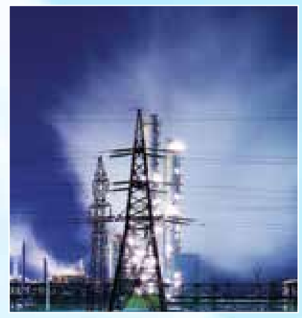
In Review

## Meeting Egypt's Electricity Needs

P.16



Political Review

## The Defendant Pleads Legitimate

P.20

EGYPT OIL&GAS NEWSPAPER

December 2013 ____ Issue 84 ____ 28 Pages ____ www.egyptoil-gas.com

# UNCERTAINTY AMID EGYPT'S Mounting Debt to IOCs

P.18

# Editor's Note

The December issue of Egypt Oil and Gas addresses a variety of issues and ongoing political events that impact the Egyptian oil and gas sector. Our In Focus feature this month is devoted to the ongoing issue of delayed payments. While this issue has been addressed a length, the problem of arrears is still at the forefront of the sector. Renewed investment and exploration is largely hindered by the issue of delayed payments and we consult a variety of academics and other experts in order to determine how the issue will impact the Egyptian oil and gas sector in the short and long-term. Our Political Review is a sharp commentary on the ongoing trial of Mohamed Morsi while our In Review feature is devoted to exploring how Egypt's increasing need for electricity can be met.

One year ago I noted in my first editorial note that I had many goals for this publication. The vast majority of these goals have been effectively met. Cumulatively I feel that my time here was well spent as I learned a great deal about the sector and made a broad network of contacts that will hopefully serve me well in the future. I also made many good friends and believe that my efforts strongly contributed to a greater polish and sharper editorial focus.

As this is my last issue as Editor in Chief of Egypt Oil and Gas, I would like to take this opportunity to thank our editorial team for their hard work, support, and commitment. I would specifically like to thank our Managing Editor Maya Moseley for her incredible work ethic and attention to detail. Maya will unfortunately also depart EOG this month and we all wish her the best in all her future endeavors. Senior Staff Writer Laura Raus also deserves strong appreciation for her curiosity, unwavering work ethic, as well as her composure. The entire editorial team should also feel a debt of gratitude toward our Communication Liaison and translator Salma Selim for her loyalty and hard work. We could not have functioned with out Salma's foresightedness and quick thinking. I would also like to extend a personal and heartfelt thanks to our cartoonist Mai Gamal whose creativity, intellect, and skepticism will undoubtedly serve her well in the years to come. Lastly, I would also like to thank our incredibly talented graphic artist Omar Ghazal as well as our Senior Reporter Wael El Serag for their hard work and patience. Finally, I would like to thank Ayman Rady for his technological support to the editorial process.

Of course none of the above is possible without the efforts of Mohamad Fouad who offered us all this enlightening opportunity to work together exploring this vibrant sector of Egypt's economy. I will sincerely miss working with everyone here and hope to see you all again with regularity.

**Julie Herrick** Editor in Chief


Editor in Chief
***Julie Herrick***

Managing Editor
***Maya Moseley***

Senior Staff Writers
***Laura Raus***
***Lily Leach***

Chief Reporter
***Wael El-Serag***

Contributors
***Robert Mogielnicki***

Marketing Manager
***Ayman Rady***

Business Development Officers
***Ayman Hussien***
***Raghad Sabouni***
***Omar El-Tanany***
**Hesham Saeed**

Art Director
***Omar Ghazal***

Cartoonist
***Mai Gamal***

Administrative Assistant
***Basma Naguib***

Commuications Liaison
***Salma Selim***

IT Specialist
***Sameh Fattouh***

Production Advisor
***Mohamed Tantawy***

Operations & Financial Manager
***Abdallh Elgohary***

Accountant
***Mahmoud Khalil***

Publisher
***Mohamed Fouad***

**This publication was founded by**
Omar Donia, Mohamed Sabbour
and Mohamed Fouad





EGYPT OIL&GAS NEWSPAPER

**Contact Information:**
Tel: +202 25164776
+202 25172052
Fax: +202 25172053
E-mail: info@egyptoil-gas.com
www.egyptoil-gas.com


## Prices

| Bullion Market | | Oil Prices | |
|---|---|---|---|
| GOLD | SILVER | BRENT | NYMEX Crude |
| 1316.88 | 22.06 | 109.30 USD/BBL | 100.55 USD/BBL |
| -2.15% | -1.82% | -1.42% | -5.36% |


YOUR INVESTOR.
YOUR ADVISOR.
YOUR BROKER.
Committed to assisting clients in realizing their long term growth strategies, both in local and international real estate investments, B2B provides world-class services catering to clients' individual needs; be it in brokerage, commercial & residential projects selling, or market research and property appraisals. B2B's outsourced services aim to reduce corporate clients' overhead costs while increasing their return on investment.
B2B
Business to Business
for Investment & Real Estate Marketing
Hotline 19323
New Cairo, 5th Settlement, Off El Showyfat St.
Villa No. 167, 1st District, Zone 7
facebook.com/b2bre | www.b2b-egy.com

## GPC/SCIMITAR Drills Three Wells

GPC/SCIMITAR recently completed drilling three new developmental wells in its concession area in the Eastern Desert. The company's production rate of crude oil reached 1,326,370 barrels in October 2013.

**ISS-130**
The ISS-130 oil producing well was drilled to a depth of 1,955 ft utilizing the SHAMS-1 rig. Investments surrounding the drilling process are estimated at USD 470,000.

**ISS-135**
The ISS-135 oil producing well was drilled to a depth of 1,916 ft utilizing the SHAMS-1 rig. Investments surrounding the drilling process are estimated at USD 470,000.

**ISS-134**
The ISS-134 oil producing developmental well was drilled to a depth of 1,873 ft utilizing the SHAMS-1 rig. Investments surrounding the drilling process are estimated at USD 600,000.

## PETROSAFWA Drills New Well

PETROSAFWA recently drilled a new exploratory well in its concession area in the Western Desert during the fiscal year 2013-2014. The N.DABAA-1X oil producing well was drilled to a depth of 14,740 ft utilizing the EDC-10 rig. Investments surrounding the drilling process are estimated at USD 1.548 million.

## Apache Drills New Well in Western Desert

Apache American Corporation recently drilled a new exploratory well in its concession area in the Western Desert during the fiscal year 2013-2014. The W.KAL R-1X oil producing well was drilled to a depth of 13,700 ft utilizing the EDC-59 rig. Investments surrounding the drilling process are estimated USD 3.637 million.

## PETROSILAH Drills Two Wells

PETROSILAH, a joint venture between EGPC and Merlon International, recently drilled two new developmental wells in its concession area in the Western Desert. The company's production rate of crude oil reached 141,012 barrels in October 2013.

**SILAH 2-3**
The SILAH 2-3 oil producing well was drilled to a depth of 7,900 ft utilizing the EDC-49 rig. Investments surrounding the drilling process are estimated at USD 1.420 million.

**SILAH-24**
The SILAH-24 oil producing developmental well was drilled to a depth of 7,750 ft utilizing the TANMIA-1 rig. Investments surrounding the drilling process are estimated at USD 1.228 million.

## BAPETCO Drills Three Wells

BAPETCO, a joint venture between EGPC and Shell, recently completed drilling three new developmental wells in its concession area in the Western Desert. The company's production rate of gas reached 1,166,836 barrels in October 2013.

**OBA D-AX (39)**
The OBA D-AX (39) gas producing well was drilled to a depth of 13,435 ft utilizing the EDC-55 rig. Investments surrounding the drilling process are estimated at USD 4.613 million.

**OBA D-AN (40)**
The OBA D-AN (40) gas producing well was drilled to a depth of 13,472 ft utilizing the EDC-42 rig. Investments surrounding the drilling process are estimated at USD 6.329 million.

**SITRA 8-29**
The SITRA 8-29 oil producing developmental well was drilled to a depth of 12,027 ft utilizing the EDC-72 rig. Investments surrounding the drilling process are estimated at USD 3.950 million.


## Story Board

## SUCO Drills New Well

SUCO, a joint venture between EGPC and RWE, recently completed a new developmental well in its concession area in the Gulf of Suez. The RB-A8A ST-3 oil producing well was drilled to a depth of 13,600 ft utilizing the ZOSER rig. Investments surrounding the drilling process are estimated at USD 18.978 million. The company's production rate of crude oil reached 515,915 barrels in October 2013.

## PETRODARA Drills Two Wells

PETRODARA, a joint venture between EGPC and TransGlobe, recently drilled two new developmental wells in its concession area in the Eastern Desert. The company's production rate of crude oil reached 372,263 barrels in October 2013.

**E-ARTA-46**
The E-ARTA-46 oil producing well was drilled to a depth of 4,766 ft utilizing the ST-7 rig. Investments surrounding the drilling process are estimated at USD 826,000.

**HOSHIA-18**
The HOSHIA-18 oil producing developmental well was drilled to a depth of 4,715 ft utilizing the ST-7 rig. Investments surrounding the drilling process are estimated at USD 500,000.

## Agiba Drills Five Wells

Agiba, a joint venture between EGPC, MITSUI (10%) and IEOC (40%), recently drilled five new developmental wells in its concession area in the Western Desert. The company's production rate of crude oil reached 1,945,923 barrels in October 2013.

**E.AGHAR-21**
The E.AGHAR-21 oil producing well was drilled to a depth of 6,500 ft utilizing the WF-161 rig. Investments surrounding the drilling process are estimated at USD 700,000.

**DORRA-15**
The DORRA-15 oil producing well was drilled to a depth of 6,305 ft utilizing the ST-8 rig. Investments surrounding the drilling process are estimated at USD 785,000.

**E.AGHAR-23**
The E.AGHAR-23 oil producing developmental well was drilled to a depth of 6,500 ft utilizing the WF-161 rig. Investments surrounding the drilling process are estimated at USD 833,000.

**E.AGHAR-24**
The E.AGHAR-24 oil producing developmental well was drilled to a depth of 6,505 ft utilizing the WF-161 rig. Investments surrounding the drilling process are estimated at USD 795,000.

**FARAS-48**
The FARAS-48 oil producing developmental well was drilled to a depth of 3,320 ft utilizing the WF-147 rig. Investments surrounding the drilling process are estimated at USD 777,000.

## WESTBAKR Drills New Well

WESTBAKR, a joint venture between EGPC and EPEDECO, recently drilled a new developmental well in its concession area in the Eastern Desert. The H-23 oil producing well was drilled to a depth of 5,495 ft utilizing the EDC-62 rig. Investments surrounding the drilling process are estimated at USD 500,000. The company's production rate of crude oil reached 196,989 barrels in October 2013.

## EL HAMRA OIL Drills New Well

El HAMRA OIL Company, a joint venture between EGPC and IPR, recently drilled a new developmental well in its concession area in the Western Desert. The NE ALAMEIN-9 oil producing well was drilled to a depth of 6,100 ft utilizing the EFAD-111 rig. Investments surrounding the drilling process are estimated at USD 1.845 million. The company's production rate of crude oil reached 128,561 barrels in October 2013.

## Khalda Drills Six New Wells

Khalda, a joint venture between EGPC and Apache American Corporation, recently drilled six new developmental wells in its concession area in the Western Desert during the fiscal year 2013-2014. The company's production of crude oil reached 4,588,147 barrels in October 2013.

**AG-117**
The AG-117 oil producing well was drilled to a depth of 10,635 ft utilizing the EDC-50 rig. Investments surrounding the drilling process are estimated at USD 2.073 million.

**RENPET-24**
The RENPET-24 oil producing well was drilled in 13 days to a depth of 7,205 ft utilizing the EDC-61 rig. Investments surrounding the drilling process are estimated at USD 500,000.

**NRQ 255-5**
The NRQ 255-5 oil producing developmental well was drilled in 27 days to a depth of 8,300 ft utilizing the EDC-65 rig. Investments surrounding the drilling process are estimated at USD 920,000.

**WRZK-116**
The WRZK-116 oil producing developmental well was drilled in 16 days to a depth of 6,550 ft utilizing the EDC-66 rig. Investments surrounding the drilling process are estimated at USD 851,000.

**MEGHAR-3**
The MEGHAR-3 oil producing developmental well was drilled in 58 days to a depth of 12,281 ft utilizing the EDC-17 rig. Investments surrounding the drilling process are estimated at USD 1.702 million.

**PEPI-S-1X**
The PEPI-S-1X oil producing exploratory well was drilled to a depth of 14,500 ft utilizing the EDC-16 rig. Investments surrounding the drilling process are estimated at USD 2.054 million.

## Qarun Drills Four Wells

Qarun, a joint venture between EGPC and Apache American Corporation, recently completed drilling four developmental wells in its concession area in the Western Desert. The company's production rate of crude oil reached 1,394,163 barrels in October 2013.

**WON C-6**
The WON C-6 oil producing well was drilled to a depth of 9,200 ft utilizing the EDC-17 rig. Investments surrounding the drilling process are estimated at USD 1.346 million.

**KARAMA-24**
The KARAMA-24 oil producing developmental well was drilled to a depth of 7,975 ft utilizing the EDC-47 rig. Investments surrounding the drilling process are estimated at USD 1.381 million.

**NQ-9**
The NQ-9 oil producing developmental well was drilled to a depth of 9,431 ft utilizing the EDC-51 rig. Investments surrounding the drilling process are estimated at USD 2.450 million.

**Heba-351**
The Heba-351 oil producing developmental well was drilled to a depth of 7,050 ft utilizing the EDC-63 rig. Investments surrounding the drilling process are estimated at USD 1 million.

## Butane Cylinder Crisis

Egypt has faced shortages in cooking gas cylinders, as a result of weather Mohamed Abu Shady, the Minister of Supply and Internal Trade postponed the shipments of butane gas. Abu Shady declared that in coordination with the Ministry of Petroleum large amounts of gas cylinders would be distributed to warehouses nationwide starting November 11 to resolve the shortage issue. According to the Ministry of Petroleum, last week 48,000 tons of butane gas was imported. On November 11th 22,500 tons of butane gas arrived in the ports of Suez and Alexandria. On November 13th 6,500 tons arrived and 10,500 tons arrived on November 14th Saudi Arabia agreed to provide Egypt a shipment including 80,000 tons of butane gas as part of its aid program. The expected delivery date is November 20-25. These shipments have been imported to increase the amount of cooking gas to meet the needs of the domestic market, Daily News Egypt reported.

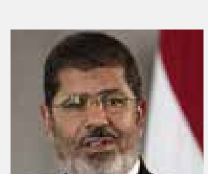
## Choice Words

"We are quite confident that Egypt will overcome its current crises, and put into consideration the interests of all political, ethnic and religious blocs within society.

**Sergei Lavrov**
Russia's Foreign Minister

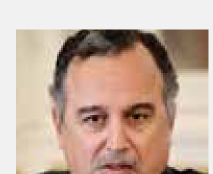
"This is a crime and treason. A crime because it has all the manifestations of a coup, and treason because it betrayed the oath that the defence minister swore to the armed forces and to the Egyptian people when he took his position.

**Mohamed Morsi**
Former President of Egypt



"We look forward to co-operation with Russia in multiple fields and that is because of Russia's significance in the international arena. We look forward to strong, continuous and stable relations with Russia. We seek to energise a relation that is already in existence.

**Nabil Fahmy**
Egypt's Foreign Minister



"The United States believes that the US-Egypt partnership is going to be strongest when Egypt is represented by an inclusive, democratically-elected, civilian government based on rule of law, fundamental freedoms, and an open and competitive economy.

**John Kerry**
US Secretary of State

## The Russian Military Visits Egypt

In July the Egyptian army succeeded in removing former President Mohamed Morsi. After the President's ouster the United States decided to hold back military aid to Egypt worth hundreds of millions of dollars. In addition, the delivery of weapons that included an F-16 aircraft, M1A1 tanks and Apache helicopters was also suspended. Europe Online stated that after this loss Egypt started to look for other weapons suppliers. On October 28 a Russian military intelligence delegation arrived in Cairo to discuss the possibility of collaborating with the Egyptian army.

## Egypt Signs Nine Oil and Gas Exploration Contracts

According to Bloomberg, Egypt has recently signed nine new crude oil and natural gas exploration agreements with companies including Royal Dutch Shell Plc. This is due to the current economic and political situation that Egypt has been experiencing for the past three years. The agreement was to drill a total of 15 wells in the following areas: Gulf of Suez, Sinai and Eastern and Western Deserts. According to the Oil Minister, these contracts will need a minimum investment of USD 470 million. The ministry said companies who won the exploration contracts include PICO International Petroleum, Greystone Oil and Gas LLP and Petzed Investment and Project Management Ltd. These companies will receive total signing bonuses of USD 50 million. Sherif Ismail, the Oil Minister, mentioned that, "Egypt is still able to attract petroleum investments."

## Gulf Fuel Aid Results in Glut

Egypt is currently facing glut in fuel supplies due to the recent influx of assistance from Gulf Countries. Tarek Al-Molla, Chairman of the Egyptian General Petroleum Corp. (EGPC) told Reuters that his main priority is to release cargoes donated from Saudi Arabia, Kuwait and the United Arab Emirates as part of the aid packages. Egypt is glad to receive gifts from the Gulf since the removal of the Islamist President Mohamed Morsi in July. For instance, Saudi Arabia is considered to be one of the biggest fuel suppliers to Egypt. This is through sending gasoline and gasoil as well as propane and butane. Molla said, "I am 100 percent covered for gasoline but we still need to import gasoil, butane and propane." He mentioned that all three countries are sending gasoil, however Saudi Arabia is delivering propane and butane while Kuwait and Emirates do not. Kuwait had arranged to send Egypt five million barrels of oil products during the period from August to December 2013.

While the gifts have eased fuel shortages in the market, they also resulted in glut as contracted shipments are forced to wait to unload their cargoes. Some cargoes have been waiting for months to unload. These delays result in penalty fines, which will increase EGPC's existing debt.

## Egypt to Issue Tenders for Shale Exploration

According to Al-Shorfa, Abu Bakr Ibrahim, the Vice President of Ganoub El Wadi Petroleum Holding Company that is a part of the Egyptian General Petroleum Corporation (EGPC), said that by the beginning of 2014 Egypt would issue international tenders for oil shale exploration. The reason behind this bid is to boost energy production for domestic consumption looking for high-energy demand. EGPC has formed a technical committee to decide on the sites where the extraction will take place and the companies able to participate in this bid. According to Radwan Fathallh, Ministry of Petroleum marketing adviser, "The technical committee formed by the Egyptian Petroleum Corporation has already begun contracting international companies specialized in this type of oil extraction." The committee stated that exploration places have to be near water sources because of the large water amount needed for extractions. These sources are as follows: the Nile, the Mediterranean Sea and the Red Sea.

## Egypt Signs New Deal with Foreign Gas Firms

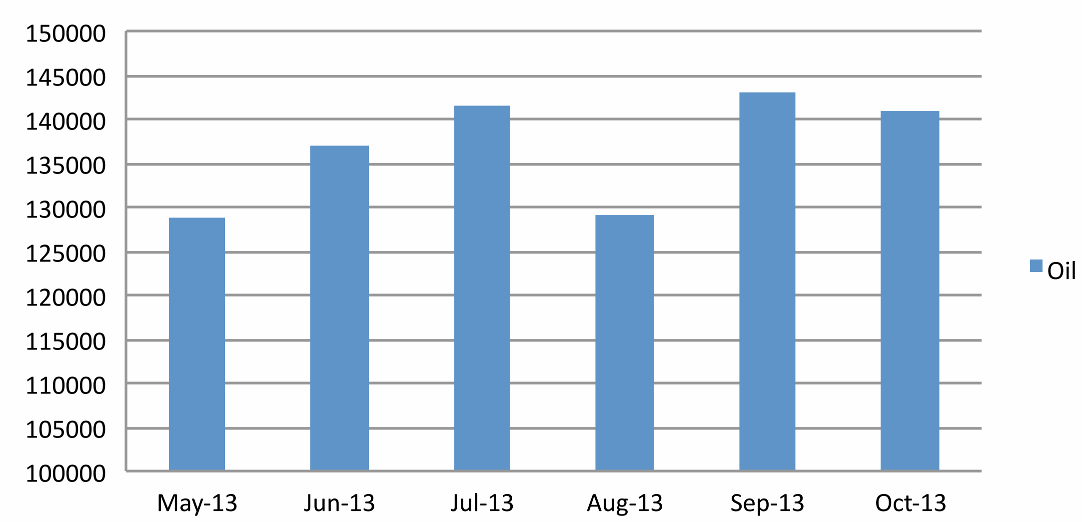
Egypt's Minister of Petroleum, Sherif Ismail, said that EGAS is revising the prices it pays to purchase gas from foreign companies.

Ismail told Al-Mal newspaper that EGAS would modify seven existing contracts, as well as sign seven new contracts. According to Reuters, Ismail did not indicate what the new pricing would be or the companies involved. The Egyptian government's payment to offshore gas producers in the country is just enough to cover their investment costs, causing many exploration companies to cease developing new offshore projects.

The stagnation of gas production has resulted in domestic gas shortages.

## Petrosilah's Oil Production Volatile

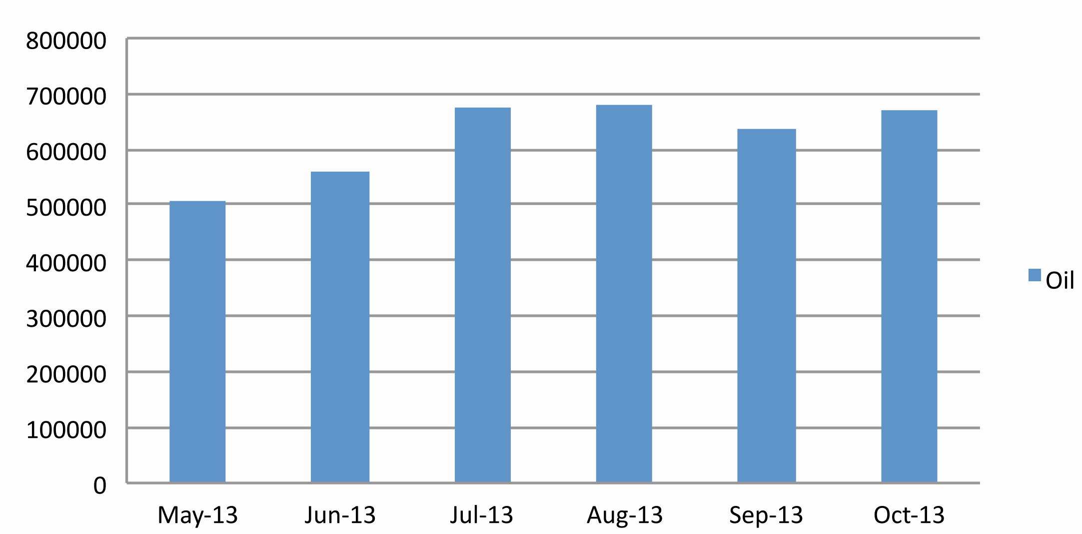
Petrosilah's oil Production Indicators May 2013 - Oct. 2013.




The oil production of Petrosilah Petroleum Company has been volatile between May and October. It increased quickly in the first months of this period, surging from 128,882 barrels in May to 141,549 barrels in July, which represents a 9.8% growth. However, the output fell by 8.7% in August, almost to the level it had been on in May. In September, it surged again, by as much as 10.6%, reaching 142,888 barrels, which is the highest production of the period. October saw slightly lower production, amounting to 141,012 barrels. The average oil production of Petrosilah was 136,738 barrels from May to October.

## Petroshahd's Oil Production Stabilizing

Petroshahd's Oil Production Indicators May 2013 - Oct. 2013.




The oil production of Petroshahd Petroleum Company has stabilized in recent months. It increased quickly during the summer, surging from the 505,693 barrels in May to 675,395 barrels by July. This represents a 33.6% increase. However, thereafter the production has been relatively stable, ranging from 630,000 to 680,000 barrels. The output was the highest in July when it reached 678,514 barrels. The average oil production of Petroshahd was 621,569 barrels from May to October.

## Cyprus and Total Sign MOU

According to Oil & Gas Journal, the Republic of Cyprus and Total E&P Cyprus BV recently signed a memorandum of understanding on LNG exports from the island. In June 2012, Cyprus decided to start working on an onshore LNG plant at Vasilikos, which will hold an export capacity of 5 million tons per year that could be increased to 15 million tpy. The decision made was that both companies would work together on the feasibility of that plant.

## Cyprus Developing a Natural Gas Industry

According to Yiorgos Lakkotrypis, the Cypriot Energy Minister and former Microsoft executive, Cyprus and Total, the French oil giant, recently agreed on developing a plant to liquefy natural gas and turn it into a shippable export product. The NY Times reports that this is a part of a long-term strategy they came up with in order to help the economy out of the deep recession that followed its financial crisis this year. Cyprus decided to build this LNG plant at Vasilikos, an industrial zone on the south coast of the island. Mr. Lakkotrypis said building this plant could cost as much as USD 6 billion as well as could take much time. He added that Cyprus is on its way to become a regional hub for the energy industry. The minister thinks that if Cyprus used gas instead of burning fuel oil for most of its needs, then about ten percent of that would be enough to power the country for twenty years.

## Health, Safety and Regulations in the Mediterranean Sea

IRN, the global summits organizer, is organizing an event on 21st-22nd January in Florence, Italy. The Health, Safety and Environmental Regulations Med 2014 Summit (HSE) will cover the HSE challenges and regulations in the Mediterranean oil and gas industry along with a detailed coverage of the safety and environmental protection regime in the Eastern Mediterranean. According to the summit's website, speakers participating in the discussion will include: Mr. Tahar Cherif Zerarka, President of the Algerian Hydrocarbon Regulatory Authority (ARH), Malek Kallel, Head of HSEQ Department at SEREPT. Mr. Kallel will be speaking about the model that SEREPT is using to assess the safety culture. Abdulnasser Ganidi, HSEQ Management Committee Advisor at the Libyan NOC, Mellital Oil and Gas, will be speaking on the ways to minimize operational risks by implementing health, safety, environmental, quality and security verifications and certifications and making sure of implementing and managing asset integrity.

## Tamar Partners and Gazprom Agree to Export Liquefied Gas


Gazprom, the Russian gas giant, and Delek Drilling, a partner in the Tamar gas field, agreed to finance an offshore-liquefied natural gas facility and to sell LNG to customers abroad. The agreement states that Gazprom supervises annual sales of 3 million tons of LNG or about 4.2 billion cubic meters over 20 years. Giedon Tadmor, the CEO of Delek Group's Avner Oil Exploration Partnership and Chairman of Delek drilling said, "The signing of the agreement in principle with Gazprom is not just an important milestone in advancing Tamar's floating liquefied natural gas facility, which is expected to be one of the first in the world. It's also strategic cooperation with a significant international player like Gazprom." As a result Gazprom will be able to export directly to high-priced markets in Japan, South Korea, China and India who are currently inaccessible through pipeline. Vladimir Putin, Russia's President recently called for mounting LNG efforts to be able to expand Russia's gas exports, which would focus on the weak European market.

## Malta and Italy Seek Offshore Exploration Agreement

Malta and Italy are holding discussions to reach an agreement on a joint exploration plan for offshore reservoirs. Both countries contain oil and gas reserves, but recently interest has grown in Malta's offshore fields. The offshore fields are estimated to hold between 9.8 and 62.8 million barrels of oil and up to 12.8 billion cubic feet of gas, reports Penn Energy. Following the October Oil and Gas Summit between the two countries and industry representatives, Malta's Prime Minister Joseph Muscat expressed optimism over an agreement being reached soon.

## Energean and Ocean Joint Venture

According to Offshore Journal, Energean Oil and Gas has agreed with Ocean Rig on a 50/50 joint venture called OceanEnergean. Both aim to participate in new bid rounds for offshore concessions in Greece and other places with water depths that are more than 1,000 m (3,281 ft). This agreement combines Energean's experience in the exploration, development and operation of oil and gas fields with Ocean Rig's international experience in deep water drilling.

ENERGEAN OIL & GAS

OCEAN RIG

## Libya Continues Exporting Gas to Italy

The National Oil Corp. (NOC) spokesman Mohamed al-Hariri told Reuters Libya will proceed with the process of exporting gas to Italy. Exports have resumed as the protesters at the Mellitah port calling for political demands have left. Thus, al- Hariri said, "Inspectors are now coming to inspect the terminal and prepare resuming exports."

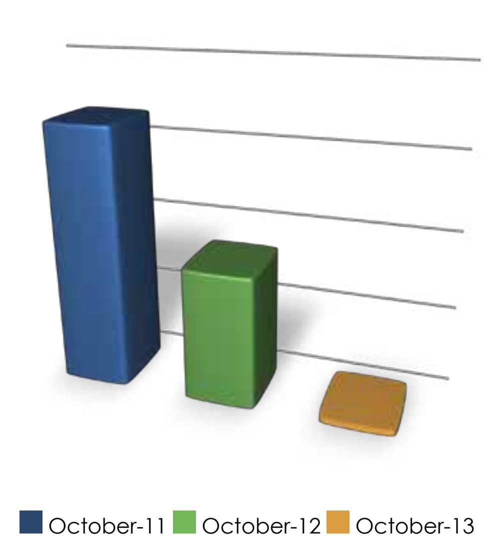
## Obstacles Posed to Upstream by Spanish Bureaucracy

Antonio Martin, the Caim Energy General Manager for Spain said, "Spain is a country with growing exploration potential, offering a friendly investment environment with new investment business opportunities." PLATTS reported that at the second East Atlantic Oil and Gas Summit in Madrid, the conference delegates said that upstream players are interested in unlocking potential reserves of 2 billion barrels of oil, equivalent to 20 percent of national demand for the next twenty years and seventy years worth of gas, equivalent to 2.5 trillion cubic meters. However, progress is blocked due to bureaucratic delays. Improvements made in the offshore exploration technology and the rise in oil prices has made the oil and gas fields in Spain more attractive.

## Kurdistan and Turkey Deal

In the beginning of 2013, Kurdish and Turkish leaders have signed an energy partnership agreement. This agreement will provide Kurdistan with energy revenue and independence. Ashti Hawrami, the Kurdistan region's Minister of Natural Resources, said by the end of this year a pipeline will be built to connect directly to Turkey, beyond Baghdad's reach. Hawrami said that, "It is our duty as Iraqis to pursue export routes for oil and gas to secure our future."

## Mediterranean Statistics




| Equivalent Gas | | |
|---|---|---|
| October-11 | October-12 | October-13 |
| 22,387,143 | 23,614,464 | 19,969,107 |

| Oil | | |
|---|---|---|
| October-11 | October-12 | October-13 |
| N/A | N/A | N/A |

| Liquefied Gas | | |
|---|---|---|
| October-11 | October-12 | October-13 |
| 402,971 | 386,810 | 370,797 |

| Condensate | | |
|---|---|---|
| October-11 | October-12 | October-13 |
| 1,372,964 | 1,228,546 | 1,159,263 |

| Mediterranean Rig Count 2013 | Total | Percentage of Total Rigs |
|---|---|---|
| | 9 | 8 % |

## Libya Confirms Marathon's Stay, While Concentrating on Algeria Gas Deal

TTwo years after the ouster of leader Mummar Gaddafi, oil companies started reassessing their role in the North African country, however the Oil Minister Abdebari Arusi pressured them to stay. Therefore, the government refused Marathon's deal of selling its stake in Waha Oil Company and confirmed Marathon's decision of operating in Libya. According to Arusi's meeting with Ohm Collins Shabane, Mnister in the South African presidency, "We discussed that South Africa will buy some oil from Libya based on world market prices." Libya is facing power cuts in peak demand, thus it is looking to purchase oil from Algeria. Shabane's point of view is that Libya and South Africa are looking forward to increasing oil and other economic collaboration. He said, "We are exploring possibilities in terms of increasing our trade." Brazil's Petrbas has been operating an exploratory offshore block in Libya since 2005. Petrobas had written a letter to the oil ministry showing its interest of continuing their operations in Libya.

## BG Profits Declined to USD 1.1 Billion

In the third quarter of 2013 BG Group's profits declined to USD 1.07 billion, which is 4 percent lower than the same period of 2012, The Telegraph reported. This marked the company's lowest level since 2007. The decline was because of the decision taken to decrease US gas operations because of the decrease in gas prices due to shale gas growth. Production volumes should be better in the fourth quarter of 2013 as developments in the North Sea come on stream.

BG GROUP

## Shell Accused of Overstating Oil Spills as Pipeline Thefts

Amnesty International said that oil companies are responsible for reporting the causes of their losses. Audrey Gaughran, the global issues director at Amnesty International said, "Oil companies routinely blame oil spills on thieves even when the company is at fault." Based on what he mentioned, the organization has evidence showing that Shell Petroleum, which pushes the bulk of oil in Nigeria's Niger Delta region, underreports the size of spills and ignores the proof that the spills are due to faulty equipment and not sabotage. The company then refuses compensation to those affected by spills attributed to sabotage, reports Amnesty International. Based on reports, other oil companies are polluting the Niger Delta as well.

Shell rejected Amnesty's accusations and mentioned that it is not their fault. According to Shell, criminals are the ones who cause oil pollution. Shell said, oil thieves regularly attack pipelines in Nigeria causing the diversion of 100,000 barrels of oil every day that costs the Nigerian government billions of dollars.

## Oil Companies' Profits are Declining While Capital Expenditures are Rising

Dale Nijoka, Sector Leader at EY Global Oil & Gas said, "Strong capital spending has resulted in the discovery of substantial new reserves. However, profits suffered in 2012 as an oversupply of gas reserves has kept prices low in North America. However, with increases in global demand these new additional reserves will likely pay off over time." According to PR Newswire, in 2012 capital expenditures of worldwide oil and gas companies increased by 13% while upstream profits dwindled. EY's annual global oil and gas reserves study shows that oil reserves increased 3% and gas reserves declined 2%. The reason behind this downward reserve revision is low natural gas prices in North America.

## Hagar Qim's Success Over Tarxien

According to Times of Malta, Infrastructure Minister Joe Mizzi said that geological and economic studies showed that the Hagar Qim well, located about 150 kilometers south of Malta in area four, shows more potential over Tarxien. It will be the first well to be drilled during the first quarter of 2014. Mediterranean Oil and Gas and Genel Energy will start drilling the first well. Based on the studies they decided to take another company's technical opinion.

## Statoil Produces from Visund North Field

Statoil ASA started production from the Visund North Sea based oil and gas field, which contains 29 billion boe in total recoverable reserves. Oil is transported in a pipeline to the Visund A platform for processing through a pipeline manifold and a subsea safety integrity value under the platform. The company developed the field using a standard, 4-well subsea template, reports the Oil & Gas Journal. Investments surrounding the development process of the field are estimated at 3.3 billion kroner (USD 550 million). The scheduled time frame was three to four weeks earlier than the start date of production, while the completion of the first well and a production shutdown at the Visund A platform were postponed.

## Statoil Explores 20-25 Wells off Norway

Statoil and partners discovered oil at Wisting Central, in the Hoop area. The well is operated by OMV, informs the Oil & Gas Journal. This year Statoil has found two natural oil and gas discoveries in the Johan Castberg area, located north west of Snohvit oil field and the Hoop area north east of Johan Castberg. These two discoveries are called Skugard and Havis. In 2014 Statoil will explore 20 to 25 offshore wells in Norway of which they will operate two-thirds. Next year, the company's exploration will be in the area around the King Lear gas condensate discovery of 2012.

## Statoil Discovers 55 to 100 Million Barrels at Snilehorn

Statoil recently discovered its third oil field at the Snilehorn prospect in the Norwegian Sea, which is nine miles north east of the Njord field. The company said that 6407/8-6 well and sidetrack well 6407/8-6A have proven several oil columns in the formations dating from the Jurassic period. According to Rigzone, the discovery's estimated volume is between 55 and 100 million barrels of recoverable oil. Gro G. Haatvedt, Statoil's Senior Vice President for Exploration on the Norwegian continental shelf said, "In three months we have made three new discoveries in the Norne Asgard and Njord areas, providing a total of 86 to 166 million barrels of recoverable oil equivalent. These are high value barrels that allow us to extend the production life of our installations."

## Aral Develops North Block Well in Kazakhstan

Aral Petroleum Capital LP recently tested the 306 well, informs the Oil & Gas Journal. The well is in East Zhagabulak field, which is located on the 380,000-acre North Block in the North Caspian basin in Kazakhstan. Aral owns 100% of the block, which tested at the rate of 579 bpd of oil. According the Pacific Energy Development Company, the well's results increased the total production from the region to 869 bpd. Based on the test success, Aral decided to postpone the testing process for two more target intervals of well 306. Instead the company will perforate and acidize well 315 and well 316. Then it will revise certain upper objectives of well 308.

## Sudan to Invite Bids for Five Oil Blocks

In 2014 Sudan is expecting the production of its crude oil to double, reaching 300,000 barrels per day compared to 120,000 barrel per day on 2012. This decision was made because Sudan has lost ¾ of its oil production due to the South Sudan separation. Dr. Awad Ahmed Al-Jaz, the Sudanese Minister of Petroleum, told journalists in Abu Dhabi that the government will start inviting bids next month to explore oil in five blocks. Three of which will be offshore and the other two on land, said Sudan Division Daily.

## Boom in Oil and Gas Drilling Expected in Saudi Arabia

Halliburton, Baker Hughes and Schlumberger have identified Saudi Arabia as a key market for growth next year. Reuters reports that service companies are expanding operations in Saudi Arabia as Saudi Aramco increases exploration for unconventional reservoirs. The country currently has 160 rigs but that is expected to increase to 210 by the end of 2014. Tenders have not been issued yet so it remains unknown where all of the new drilling will occur. Saudi Arabia has ramped up production since 2011 to make up for losses from other countries, such as Libya.

## UAE Increases Capacity by Spending USD 70 Billion

Suhail Mohamed Al Marzoui, Minister of Energy for the United Arab Emirates (UAE), said in the coming five years Abu Dhabi National Oil Company (ADNOC) will increase its crude production capacity by spending more than USD 70 billion. At the Abu Dhabi International Petroleum Exhibition and Conference (ADIPEC) he said by 2018 the production capacity will reach more than 3.5 million barrels per day. Al Mazroui added, "ADIPEC 2013 is an outstanding forum to directly discuss pressing issues facing the all-important oil and gas industry." During the discussion panel the UAE energy minister stated that the country is working on expanding its energy resources in which the nuclear energy represents 25 percent, renewable 7 percent and gas 70 percent of the total energy mix.

## HEISCO's Tender for KOC

In 1974 Heavy Engineering Industries and Ship Building (HEISCO) was founded in Kuwait. The company diversified its business in different areas such as: oil and gas, petrochemicals, power, pressure, equipment manufacturing, ship building and repair, dredging and marine construction, major civil construction maintenance and other industrial services including heavy industry projects. Recently on October 27th , HEISCO won a tender worth USD 151.5 million to be used in building oil pipelines for Kuwait Oil Company (KOC). HEISCO stated, "The five-year project will be carried out west of the country."

## Kuwait Petroleum and KKR Bid on DEA

According to Reuters, KKR, the US private equity firm, and the international arm of Kuwait Petroleum Corporation joined a bid for the German utility RWE's oil and gas unit DEA. They also mentioned that Kuwait Foreign Petroleum Exploration Company (Kufpec) is joining KKR to bid for the unit that is worth up to EUR 5 billion. Sources said in March 2013 that RWE was planning to sell DEA to save billions of euros that it would have to invest in exploration and production. This decision was made, because RWE was suffering from loss-making power plants, an increase in renewable power and a net debt of EUR 35 billion.

## Energy Subsidies Unsustainable in GCC: Oman's Oil and Gas Minister

Mohammed bin Hamad Al Rumhy, Oman's Oil and Gas Minister, states that energy subsidies in member states of the Gulf Cooperation Council are wasteful and unsustainable. Al Rumhy proclaimed, "What is really destroying us right now is subsidies…we simply need to raise the price of petrol and electricity." According to Oil Price, GCC economies are dependent on energy exports which they use to fund subsidies and other social programs. However, energy subsidies have resulted in a rapidly growing demand, with natural gas consumption in the region rising by 722% compared to 41% globally. Governments maintain the subsidies to avoid public uproar, despite being financially unsustainable in the long term.

## The Cooperation Deal between Emarat and Bahrain Petroleum Company

According to Gulf News, a meeting took place at Abu Dhabi between Adel Khalifa Al Shaer, the Acting General Manager at Emirates General Petroleum Corporation (Emarat), and Zakaria Sulaiman, the General Manager of Bahrain Petroleum Company (Bapco). The meeting aimed towards developing the relationships between both companies as well as the possibilities of investing in the fuel and energy field.

## Kuwait to Raise Crude Production


Kuwait has announced plans to expand its crude oil production capacity from three million bpd to four million bpd. This will result in a total production increase of 33 percent. Kuwait Oil Company (KOC) spokesperson, Fawaz Hammadi said, "KOC has completed projects to expand the capacity of its export terminals to 3.2 million bpd and their quay handing capacity has risen to 1,700 tankers a year. As for oil producing wells, we now have 2,157 wells." According to Value Walk, Kuwait's production has grown from 2.5 million bpd in 2007 to a current rate of three million bpd.

# Unconventional News

## TEPCO Acquires More Shale Gas

Shale gas is considered a new energy resource that draws attention nowadays. Production of shale gas is facing a rapid growth in different countries including the United States and Canada. In 2023 Tokyo Electric Power Co. (TEPCO) is planning to increase shale gas procurement by buying 10 million tons and saving Y 130 billion (USD 1.28 billion), which is equal to 5 percent of its annual fuel costs. TEPCO is looking forward using shale gas for 40 percent of its annual fuel in 2023. In February TEPCO arranged an agreement with both Mitsubishi Corp and Mitsui & Co. The agreement stated that starting 2017 TEPCO will import shale gas to the US to be able to procure 800,000 tons a year for a period of 20 years. Then, TEPCO decided it would raise the amount of tons purchased every year by 400,000. During this year, TEPCO will reach a treaty with both companies on the new amount. TEPCO is using thermal power that helps in electricity production after being generated in one of its nuclear power plants called Fukushima that is currently closed as a result of the 2011 disaster, pushing its annual fuel costs to Y 3 trillion. It was the first time for the US government approving the export of shale gas to Japan in May 2013. According to Japan's Institute of Energy Economics, last year the LNG average import price was USD 17 per round lot. Shale gas is expected to cost only USD 11 to USD 12 including costs and transport expenses to Japan.

## Dart Energy's Chief Calling for Shale's Diversity

According to London's Daily Telegraph, John McGoldrick, the Chief Executive of the Australian company Dart Energy, said renewable energy resources do not provide the same type of feedstock or raw materials needed to fuel power plants, suggesting shale gas as the solution. Based on the results from the British Geological Survey, the Bowland shale formation has 1.3 quadrillion cubic feet of natural gas. GDF Suez, a French energy company decided to pay USD 12 million to Dart energy, for a 25 percent stake in 13 onshore licenses in the Bowland reserve area. Shale could be one of the sources that guarantees energy security for the country where net natural gas imports could increase from 45 percent in 2011 to 76 percent by 2030, said the government.

## Nigeria Warns on the Impact of Shale Gas

According to the Nigerian Association of Petroleum Explorationists (NAPE), shale gas is weakening the hope of natural gas as a major income stream for the country's federal government. The shale gas development is threatening the future of LNG, reports BusinessDay. Nigeria has received warnings from the Organization of Petroleum Exporting Countries (OPEC) regarding the future impact on the production of crude oil. Eddy Wikina, managing director of Energy Resources and former external affairs manager at Shell Nigeria Exploration and Production Company (SNEPCO) said, "It was no longer news that shale gas and oil would impact negatively on Nigeria's crude oil production," adding, "It's going to affect the global marketability of Nigerian export market."

## Eni Signs Oil Deal with Quicksilver

Eni recently signed an agreement with Quicksilver Resources Inc. (KWK), in which both Eni and Quicksilver will cooperate together to help in developing, exploring and evaluating onshore shale oil. Eni will have half a stake in two Quicksilver areas located in the Leon Valley in the West Texas county of Pecos. Both areas will cost Eni USD 52 million. According to the Wall Street Journal, Eni is a small player in the success of shale gas and oil, however it is planning to penetrate the Chinese market and develop its vision in Algeria.

## Shale's Impact on Global Economies

World economies are improving, especially North America, as new supplies of shale gas feedstock come on stream. Bill Sanderson, vice president of downstream research and consulting for IHS, said that the US dependence on foreign energy is declining due to the development of shale gas and oil, said Rubber News. He also added that crude oil imports will fall below pre-1970 levels and are expected to stay there through 2025. Therefore, oil prices need to be above USD 80 per barrel for the development to be economically viable. As a result, through 2025 the price range of oil will be between USD 75-120 per barrel. HIS chief economist Nariman Behravesh said at the Global Plastics summit that, "US growth is set to strengthen in spite of the problems in Washington. China's growth is stabilizing, but there are major challenges ahead."

## Centrica and Qatar Deal for Importing LNG

Reuters reported that Britain's biggest energy supplier British Gas, which is owned by Centrica, recently signed a deal with Qatar for GBP 4.4 billion. The deal is to import liquefied natural gas (LNG) because Britain depends on gas through pipelines from its biggest supplier Norway, and from mainland European countries. The deal will last for four and a half years. Britain's dependency on foreign gas has reached record levels in the first quarter of 2013. Therefore, the agreement will help Britain in securing its energy needs, due to the decrease in North Sea supplies. Khalid Bin Al Khalifa Al Thani, the Chief Executive Officer of Qatar Gas declared, "The signing of this agreement represents our further commitment to have Centrica as a partner for the UK market which continues to be one of the most important LNG markets in Europe."

## China's First Floating LNG Terminal to Receive Gas in December

According to Beijing Daily, "Construction of China's first floating LNG terminal is coming to an end. It will be ready to supply clean energy to Tianjin city next month." Reuters reported that this LNG project would facilitate a future winter supply in the world's top energy consumer. In order to do this, Beijing asked energy companies to boost gas production at domestic fields, increase gas imports and prioritize supplies to public transportation and residential users over the winter period. The floating LNG project consists of two phases. The first phase costing 3.3 billion Yuan (33 million), is intended to receive an annual capacity of 2.2 million tons or 3 billion cubic meters. The second phase will include the construction of a conventional onshore LNG terminal that holds a capacity not less than 6 million tons a year.

## Klesch Awards Barclays a German Refinery Supply Deal

Klesch Swiss industrial group decided that Barclays would supply crude oil to the group's German refinery, said Reuters. The decision was made because Barclays has won two other refinery deals in the past two years. The deals are to supply a Hawaiian refinery and Stanlow, the second largest British refinery. Klesch is also investing in mining, power generation and chemicals through other companies. The Klesch agreement, worth hundreds of millions of dollars per month, will encourage the bank in developing its commodities business.

## Philips 66 Closes Borger Refinery for Maintenance

According to Bloomberg, the US Borger oil refinery owned by Philips 66 and based in Texas decided to shutdown an alkylation unit in March for maintenance. The shutdown is due to the high-octane blending component for gasoline that the unit is producing. The Borger refinery runs 146,000 barrels a day of sour crudes delivered by pipelines from western Texas, Canada

## Protesters Close an Oil Refinery in Libya

Government spokesman Mohammed al-Hariri says protestors have closed an oil refinery located in al Zawiya in western Libya, which is 30 miles (50 kilometers) west of Tripoli, reports ABC news. This was due to the government statements that it might not be able to cover its expenditures because of the disruption of around sixty percent of Libya's oil exports from eastern areas. The protestors are men who were injured during the fight to remove Moammar Gadhafi. The refinery is responsible for providing 23 percent of the country's fuel needs.

## Captain Cleared of Oil Spill

A Spanish court cleared the captain and crew of the Prestige oil tanker of criminal responsibility for the 2002 spill. The court found that the vessel sank due to its poor condition. Reuters reports that the vessel had been damaged during a storm, resulting in a leak of one of the fuel tanks. The vessel was then refused permission to dock by Spain, Portugal, and France. After days at sea, the ship split into two and sank.

## Iran Abandons Pipeline Project with Pakistan

Pakistan's Finance Minister Ishaq Dar has claimed that Iran has backed out of the Pak-Iran pipeline, as Iran cannot finance the project. Dar said that Pakistan is still committed to the project but will be unable to finance it alone. According to the Monitoring Desk, Iran was supposed to provide USD 500 million for the pipeline.

## Shell Investigating Leak at Australia Refinery

Shell Australia is investigating a leak at the Geelong refinery. A flammable product was leaking from a catalytic cracking unit at the facility, according to Reuters. Emergency crews are working to contain the leak. The plant refines crude oils and feedstocks for distribution in domestic and foreign markets. Shell Australia spokesman Paul Zennaor said, "The refinery continues to manufacture fuels, and Shell does not expect any market impact."

## Lithuania Receives Approval for Aid to LNG Project

The European Commission approved the provision of USD 606 million in loan guarantees and other aid in order to finance a LNG terminal in Lithuania. Approval was necessary in order to receive a EUR 87 million loan from the European Investment Bank after state-owned Klaopedos Nafta failed to secure funding from commercial banks. Klaipedos Nafta will become the first LNG importer on the eastern coast of the Baltic Sea once the project in completed. According to Reuters, the terminal is expected to come online in December 2014. Commission Vice President of competition said, "The aid will reduce Lithuania's dependence on a single source of gas supplies and enhance its security of supply." The country is currently dependent on Russian gas.

## Wind Farms Helping UK Achieve Renewable Targets

Britain is on its way to reaching its 2020 targets in renewable generated electricity. Seawork supporting organization Renewable UK said, the commercial marine industry has been affected by investments in offshore wind farms. The company added that 2.75 gigawatts of onshore and offshore wind farms are under construction. By the end of year 2014, Gwynt Y Mor, Europe's largest wind farm located off the coast on North Wales will start generating power. The Times mentioned that power coming out of wind turbines helps in generating half of the UK's renewables. According to 2013 second quarter figures, 15.5% of Britain's generated electricity came from renewables, with 50% more power generated by offshore wind turbines compared to the same period last year.

## SEDA Believes Wind Is a Renewable Resource

The Sustainable Energy Development Authority in Malaysia (SEDA) is considering adding wind energy to its renewable energy scheme. SEDA's CEO, Datin Badriyah Abdul Malek mentioned that the company's new project is working on a national wind map. Badriyah reported to StarBiz, "We are expecting a comprehensive wind map for Malaysia to be ready by end 2014". She added that SEDA was looking to boost the renewable energy sources in the Feed-in-Tariff (FiT) portfolio. According to the Renewable Energy Act 2011, only four technologies are applicable to FiT. These technologies are biomass, biogas, solar photovoltaic and small hydro with wind to be included. There is no market available in Malaysia to drive a wind farm and that is the reason why Malaysia does not have any wind farms yet. Thus, Badriyah stated, "If there is any technical potential, then SEDA along with Energy Green Technology and Water Ministry will include wind under the FiT portfolio to increase the range of renewable energy to expedite towards energy security and autonomy."

## CEO of Renewable Energy Buys 50,000 Shares

Andrew Whalley, the Chief Executive Officer (CEO) of Renewable Energy Generation, purchased a total of 50,000 shares on behalf of his self-invested pension plan. According to London's Alliance News, each share costs 78.4 pence. Whalley now holds a total of 392,017 shares equal to 0.38% stake. The wind and bio-power company's shares went up to 0.20 pence at a price of 78.70p on Thursday.

**Renewable Energy**

By EOG

# WHEN VERSATILITY COUNTS...


## MV FUGRO NAVIGATOR

The Fugro Navigator is the only specialist geoscience survey vessel dedicated to the Egyptian market. The Navigator's multi-role capability allows her to undertake a wide range of survey activities, such as geophysical and geotechnical surveys for drill sites and pipelines, ROV surveys and inspections, and high resolution seismic surveys and environmental surveys.

As a specialist survey vessel, the Navigator offers significant advantages over vessels of opportunity by offering:

- Greater versatility
- Improved safety performance
- Reduced weather standby costs
- The ability to respond quicker to requests for projects
- Hull-mounted sensors produce that higher quality data
- Reduced turnaround time for reporting

The Navigator is permanently equipped with a wide range of geophysical equipment for deep and shallow-water operations while ROV systems and geotechnical and environmental equipment are mobilized to the vessel on a project-by-project basis. She has carried out an average of 15 survey projects each year since her introduction in early 2008, in water depths from as shallow as 10m to over 1300m.


## ...COUNT ON FUGRO

Fugro SAE
Telephone : +20 (0) 2 2758 0299 Fax: +20 (0) 2 2758 0599
Email : enquiries@fugro-egypt.net
www.fugro.com

# MEETING EGYPT'S ELECTRICITY NEEDS

Egypt's electricity consumption has about doubled in each of the last three decades.[1] Until recently production managed to keep up with this pace, but it is not the case anymore. Currently, Egypt can produce up to 27,000 MW of electricity per day, whereas daily consumption reaches 29,000 MW in summer.

By Laura Raus

## Current Capacity and Consumption

As per the latest annual report (2011/12) of the Egyptian Electricity Holding Company (EEHC), 88% of installed capacity is thermal and 10% hydro. There is also 550 MW of wind energy capacity and one solar thermal power plant that produces 20 MW of solar energy. More than three-fourths of thermal power is fueled by natural gas while fuel oil is used to a lesser extent. Out of thermal capacity, 50% comes from steam plants, 39% from combined cycle plants and 11% from gas turbine plants. Since the government established the first combined cycle plant in 1989, their share has increased considerably. This is due to the fact that they can reach thermal efficiencies of up to 60% in contrast to the maximum of 40% efficiency attained by steam plants.

Households consume 42% of electricity and 31% is consumed by industries. According to the EECH, 99% of Egypt's households are linked to the power grid. Egypt's grid is also linked to Libya and Jordan. Jordan has also connected its grid to Syria and Lebanon, therefore Egypt can trade with them as well. However, the amount of power sold and purchased is insubstantial.

## Plan for Raising Capacity

The government plans to add 12,400 MW of thermal capacity in the period 2012-17, which requires investments of about USD 11 billion, according to the EECH's annual report. Forty-four percent of the investments are expected to come from the private sector, which will be invited to build, own and operate three plants with the total capacity of 5,500 MW.

There are also ambitious plans to boost the capacity of renewables. In 2008, the government agreed to increase their share in power production to 20% by 2020. As for wind power, the government plans to add 6,650 GW by 2020, 72% of which is expected to come from private projects. Thirty-two megawatts of hydro and 120 MW of solar capacity is expected to become online by 2017. Already by 2027, solar power capacity should reach 3,500 MW with 67% private sector participation, as agreed by the government in July last year.[2] In order to speed up the development of renewables, the government decided this September that from 2015, new energy-intensive factories have to meet 50% of their electricity needs with new and renewable energy, writes Daily News Egypt.

The planned increase of power capacity will add jobs for Egypt's manufacturers. The share of local production has reached 42% of conventional thermal power plant, 30% of wind power plant and 100% of transmission network components for up to 220 kV. However, power capacity will probably increase more slowly than the government plans. Many experts do not consider the 2020 renewables target realistic. The government is also lagging behind with implementing its plans for thermal power. Out of the 7,000 MW capacity planned to be added in 2007-2012, only 4,400 MW had been commissioned by the end of June 2012.

## Projects in Pipeline

There are several new power projects in the pipeline. One of the biggest government projects is the 1,950 MW South Helwan gas-fueled steam plant, tendering for which is in progress. It is partly financed by international development agencies. Just USD 921.8 million of the project's USD 2,404.4 million total cost will come directly from the government, the rest will be provided in the form of loans by the World Bank, the Arab Fund for Economic and Social Development, the Islamic Development Bank, the Kuwait Fund for Arab Economic Development and the OPEC Fund for International Development. According to the World Bank, the plant will create 4,000 jobs, 75% during construction and 25% for operation and maintenance.

The government also has several renewable projects in progress. Its wind projects in the pipeline amount to 1,340 MW. As for solar power, the government in July signed a USD 150,000 agreement with the Arab Organization for Industrialization to install two stations, each with a capacity of 40 KW. The project will start with the installation of solar panels on the buildings related to the Ministry of Electricity and Energy and it is hoped that other government bodies will follow, according to Mada Masr. In September, the UAE announced that it will finance the establishment of a 20 MW solar plant in Siwa, writes Egypt Independent.

There are also private projects in the pipeline. In 2012, the government announced plans to proceed with tenders for two large private projects – a 2,250 MW combined cycle plant in Dairout and a series of wind farms in the Gulf of Suez area. The government has started a tender to build, own and operate Egypt's first solar PV plant, set to produce 200 MW in Aswan, reports ESI Africa. "However, investor interest may remain poor in light of ongoing political and economic turmoil," said Wafik Alfred Hanna, Senior Partner at Deloitte, referring to the Deloitte Resources – Intellinet (The Economist intelligence Unit). "In the meantime, the ministry is pressing ahead with an emergency program to install 2,100 MW of gas-turbine capacity over the next 12 months." At the same time, since November, several gas power plants are being converted to work on diesel since Egypt is facing gas shortages, informs AllAfrica.

## Coal and Nuclear Plants

The new government has also announced plans that are set to change Egypt's electricity mix in the further future. Since Egypt is facing shortages of gas, which is the main fuel for its power plants, the ministers of electricity and industry in September announced plans to depend on coal for electricity generation. The EEHC has approved three potential locations for building Egypt's first coal-fired power plant, informs PennEnergy. According to the Minister of Electricity Ahmed Imam, coal-fired plants need to have a generation capacity of 3,000-5,000 MW to be cost-effective, reports World Bulletin.

In October, the government announced plans to go ahead with building Egypt's first nuclear plant in Dabaa. Egypt's government has been intending to build a nuclear plant since the reign of Gamal Nasser, but the plans have been halted for various reasons, reports Ahram Online. In June 2010, Egypt signed a USD 160 million contract with the Australian WorleyParsons Corporation for consulting and assistance in building the plant. However, in January 2013, local tribes in Dabaa stormed the site of the plant and destroyed most of its infrastructure. Their occupation of the site ended in September after successful negotiations with the military, which promised the tribes a new tourist and residential city will be built in the area. The Ministry of Electricity and Energy is currently working on reactivating the contract with WorleyParsons and the first tender to build the 1000 MW plant will be launched in January. The contract will be signed June 14th 2015, and the plant is planned to come on stream by the end of 2021. According to Ahmed Imam, the government has already set aside USD 87 million to rebuild the infrastructure for the plant and Russia assured in November that it is prepared to invest in Egypt's nuclear energy.

## Power Linkages to Other Countries

There are also plans for building linkages to the grids of other countries, in order to cope better with unexpected power plant shutdowns as well as to enable regular trade. In June, Egypt and Saudi Arabia signed a memorandum of understanding to link the grids of the two countries. As a result of the USD 1.6 billion project expected to be finalized in 2016, the countries can exchange 3,000 MW. Since peak power usage hours of the countries are different, Egypt plans to transmit electricity to Saudi Arabia in the afternoons and the kingdom would send power to Egypt in the evenings. This project will lead to an interconnection between Maghreb, Mashriq and the Gulf Cooperation Council countries.

There is a plan to link the Eastern Nile Basin countries after a 2008 study confirmed the feasibility of exporting 2,000 MW from Ethiopia to Egypt. Some years ago, there were also discussions about linking the grids of Egypt and Greece in order to export renewable energy to Europe. However, this vision seems distant now that Egypt is having difficulties with meeting its own electricity needs.

## Towards More Liberal Market

The need to attract private sector finances for increasing power capacity has motivated Egypt's recent governments to liberalize the country's electricity sector, which was nationalized in the early 1960s. The liberalization started in the 1990s. In 1996-97, the government permitted private companies to produce power and introduced incentives for that. As a result, the country's three private power plants became operational in 2002 under the build-own-operate scheme.[3] They account for about 9% of power capacity. Additionally, there are a few private companies that produce electricity for their own needs and sell the excess.

Most electricity production and all transmission are still controlled by the government – by the enterprises affiliated with the EEHC. Together with the EEHC, they employ about 183,000 people. The government sets power prices depending on the purpose and amount of consumption, subsidizing almost all consumers. The prices are lower for the households that consume less energy. In 2011/12, the government spent USD 730,000 on electricity subsidies, which accounts for about 3% of the total energy subsidy bill. The Mubarak-era plans to liberalize the power market further are still on the table. There is a new electricity law pending approval by the parliament that foresees introducing more competition in the power sector as well as incentives for renewables.

## Curbing Consumption

There have been attempts recently to curb electricity subsidies. In 2004, the government started gradually cutting power subsidies with the goal of bringing the prices, which had been unchanged since 1993, close to the cost of producing electricity. The cuts were suspended due to the global recession of 2009. In January-July 2012, the government increased power prices for energy intensive industries up to 50%. Households and commercial enterprises experienced an average price increase of 15% between November 2012 and January 2013. Similarly to the 2004-08 price hikes, subsidies for the households that consume more electricity were reduced more sharply, whereas a few thousand of the lowest-consuming households were exempted from the cuts completely.

Subsidy cuts were partly motivated by the goal of increasing energy efficiency. The government has also made other efforts toward power savings, in particular when it comes to lighting, which accounts for about one-fifth of electricity consumption. A few years ago, the government sold over 8.5 million energy efficient fluorescent bulbs to households for half of their price with a guarantee period of 18 months. In addition, it replaced about one-fourth of Egypt's street lights with more efficient ones.[4] In June, the government decided that within one year, Egyptian manufacturers and importers of household air-conditioners must make a transition to energy-saving AC units, which temperatures range from 20 to 28 degrees. This contributes to the government's target to save an equivalent of 20% of electricity consumption between 2010 and 2022.[5]

## Expert Opinions Differ

The opinions of experts vary on what would be the optimal electricity mix for Egypt. When asked if it is a good idea to develop nuclear power in Egypt, Professor Christopher Knittel, Director of MIT Center for Energy and Environmental Policy Research, noted that Europe has had great success with it. "The security situation in Egypt is not a good one for nuclear power," argued Dr. Paul Sullivan, Professor of Economics at the US National Defense University. "Nuclear power also requires an internal culture in the plants and associated organizations that stress maintenance and security, and strong ethics of chain of responsibility. My sense is that Egypt is not ready for this yet." He added that a nuclear plant of even modest size costs as much as USD 5-8 billion. "Also, in the longer run this plant would have to be built likely by the sea. Rising sea levels could pose problems for that plant and Egypt," the Professor said.

In regards to coal-fueled power generation, Knittel thinks that it would reduce a lot of uncertainty for Egypt. "There is a lot of coal in the world market, so there would not be coal shortage issues, especially since US coal consumption has decreased thanks to its shale boom and this is putting downward pressure on prices," he explained. However, Sullivan does not think that coal-fueled power plants are a good idea since Egypt would need to import almost all the coal needed, whereas it has a lot of natural gas that could be extracted with the right policies. "Coal plants are also the dirtiest ones for producing electricity," the Professor noted, adding that coal plants use massive amounts of water for cooling.

"Egypt really should be looking more to garbage-to-energy plants, solar, wind and other sources of power that can use the natural resources and other sources of fuel present in Egypt," said Sullivan. "Renewables are still now expensive by average cost basis compared to coal and even nuclear," argued Knittel on the other hand.

Both experts agree that energy efficiency measures can play a big role in avoiding electricity shortages and the best way to raise power savings would be to bring the prices of electricity in line with its actual production cost. "Until Egypt deals with subsidies issues, inefficient use of electricity will remain a serious problem," said Sullivan. "The best thing to do economically and technically would be to phase out demand subsidies and phase in efficiency subsidies and tax breaks for some time and then phase out both as the benefits of efficiency are seen by consumers and factories," he noted, adding that by utilizing novel technologies, huge amounts of waste heat from power stations could be used for industrial purposes.

## Conclusion

Egypt's government has made a lot of efforts to guarantee sufficient power supply. However, Professor Sullivan thinks that unless Egypt's situation and policies change for the better, it will not manage to avoid power shortages in the future. "It may take many years to resolve the supply, technology, efficiency and other gaps that exist in the electricity industry of Egypt," he noted, adding that the government needs more reasonable goals for raising power capacity, set up based on the human and natural resource bases of Egypt in mind. Avoiding power cuts is indeed not only about boosting capacity, but also about curbing consumption. "There is a massive source of energy in Egypt," stressed Sullivan. "It is not oil, gas, etc. It is capturing and using inefficiencies."

## Endnotes


1. "Overview data for Egypt." EIA.
2. "Annual report 2011/12." NREA.
3. "Paving the Way for MSP. Country report Egypt." EBRD.
4. "Electricity Sector in Egypt." IESC.
5. "What sustainable solutions to meet Egypt's rising energy demand?" 23 July 2012, AFD.

# Uncertainty Amid Egypt's Mounting Debt to IOCs

By Maya Moseley

Since the toppling of Mubarak, Egypt's energy sector has been in a perpetual state of disarray. The sector has suffered from declining production, pipeline attacks, an unsustainable subsidy system, and mounting debt. The current transitional government faces the daunting task of restoring the sector. One of the biggest hurdles is the government's USD 6.2 billion debt to IOCs. Company executives have repeatedly echoed their concerns to *Egypt Oil & Gas* over delayed payments. In this article experts and academics give their insight and opinions on the significance and impact of the arrears.

**Source of Debt**

The current debt to IOCs is tied to much deeper inadequacies within the Egyptian economy. As Dalibor Rohac of the CATO Institute explained, "[The debt to IOCs] is just one part of the broader fiscal problems in the country, driven by unsustainable public spending. The subsidy system is making that problem worse by encouraging overconsumption, emergence of black markets in fuels and the like, and finally exacerbating the government's fiscal position."

The long-standing subsidy system requires that the government operates on a deficit. For decades that deficit was offset by foreign revenue sources, notably tourism and taxes from the Suez Canal. The Egyptian economy has been a rental system for decades but recent unrest exacerbated faults in the system. Oxford University Energy Expert, Justin Dargin explained, "This large-scale subsidization program which placed an enormous burden on the governmental budget even in the best of times, became a daunting burden during the political crises that occurred with the downfall of President Mubarak. The political transition caused Egypt's foreign revenue to decline, led to a mass exodus of foreign direct investment from the country, and a precipitous drop in tourism revenue. At the same time, Egypt had to deal with rising food import costs for its eighty-five million citizens."

Lacking the income to cover the costs of subsidies, the government's debt has flourished since the removal of Mubarak. Under production sharing agreements, the government is entitled around 59 percent and the remainder goes to the oil and gas companies[i]. However, the government's portion is still not enough to meet domestic demands, thus it either purchases the rest from IOCs in Egypt or imports it from abroad. The exact details of the debt remain murky, as Trinity University Professor James Stocker pointed out, "because of a lack of transparency in budgeting and contracts regarding oil and natural gas, it is difficult for the public to know exactly how and to whom Egypt accumulated its debt."

The government provides petroleum products and energy to citizens at a subsidized rate, costing the government an estimated USD 17.4 billion over the past year. Thus the government is purchasing fuel on credit from IOCs and selling it significantly below market price without a source of revenue to cover the difference. This system is inherently flawed, as Dargin explained, "Overall, Egypt owes approximately USD 6.2 billion to foreign oil companies such as BP, BG Group, Dana Gas, PJSC and Apache, and is struggling to meet its rising domestic energy demand at the same time."

**The Impact**

In terms of investment and the economy, the arrears are worrisome. "Most importantly, it is a sign of things to come, namely of the inability of the Egyptian government to honor its debt obligations," stated Rohac, noting, "Obviously, in the short run this also erodes investor confidence and will worse the terms under which the government can borrow. There is therefore the prospect of a fully-fledged fiscal crisis emerging as a self-fulfilling prophecy as a result of seemingly small failures of the Egyptian government to honor its obligations."

"In the short term, there have yet to be major negative impacts," asserted Stocker, noting, "There have been a few delays in future investment projects but these may not be due to the debt issue alone. BG Group, for instance, decided to delay its West Delta Deep Marine project, but it is unclear whether this is due to concerns about debt or due to the security situation." Additionally, BG Group publicly expressed uncertainty over future investments in the country as the availability of LNG exports declines amid higher volumes of gas being diverted to the domestic market.[ii] Dargin explained, "As a result of the debt crisis, many companies have delayed investment in Egyptian oil and gas fields and this has hardened energy production. Furthermore, it occurred precisely at the moment when Egypt needs to increase energy production to meet its rising domestic consumption needs."

Despite the uncertainty, Dargin asserted, "the sheer potential of the Egyptian energy sector has also encouraged companies to make a long-term bet on its continued viability…Companies that have the ability to absorb the higher debt levels still made future investment plans for the country. Smaller oil and gas companies are the ones that had to delay investment, as they could not carry the debt burden for the midterm."

**Petroleum Aid**

Following the ouster of Mohamed Morsi, Saudi Arabia, the United Arab Emirates and Kuwait poured aid into Egypt. The Gulf countries pledged USD 12 billion in the form of cash aid and fuel products. The aid has certainly kept the transitional government afloat. As Dargin aptly put it, the Gulf assistance "is a life saver for the Egyptian economy." On the other hand, it is simply a temporary Band-Aid to the country's economic woes. As one Western source told Reuters, Egypt cannot go on spending USD 1.5 billion a month, otherwise it will exhaust the funds within one year.[iii] Similarly, Rohac noted, "The aid has removed some of the immediate pressure but does not represent a solution (not even a part of the solution) unless the Gulf countries are willing to send big checks on a permanent basis."

The aid in petroleum products eased the summer shortages but inadvertently added to EGPC's debt. The country is now experiencing glut due to the gasoil gifts. "Egypt has given priority to aid cargos from the Gulf counties and as a result, cargos that were ordered on the open market are incurring substantial penalty fees. Egypt's oil import terminals are facing such a backlog that many tankers have been waiting at Suez or by Alexandria for nearly two months," Dargin informed. According to Dargin, "Several oil firms have canceled contracted gasoil deliveries to Egypt because of this port confusion and since EGPC has no interest in finalizing payment before unloading."

Thus the fuel aid has been somewhat of a mixed blessing. As Dargin explained, "The penalty fees are adding to Cairo's overall debt problem and will have an impact in the long-term as it struggles to comprehensively restructure state debt. However, the Gulf energy aid has been so substantial that Egypt does not need to import anymore gasoil in the short-term. While the Gulf aid has temporarily alleviated Egypt's gasoil deficit in the short-term, it is not a long-term solution and is merely delaying the need to grapple with its energy subsidization problem. And while Egypt, thanks to shipments of gasoil from the Gulf, now has a sufficient supply, there are still shortages of gasoline, propane and butane, which Egypt still needs to import. The disruptions at the port facilities are not making the management of these other shortages any easier."

**Government Response to Debt**

According to the Minister of Petroleum and Mineral Resources Sherif Ismail, Egypt's debt to IOCs was USD 6.2 billion in September. Since taking control, the current administration has repeatedly stressed its efforts to create a timetable to repay its arrears. According to Dargin, "EGPC finalized an agreement with foreign oil companies to reschedule its debt. Approximately USD 1.5 billion will be paid by December 2013. Therefore, according to EGPC's budget, approximately USD 508 million will be paid as interest charges incurred during the 2013/2014 fiscal year, out of which approximately USD 232 million will go to foreign companies and USD 276 million will remain locally."

"As a result of the debt rescheduling agreement, the foreign oil companies agreed to invest about USD 1.5 billion in the Egyptian oil sector which is in dire need of both exploration and production and will help in reducing Egyptian import of crude," Dargin informed, noting, "This debt restructuring has reassured many foreign investors and as a result, will likely stimulate new investment if Egypt remains able to show good faith in paying off its debt in a timely manner."

The transitional government has staved off implementing austerity measures. Dargin believes, "The main issue is that the government will likely not tinker with the status quo until elections take place and a modicum of stability returns. Any transformation of the status quo would cause more social unrest at this tenuous time." Instead the transitional government opted for a USD 3.2 billion stimulus package, with plans to increase funds next year. Unfortunately, a stimulus package can only do so much in such a deeply impaired system.

**Sustainable Solutions**

"There is no single or simple remedy to this problem," asserted Stocker. Stocker suggested, "Two obvious solutions are allowing more production and cutting subsidies to consumers. Neither of these alone can solve the problem, but increases in production and reducing subsidies in some manner will likely have to be part of any lasting, long-term solution."

According to Rohac, "a successful reform will have to come as a part of a broader package of structural reforms. Egypt's energy markets are marked by heavy government involvement and lack of competition."[iv] Rohac explained, "Erosion of investor confidence will certainly drive investment away from Egypt unless there is a credible shift of government policy… The durable solution involves getting Egyptian public finances on a sustainable trajectory. I would argue that eliminating subsides and replacing them with a more efficient form of social assistance is a necessary part of the solution. So are cuts in other areas of public spending, especially government employment. Unless we see deep, serious fiscal reforms, Egypt will only be living from one fiscal crisis to another."

While Gulf countries are willing to provide economic aid in exchange for marginalizing the Muslim Brotherhood, that aid will only last for so long. Even if the government is able to settle its debt to IOCs and rebuild investor confidence, without a steady revenue source to compensate for the energy subsidy deficit it could easily fall back into debt. Thus, it is time that Egypt musters up political will to carry out massive economic restructuring or else it runs the risk of falling back into fiscal crisis.

i Reuters, Egypt Looking at Energy Subsidies to Cut Deficit. March 7, 2013.

ii Reuters, BG Flags Egypt Investment Concerns. July 26, 2013.

iii Reuters, West Warned Egypt's Sisi to the End: Don't Do it. August 14, 2013.

iv Rohac, Dalibor. Egypt's Subsidy Nightmare. November 6, 2013.


We Manage Risks & Maximize Opportunities
RiskFree
Risk Management Consultancy
RFG is a privately held full service risk management consultancy company. Our founders and consultants each have more then 25 years of experience in different sensitive positions in the Egyptian Ministry of Interior, State Security, Ministry of Foreign Affairs and international organizations.
RFG and its team are specialized in the fields of:
- Risk Management
- Crisis Management
- Physical Security
- Security Training
- Brand Protection
Ahmed Pacha Street, Garden City
Cairo, Egypt
T +202 27934343 F +202 27943777
www.riskfree-egypt.com

# The Defendant Pleads Legitimate

Mohamed Morsi's appearance in court on November 4 was a sober reminder that the former president and his Muslim Brotherhood have not completely disappeared from the Egyptian political scene. Moreover, Morsi's assertion that he remains the legitimate president of Egypt revealed that the former president has not surrendered to the military's political roadmap—a plan that many Egyptians grudgingly accept as a political reality. Morsi's fate now lies in the hands of the judiciary, but that does not necessarily mean that his trial will be characterized by impartiality. During his year in office, Morsi attempted to purge Egypt's judiciary of many judges appointed during the Mubarak era. Yet how quickly the tides have turned. The head of the Supreme Constitutional Court (SCC), Adly Mansour, currently serves as interim president, and his fellow judges are in a position to decide the former president's fate. These are the politics of power that preceded Morsi's first appearance in court since his ouster in July, and the brief battle that ensued within the courtroom reflects the greater crisis of legitimacy in Egypt.

## Better Get Comfortable

Mohamed Morsi is no stranger to prison life. He served a past prison sentence during the Mubarak era because of his affiliation with the Muslim Brotherhood. Ironically, his second prison sentence may not be altogether different than his first lock up. Many of his supporters argue that Morsi was ousted and imprisoned because he was an Islamist—an argument which suggests a continuity of state-sponsored aggression against groups like the Muslim Brotherhood. The former president's opponents, on the other hand, believe that he incited the murder of innocent protesters and coordinated with Hamas militants to illegally escape from prison during the January 25 Revolution.

Whatever the case may be, Egyptians have sarcastically noted that their presidents serve two terms: one in the presidential palace and one in prison. Former President Hosni Mubarak served more than his fair share of terms in the presidential palace but ultimately ended up in prison. In an ironic twist of fate, Mubarak is also on trial, creating a situation in which the last two presidents of Egypt are being tried at the same time. If Mubarak's trial is any indication of the judicial path that Morsi must navigate in order to prove his innocence, then Morsi should begin getting comfortable in his prison confines.

Yet the former President Morsi does not seem interested in proving his innocence to the court. Rather, Morsi believes that he is still the legitimate president of Egypt, and consequently he refused to acknowledge the authority of the court. He clearly articulated his stance towards the trial by stating, "I am the legitimate president of Egypt," and "I refused to be tried by this court." Additionally, Morsi refused to don the prisoner uniform worn by the 14 other members of the Muslim Brotherhood who were also on trial. Instead, he elected to wear a dark suit and no tie. After the trial, images of Morsi wearing white prison garb surfaced on the internet—leading many of his supporters to wear white in solidarity with the former president.

Initial reports described the trial as chaotic and even went so far as to label it a farce. Morsi's supporters in the courtroom shouted at journalists deemed biased against the former president, while others called for Morsi's death sentence. At the same time, the former president repeatedly asserted his legitimacy as well as the illegitimacy of the military and the court itself. The chaotic scene forced the judge to adjourn the trial until early January of 2014. These seemingly small details regarding Morsi's behavior and the chaos within the courtroom serve to highlight the broader problems playing out in Egypt today. Among the more complex of these problems concerns the questionable legitimacy of various state institutions and political actors. This inevitably leads to the question: What exactly do you do with a former president who still believes that he is the president of Egypt?

## Potential Scenarios

The trial is likely to play out in three possible scenarios. First, Morsi may receive the death penalty or a life sentence. These possibilities represent the more severe of the punishments facing the former president. Second, Morsi may receive a lighter sentence intended to symbolize guilt without pursuing severe punishment. Finally, Morsi's trial could be deliberately dragged out in the hope that the public will eventually lose interest or a better alternative for dealing with the former president will arise.

The former president faces the death penalty or a life sentence for inciting violence that led to the deaths of peaceful protesters in front of the presidential palace in December of 2012; however, it is unlikely that Morsi will receive either of these severe punishments for a number of reasons. First and foremost, it will be difficult to prove that Morsi is directly responsible for the deaths of the protesters. Second, and perhaps more importantly, instituting an extreme punishment would complete Morsi's transformation into a martyr. This result could have dangerous repercussions for Egypt, and there is evidence that Morsi has already began paving the way for some form of martyrdom. When he appeared in court, Morsi flashed the four fingers which have come to symbolize Rabaa Al-Adaweya Square. This gesture symbolizes not only resistance but also remembrance for the Muslim Brotherhood members who were killed when the military stormed two Cairo squares occupied by Morsi supporters in August. The execution of another high-profile member of the Muslim Brotherhood, Sayyid Qutb, motivated many Islamists to abandon political participation and adopt the more extreme forms of resistance promoted by terrorist groups. The Egyptian military should heed the advice afforded by this history lesson and avoid any excessive punishment that would lend towards martyrdom. Finally, Morsi's proponents point out the hypocrisy of trying Morsi for protesters' deaths when a considerable number of civilian protesters died at the hands of the military since the January 25 Revolution, and this is especially true of the storming of Nahda and Rabaa Al-Adaweya squares in August of 2013.

Another possible scenario involves the issuing of a lighter sentence combined with some form of house arrest or encouraged exile upon completion of his sentence. In addition to to being tried for the death of protesters, Morsi faces charges relating to his escape from prison during the protests that toppled Hosni Mubarak's regime and conspiring with Hamas. These charges serve as an opportunity to inflict a symbolic punishment without running the risk of turning Morsi into a martyr. While a lighter sentence may prevent Morsi from achieving a full-fledged martyr status, it is a far from perfect scenario. Morsi's supporters are unlikely to accept any form of punishment and will continue to maintain his innocence. At the same time, many of Morsi's opponents want to set a strong precedent against Islamist rule in Egypt. In this sense, a lighter sentence runs the risk of sowing more discord because it would anger Egyptians from all ends of the political spectrum.

Finally, the trial could be continually dragged out until the wider Egyptian public loses interest in the case or a better alternative for dealing with Morsi presents itself. This method of kicking the can filled with difficult decisions down the road has been a staple of Egyptian policy making for decades, and there is no reason to believe that the Egyptian military will not follow suit. In fact, it may be in the best interest of the military and the new Egyptian state to simply avoid any definite decisions regarding Morsi's future, at least in the short term. Given the volatility of Egyptian politics, the chances are very good that other contentious issues will arise and distract attention away from Morsi's plight. Less than two years ago, massive protests against military rule were common occurrences in the Egyptian capital. Now, many of the liberal forces that once condemned the militarization of post-revolutionary Egypt are proudly waving banners of General El-Sisi. The point of this analysis is not to judge the logic of this political realignment but rather to point towards the fickleness of political winds in Egypt as an incentive for Egyptian leaders to avoid making important decisions.

It appears some Egyptians have already moved on from Morsi and the drama surrounding his trial. Ali Aymen, a 23 year old independent journalist from Abdeen, Cairo, is much more concerned with the future president rather than with the former President Morsi. "He [Morsi] came and went in [the course of] one year. The real importance lies with whomever comes after Morsi," explained Aymen. He refers to himself a revolutionary youth, but nevertheless he described Morsi as "a victim of the Muslim Brotherhood and the Supreme Guide." When asked to comment on his expectations for the court's ruling, Aymen concluded, "Morsi no longer matters for us. Whether he is proved innocent or sent to prison doesn't really matter."

Predicting exactly how this trial will play out is very difficult; however, it is clear that Morsi's trial represents a dilemma for the powers that be in Egypt. The reemergence of the former president after months of seclusion in an unidentified location serves as a gentle reminder to the Egyptian public that the crisis of legitimacy in Egypt is not going to resolve itself. Moreover, the former president has not acquiesced to the military's authority, but rather he intends to confront the military establishment and the state by invoking the spirit of resistance and the memory of the violent crackdown on Islamists in the summer of 2013. This stance by Egypt's former president leaves the Egyptian military and the judiciary between a rock and a hard place. On the one hand, inflicting a severe punishment such as the death penalty or a life sentence would facilitate Morsi's martyrdom. On the other hand, a lighter punishment threatens to displease a broad swath of the Egyptian public who appear very polarized on the issue of Morsi's fate. Consequently, it appears likely that the military and the judiciary will avoid any definite and lasting judicial ruling, at least in the short-term. This may buy time, but it is unlikely to produce any useful answers for Egypt's increasingly complex problem of legitimacy.

**By Robert Mogielnicki**
Robert Mogielnicki is a political and economic analyst who focuses on the MENA region. He is currently pursuing a graduate degree at the University of Oxford in the field of Middle Eastern Studies. He can be contacted at mogielnicki.robert@gmail.com

# Interview with Bruno Boeddu, ABB's Local Division Manager for Process Automation Egypt and Central Africa

## Q: Can you tell me a bit about yourself and your role with ABB?

Much of my experience and knowledge has been developed in the oil and gas sector, where I have been working for the past 35 years of my business life.

Since September 2012 I have been assigned to lead the Process Automation Division at ABB Egypt, with interim responsibility of Central Africa Countries Cluster. Prior to coming to Egypt I held the same position in Libya for some years prior to the recent revolution.

There is a long history of collaboration between Italy, which is my homeland, and Egypt, close cooperation between ABB divisions in Italy and Egypt have been in place for a long time. As I have been covering export sales assignments with varying levels of responsibility at ABB Italy, I've had the privilege of working with the oil and gas sector in Egypt since the 1990's.

## Q: What is ABB's role in the oil and gas sector?

ABB pursues the oil and gas market covering power and process cycle areas, supply system solutions, products and services. In other words, we provide our customers with a single stop shop. ABB acts as a partner for its customer. We find answers and solutions to all their operational needs.

Our usual supply includes comprehensive integrated solutions of automation and/or electrification products. Our product offering is complemented with engineering, installation, commissioning and after sales services.

Our after sales service offerings consist of consultation and assistance to engineering, operations and maintenance departments, product diagnostic services, on- site and by remote connection supervision and maintenance, provision of spare parts, repair, and training at customer sites as well as at our facilities in Egypt and abroad.

From our facilities in Egypt, we serve the foreign and domestic markets, both in the upstream and downstream domains, including refinery and petrochemical facilities.

We are present in the domestic sector with a remarkable installed base at more than 130 sites. We serve all the major players in the Egyptian oil and gas market.

## Q: Can you tell me about ABB's operations in Egypt?

ABB has been present in Egypt since 1926, and started its local facilities in 1979. ABB offers a wide range of products and services in Egypt and Central Africa with highly qualified expertise in power and automation engineering, providing solutions for secure energy efficient generation, transmission and distribution.

ABB's portfolio ranges from light switches to robots for painting cars and packing food, and from huge electrical transformers to control systems that manage entire power networks and processes at factories.

ABB in Egypt has over 1,800 employees. We have five factories spread over 100,000 square meters in 10th of Ramadan City, an export assembly factory in Nasr City, a regional center and machines service workshop in Al Obour City. We also have a regional service center for turbo-systems in Suez and ABB University based at our Cairo headquarters. In addition to our headquarters in Cairo, we also have a branch in Alexandria.

## Q: What are the challenges and benefits of operating your manufacturing facilities in Egypt?

We are committed to the highest standards of quality, based on ABB worldwide benchmarks. We offer up-to-date solutions in all sectors whilst providing the most stringent requirements of performance and reliability.

With our factories in the country we have the opportunity to be closer and better connected to our customer needs at all phases of our production and delivery cycles. Our vast reservoir of local skilled personnel, as well as the possibility to provide after sales services sourced from Egypt allows ABB to answer customers' needs with promptness and efficiency at all times.

## Q: How has ABB continued operations during periods of unrest?

From a security point of view, luckily we have had no serious issues, as we took all the necessary precautions.

At our ABB Headquarters in Zurich as well as at all the countries where ABB group operates, dedicated security management teams implement standard security procedures, including communication to employees, organization of travels along specific indications and precautions, etc., that are strictly adhered to by all employees.

The main task of ABB's security management team is to monitor the actual security conditions in the countries where ABB operates 24 hours a day, seven days a week, year round, and provide suitable advice. Thanks to these precautions, ABB in Egypt suffered very little disruption.

During the recent crisis ABB demonstrated flexibility in fully catering to its customer needs. We regard this as very important for ABB's commitment to the Country Industry Sector, since we serve strategic industries such as energy and power distribution. As a matter of fact, ABB is largely present at Egyptian gas and oil extraction sites, treatment facilities and in transportation, which are vital to the Egyptian economy. It is very important for ABB to strategically navigate domestic issues as part of our commitment to consistent and reliable support for our customers. I must personally pay gratitude to ABB teams for being available during the times of crisis.

## Q: What challenges has ABB faced in terms of delayed payments?

One of the impacts of the crisis is the shortness of liquidity and financing. In fact we are suffering as much as all other industry players due to delayed payments. Luckily our company is well diversified with active projects both regionally and globally, which grants ABB in Egypt a certain degree of latitude. Such a possibility allows us to remain active in the Egyptian market, in which we are not facing cancellations of tenders but we are experiencing delays and postponements.

## Q: From your own point of view, what do you think the Egyptian government could do to increase development?

Personally, I think that investments should be maintained in strategic sectors, such as power, oil and gas. There are extensive new explorations in the Western Desert, as well as other new fields. This is one sector where investment should be maintained and improved. Additionally, investments should be made to develop refining capacity and petrochemical projects; the power sector too, as you know everything is connected.

## Q: Can you tell me about ABB's training and education programs?

We have a comprehensive program of training offered by the ABB University, which provides a wide variety of courses for all ABB customer needs.

ABB strives to provide first-class service and our aim is to provide customers with the ability to exploit the highest performance out of the products ABB supplies. In addition to our regular training courses addressing all sectors of production, engineering, maintenance and operations, we offer tailor made training programs catering to all customer needs.

Training is a key element in ABB offerings since we supply high technology products, we must provide corresponding high levels of training.

## Q: How does ABB factor health and safety into your programs?

Health and safety is regarded with utmost consideration at ABB Group. As a matter of fact, health and safety always comes first in our key performance indicators (KPI). For example, at all the management meetings we start with OHS KPI before financial and production KPI's.

Of course health and safety issues are strictly considered when we perform our delivery to customers. Likewise, we provide guidance to our customers about suitable measures to follow in order to safeguard their safety while using our products and systems.

In Egypt we have had a remarkable record of zero injuries and fatalities for the past couple of years, as all the safety conditions at our manufacturing facilities, as well as site activities are closely monitored. We have safety managers within each division whose primary duty is to make site inspections in order to check that safety measures are in place, and to provide management with extensive reports on OHS status.

ABB takes a preventive approach in health and safety matters. Whenever anything happens elsewhere (i.e. at facilities in other countries also), the fact is broadcasted to all the units in all countries, so that measures can be undertaken to prevent similar cases.

## Q: What products are you trying to push in the market?

ABB has a wide portfolio of key products, solutions and service offerings addressing the strategic aspects of process and manufacturing in all industries, as well as utilities such as power production and distribution.

Talking about automation, ABB's main cornerstone product is our Extended Automation System 800xA, which provides integrated solutions of process and safety control, achieving integrated control and safety systems (ICSS) with high performance. The system offers remarkable features of integration with electrification subsystems, field instrumentation, analytics, etc., that are all in line with state of the art worldwide standards.

ABB has integrated seamless solutions of DCS and ESD, SIL 3 with simple, triple and quad redundant configurations, which gives the utmost benefit to our customers. ABB is one supplier for all needs, one technology, one "cockpit" to operators in the control room, with our main focus on operator effectiveness.

As a matter of fact, the value of integration is to provide a unique technology and a collaborative environment with a unique human machine interface (HMI) to have complete control from one platform location, to easily run the process, optimize assets and manage both preventive and corrective maintenance.

For essential automation needs, ABB's automation portfolio is completed with an additional range of DCS (freelance), PLC and SCADA solutions (RTUs 560s, ScadaVantage Software, etc.), Compact Product Suite, Stand-Alone Process Recorders and Controllers, which suit various industry sectors' needs, including oil and gas, chemical, pharmaceutical, food and beverage, metal, pulp and paper and water industries.

As said, ABB offerings is a one stop shop that provides the utmost benefits to our customers to be integrated at the highest levels of functionality together with the other elements of our offering, such as electrification (low, medium and high voltage), drives and motors, field instrumentation and analytics.

In power management and distribution, ABB is considered a key player in the sector. With regards to subsea, ABB also has remarkable experience and has installed specific applications in the North Sea fields and in other parts of the world for first-class players in the field. In fact, as oil exploration and production become more and more challenging, ABB has the answers and solutions in this field.

## Q: What are ABB's goals for the future here in Egypt?

ABB's local facilities in Egypt have always been regarded among the most important realities in the Egyptian industry sector, for the value of technology delivered out of Egypt as well as the high level of ABB employee skills. ABB in Egypt is an important player in the ABB Group that is tightly connected to the ABB global network, research centers and factories worldwide, which enables our customers' to access the latest trends and technologies in the power and automation industries.

Although we have been facing a shrinking of the market due to the crisis, we are maintaining our commitments towards providing our customers with state of the art technology, delivered with the highest standard of quality. We hope to return to business as usual as soon as possible. Our goal is to continuously expand and improve ABB's footprint with focus on customer satisfaction and service, as well as our commitment to social corporate responsibilities in our local community.

ABB (www.abb.com) is a leader in power and automation technologies that enable utility and industry customers to improve their performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs about 150,000 people.

# Launching Event to Celebrate Cooperation Agreement Between

## Oil and Gas Skills (OGS) and PricewaterhouseCoopers "PwC's Academy"

OGS

OIL & GAS SKILLS

pwc

On the 10th of November 2013, PwC's Academy and OGS held the launching event of the cooperation agreement between OGS and PwC's Academy. The event took place at the JW Marriot with the attendance of numerous representatives from petroleum companies in Egypt as well as PwC Egypt. This cooperation resulted in a business alliance between the two organizations to consolidate PwC's Academy in Egypt as well as the ME training expertise to conduct and deliver selective number of training programs to OGS' expended clients' base and businesses in Egypt, UAE, Libya, Oman and Saudi Arabia.

OGS Chairman and CEO Eng. Ahmed El Ashmawi started the opening session by welcoming all attendees and recognizing this initiative to develop practitioners in the energy sector in Egypt and Africa. Mr. Yasser Sholokamy (PwC's Academy Leader) presented the training and programs provided by PwC's Academy globally, regionally and locally, as well as the mini MBA program. Mr. Wael Sakr (PwC partner and assurance leader) gave a brief summary about PwC globally, regionally and locally. Mr. Ahmed Rashwan (PwC Director and oil and gas specialist) presented the IFRS training programs associated with the petroleum business. Mr. Tamer Tawab (PwC partner) presented the leading teams program and explained how it will develop leadership skills.

**The three programs are summarized as following: International Financial Reporting Standards (IFRS)**

PwC's Academy and OGS will launch their first educational program, called Diploma of International Financial Reporting Standards (Dip IFRS). This course is a workshop that helps everyone working in accounting and finance to improve their knowledge and develop their skills. The course is designed to develop participants' knowledge and understanding of the basic standards of IFRS that are used on a regular basis. Candidates will learn how to apply these standards, as well as the concepts and principles. Participants will also be taught the framework structure of IFRS. The training will address a variety of key topics including: presentation of financial statements, interim financial reporting and accounting policies in terms of changes in accounting estimates and errors, revenue and statement of cash flows, related party disclosures and provisions including liabilities and contingent assets.

**Leading Teams**

The Leading Teams course consists of seven specially designed modules. These modules include:

- Conflict and Leadership Management Skills in which participants learn the difference between leaders and managers in addition to, the skills needed to know how to deal with work issues.
- Change Management in which participants learn why companies need to change, how to accept change and adapt to it.
- Sales and Customer Service in which participants learn the skills and ways of dealing with clients, follow up with them and satisfy their needs.
- Coaching Skills in which participants learn the skills needed to be able to coach people.
- Culture and Values Awareness in which participants learn how to deal with different people inside any organization.
- Project management in which participants learn how to start a project from scratch and what are the steps needed for any project to succeed.

Participants will gain different skills that include how to identify the character and personality of others and influence them, negotiation techniques, conflict resolution strategies, the win/win concept and the GROW model in coaching and counseling of staff. This program is tailored for middle and top management. It will help participants identify their own management strengths and areas of development.

**Mini MBA**

The mini MBA consists of twelve full days of training conducted over a three-month period from 9 December 2013 till 12 February 2014. The mini MBA program consists of nine specially designed modules carefully chosen to provide a systematic framework and clear structure for understanding organizations. A unique technique has been developed to link the modules and create a successful business strategy. The modules include:

- Business Breakdown and Map, addressing vision and mission statements framework, stakeholder analysis, corporate governance and business mapping.
- Corporate and Business Strategy, addressing critical success factors, external and internal analysis, strategies for innovation and forecasting.
- People Management addressing HR as a strategic partner, culture management, recruitment and selection and target setting and performance.
- Management skills addressing changes in management, effective communication, motivation and empowerment, appraisal and stress management.
- Marketing, including market positioning, branding, corporate social responsibility and social media.
- Leadership and Negotiation consisting of leadership vs. management, types of leaders, role of leadership in problem solving and external & internal negotiations.
- Accounting Basics & Financial management including financial statement analysis, nature and purpose of finance management, budgeting and setting financial objectives and risk management.
- Project Management and Business processes focusing on the project management methodologies, the project life cycle, business operations and quality issues.

The modules are then linked together through business mapping and the introduction of case studies. People choose the mini MBA program because today's business organizations require professionals with specialized skills who can synergize their skills with the larger organizational structure. From project management to finance functions, corporate strategy to human capital, PwC and OGS's mini MBA program will not only provide an understanding of each but will clarify the interdependence between them.
The mini MBA program is tailored for those who wish to gain the business skills provided by a traditional MBA program without wasting the time and costs necessary to undertake a full MBA program. The program is for current or aspiring managers along all lines of business, small and medium sized enterprise owners, and seasoned or building entrepreneurs.

# Perenco's Innovative Approaches to Egypt's Gas Fields

In 1975 Perenco was founded as a marine services company but spread into upstream operations in 1985. The independent oil and gas company's strategy "evolved rapidly towards increasing production and reserves, renewing licenses and securing additional acreage for exploration and development opportunities." Perenco now spans onshore and offshore across the globe, with headquarters in Paris and London. The company has 18 subsidiaries, 14 of which are production and 4 are in exploration. Perenco currently has projects in 16 countries. The company's portfolio features operations across the continent, in Cameroon, Democratic Republic of Congo (DRC), Gabon, Republic of Congo, Tunisia, and Egypt. Perenco currently produces approximately 375,00 boepd, with a production rate of 10,000 boepd here in Egypt.

One of the striking features of Perenco is the company's dedication to corporate social responsibility. The company also emphasizes health and safety, the environment, and business integrity. Perenco has committed itself to environmental, as well as transparency initiatives to achieve the highest standards of operations. Through partnerships with local communities and the public sector, Perenco continuously demonstrates its dedication to sustainable development of host communities.

Perenco first entered the Egyptian sector in 2004 when it acquired a 50% interest of the offshore North Sinai gas assets but has since expanded to hold 100% of the assets. Under the contract, Perenco leases offshore sites in the Mediterranean, north of Port Said. Perenco's leases include: Tao, Kamose, and Seti-Plio. Wadjiri Abdoulaye, Perenco Egypt's Exploration Manager explained, "Our Seti-Plio Field is purely exploration right now. In this field we are gathering seismic data and well data, from surrounding fields. A seismic re-interpretation is ongoing focusing on the Pre-Messinian reservoirs."

Perenco has a gas-producing platform on the Tao Field. From the platform the gas is transferred onshore via a 50km, 22' pipeline. General Manager of Perenco Egypt, Pierre Capo explained how Perenco's onshore gas plant between Port Said and El Arish allows for the company to send the gas directly to the national grid following the separation of the gas and water. Traditionally, once separated from the gas, the water would be trucked to a disposal site, in accordance with the strict environmental legislation. However, Perenco sticking to their environmental commitment, sought a more environmentally sound means of disposing the water. NOSPCO, Perenco's joint venture operations company, has improved the way to handle the disposal of the water. A new water pit was built, which can receive up to 40,000 bwpd. Additionally, Perenco implemented an innovative disposal system by installing eight floating evaporators, where the produced water is evaporated instead of being disposed in possible bad area. The company holds permits from the environment department in EGAS for both of these operations.

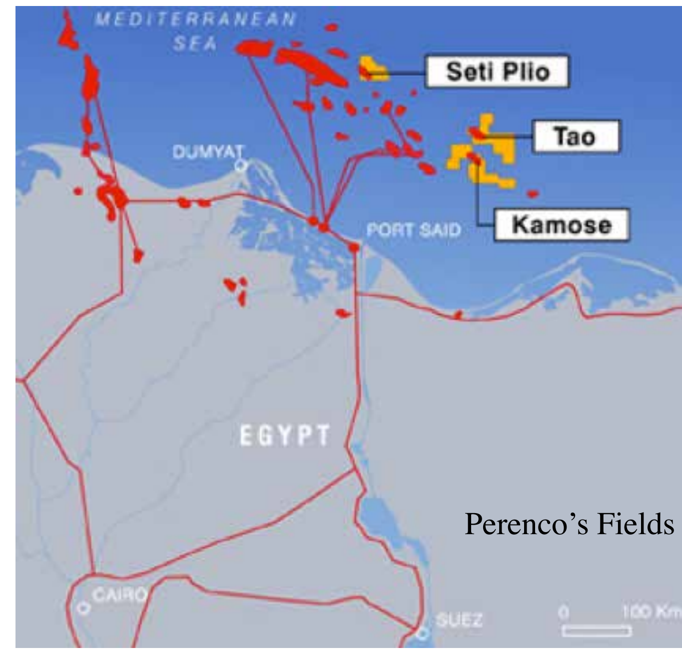
Perenco is also working to "increase production by finding new innovative solutions," informed Mr. Capo. The company recently installed a new jet pump on their Tao platform. The jet pump reduces wellhead pressure on the wells, allowing for more gas production. Mr. Pierre Capo explained that the jet pump also allows for higher production out of older wells. The gains from the jet pump are estimated at 300 mmscf.

In speaking on the challenges Perenco has faced with operations in Egypt, Mr. Abdoulaye Wadjiri said, "fortunately, we do not have any big technical challenges working in the Mediterranean." Both representatives from Perenco agreed that there are social and economic challenges unique to Egypt. As the company operates in Egypt's gas sector, they must deal with two heads EGPC and EGAS, which "can make things a bit complicated."

Like other oil and gas producers in Egypt, Perenco must also deal with the issue of delayed payments. Mr. Pierre Capo explained, "We want to increase our investment in order to fight against the production decline but it is hard without complete payment." The aim of our joint venture is to fund new projects with the payments we receive. That is difficult to run now as we are only paid in EGP and its difficult to translate EGP into foreign currencies. This is not a problem specific to us; I think every joint venture in Egypt has this problem right now." He wishes that EGPC will soon respect the deferral agreement signed in 2012, which would allow the company to fund future projects.

Current insecurity in the Sinai presents a serious challenge to Perenco, at the company's gas plant located in the city of Rommana, between El Arish and Port Said. According to Mr. Pierre Capo, the company is "facing a lot of problems out there," noting, "The threats from the Bedouin regularly impact our operations. We had to request a military presence around our plant because of the problems." The army responded favorably to Perenco's request and is now protecting the gas plant.

Despite the challenges, the company has expressed interest in future bid rounds, especially if new blocks are located close to their existing operations. Perenco's innovative technologies and approach are valuable assets to Egypt's gas sector. The company is certainly an asset to Egypt as they continue to provide vital services despite the difficulties.



Perenco's Fields

# Gas Pipeline Project at North West Gemsa Field

By Eng. Ashraf Abdel-Khalek - Projects & Facillities assistant General Manager

PetroAmir, established in March 2010, is a joint venture between EGPC and Greek firm Vegas Oil & Gas. PetroAmir was established for the development and production of the North West Gemsa (Amir) Field in the Zeit Bay area of the Red Sea. The monthly production, as of June 2013 is approximately 317,184 bbl of oil and 361 MMscf of gas.

Production began in February 2009 from the Amir southeast wells and in April 2009 from the Geyad wells. The produced oil and associated gas have a gas to oil ratio of 1100. The company decided to flare the associated gas until gaining proper facilities and concluding a sales contract with Suco/RWE.

The initiative had two primary goals. First, to stop flaring the associated gas, hence eliminating adverse environmental effects. Second, to gain maximum benefits from the associated gas, as it is rich gas, containing sales gas, condensates as well LPG.

In March 2012 PetroAmir, in cooperation with Ganope, Partners and Suco/RWE, began executing the 12"/16km gas pipeline project at a total cost of 8.3 million USD.

PetroAmir utilized Enppi for engineering studies and PetroJet for construction. Procurement was a critical yet challenging part of the project. Thanks to successful execution the pipeline was finalized in just 11 months.

The project was commissioned on February 12th 2013, with the official opening occurring on February 28th in the presence of the top managers of the Egyptian petroleum sector.

The average daily production of feed gas is currently 12 MMscf. The gas is then sent to the Suco gas plant through the newly built pipeline. Suco gets 11.45 MMscf of sales gas, 108 bbl of condensates, and 24 tons of LPG.

LPG production has reached 720 tons per month. This translates to a supply of approximately 60,000 gas cylinders per month for to meet domestic demand and reduce imports, both vital elements of improving the economy.

**The production of condensates is estimated at 3,240 bbl per month in addition to sales gas.**

We have successfully overcome considerable obstacles during the various implementation stages of the project. We have achieved positive results by utilizing updated techniques and applications.

It was the first time in the Red Sea area to execute an underground pipeline by using the HDD (Hydraulic Direction Drilling) technique. Such techniques allowed us to us avoid crossing buried sea pipeline close to the receiver area of Suco Company.

Reporting By Wall El- Serag

# Egypt Statistics

| | Oil | | | Equivalent Gas | | | Condensate | | | Liquefied Gas | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Barrel | | | Barrel | | | Barrel | | | Barrel | | |
| | October-11 | October-12 | October-13 | October-11 | October-12 | October-13 | October-11 | October-12 | October-13 | October-11 | Octo-ber-12 | October-13 |
| Med. Sea | | | | 22387143 | 23614464 | 19969107 | 1372964 | 1228546 | 1159263 | 402971 | 386810 | 370797 |
| E.D. | 2299991 | 2210118 | 2524962 | | | 40893 | | | 3330 | | | 8622 |
| W.D. | 7950180 | 8853096 | 9570526 | 6533036 | 6827500 | 7128214 | 1734445 | 1438822 | 1395311 | 524630 | 669916 | 712143 |
| GOS | 4735313 | 4451425 | 4260446 | 292679 | 297143 | 316071 | 75599 | 66940 | 70758 | 174739 | 187365 | 229269 |
| Delta | 90087 | 87288 | 73476 | 2090179 | 1748214 | 2024286 | 181609 | 141103 | 180444 | 93248 | 108705 | 125260 |
| Sinai | 2200280 | 2218998 | 2067151 | 1786 | 1607 | 12679 | 31053 | 35206 | 33287 | 87593 | 89433 | 91216 |
| Upper Egypt | 18307 | 13455 | 12025 | | | | | | | | | |
| Total | 17294158 | 17834380 | 18508586 | 31304823 | 32488928 | 29491250 | 3395670 | 2910617 | 2842393 | 1283181 | 1442229 | 1537307 |

EGYPT OIL&GAS RESEARCH & ANALYSIS

**Table 1 Egypt Rig Count per Area – November 2013**

RIG COUNT

| Area | | Total | Percentage of Total Rigs |
|---|---|---|---|
| Gulf of Suez | | 10 | 8 % |
| Offshore | 10 | | |
| Land | | | |
| Mediterranean Sea | | 9 | 8 % |
| Offshore | 9 | | |
| Land | | | |
| Western Desert | | 81 | 69 % |
| Offshore | | | |
| Land | 81 | | |
| Sinai | | 9 | 8 % |
| Offshore | | | |
| Land | 9 | | |
| Eastern Desert | | 6 | 5 % |
| Offshore | | | |
| Land | 6 | | |
| Delta | | 3 | 2 % |
| Offshore | | | |
| Land | 3 | | |
| Total | | 118 | 100% |