment. Shell CEO Ben van Beurden supported the move, telling Forbes that "It's up to congress to decide. But I think it makes sense to call on other companies who have the technology, who have the money." In Mexico, Pemex, which has sought to reform and privatize for much of the past two years, is also facing troubles that are spurring reform. New CEO Jose Antonio Gonzalez Anaya has pledged to majorly turnaround the firm, telling Bloomberg that the company must "accelerate the implementation of the energy reform in a very difficult environment." For Pemex, finding new partners and investors is particularly important in achieving efficiency, consistently a problem for the company.

Across the world, inflated national oil companies are coming under increased pressure and skepticism, as "well-educated technocrats from oil-producing nations are wondering whether their national oil companies are 'ripping us off' through corruption or inefficiency," according to a Chatham House analyst quoted by The Economist. For many state oil firms around the world, infamous for inefficiency and corruption, low energy prices may be the beginning of a death knell, as rentier states reevaluate policies and promote new economic methods. If, when and where this trend is going is yet to be seen, and there are certainly reasons to doubt changes will be revolutionary. State energy companies have historically made a lot of money for a lot of people and been important politically. But if the trend continues, the implications for the global energy industry could be substantial.

Saudi Cash to Egypt as a Double Edged Sword

By Nataša Kubíková and Dalia Mostafa

Financial support can easily become a double edged sword, for individuals desperate for help, and for states alike. Egypt is also experiencing the tricks. Cash inflow from the Gulf countries made the Egyptian government feel victorious. But the taste of it may slowly become bitter.

The Gulf states such as the UAE, Kuwait, Oman and Saudi Arabia had pledged $12.5b in financial package to Egypt at a grand investment conference in March 2015. A half of the amount was deposited in the Egypt's Central Bank (CBE) to balance out country's replenished foreign currency reserves that are reported to have tumbled to merely $16b in September 2015. The rest of the Gulf's financial stimulus was agreed to come into the country as investments. Analysts at Capital Economics believe that given the remaining amount of foreign reserves, Egypt must have burned through the vast majority of the bailout money. Gulf cash help keep Egypt's economy afloat, yet capacity to sustain the economic decline through similarly designed short-term rapid solutions, may be counter-productive in a long-term projection.

While the package undoubtedly helped ease a series of Egypt's crises, the future of the funds is uncertain amid the global oil prices decline. The states in the Gulf area are seeing their budget crushing, deficit exploding. Saudi Arabia is not an exception. The International Monetary Fund has warned that Riyadh is likely to run out of cash in five years or less if oil prices rebound to the level as high as $50 a barrel, up from the current $30 a barrel. The Kingdom announced, in an attempt to counter-balance emerging difficulties on the market, that it would opt for measures as unprecedented as selling its Aramco's assets in IPOs.

Saudi Arabia has been Egypt's most generous supporter since July 2013. Aid in the form of governmental grants put a smile on the faces of Egyptian officials on countless occasions. Trust in Saudi coffers that would never dry out might have been in place. But imagining that Riyadh's financial boost would continue for as long as Cairo needs, seems questionable. The form of financial support to Egypt has inevitably been modified, giving less of an optimistic outlook for Cairo's authorities crashed by ongoing economic hardship.

Saudi Financial Assistance

Open door diplomacy with Saudi Arabia has brought in billions of dollars to Egypt in aid, grants, and cash deposits in the last year and a half. The incoming funds helped buoy the country's economy and tackle its energy crises caused by the lack of petroleum products, crude oil, or electricity generation.

Riyadh has expressed its willingness and interest in supporting Cairo continuously, despite the global oil prices decline that gradually bit off Saudi foreign currency reserves and decreased Kingdom's revenues. However, Saudi government's grants and financial aid deposited previously to the Egypt's Central Bank directly have come to an end. Saudi's support suggests a new trend. Money shipped to Cairo is coming as investments and loans.

In September, Egypt had signed an agreement for three-month shipment of fuel products refined in Saudi Arabia. Egypt was to receive 500,000 tons of diesel fuel, 220,000 tons of heating oil, and 150,000 tons of gasoline each month for a total amount of $1.4b. Under the deal, payments for the products are to be made by the end of 2016.

In December, Saudi King Salman has pledged economic assistance to Egyptian President Abdal Fattah Al-Sisi in oil imports, increased traffic by Saudi ships in the Suez Canal and $8b in additional upstream oil and gas projects investments. The oil needs and investments are to extend to a period of the next five years. King Salman said according to Daily News Egypt that the country "will pull a slice of those investments during the first quarter of 2016." He added that Saudi Arabia was "currently scrutinizing these projects through following up on the status of lands and their permits with the concerned ministries." "The investments that the Saudi [King] ordered are all new government investments," Abdallah bin Mahfouz, the Deputy Head of the Saudi-Egyptian Business Council, said, as Al Arabiya wrote. The overall bulk of Saudi investments in Egypt will reach around EGP 60b, according to economics Professor, Hamed Morsi, quoted in an analysis published by Al Arabiya. "This will contribute to stabilizing the value of the Egyptian pound, which has been lately devalued," Morsi noted.

In further investments, Saudi Arabia will finance three other projects in the field of petroleum. The first is a project of aromatics and olefins at the Suez Canal axis, at Ain Sukhna, worth $6.85b, and is to be completed in 2021. The second project is the production of styrene at a cost of $593m, which is to be constructed at the Dekhela Port, in Alexandria, and implemented over the next four years. The third project is hydrocracking at the Assiut oil refinery, with an investment of $1.5b, which aims to cover the needs of Upper Egypt for gasoline, diesel and LPG.

From Grants to Loans

These vivid Saudi-Egyptian economic ties are promising to boost foreign investors' confidence in the country. Following the agreements, Saudi Ambassador in Egypt, Ahmed al-Qattan, told Ahram Online that "the confidence of the Arab and Saudi investor will increase after the announcement of the increase in investments." He was positive about the mutual prospects, stating that the bilateral relations will improve and become stronger each day.

While Saudi officials are optimistic in pouring funding in the country, the Egyptian government has necessarily become encircled by a cash spell as billions in grants have turned into billions of loans. Even though the official statements indicate advantageous borrowing schemes, which oblige Cairo to re-pay the debt within an extended period of time, lack of details raise further questions.

In December, Egypt was promised a $1.5b Saudi loan to finance the development of the Sinai Peninsula, in addition to a $1.2b loan for purchasing oil products in the next three months, and a $500m loan for importing only Saudi products and services directly from the Kingdom. The loans come as part of Saudi policy to pump $2.5b in total in Egypt's economy as a stimulus package.

Another deal was concluded in December, under which Saudi Arabia's state-owned Aramco was to deliver around $20b worth of oil products to Egypt in the next five years. "Negotiations with the oil-rich Kingdom are ongoing to agree on financing Egypt's oil purchases within the coming five years," Egypt's Minister of International Cooperation, Sahar Nasr, said in January, according to Ahram Online. According to available information, the deal grants Egypt easy payment terms, however, no further details were disclosed. It is uncertain what the conditions would mean for the future, but for the time being the deal is beneficial as it will address shortage in oil products and "the prices Saudi offers will be cheaper, which will increase growth rates and be in the best interest of the Egyptian public budget," Morsi told Al Arabiya.

The financial exchanges between Riyadh and Cairo are believed to substitute for lacking sources for oil and gas exploration and production in Egypt in a foreseeable future. It is also to balance out the Egyptian external debt check. The overall debts to international oil companies for already implemented projects amount to $3b. Although Egypt has paid off a part of its debt already, the government was unable to achieve its goal to straighten the debts altogether by the end of 2015 as planned. This may further suggest how promising the income from the Gulf is for the country, especially when it comes in loans.

Previously, the Kuwait Fund for Development, the Abu Dhabi Fund, the Arab Fund for Economic and Social Development and the Islamic Development Fund, chipped in to give $1.5b in loans to Cairo for country's Sinai development scheduled over the next five years. To boost its payment capacity, Egypt has also taken on more loans by the end of 2015. The World Bank has granted $3b to be paid in installments over the next three years to overcome US dollar insufficiency.

The key question here may suggest that the currently adopted policy of patching up immediate financial holes with massive burden of loans is unsustainable for a long term. It is not only because generous Gulf coffers are not endless, but also because the granters are re-assessing their profits and payback from the pledged funds. Moreover, the receiver, overwhelmed with incoming floods of financial pledges, seems to see this as a viable path towards prosperity. The management of the funding thus overshadows needs for an economic overhaul.

Towards Economic Reforms

Investments and loans from Riyadh are praised for helping Egypt overcome current financial difficulties and energy deficiency. But a lack of information regarding the terms of re-payment raises concerns about the country's economic sustainability.

Saudi investments promise to expand oil and gas industrial projects that would provide employment for Egyptians. Al Arabiya quoted economics Professor Salah al-Din Fahmi as saying that "those new projects will offer numerous job opportunities for Egyptian youths and will increase productivity, which eventually means increasing exports." But the projects are designed for up to five years. How Egypt's government plans to create such an economic environment that would maintain the jobs, inflow of investments, and boost export capacity, remains unanswered.

"International oil partners have decreased their investments by 20-25% due to the oil price restrictions, to protect their initial costs as these expenses would not be covered efficiently otherwise."

The IMF has advised Egypt to boost tax revenue, improve labor market policies and pursue growth oriented spending on infrastructure, education and healthcare. Without a profitable economic setting, Egypt would face difficulties to attract foreign investors, as it is doing presently. According to Mohamed El Masry, Chairman of EGPC, "international oil partners have decreased their investments by 20-25% due to the oil price restrictions, to protect their initial costs as these expenses would not be covered efficiently otherwise." While global oil price drop is a major factor, boosting Egypt's capacity for energy output that would exceed domestic needs and thus aim for export to secure state income, is not being discussed publicly, if such a reform strategy exists.

The largest expenditure of Egypt's budget is interest payments on debt, wages and subsidies that grew in line with petroleum products import spending. For the period between 2005 and 2014, subsidies accumulated to around EGP 680b ($90b), increasing, in particular, external debt. The government needs to address these issues urgently proposing a reform of structures and processes in the country's economy. Reducing fuel subsidies has become a buzz word in the Egyptian government's rhetoric; however, this would be one part of a much needed more complex economic restructuring.

Saudi Investments Focus

Riyadh is not deterred to continue investing in Egypt despite low oil prices. This is other good news for Egypt. However, the investment equation will likely shift further as Saudi Aramco already announced and other Gulf countries stated to follow the suit.

The Saudi Kingdom is to introduce unprecedented cuts in its state budget, consider launching a share listing of Aramco and it is interested to search for diversification of investments by moving away from oil exports. As Aramco Chairman, Khalid Al-Falih said, "our investment in capacity, oil and gas, has not slowed down." Nevertheless, according to Your Middle East analysis, the Kingdom's future growth would be further diversified away from oil exports and "more evenly distributed with information and communications technology, healthcare and tourism," as Al-Falih noted, offering potential for boosting the economy. Third good news for Egypt is that Saudi Arabia considers refining, chemical production and other downstream outputs as a way towards diversification. This will likely help Egypt's fuel products market to fulfill growing domestic demand. But the prospects end here.

Future Prospects

Egypt is therefore further broadening the donor scheme as it recently agreed with China to provide a $1.7b loans to Egypt's Central Bank and the National Bank of Egypt. In addition Cairo has concluded another agreement for further financial assistance with multilateral development banks to shore up its foreign exchange reserves.

According to an analysis by CPI Financial, risks of external financial support in the form of loans and investment commitments are seemingly mitigated by Egypt's low levels of total external debt of 15.4% of GDP calculated in June 2015, and general governmental external debt of 8.5% of GDP as of the same date. However, the decline in oil prices and further withdrawal of expenditure and capital investments of foreign firms is limiting Egypt's prospects by making the country adopt measures attractive for investors, less so for the country's economic sustainability.

The incoming finances are considered as credit positive for the country to ease the recent budget pressure, according to the international ratings agency, Moody's, but in the current economic slowdown, prospects are contingent upon further reforms. Low oil prices hit Egypt's exports dropping to $21.9b, down from $26.1b, while Suez Canal revenues fell on the back of weak global growth and the tourism industry is having a hard time to rebound. Egypt's net oil imports contribute to expanding structural deficit, drain on foreign currency and inflict further burden on domestic oil production. These factors are negatively affecting the country's balance of payments.

As the recent trend in the economic support for Egypt shows, the country's donors are restraining their fiscal aid to loans and short-term investment projects. This assistance coming from the Gulf countries will remain indispensable in the near future; however, it may put strains on industrial, economic and social improvements, if a strategic economic reform is not spelled out.

Opinion Column

Gulf of Suez and New Agreements Are the Way to Boost Oil Production

ASHRAF EL ORABY
Chairman of Al Fanar Petroleum Company.

Undiscovered crude oil in the Gulf of Suez, together with new petroleum agreements, and increased exploration activity, are the most important methods to boost Egypt's crude production, as well as help solve the country's energy crisis, reduce subsidies, and imports of petroleum products.

The Gulf of Suez has 5b barrels of undiscovered crude oil. Working towards adding this value to the energy mix will have a significant positive effect on the economy.

Furthermore, the commitment to repay debt to foreign partners on the agreed deadlines is a crucial step towards ensuring the success of the country's efforts to increase crude oil production, which stands today at 700,000 b/d.

The Egyptian government must implement a long-term strategy, together with the diversification of energy sources, in order to ensure the increase of crude oil production during the coming years, and inject foreign currency into the local market instead of directing it towards imports. Meanwhile, adequate reassurances must be provided to foreign partners to increase direct foreign investments in the oil sector, and the completion of development plans, which are considered the petroleum industry's largest cornerstone.

Last but not least, we must economically take advantage of the decline in international oil prices through the amplification of Egyptian crude oil imports, in order to build a strategic reserve to save local markets from future energy crises.

In addition, we must focus on exploration activities in the Eastern Desert and Gulf of Suez in order to increase the Egypt's daily crude oil production, particularly given that Egypt has –in collaboration with foreign partners– state of the art equipment and advanced technology which are a key ingredient for high-quality crude extraction.

Enhanced Oil Recovery

Oil and gas firms need to expand their focus beyond short-term issues such as tumbling oil prices and oversupply if they are to successfully navigate the growing range of disruptive forces that will shape the industry.

In the wake of December's climate change agreement in Paris, the momentum to replace fossil fuels with cleaner energy sources has been gathering pace and other factors, from low oil prices to geopolitical events, continue to shake the industry.

Viren Doshi, PwC's Strategy& Oil and Gas Leader, commented:

"While, for understandable reasons, the current depressed oil price dominates the headlines, it is also important to look beyond that to consider what forces are shaping the future of the industry. US shale supply has contributed substantially to the current position – what other disruptors does the sector face?

Global demand for affordable, reliable energy will continue to grow for the foreseeable future, but there is a new longer-term backdrop, as the world transitions to a low carbon system. Momentum to replace fossil fuels with cleaner energy sources is building up, and oil and gas companies need to consider their futures in this context.

Time and again, successful operators have demonstrated the ability to respond to challenges by taking a long term view, innovating, adapting and gauging major trends as they define medium-long term investment plans. And we are convinced that they can do so again."

A new proposed framework for New Energy Futures could help companies successfully navigate increasingly complex and volatile global market over the next five to fifteen years. The framework evaluates four potential futures, where the level of disruption and the pace of change fluctuate:

1. The oil and gas sector evolves along the current lines with limited government intervention. Ongoing price volatility across pricing and demand presents funding challenges, encouraging greater collaboration between operators and service providers to drive efficiency and reduce cost. Gas is increasingly becoming an essential transition fuel.
2. Demand from energy consumers (retail & commercial) for cleaner energy drives the transition towards a low carbon world resulting in significant private investments in low carbon technologies. The link between economic growth and energy intensity breaks.
3. As governments apply incentives and direct investment regulations, this increases energy efficiency, expansion of renewable energy demand and accelerates development of disruptive technologies. This puts further pressure on fossil fuel providers who need to find new ways of working.
4. Supply constraints are inflicted through direct government actions, such as implementing carbon legislation or withholding licenses (e.g. Shale, Arctic), or through geopolitical disruption, which can also contribute to increased volatility on periodic and regional basis.

According to Jan-Willem Velthuijsen, Chief Economist, PwC in Europe, each perspective teases out a range of possible effects on supply, demand, and market dynamics:

"Megatrends are transforming industry, which makes navigating the future increasingly challenging. The oil and gas industry is facing a complex and difficult environment today, with historically low commodity prices, among other factors. The future will likely bring even greater uncertainty, given potential disruptive forces.

While in practice, no single future perspective can be neatly 'ring fenced', this framework enables business to consider various tangible scenarios. It allows them to reassess their current strategy and plans, with implications for the operating model, partnering strategy, resourcing and technical capabilities and other areas."

While various elements may be played out in distinct ways across different regions, it will be increasingly vital that companies are able to demonstrate:

- A clear strategy and alignment with portfolio, decision making processes and capabilities;
- An ability to be agile and resilient in uncertain times;
- An innovative response to disruptive change using existing assets as well as technology, knowledge and capabilities;
- A readiness to form alliances and collaborate across the supply chain, with a growing focus on efficiency gains and reduced emissions rather than cost and risk sharing; and
- Safeguarding social license to operate by sustaining the trust and support of investors and a wider range of stakeholders through increased transparency.

A majority of key oil players view the current situation in a similar fashion - for all the uncertainty that may cloud the industry's future, one thing is clear - the oil and gas industry has continually demonstrated resilience and innovation to adapt to the dramatically changing world. Whatever the future may hold, the sector will continue to play a vital role in meeting our changing energy needs.

New Energy Futures Framework

New Energy Futures is designed as a foundation document to help frame questions, rather than directly provide answers. This framework also establishes the basis for future collaboration with other industry sectors, such as transportation.

Four Perspectives

New Energy Futures looks at four perspectives highlighting some of the fundamental trends that will reshapthe oil and gas sector in the medium term of 5 to 15 years. . Some of these trends may take considerably longer period of time before the full effects come into force, but we believe that these trends in the medium term will have significant implications for the sector in its long term prospects. In two of the four perspectives, market forces play a defining role, while the other two perspectives are driven more by government action and geopolitics. Each of them teases out some possible effects on supply, demand, and market dynamics.

These possible future scenarios look very different. Some aspects of each of the four perspectives represent a significant move away from the current position, while others continue observing the current trends. In practice, of course, no single perspective is neatly 'ring fenced'. Nevertheless, by thinking carefully about and expanding upon these different perspectives, companies will be able to evaluate their current strategies and plans, as well as consider the implications for their operating model, partnering strategies, resourcing and technical capabilities.

Regardless of which perspective resonates most, the future is uncertain. Companies will need to be agile and resilient, underpinned by a fundamentally sustainable business model.

What do the perspectives mean for your organization?

Businesses need to address fundamental challenges over the next five to fifteen years, regardless of which perspective will be adopted or where the business is positioned within the value chain.

Upstream

For upstream producers, there remain significant opportunities but the perspectives present several distinct types of challenges. Where government-related interventions dominate, upstream companies will need to address whether their portfolio balances different levels of risk involved in the exposure to increased regulation or political instability, and they will face a tough balancing action. In these perspectives, in particular, it will be important to evaluate whether the company is able to generate a risk – commensurate return from specific basins and geographies and even entire resource types, to maintain stakeholders' support through periods of volatility. Rapid changes in consumer behavior feature in some of the perspectives on the future.

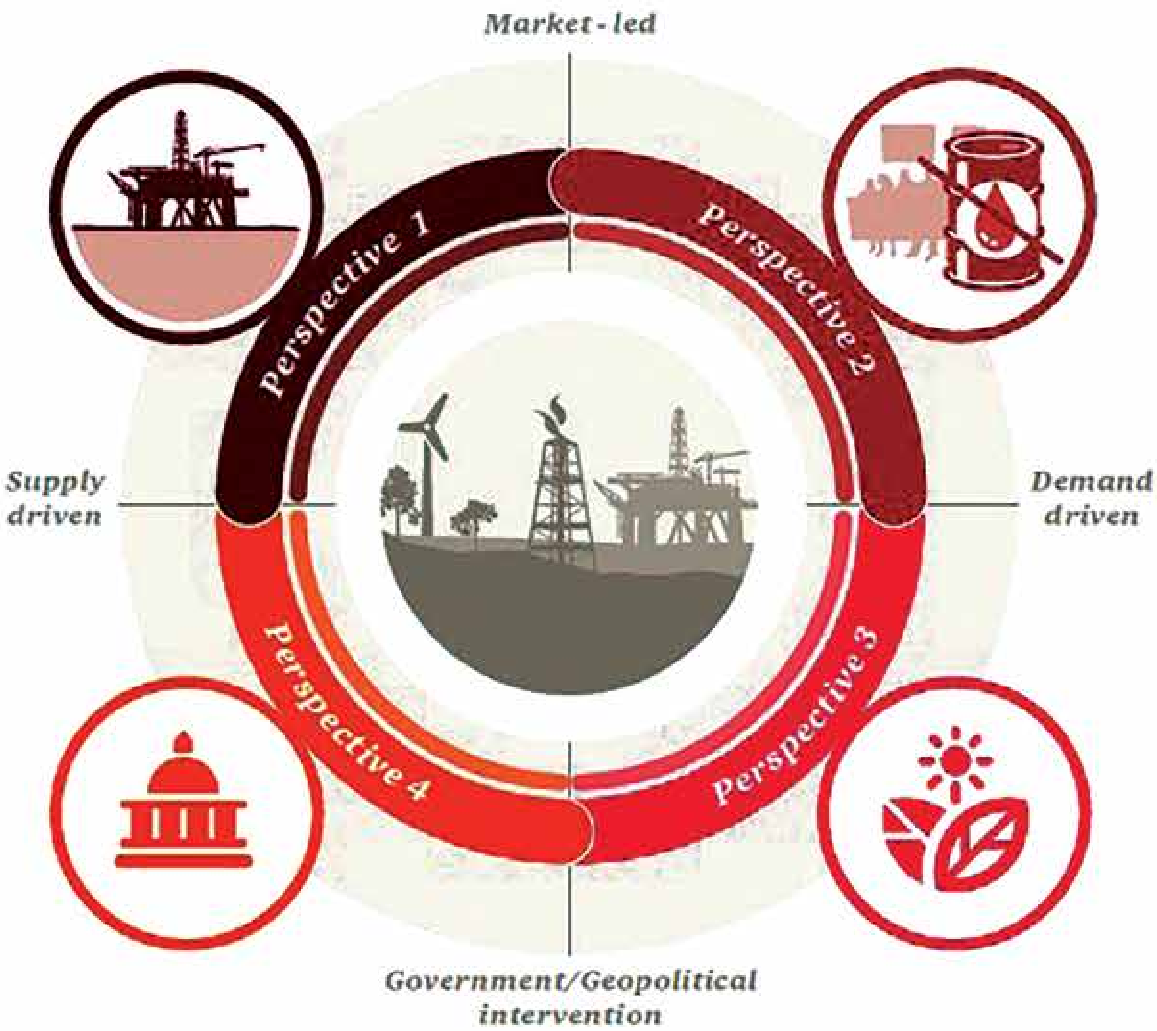
Four possible perspectives on the future over the next five to fifteen years

1. Oil and gas sector evolves along current lines. Ongoing price volatility presents investment challenges

Against a backdrop of limited government intervention and price led investment cycles, the oil and gas sector swings between surplus and deficit of supply, with associated price volatility. Pressure for, and investment in, alternative energy sources is also cyclical. The oil and gas sector responds gradually to a 'greener' world, however, security of supply and affordability remain vital.

2. Energy consumers, retail and commercial, drive the transition to low carbon world and more efficient energy system

Retail and commercial consumers in key markets actively seek to reduce their environmental impact and turn away from use of fossil fuels, reducing demand ahead of supply. Energy efficiency, and a move to alternative fuels for power and transport, de-link economic growth and energy intensity as compared to historical norms. Significant private investment in new low carbon technologies as the onset of a low carbon world is accelerated.



4. Government actions and / or geopolitical events trigger supply constraints

Supply constraints apply either through direct government action such as implementing carbon legislation affecting supply, or constraints over permitting and licences (e.g. Shale, Arctic). Geopolitical disruption also contributes on a periodic and regional basis. This leads to volatile prices and significant variations in the producing environment. The focus on security of supply is addressed alongside an accelerated transition to a low carbon world.

3. Governments stimulate a broad and accelerated 'green' demand environment

Governments follow through on climate conference commitments and drive a greener demand environment through a combination of regulations, incentives and direct investments that balance affordability and low carbon objectives. This stimulates increased energy efficiency, expansion of renewable energy demand and an accelerated development of disruptive technologies, particularly in transport.

In these cases, the share of renewables in the energy mix increases more rapidly and upstream companies will need to take a strategic decision whether to enter these markets, or not. Social media magnify the potential for consumer action to damage a company's reputation; therefore an active "social listening" is essential for companies to address consumers' concerns at an early stage. Innovation will be vital for upstream companies in every perspective, but the focus may need to shift over time. If governments impose higher taxes on emissions, technologies to reduce emissions should take priority, while investments in new types of exploration may become somewhat less important. When supply constraints will become predominant, continuation of the current focus on technologies, so that to improve production efficiency, from mobile devices in the field and predictive data analysis (mining 'big data') to automated solutions for maintenance, will become even more important. These investments need to become a priority even when prices are low, in order to ensure future competitiveness. Collaboration can help upstream companies to navigate the future, extending beyond the current arrangements, in order to focus more on sector-wide efficiencies and also on innovation. For example, upstream companies may work together to standardize major types of equipment, such as portions of offshore platforms. This could lead to a modular approach that would savesignificant resources. In all the perspectives, there are either periods of, or persistent, low prices and upstream businesses will need to ensure that they manage their financial resources to withstand these challenges.

Midstream and Trading

Midstream and trading businesses will be deeply impacted by the resulting oil and gas flows under the different perspectives. Midstream already plays an important role in bridging demand and supply. With oil and gas produced typically in countries where there is relatively low demand, and larger consuming nations such as in Asia needing this supply, there is a clear strategic opportunity for midstream companies. The capacity utilization through the combination of conversion (liquefaction/gasification), shipping, and pipeline and storage facilities will be directly dependent on the size and direction of these hydrocarbon flows. How these flows evolve in the medium term will dictate the future success of midstream participants. Equally, in each perspective, new midstream projects such as pipelines and LNG terminals may face significant headwinds, either from more strict government regulations or consumer objections to fossil fuel projects. Working to gain trust and support from governments, local communities and the media will be an important prerequisite to any investments. Regulators have tried in the past and will continue in the future to ensure that midstream assets do not become toll gates to swallow extraordinary profits of the owners. It is worth noting that governments are increasingly interested in the activities of traders. Potential market price distortions particularly in mature economies may extend the net of regulators to include control of activities by commodity trading businesses. The traders therefore need to make sure that they are operating on a basis that will withstand this additional scrutiny. Nevertheless, the changing dynamics of supply and demand will continue to present opportunities to profit from bridging over bottlenecks.

Uncertainty as to which perspective is being realized at any point in time leads to volatility in prices. This daily volatility in crude prices has often been higher than the gross margin of the entire downstream value chain during the past five years. It is not surprising that trading companies with capabilities to manage and profit from risks associated with price volatility have emerged as the most profitable players in the sector. These trading companies see value from asset-backed trading and have moved on to integrate refining, logistics and marketing operations across the world. Given price volatility will likely continue in multiple perspectives, trading opportunities will proliferate against this backdrop of uncertainty. For the large oil and gas companies, having trader-like capabilities, albeit in a risk managed way, has become essential. Supply-demand perspectives vary almost daily. As a consequence, much value can be lost through poorly managed inventory holding or pricing arrangements that are misaligned with rapidly moving market indices. These trading capabilities will become even more valuable as uncertainty accompanies the transition to a low carbon economy.

Downstream

The outlook for downstream companies will hinge on how demand for transport fuel products (mainly gasoline, diesel and jet) will evolve. This will be heavily influenced by ongoing trends in mobility, engine efficiency and substitution of oil-based fuels (such as electric vehicles, biofuels and gas). Flexibility in terms of adjusting to different feedstock sources and also to changes in product demand is critical in an environment of high uncertainty and increasingly stringent compliance requirements. The need for increased efficiency is a constant. Innovation plays a vital role here, as well as in the future development of enhanced products, such as biofuels and lubricants, which contribute to energy efficiency. By incorporating renewable feedstocks into their product mix, downstream companies can seize new opportunities created by concerned consumers. They will need to have access to the market for their refineries or run the risk of losing to competitive intermediaries. Business models may need to change as well. For example, downstream operators may want to consider further enriching or tailoring their offering with post sales value added products or services, including energy efficiency services, to strengthen and retain their trusted relationships with customers. Finally, with a potential shift in value from access to supply (upstream) to access to demand (markets in downstream), companies will need to adapt. In this context for example, a different set of capabilities in fuel marketing will be required in order to succeed. In the same way supermarket chains transformed the landscape in fuel marketing, market players will need to innovate to maintain their competitive edge.

Oilfield Service (OFS) Providers

Oilfield service providers will also need to adapt their businesses to remain competitive. In some of the perspectives, OFS companies may want to consider changing their business model. For example, if governments are taxing carbon emissions at a high rate, some assets may no longer be economically attractive, making the decommissioning market potentially more lucrative. Carbon constraining regulation might also provide impetus to newer technologies around CCS and downhole hydrocarbon separation. Divesting non-core businesses may also help OFS companies manage costs and focus on areas where their core capabilities are making a difference. Where governments' intervention plays a strong role, OFS companies should assess their portfolio to make sure that clients which are more exposed to potential regulatory interventions are balanced by those in less sensitive regions or resource areas. The traditional strength of many OFS players in innovation will prove to be a unique factor for winning companies, particularly where demand for oil and gas remains robust, while supplies are constrained by governments' intervention or other factors. Innovative OFS players can help upstream companies exploit mature basins best through superior enhanced oil recovery (EOR), for example. They can also enhance their position with their customers through improved technology and leading efforts for standardization across the sector. In some regions where NOCs are dominant, they may team up with national governments to develop their own OFS champions to support the localization agenda.

Conclusion

In defining measures to be adopted or developing future business models, companies need to align with several essential strategic questions. These fundamentals, supported by certain necessary characteristics of an organization, can provide a basis to which, in this uncertain future, oil and gas companies are able to adapt, survive, and thrive.

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Foreign Investment in Egypt: Motivations and Methods of Encouragement

By Hugh Fraser, Managing Partner of Andrews Kurth MENA office and Legal Specialist in International Energy Law.

We are now at the first anniversary of the game changing investment summit held last March in Sharm El-Sheikh. The summit sent out a clear message, that Egypt was "open for business," and actively seeking foreign investment. This first anniversary landmark is the right time to re-visit why foreign investors should be committing to Egypt, as well as measure the progress that Egypt's government and business community has made in the last 12 months, and to track what remains to be done.

This article addresses the key opportunities now arising in the Egypt energy markets and sectors closely affiliated to the energy industries. It also sets down the key areas where Egypt's policy, law, and regulation must line up, balancing the interests of Egypt's national interests and those of foreign investors.

Ten Reasons to Invest in Egypt

There are ten good reasons why foreign investors should look at Egypt, one year on from Sharm El-Sheikh.

Political Foundation and Support

The Egyptian Government is proactively and consistently encouraging foreign direct investment, as well as public-private partnerships across a range of sectors. This political drive is being fully supported by the international community including the US, EU, China, the GCC States, and by the various multi-lateral financiers such as the World Bank, International Finance Corporation, European Investment Bank, European Bank for Reconstruction and Development, African Development Bank, and Asia International Investment Bank.

Electricity

The power sector is projected to need 5.4 GW of energy capacity per annum until 2022, to meet existing demand, which requires additional investment worth $70b. As was recognised at the recent Egypt Energy Investment Summit in Cairo, diversification of energy is the cornerstone of the National Energy Strategy for 2035. Currently 94% of Egypt's electricity is generated through gas and crude oil; the goal here is to diversify the energy mix to include enewable, coal, and nuclear. A key goal is generating 20% of Egypt's electricity through renewable sources by 2022.

Upstream Oil and Gas

The upstream oil and gas industry has been energised by the massive Zohr gas discovery, announced by ENI in July 2015. With 30 tcf of gas, and about two third of which is expected to be recoverable, this project is market for fast track development and will be a game changer for Egypt's gas supply challenges. BP's West Nile project will see $12b of investment to develop resources anticipated to reach 55 mmbbl of condensate and 5 tcf of gas. There are over 40 exploration and production companies active in Egypt and the increasing focus on the deepwater activities and prospects of the Mediterranean Sea, and perhaps in due course the Red Sea, will unquestionably increase the level interest among the world's subsea oil and gas community. All eyes will be on Egypt in April 2016, when the Mediterranean Offshore Conference is hosted in Alexandria.

Downstream Oil and Gas

The Egyptian downstream industry is most developed in Africa. Additional $14b of investments is expected to be made in the refining and petrochemicals industries over the next five years. The World Refinery Association recently hosted the Egypt Downstream Summit in Cairo, during of which it was noted that the Zohr find and the West Nile development could turn "a lack of petrochemical feedstock into an abundance," and kick start other petrochemical projects as well. Egypt currently has eight refineries handling just over 700,000 b/d.

Water

The World Bank's MENA Water Outlook to 2050 Report laid bare the challenges facing the MENA region as the "most water stressed in the world." This stress will only increase given the impact of economic development, growing populations, climate change and emissions targets, and depleting groundwater reserves. It is estimated that $300b investment into water projects, especially desalination, and wastewater treatment plants, is needed over the next five years. With Egypt's population heading up towards 100m, and representing almost 25% of the region's people, it will be at the forefront of this challenge.

Infrastructure

The second Suez Canal opening in August 2015 marked the start of an ambitious program of investment in Egypt's infrastructure. Its pivotal geographic position, commitment to international trade and internal market of 95m people will continue to apply pressure on the need to invest in the country's airports, ports, roads, rail system, and telecoms services.

Industrial Diversification

Although the Egyptian economy is less dependent on oil and gas than many of its neighbours, the Government fully recognises the need to diversify the economy, including encouraging higher levels of local manufacturing and the services sector. The pivot points for the Government's plans are the establishment of a new capital city and the Suez Canal Economic Development Zone.

Technology Transfer

All of the above initiatives will involve the transfer in of technology and know-how as well as capital, and with it licensing and joint venture opportunities for overseas companies with advanced technology and know-how to work with Egyptian businesses to expand. This will be especially important in the energy sector.

Internationalisation and Regional Role

The recent conferences in Cairo referred to in this article fully recognised Egypt's pivotal and growing role in the MENA region, as well as in the sub-Saharan Africa. Egypt is anticipated to develop as a major energy hub between Africa, Asia and Europe, and the gateway to Africa for wider trade flows. Likewise, Egypt is anticipated to play a greater role in the security of the region. The message is increasingly, therefore, to the effect that investment in Egypt could open doors to wider regional opportunities.

The Egyptian People

Egypt offers the largest internal market in the region with 95m people; not to mention the opportunity to recruit and train a workforce which can be deployed throughout the Arabic speaking world, and wider. This population has current needs in housing, education, healthcare, and hopefully in due course, greater demand for consumer goods, leisure, and financial services.

Ten Fundamentals for Long Term Investment

The above profile offers, perhaps one of the most attractive market opportunity currently opening up globally. However, there are ten fundamentals which must be present, and remain in place, for a long term foreign investment strategy to succeed.

Political Stability and Security

Major steps have been taken to achieve stability and security, and this contrasts with the unstable environment in various regional neighbours. However, the terrorist attack on a Russian airliner over the Sinai and the impact on the tourist sector was a reminder that more needs to be done.

Foreign Investment Laws

Since the 1990s Egypt has introduced a series of legal initiatives to allow and protect foreign ownership of business and property, and in many ways these are more liberal than many contrasting legal rules in neighbouring countries. Major progress has also been made to augment the role and acceptance of international arbitration which is widely recognised as being a key pillar of a solid foreign investment platform. The Egyptian legal system is fully recognised as being highly developed but greater confidence will be needed in the courts for the sanctity and enforcement of contracts to be fully functional for foreign investors.

Taxation

Egypt operates a business profits taxation, in basic terms, at 22.5% and this is competitive and should be unobjectionable to foreign investors. However, the Government's fiscal position demands that the tax base is extended and this will need to be done on a consultative and transparent basis if investor confidence is to be protected. The most acceptable and palatable form of taxation is to increase the tax base from greater economic activity and gains and therein should lie the focus.

Currency

Perhaps the biggest challenge at the current time for attracting foreign investment is the concern that interest, dividends and supply purchases made in Egyptian pounds are vulnerable to devaluation risks. Split payments in EGP and US dollars offers a partial solution, especially where investors have local supplier, employment and other local costs to fund but the investment community is looking for a wider solution as a priority.

Expatriation of Funds

Closely linked to the currency challenge is the current restriction on expatriation of funds out of Egypt, with approval of the Egyptian Central Bank being the rule rather than the exception. Low foreign reserves lies at the heart of the problem.

Labour Laws and Policy

The Egyptian labour law and regulatory regime strikes a reasonable balance across the interest of encouraging and protecting local employment and the provision of a flexible labour force for businesses. Investment in local employment, training and upskilling should be at the forefront of foreign investors' business plans in any event and the hope must be that these interests can be fully aligned commercially without the need for heavy regulation.

Ethics and Anti-Corruption

Corruption concerns have, historically, been a concern for international investors and financials and it remains to be seen if the Government can fully implement its well stated objectives to improve transparency and increase the business ethics standards. A key issue will be the equal handed application of regulation and taxation across all businesses irrespective of connectivity to Government.

Regulation and Bureaucracy

The process of establishing and licensing of businesses has been significantly advanced by the creation of the General Authority for Foreign Investment (GAFI) and the availability of Free Zone options. However, the Government should continue to actively search for and implement measures which can minimise the perception of bureaucracy in business establishment and compliance processes.

In Country Value

The emphasis on increased local content and participation is likely to being an increasing objective for the Government given the large population looking for jobs and the impact greater local manufacturing could have on the balance of trade and foreign reserves. Currently, there are no huge issues and concerns in this area being expressed by the investment community and so any proposed upscaling of ICV objectives and policies should be also be done on a consultative and transparent basis to retain confidence.

"Buy – In"

Ultimately, a long term foreign investment programme will only be successful if it can demonstrate enhanced economic growth, requisite levels of job creation and the improvement of living standards and environment of the local population. Given the turbulence of recent years, there is a genuine willingness to recognize this key objective amongst the business and political communities, and it must be hoped that the current drive for foreign investment will see a maintained trust and buy-in amongst the population. However, the foreign investment community must play it part to achieve and maintain that trust.

In conclusion, it can be seen that there is a wide spectrum of opportunities now offered up by the dynamic position in Egypt. Major steps have been achieved since the Sharm El-Sheikh conference in March 2015 and challenges still remain to be addressed, especially in relation to currency and expatriation, if the foreign investment train is to be put firmly onto the tracks towards the Egypt of 2035 which we all want to see.

Special thanks for the support and assistance given in writing this article on Egyptian Law and Practice issues by Dr. Helar Farghally of the Open Chance Law Firm in Cairo.

Opinion Column

The Impact of Oil Price on Growing of Oil Reserves

DIAA M.KASSEM
General Manager, Follow – up of Reservoir Behavior at EGPC

To define the oil reserves you should know what the definition of all reserves categories are.

This is a big story, so you can refer to "Guidelines for Application of the Petroleum Resources Management System" which sponsored and published by SPE and Other petroleum societies if you are specialist or interested.

In simple words and from my point of view the oil reserves are the commercial quantity of oil which can be recovered from the discovered and commercial original oil in place (OOIP) by naturally, secondary and /or tertiary ways. By SPE definition, reserves are those quantities of petroleum anticipated to be commercially recoverable from known accumulations from a given data forward under defined conditions.

The oil reserves (SPE definition) divided to 3 categories (related to the commercial discovered OOIP) to: Proved Reserves (1P), Probable Reserves (2P) & Possible Reserves (3P) related to the probability of 90%, 50%&10%.

Generally, and from my point of view, growth of the oil reserves by adding a new reserve requires the following:

1. Drilling exploratory wells in the proven (developed - undeveloped) or non-proven acreage.
2. Doing of geological and engineering studies which look for the best method for secondary or tertiary ways to be applied.
3. Applying a new secondary and/or tertiary recovery projects.

The declining oil price has a negative impact on growth and adding new oil reserves, especially in case 1 and 3.

In case no.1 the reserve will slightly increase because it requires converting the non-proven to proven acreage by drilling some exploratory wells, which need large investments and are high risk especially in deeper horizons, and developing them by drilling by other development wells ,which impact on calculated IRR & NPV of the investor's project.

In case no, 3 the oil recovery only has a bad impact, as application of these methods need a big investment, therefore the investor may resolve to decreasing his budget during declining oil prices and postpone their application until oil price begin increasing.

But, in case no, 2 no bad impact on growth of the reserves because the studies not a big costly and helping only the management to take their right decisions by applying or postponed the recommendations of studies.

To deal with declining oil prices, I suggest that investors adopt the following:

- At oil price decline, intensifying well drilling can be achieved through negotiation with service contractors to decrease all contracts by 50 %, this way a company can double the number of wells it is drilling.
- Optimization cost plan for all oil operations.
- Run the total economics for whole project, not at the specific time only.
- Decreasing the unnecessary cost.

Finally, The Egyptian petroleum sector exerted all efforts to support all the petroleum companies working in Egypt to overcome the current crisis of oil price, H.E. Engineer Tarek El Molla was keen to attend the General Assembly Meetings to confirm the message that we should work together to overcome this period without reducing the budgets and to sustain the current production.

Linking Petroshahd to Qarun Fields

Project Description

Petrojet is implementing the design and construction work for a 6-inch in diameter 3.6km pipeline, extending from the Shahd plant to the Southeast Shahd plant; in addition to a 10-inch in diameter pipeline, extending 83km to crude storage facilities at Qarun fields.

A second part of the project includes the planning, design, and execution of an upgrade to the storage facilities, increasing the storage capacity of the Southeast Shahd plant, as well as the Qarun plant. The upgrade plan is aimed at reaching a total of 12 tanks with a capacity of 2,400 barrels; in addition to the design of a fire control system for all production plants through which the pipeline passes.

The project which began on the 24th of December 2015, is expected to cost a total of $21m in investment.

The project is divided into three phases:

1. The design phase.

2. Completing the required electrical and mechanical tasks.

3. Installation of the pipeline and pumps; in addition to the increasing of storage capacity.

Implementation Progress:

Divided into two phases, civil work and mechanical work.

Civil Tasks

1. The design process is underway.

2. Surveying work has been completed, covering the areal and route measurements. Currently a direct path is being measured.

3. Areal measurement of the Qarun plant, the Shahd plant, and the Southeast Shahd plant have been completed.

4. A direct path has been marked.

Mechanical Tasks:

1. Equipment tendering work is underway on Cost+ basis with Petrojet.

2. Design work is underway, along with modification and development of plants to suit the new pipeline.

3. The design of tasks has been finalized.

4. The building of tanks has been assigned to Petromaint on February 1st 2015, and is expected to be delivered after 270 days from contract signing.

Electrical Tasks:

Design of cathodic protection is underway, as well as the design of a land grid and electrical lines. In addition, cathodic protection of tanks is also underway.

Linking in Petroshahd Receiving Plant:

Petrojet will implement the design and construction of a 12-inch in diameter pipeline, extending 1km from the Petroshahd receiving plant at Qarun field. The pipeline will then be connected to the Dahshur pipeline through a 16-inch diameter connection, through which processed crude from the Petroshahd field will be transported.

This phase was launched on July 14, 2014, with approved investments of $716,000, and is expected to be completed after 30 days from the approval of blueprints and the arrival of the required equipment.

Execution Progress

Concerning the civil tasks, design of the concrete base for pumps is in progress.

Mechanical Tasks:

1. The method of transporting crude has been altered, shipping cessation, and plant isolation from production.

2. Three new pumps have been added, increasing the total to six.

3. The pipeline's P&ID has been approved.

4. A list specifying the required tasks has been officially issued.

Part of the project is to develop a housing area for employees. Middle East Contracting Company undertook this part of the project, their plan includes two class A villas, and four class B villas, in addition to a dining hall including a kitchen and a refrigerator. The implementation of this phase began on October 29th 2014, and was concluded in January 2015, and cost $510,000.

Opinion Column

Securing Fuel Imports has Direct Effect on Boosting Crude Production

AMR MOSTAFA
Deputy Executive Chairman for Operations at EGPC

Finalization of negotiations with Gulf states and Libya, as well as the resolution of the dollar increase crisis are two milestones that are expected to contribute to the increase of oil production levels to 900,000b/d in the coming years.

Negotiations with Saudi Arabia are our first step to increase import of fuel to a sufficient level to be able to cover the country's energy needs for one year, starting from May. We hope the negotiations will be concluded successfully in light of the country's struggle with a significant dollar shortage.

The second step is to hold further negotiations with other Gulf states and Libya for fuel import deals, as well as the resolution of the foreign currency crisis, of which the Central Bank of Egypt (CBE) and the Ministry of Finance are in charge.

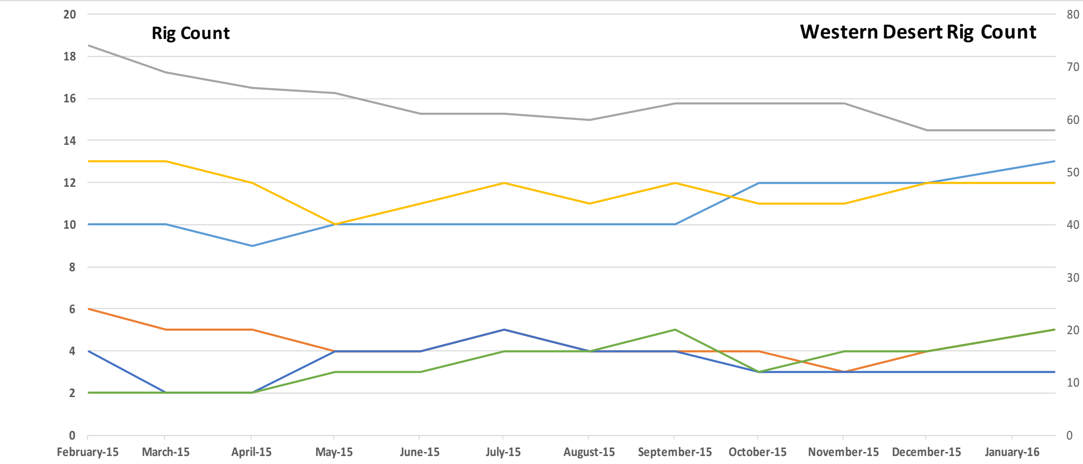
The most important step with regard to increasing Egypt's daily production of crude is to continue repaying overdue debts to foreign partners. This shall help us reach a production rate of 900,000b/d in the coming years despite the current economic conditions Egypt is struggling with. Moreover, negotiations with Libya to import oil are of importance for Egypt in the coming period, as they will be considered a backup plan in case of failure of negotiations with Gulf states. We are negotiating with Libya to import 2 mmbbl of crude to tackle the shortfall in refineries' domestic production, which will reach 5m tons of crude a year, provided that crude from Libya will come through after a lull in the political situation. The imported crude will be transported to refineries to be processed to gain petroleum products, boost refining efficiency, and increase production capacity.

It is important to note that foreign partners working in the Egyptian oil sector completely understand the economic situation and the difficulty of providing dollars. But in the end we are committed and fully responsible for the repayment of overdue debts in the agreed upon deadlines to ensure the completion of research and exploration works in concession areas for the extraction of natural gas and crude oil. Moreover, we are working on bridging the gap between daily production and consumption rates in local markets.

The petroleum sector has been able to resolve the fuel crises over the past year as a result of the implementation of strategic plans that made us secure citizens' needs of fuel in local markets. This was thanks to the division of distribution roles and deployment of firm security measures against smuggling of petroleum products, whether through the smart cards system or with the help of Ministry of Supplies' inspectors and the Interior Ministry.

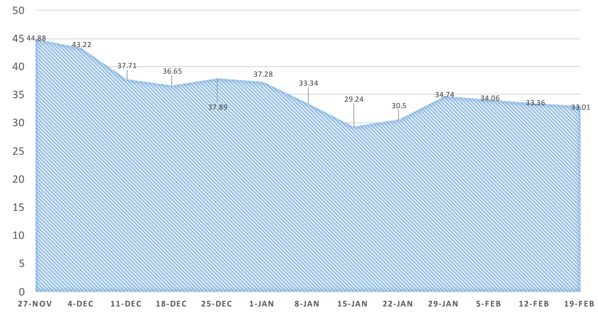
The government has secured strategic reserves of gasoline that can last up to 15 days, in addition to diesel reserves sufficient to cover 10 days. Furthermore, we have stocks of LPG for a whole month to face any crisis in governorates' reservoirs.

Changes in Rigs by Location - February 2015 to January 2016

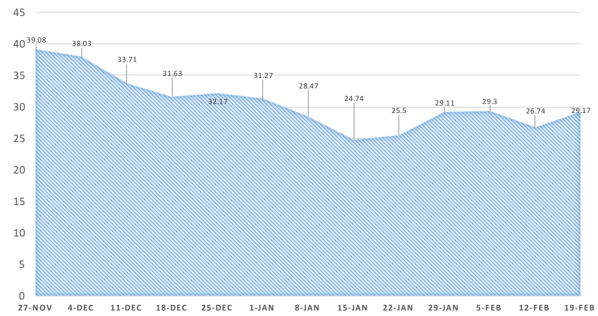


	February-15	March-15	April-15	May-15	June-15	July-15	August-15	September-15	October-15	November-15	December-15	January-16
G.O.S.	10	10	9	10	10	10	10	10	12	12	12	13
Med. Sea	6	5	5	4	4	5	4	4	4	3	4	5
Sinai	13	13	12	10	11	12	11	12	11	11	12	12
E.D.	4	2	2	4	4	5	4	4	3	3	3	3
Delta	2	2	2	3	3	4	4	5	3	4	4	5
W.D.	74	69	66	65	61	61	60	63	63	63	58	58

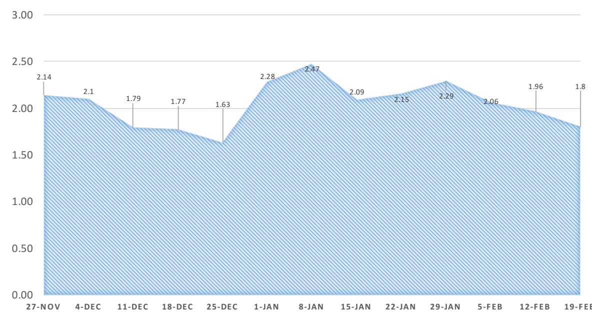
BRENT PRICES



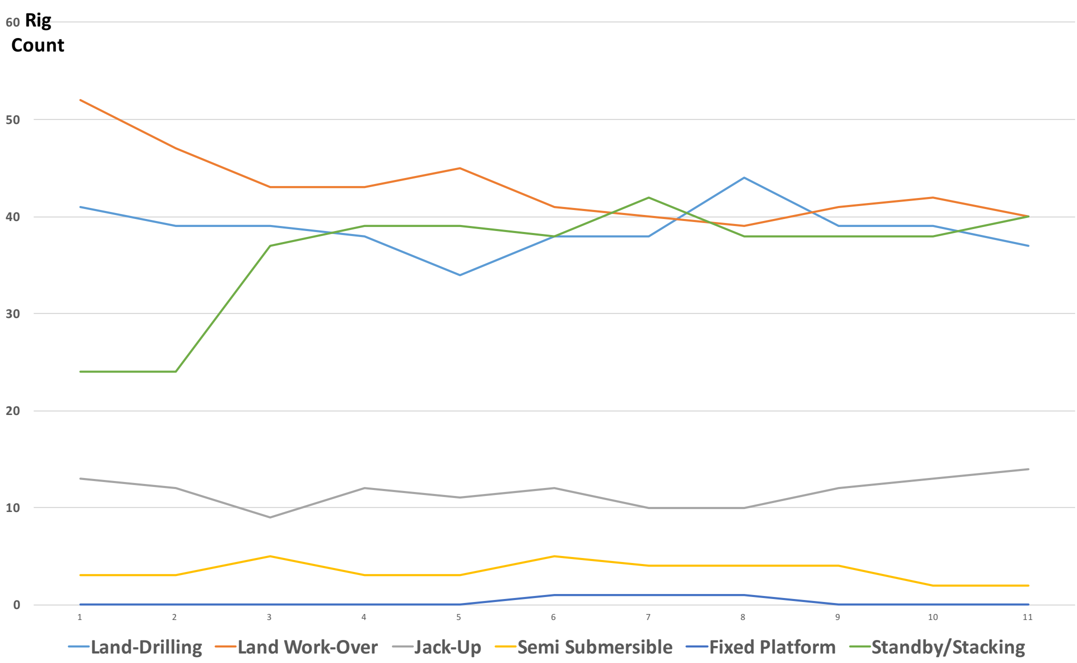
OPEC BASKET PRICES



NATURAL GAS PRICES



Changes in Rigs by Type - February 2015 to January 2016

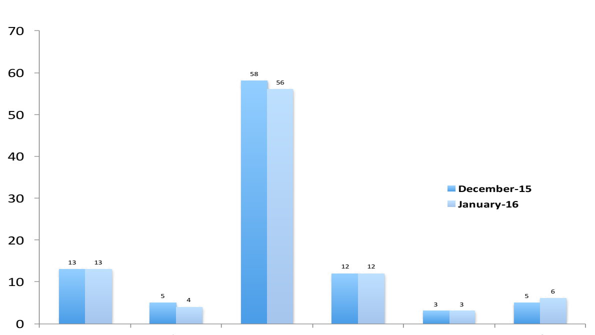


Production - January 2016

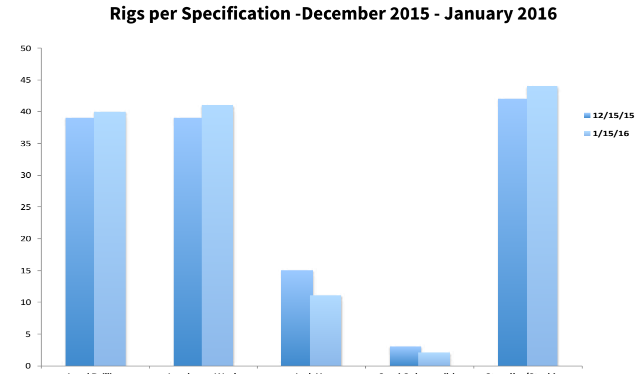
	Equivalent Gas	Condensate	Liquefied Gas
Med. Sea	10911250	224797	694470
E.D.	30357	6140	2097
W.D.	7303571	694989	1430267
GOS	644821	265414	76934
Delta	2923750	127662	219688
Sinai	714	47327	25748
Total	21814463	1366329	2449204

Unit: Barrel

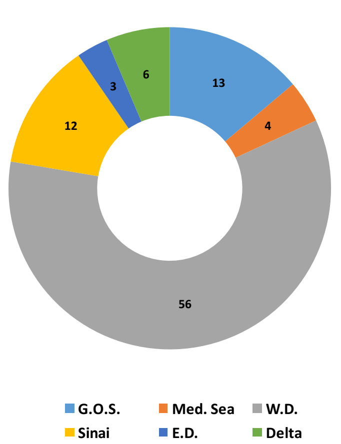
Rigs per Area - December 2015 - January 2016



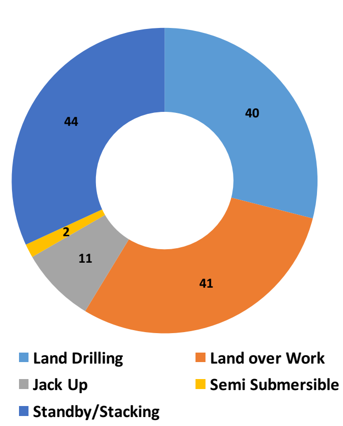
Rigs per Specification -December 2015 - January 2016



Rig Count per Area - January 2016



Rigs per Specification - January 2016



Rigs per Specification - December 2015 - January 2016

Location	Dec. 2015	Jan. 2016
Land Drilling	39	40
Land over Work	39	41
Jack Up	15	11
Semi Submersible	3	2
Standby/Stacking	42	44
Total	138	138

Rigs per Area - December 2015 - January 2016

Location	Dec. 2015	Jan. 2016
G.O.S.	13	13
Med. Sea	5	4
W.D.	58	56
Sinai	12	12
E.D.	3	3
Delta	5	6
Total	96	94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