EGYPT OIL&GAS NEWSPAPER

Novatek to decide on further exploration

OAO Novatek, Russia's second-biggest gas producer, will decide on further exploration at its development in Egypt in September after writing off some wells, said Chief Financial Officer Mark Gyetvay

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Integrating elements of productivity

It is important to review the elements that determine the shape and the actual existence of the companies in the Egyptian petroleum market, one might detect the importance of the company's control; one can confirm how successful the company is in handling its activities in the Egyptian petroleum sector, others have problems in maintaining the required high-level performance required

P14

Undiscovered energy sources

Egypt's civilization is deep rooted in the world's history; great achievements in astrology, medicine… and other fields are recorded in Egypt's standing civilization. Its history in renewable energy is also recorded for having the first solar power demonstration about 100 years ago

P18

Agiba explores more the Western Desert

Agiba Petroleum Company succeeded in the drilling of a new exploratory well in the area of the Western Desert.

Agiba, the joint venture between the Egyptian General Petroleum Corporation and Italian Eni, drilled the well to a total depth of 6300 feet, through the PDI-92 rig, with investments counting for nearly $700 thousand.

This drilling activity serves the company's target to increase its crude oil production.

Bapetco: new well on production line

Badr Petroleum Company (Bapetco) has put a new development well SITRA 8-I/9 on production well.

The drilling depth reached up to 11,198 feet, with investment worth $3.348 million.

Bapetco is one of the EGPC affiliated companies jointly owned by Shell Egypt N.V.

Petrobel invests in Sinai

Belayim Petroleum Company (Petrobel) completed the drilling of its 112-137 development well in the area of Sinai.

The total investment of this drilling operation is estimated at $2.809 million.

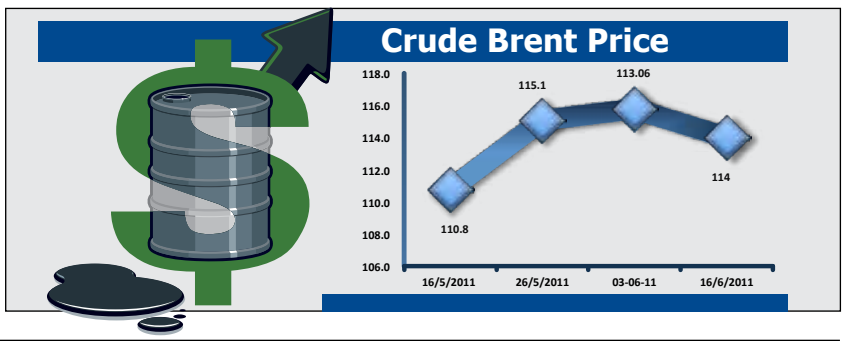
Petrobel, jointly owned by the Egyptian General Petroleum Corporation (EGPC) and Italian Eni, drilled the well to 9,895 feet-depth.

The well has not been put on production line yet.

Earlier last month, Petrobel drilled three development wells in the field of Abu Rudeis in North Sinai, in the Gulf of Suez area.

The drilling depths of the three wells are on the average of 8,500 feet to 11,500 feet.

According to sources, this development program will be held by the Sino-Tharwa 3 and EDC 51 rigs.



Corruption flourishes in the roots

When high-profile officials of the country have been detained for various charges, whether corruption, fraud, bribery, financial irregularities…etc., most citizens have felt a kind of relief that the Revolution of January 25th will finally get rid of the ugly face of unfairness and exploitation. However, who said that such trials would in fact abolish all figures of corruption in Egypt? Maybe the masterminds have been held behind the court bars, but their successors are still in their positions, following their ancestors' steps. Unfortunately, those who have been working in the shadow of corruptive managers and heads, it will not be easy to control them at a glance. The most effective solution to limit their authorities' abuses is through the firm implementation of the long forgotten laws.

Following media reports, talk shows and interviews with experts on various television channels, it is believed that it would take Egypt like 10 years to cross this troubled and instable period of time. Though the chaotic phase that follows any civil unrest persists for some time, it is our role then to fight for an honorable cause. We do need new ethical, well-educated and patriotic generations to drive the new path.

Corruption is persisting in the roots and if we do not fight it, it will keep on flourishing over the days.

Yomna Bassiouni
Editor-in-Chief

Guest Column

Closer look to the GPC

Any country does possess strategic sources for its national economy. In Egypt, the oil and natural gas are considered as core strategic sources to the country's revenue, along with the Tourism and the Gulf of Suez.

The investments in the above vital fields lure more revenues to the national economy. The profits represent a considerable part of the GDP, which should be used to generate more businesses and projects to keep the cycle of work going bigger and increasing the production rates. More importantly, Egyptian youth and skilled labor should be engaged in all sectors.

Taking the Egyptian petroleum sector as an example, foreign investors were given higher incentives and attention over the past decade on the expenses on the Egyptian investors. The high authority was prejudice and keener on bringing foreign investments under the pretext that they will be able to cover the high expenses of the exploration and drilling costs. Definitely, I am not condemning the existence of foreign investors in the petroleum sector, on the contrary, I do believe it is a clear sign of the high oil and gas potentials that Egypt holds, which reflects how much this sector is flourishing. Moreover, it brings latest technologies to the country and new skills to the national labor. However, the way these investments were allocated is my prime concern. For instance, revenues were directed towards pointless promotions and excessive management expenses, while granting higher production shares for the foreign operator.

Prioritizing foreigners over Egyptians has been a drawback in the petroleum sector. The General Petroleum Company (GPC) has gone through this issue over the last decade. Established in 1957, the GPC has been the result of the split between the Dutch Schell and the Egyptian General Petroleum Corporation. The company has been characterized by the large base of skilled labor, rigs, platforms, crude oil processing stations…etc. Moreover, the company has been considered as a center for research, applied studies and experienced personnel that positively affected the neighboring countries by exchanging the company's expertise.

Luckily, the GPC has been led by outstanding professional heads, such as Geologist Ahmed Nasr El-Barqouqy and Dr. Sherif Sousa, who contributed to the flourishing of the company's operations and productivity.

The list of GPC achievements can go for pages. The first discovery hit was achieved in the Bakr Field, in April 1958, which was less than one year after the company's establishment. This was followed by the discoveries of Karim field (1958), Amer (1965), Shukeir (1966), Om Elyosser (1968), Oyoun (1969), Kheir (1980), Ras El-Behar (1983)… etc. and many more in the areas of the Eastern Desert and the Gulf of Suez. Also, the Western Desert had a share of discoveries as well, which included the SWS (1985). One of the recent discoveries of the GPC was the offshore Al-Hamad field in august 2004, in the Gulf of Suez. This offshore discovery has been put on production line in October 2005, which has a primary production rate of 10,000 barrels per day.

It is worth mentioning that the company developed the fields of Offshore North Amer, Assran and Eish Melaha, which were assigned by the EGPC.

In this sense, I am calling on all official to support the General Petroleum Company and work on their growth and call for the return of its effectual role and activities that were absent for the past ten years. The Egyptian capabilities should be praised in order to elevate and develop our beloved country.

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More drilling in the Eastern Desert

The Eastern Desert witnessed the drilling of two development wells by The General Petroleum Company (GPC) and PetroDara; one well for each.

First, the GPC drilled the development well Amer-62 development well to a total depth of 6,398 feet, through the ST-4 rig.

The well has been placed on production line, according to sources.

The second development well was drilled by PetroDara to a total depth of 3789 feet, with total investments of $800 thousand.

This drilling activity serves the company's plan for the fiscal year of 2010/2011.

PetroDara utilized the ECDC-6 rig to drill this crude oil producing well.

Eni to invest $3 billion over next two years

Eni revealed that it would invest $3 billion in Egypt over the next two years, ramping up operations there in the wake of a popular revolution.

Eni said in a statement that its Chief Operations Officer Claudio Descalzi had met Egyptian Minister of Petroleum Abdallah Ghorab in Cairo "to support the renewed commitment of Eni towards exploration and development activities".

Eni said it would step up its activities in the Western Desert, the Mediterranean and the Sinai including with "the drilling of additional wells and the acceleration of production from new discoveries."

The Italian company said it would also drill 12 exploratory wells.

PetroSilah invests $1.370 million

PetroSilah announced the successful drilling of its development well Silah-7, in the Western Desert.

The company drilled the well to a total depth of 7500 feet, through the EDC-53 rig.

Total investments of this drilling activity counted for $1.370 million.

DUPLIN strikes in the Eastern Desert

DUPLIN revealed the drilling of a new exploratory well, Zaina G-1X, with total investments of $1.403 million.

The total drilling depth of this oil producing well averaged 7,807 feet.

The company has not put the well on production line yet.

Apache strikes multiple pay in the Faghur Basin

Apache reported five new oil discoveries in its Faghur Basin play in the far southwest of theWestern Desert oil and gas province.

Apache also said that the AG-96 development well in the Abu Gharadig Concession tested 3,347 barrels of oil and 1 million cubic feet (MMcf) of natural gas per day from the Lower Bahariya formation. The well, drilled on acreage acquired from BP in late 2010, is expected to lead to several additional wells before year-end.

The Faghur Basin discoveries included:

• West Kalabsha-I-4 logged 79 feet of net pay in the Jurassic Safa sands. In a test, the well flowed 7,150 barrels of oil per day and 11.4 million cubic feet (MMcf) of gas per day.

• Faghur North-1X logged 25 feet of net pay in the Safa and Paleozoic Desouqy sands. Combined tests had a rate of 1,444 barrels of oil and 3.9 MMcf of gas per day.

• Faghur South-1X logged 38 feet of net pay in Safa and Cretaceous AEB-6 sands. The Safa tested 2,768 barrels of oil and 4 MMcf of gas per day.

• Huni-1X logged 27 feet of net pay in the AEB-3 sands. The well tested 970 barrels per day from the AEB-3E sand.

• Neith North-1X logged 20 feet of net pay in the AEB-3 sands and 57 feet of net pay in the Safa sands. A Safa well test is planned this month.

"The Faghur Basin continues to be a successful focus area for Apache, with AEB, Safa, and now Paleozoic reservoirs that have proven to be prolific oil and gas producers. These recent discoveries support the multi-pay potential of this oil-prone area of the Western Desert," said Tom Voytovich, Vice President of Apache's Egypt Region. "The Huni and Neith North discoveries continue Apache's recent exploration success in the eastern area of the Faghur Basin.

"These discoveries and production from the Tayim development lease approved during the revolution period illustrate the fact that Egypt's energy sector is continuing to move forward," Voytovich said. "Our recent drilling successes provide clear evidence of the exploration potential on Apache acreage in Egypt and the benefits of working in stacked-pay areas."

Apache recently drilled the first discovery on its western-most exploration concession. The Siwa-D-1X drilled in the Siwa Concession pushed Jurassic and Cretaceous plays farther south and westward and will lead to follow-up exploration prospects. Apache expects to commence production from the well upon approval of a development plan later in 2011.

The Tayim West-1X discovery in the West Kalabsha Concession represents the first Paleozoic success found in a reservoir separate from the younger proven Jurassic and Cretaceous sands and opens up the area to further deep tests in upcoming wells. The discovery is currently on production.

Thus far in 2011, Apache has drilled eight new discoveries in 10 attempts in the Faghur Basin, and drilling is under way on three additional wells –Mandulis-1X, Neilos-1X and Faghur North-2X. Eight additional exploration wells are planned for the area this year.

Apache's current gross operated production in Egypt totals approximately 215,000 barrels of oil and 900 MMcf of gas per day, including 40,000 barrels of oil per day from the Faghur Basin.

New exploratory and development wells for Khalda

Khalda Petroleum Company completed the drilling of a new exploratory well, Merald-4 and another development well TUT-91 in the Western Desert.

The implementation of this drilling activity is part of the company's plan for the fiscal year of 2010/2011.

The exploratory well was drilled to a total depth of 12616 feet, through the EDC-11.

Khalda, the joint-venture between the Egyptian General Petroleum Corporation (EGPC) and Apache Corp. invested $1.297 million in this drilling project.

As for the second well, the drilling investment exceeded $820 thousand. The TUT-91 was drilled to a total depth of 9315 feet, through the EDC-61 rig.

Novatek to decide on further exploration

OAO Novatek, Russia's second-biggest gas producer, will decide on further exploration at its development in Egypt in September after writing off some wells, said Chief Financial Officer Mark Gyetvay.

Gyetvay did not clarify how many wells were written off as Novatek processes data from the El-Arish oil and gas project.

Novatek said in last January that exploration was not affected while evacuating some workers during civil unrest in the North African country.

The Russian gas producer bought 50 percent of El-Arish from Egypt's state-owned Tharwa Petroleum in September 2007.

HBS strengthens investments

In the context of its drilling plan, HBS International Egypt Ltd implemented the drilling of an exploratory well, in the area of the Western Desert.

The company invested $1 million to drill the GZ9-1X to a total depth of 5364 feet.

This drilling operation was conducted through the EDC-10 rig.

Sudan threatens to block oil flow from South

Sudanese President Omar al-Bashir has threatened to shut down pipelines carrying oil from South Sudan if there is no deal on oil before its independence this month.

"I give the south three alternatives for the oil. The North is to continue getting its share, or the North gets fees for every barrel that the South sends to Port Sudan," Bashir said in a televised speech. "If they do not accept either of these, we are going to block the pipeline,' he told his supporters in Port Sudan, the main terminal for all of Sudan's oil exports.

South Sudan will become a separate country on July 9, but the two sides have yet to come to a final arrangement on how to manage the oil industry after the split. Nearly three-quarters of the oil output is pumped from the South, but most of the refineries, pipelines and ports are in the North, meaning the two will need to co-operate to some degree to keep crude flowing.

Under a 2005 peace deal that ended nearly two decades of civil war between the two sides, Khartoum gets about 50 per cent of the revenues from oil fields mainly based in the South. When the revenue-sharing comes to an end next month, Khartoum's income will fall by 36.5 per cent, Ali Mahmud, the Sudanese finance minister, said last week.

Sudan's oil minister said on Thursday that Khartoum had agreed to accept transit fees from the South, but the two sides were yet to set a price. They were also discussing a 'transitional arrangement' which would ease the financial impact on the North, the oil minister said.

North and South Sudanese officials have been involved in talks in Addis Ababa, the Ethiopian capital, aimed at reaching an agreement on a number of unresolved issues between the two sides prior to the partition. But, besides the key oil sector, the two sides have also not reached a deal on contentious border issues.

Unresolved differences have led to violence with the Northern army invading the disputed region of Abyei last month. Southerners voted overwhelmingly to secede in a January referendum. North and South Sudan have been at loggerheads for most of their post-independence period since 1956.

Aminex: Spudding of Nyuni-2 well, Offshore Tanzania

Aminex PLC announced the spudding of the Nyuni-2 well, offshore Tanzania.

The Nyuni-2 is being drilled from a surface location on the small Nyuni Island, approximately 30 kilometers off the mainland of Tanzania, to the south of the Rufiji River delta, using the Caroil-6 land rig. The well will target the same Neocomian sandstones which form the reservoirs in the nearby Songo-Songo gas field and in the Company's own Kiliwani North gas field reservoir. An additional target is an Aptian/Albian sandstone reservoir, which was logged as gas bearing in the Nyuni-1 well, which was drilled but not tested in 2004.

Nyuni-2 will be deviated to the southeast at an angle of 29 degrees from vertical to target bottom-hole location approximately 1.200 meters away from the island. Total measured depth is likely to be 3,325 meters and total vertical depth 2,964 meters subsea. It is estimated that drilling to target depth will take 9-10 weeks.

The Nyuni-2 will be the fourth exploration well drilled in the Nyuni area by Aminex as operator, and two of the previous wells discovered gas in commercial quantities.

Chariot Oil & Gas signs two licenses offshore Namibia

Chariot Oil & Gas has signed Heads of Terms with two companies for two of its license areas offshore Namibia. Discussions continue on the third license area.

Paul Welch, CEO commented, "Whilst the negotiations have taken longer than expected, we are very pleased to announce that we have signed Heads of Terms agreements with two partners for two of our licenses areas. Details remain confidential but we will update the market with further information as soon as we can."

International News

BP eyes $15 billion Oman tight gas project

UK oil major BP is eyeing a possible $15 billion investment in a tight gas project in Oman, and plans to make a decision on whether to proceed in spring 2012.

"Today we have just three wells, with plans to have 300, and this will be one of the largest projects, could be, in BP's portfolio," BP Chief Executive Bob Dudley told the World National Oil Companies Congress.

However, he added high costs could scupper the project if BP is not able to agree a high enough price for the gas produced to compensate for these.

Mohammed bin Hamed al-Rumhy, Oman's Minister of Oil and Gas and Chairman of state oil company Petroleum Development of Oman, said the gas would be sold to the local market, where prices are controlled.

Al-Rumhy said the $15 billion cost estimate reflected expected expenditure over 10-15 years. Dudley refused to confirm the estimate.

BP signed a concession in 2007 to develop the tight gas, which is in complex formations that are difficult to exploit. Last month, Nasser al-Jashmi, the undersecretary of the Oman oil and gas ministry said BP would start early production from the three test wells in August.

Saipem nets drilling contracts worth $600 million

Italian conglomerate Saipem announced new contracts awarded by Eni, through which the drilling activities of Saipem 10000 drillship will be extended over the coming 24 months, starting from August 2012.

Saipem 10000 is an ultra deepwater drillship, capable of operating in water depths up to 10,000 feet in full□dynamic positioning.

Within offshore drilling activities, Saipem has been awarded a contract by Addax Petroleum extending the□charter of the semi-sub Scarabeo 3 for a period of six months, starting from November 2011, for drilling activities in Nigerian waters. The Scarabeo is a second generation semi-submersible drilling rig capable of operating in water depths of up to 1200 feet.

Moreover, Saipem signed a contract with NDC for the extension of the charter of the jack-up Perro Negro 2; a jack-up rig capable of operating in water depths of up to 300 feet, for a period of 12 months, starting from the second quarter of 2011, for drilling activities in the waters of the United Arab Emirates.

In onshore drilling, Saipem signed new contracts for 15 rigs in Saudi Arabia, South America and Kazakhstan.

In Saudi Arabia, Saudi Aramco awarded Saipem the contract for the charter of four rigs, of which three for a period□of three years each, starting from the fourth quarter of 2011, and one for a period of one year, starting from the third quarter of 2011.

In Peru and Colombia, new contracts for nine rigs have been awarded to Saipem, for a varying period of 4-12 months, starting in different dates during 2011.

Finally, in Kazakhstan Saipem acquired two contracts for the charter of 2 rigs, for a period of 4 and 12 months respectively, starting from the fourth quarter of 2011.

Gazprom Neft picks Schlumberger for Iraq drilling

Following a tender, Russian oil giant Gazprom Neft has chosen global services provider Schlumberger to drill the first wells in the Badra oil deposit development project in Iraq. Upon signing the contract will last for three years.

The Badra oil deposit is located in the Wassit Province in Eastern Iraq with estimated reserves of 3 billion barrels of oil.

On 9 June, Gazprom Neft, as the project operator, obtained approval to sign an agreement with Schlumberger from Iraq's state-owned North Oil Company (NOC), part of the Iraqi Oil Ministry.

The contract with Schlumberger will involve three drilling rigs, with the drilling of the first appraisal and development wells expected to be completed in early 2012.

A total of 11 wells are to be drilled over the three-year period, including one exploratory and three appraisal wells, which will later be converted into operating well stock.

"The commencement of drilling at the Badra oil deposit will be yet another important step in the implementation of this project. The formation of operating well stock will enable us to meet the primary objective of the consortium's participants: to begin production at the oil deposit in 2013, as stipulated in the service agreement," commented Boris Zilbermints, Deputy CEO for Exploration and Production.

The contract to develop the Badra oil deposit was signed with the Iraqi Government in January 2010 following a tender in December 2009. The tender was awarded to an international consortium comprising of Gazprom Neft, Kogas (Korea),Petronas (Malaysia) and TPAO (Turkey).

Gazprom Neft's share, as lead operator on this project, is 30 per cent. The Iraqi Government, represented by the Iraqi Oil Exploration Company (OEC), retains 25 per cent.

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Sabic to initiate Carbon Fiber Tech at new plant

Saudi Basic Industries Corp. (SABIC) signed a technology agreement with Montefibre S.p.A (Montefibre) granting SABIC and its affiliates an extensive international license on carbon fiber technology developed by Montefibre.

SABIC will first use the technology for a new carbon fiber plant to be built in Saudi Arabia.

SABIC and Montefibre also signed a Memorandum of Understanding (MoU) for the companies to study the feasibility of a new carbon fiber production plant in Spain to be integrated into Montefibre's existing acrylic fiber production site—and thus allowing SABIC to accelerate product development and material qualification activities with customers and end-users.

Once complete, the carbon fiber project is expected to establish a domestic supply of more than 3,000 metric tons of industrial grade carbon fiber to serve emerging local markets in the Middle East as well as international markets.

"This carbon fiber project will be the basis for the creation of a world-class carbon composites value chain in Saudi Arabia and a valuable extension of our offering of innovative products and services to our customers in key markets. We are looking forward to developing many new and exciting applications as we grow our ability to supply competitive industrial grade carbon fiber products," Commented Koos van Haasteren, SABIC Executive Vice President, Performance Chemicals.

The project will also include the creation of a new carbon fiber product development center and composite plastics application development capabilities at the SABIC Plastics Application Development Center (SPADC), which is currently under construction at the Riyadh Techno Valley research complex at King Saud University. Both the carbon fiber production plant and the SPADC capabilities are aligned with Saudi Arabia's National Industrial Clusters Development Program to grow and diversify the manufacturing sector in Saudi Arabia.

Derek Buckmaster, General Manager Functional Polymers, highlighted, "Carbon fiber is a product which will offer our customers great value and will enable them to achieve their sustainability targets. For example, reductions in greenhouse gas emissions in transportation markets such as automotive, heavy trucks and rail are enabled by weight reductions from utilizing lightweight carbon fiber composites."

He further noted that the fibers and derivatives introduced by this project will allow SABIC to serve growing markets for traditional thermoset-based composites, and also enable SABIC to utilize its deep expertise in thermoplastic technologies to develop a broader range of short cycle-time composite solutions—all of which promotes the use of carbon fiber composites in applications that have not been able to benefit from the intrinsic strengths of carbon fiber composites."

Shell: First Pearl GTL Gasoil shipment sold

Qatar Petroleum and Shell announced that the Pearl gas-to-liquids (GTL) plant, in Ras Laffan Industrial City, Qatar, has sold its first commercial shipment of GTL Gasoil.

The sale marks the official start of the GTL project, as Qatar and Shell begin to share revenue from the mammoth project, and Shell begin to recoup on their $19 billion upfront investment.

Over the coming months, production will ramp up from the first production unit ('train') of the Pearl GTL project. The second train is expected to start up before the end of 2011, and improvement on previous estimates.

The plant is expected to reach full production capacity by the middle of 2012 and is the largest energy project ever launched in the State of Qatar.

"The Pearl GTL project will play an important role in further enhancing our diversification of the North Field gas utilization and will support the optimization of Qatar's competitive position in the world markets by supplying high quality GTL products," said Dr. Mohammed bin Saleh Al-Sada, Qatar's Minister of Energy and Industry.

Once fully operational, Pearl GTL is expected to produce 1.6 billion cubic feet of gas per day from the North Field, which will be processed to deliver an expected 120,000 barrels per day of condensate, LPG and ethane and an expected 140,000 barrels per day of gas-to-liquids (GTL) products using Shell's unique technological and project management capabilities.

"Today's milestone provides further evidence that innovative technology and strong partnerships can help meet the world's growing need for energy," said Peter Voser, Chief Executive Officer of Royal Dutch Shell.

Axens wins Iraq refinery contracts

South Refineries Company (SRC), a subsidiary of the Iraqi Ministry of Oil, awarded Axens the basic engineering design and license contracts for the construction of the new refinery in Maissan, Southern Iraq. Axens will supply the following process technologies for the refinery, a naphtha hydrotreater - 35,100 BPSD (barrel per stream day), a CCR Reformer (OctanizingTM) for gasoline production - 24,500 BPSD, a vacuum gas oil (VGO) Hydrotreater - 56,300 BPSD - producing a moderate sulfur feedstock for the fluid catalytic cracker (FCC), a deasphalted oil hydrotreater based on HyvahlTM technology - 27,600 BPSD, a saturated liquefied petroleum gas (LPG) treatment unit (SulfrexTM) - 278,000 MTPA (metric ton per annum) and an unsaturated LPG treatment (SulfrexTM) - 399,400 MTPA.

The refinery will have a capacity of 150,000 BPSD and will deliver high-quality products mainly for the domestic market.

Italy to invest in Egypt's wind power projects

Italgen Group announced it is planning to allocate around €140 million to wind energy projects in Gabal El Zeit, Egypt. These projects should be capable of producing about 120 megawatts of clean energy a year.

Managing Director of Italgen, Giuseppe De Beni has officially announced that his group, which is currently operating in 22 countries, is ready to offer contributions to "new Egypt," in order to create the best dynamic environment for business and investment.

According to the Electricity and Energy Minister Eng. Hassan Yunis, Egypt will generate 280 megawatts (MWs) of solar energy by 2017. Besides this, the Supreme Council of Energy has approved the ministry's plans to expand projects regarding the solar energy production.

Italy is not the only country that helps Egypt in the renewable energy development. Japan has also made feasibility studies for the Hurgada Solar Power station, whose capacity is expected to reach 20 MW.

The Minister also said that international financing institutions would help Egypt with $440 million to build the 100 MW-Kom Umbo station in Aswan. Another power plant is planned to be built in Koraymat, about 90 kilometers south of Cairo on the eastern side of the River Nile.

Estimated to cost around $3.27 billion, the plant is considered to become the fourth of its kind in the world, will have two gas turbines, about 40 MW each and will be able to generate 140 MW.

Europe leads offshore wind market

Even though the United States and China have taken serious steps to expand offshore wind farms, Europe leads this market segment today and is expected to do well into the next decade, according a new report from Pike Research.

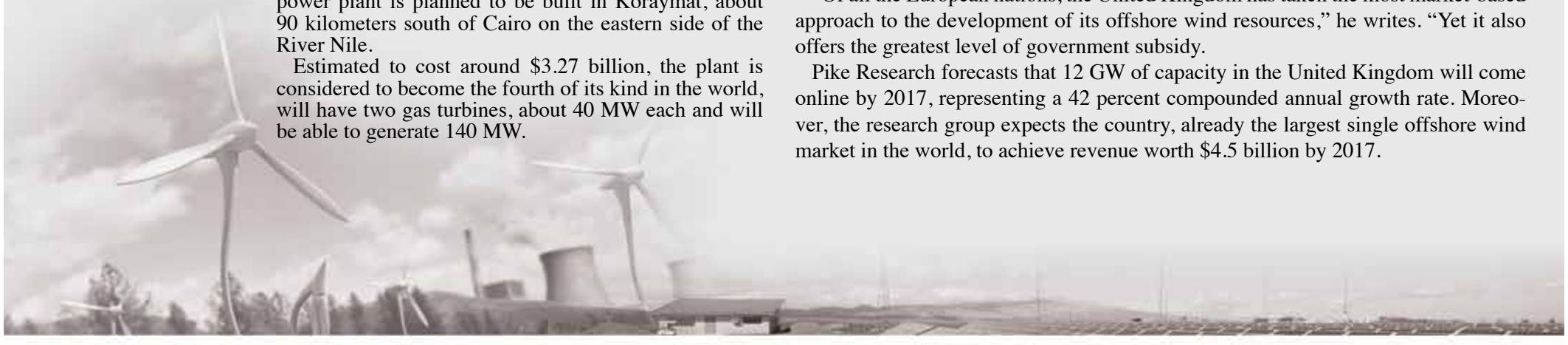
The report from the market research group projects global installed offshore wind power capacity to increase from 4.1 GW in 2011 to 70.1 GW in 2017 as grid operators, equipment manufacturers, governments and investors give offshore wind farms greater attention.

Peter Asmus, a senior analyst with Pike Research and author of the report, attributes Europe's leadership primarily to public policy and a thriving wind energy industry. He added, "in addition, some of the world's leading wind turbine manufacturers and engineering firms are based in Europe, providing a unique pool of expertise".

Asmus cites the United Kingdom as an example of Europe's potential. The country has pre-approved 49 GW of offshore wind capacity, worth a potential investment of $100 billion.

"Of all the European nations, the United Kingdom has taken the most market-based approach to the development of its offshore wind resources," he writes. "Yet it also offers the greatest level of government subsidy.

Pike Research forecasts that 12 GW of capacity in the United Kingdom will come online by 2017, representing a 42 percent compounded annual growth rate. Moreover, the research group expects the country, already the largest single offshore wind market in the world, to achieve revenue worth $4.5 billion by 2017.



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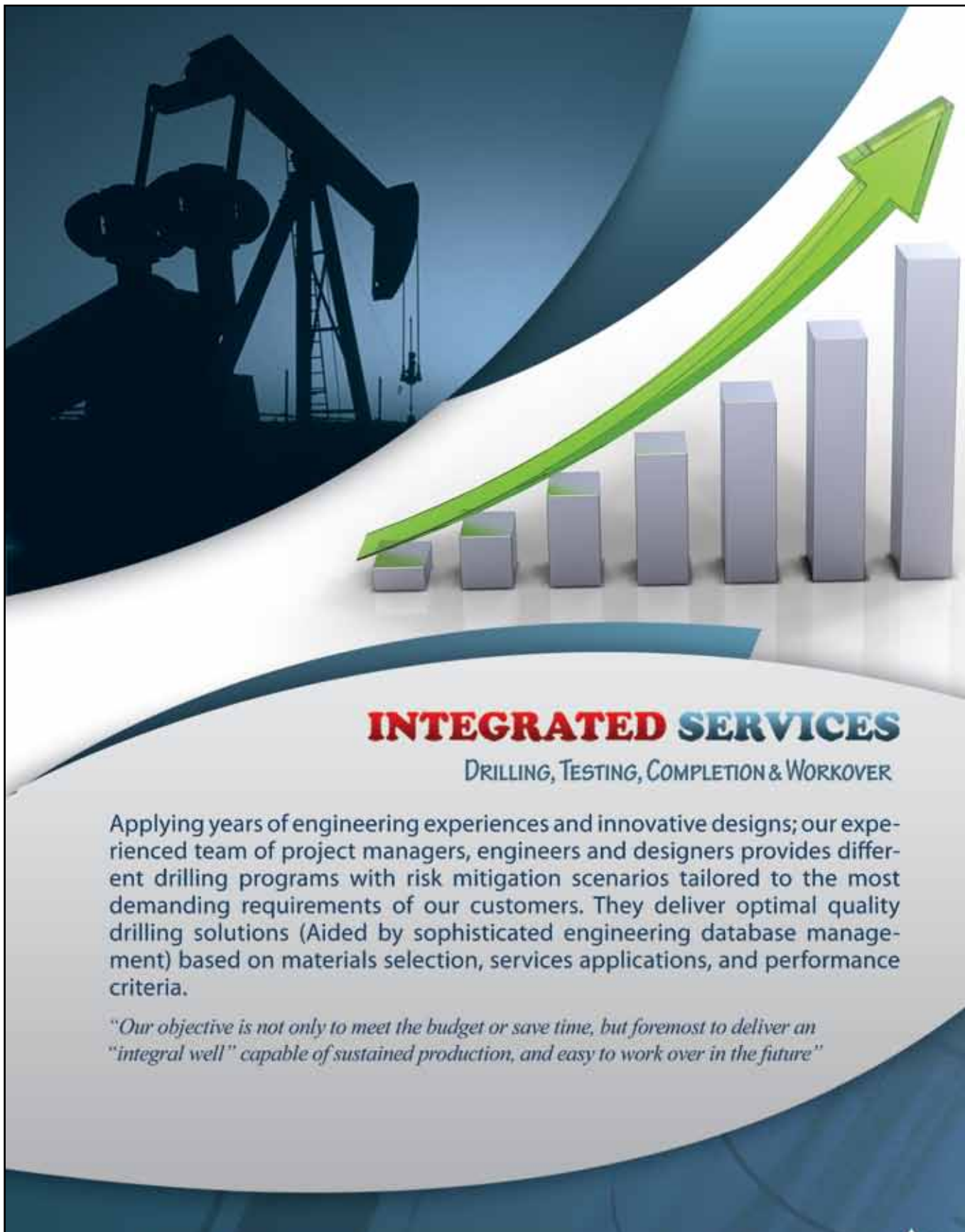

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Petroleum sector under reform

Officials, investors and experts are keeping a close eye on the reform steps that have been taken by the Ministry of Petroleum. Since the pricing of gas exportation has been the core of a vigorous public attack on the Ministry, most of the present reform attempts have tackled this problem to ease the public anger and fortunately, they achieved some positive results. Yet, more efforts are need to be on the right reform track

By Shady Ahmed

For months now, negotiations have been held between the Egyptian side and the Jordanian and Israeli officials to amend the prices of Egyptian exported gas. Recently, Jordan agreed on increasing prices of gas exports to $4 per million btu, from the initial price of $1.5 per million btu. This increase in the selling price means an increase of $200 million to Egypt's revenue. The success of the Egyptian-Jordanian negotiations crowns the struggle of the Egyptian society to alter all figures of corruption and implement a complete makeover, whether politically or economically.

The Jordanian-Egyptian talks took long time to be finalized and final agreement was not easily concluded as it sounded. The case is even harder when it comes to the Israeli debate. Egypt's gas exports to Israel date back to the peace treaty signed in March 1979. However, the gas exportation deal has been effective since 2008. The Egyptian gas is exported to the Israeli territories through the pipeline laid by the East Mediterranean Gas Co. Ltd. (EMG). This company is an owner and operator of the Arish-Ashkelon pipeline. It is a joint company of Mediterranean Gas Pipeline Ltd (28%), the Israeli company Merhav (25%), PTT (25%), EMI-EGI LP (12%), and the Egyptian General Petroleum Corporation EGPC (10%). It is worth mentioning that the gas export agreement to Israel was through the well-known controversial businessman Hussein Salem's private company with no notice to official documents from the Egyptian Ministry of Foreign Affairs.

Eng. Abdallah Ghorab, Minister of Petroleum stated that negotiations with Jordan are almost over. "Egypt and Jordan signed two gas exportation agreements in 2003 and 2007, each had different volume of exported gas at different prices. The terms of the first one stated that 77 billion cubic feet are exported to Jordan at the price of $1.27 per million btu, while the second agreement specified the exportation of 32 billion cubic feet of gas at the price of $3.06 per million btu," clarified Ghorab.

Fortunately, Jordan and Egypt resorted to a fruitful solution to this critical issue. But, on the other side, the Israeli side is waving the possible international arbitration, which could be a threat to Egypt. According to a top official in the Ministry, the American partner of EMG has already warned the Egyptian Natural Gas Holding Company (EGAS) that Israel will seek international arbitration if Egypt does not resume pumping gas to Israel based on the prices agreed upon in existing contracts. However, Egyptian officials have rejected Israel's threats and are adamant that they will adjust the prices and only resume pumping gas after agreement is reached.

"Even if they are threatening us by the international arbitration, we should not forgo our rights. Egypt has been financially losing for years, and now we are experiencing a severe economic meltdown, hence this is the time to save our resources and stop this catastrophic financial drainage," a petroleum expert angrily described the situation to Egypt Oil & Gas. "Some condemn the Ministry for resuming the gas exportation without concluding the current pricing negotiations, but if we look to the big picture, this step will show how the Egyptian authorities take liability for any signed agreements even during such tensioned times. It will be crystal clear to the international arbitration that Egypt does honor all signed deals, though it is seeking fair prices for the exported gas."

The official source highlighted that the Ministry would have stopped the gas exportation immediately, but due to the current economic situation, the Ministry has resorted to the diplomatic negotiations, which were fruitful to a great extent.

Asked about the effectiveness of the public pressure, he declared that the public opinion does play a critical role nowadays. "The issue of gas prices has been a massive point of tension and the strong calls to amend prices have been a key element affecting the performance of authorities."

He further added that the Egyptian government should better utilize its sources, especially the natural gas. "Currently, the natural gas production stands at a daily rate of six and half billion cubic feet."

According to source in the Egyptian Natural Gas Holding Company (EGAS), the resumption of gas exportation to Israel and Jordan, but at lower quantities (25% to 30% of the agreed volumes), will pressure the Israeli side to accept the price amendments and conclude the negotiations in a positive way, similar to the Jordanian resolution.

As a matter of fact, the Israeli officials have been contacting the Egyptian Ministry of Petroleum for gas resumption. Back to July 2009, Egypt agreed to increase the quantities of natural gas exported to Israel at a higher gas prices, compared to the initial agreement.

Egyptian gas stoppage will cost Israel an estimated $1.5 million daily, according to Globes.

To meet demand the Israel Electric Corporation (IEC) has been forced to purchase gas at higher rates from Israeli billionaire Yitzchak Tshuva's Yam Tethys, and to generate gas-using diesel, which accounts for the $1.5m increased daily price tag.

Israel's Minister of National Infrastructure Uzi Landau convened emergency meetings to discuss ways to accelerate key initiatives to protect Israel's gas supply and electricity production. Among those initiatives are the construction of new power stations in Israel, and a floating gas terminal to receive gas from the Tamar and Leviathan fields in the area of Eastern Mediterranean.

Tshuva's company is also at the heart of the initiatives Landau seeks to accelerate. In 2009, Yam Tethys beat out its main rival, Egyptian-based Mediterranean Gas Company, to supply Israel with natural gas from the Tamar and Leviathan fields.

Tshuva, who owns 53% of Yam Tethys - Noble Energy, Inc. (headquartered in Houston, Texas) owns 47% - won a five-year contract to furnish natural gas to new power plants that IEC is building to meet increased demand for electricity in Israel.

Adjusting the gas prices has become a key demand of the revolutionaries, which led the interim Prime Minister Essam Sharaf to promise to review the existing agreements. The Petroleum sector has always been a chief contributor to the national economy, hence the reform road will be way long, may require several years, but there is always a hope for a better tomorrow.

Integrating elements of productivity

It is important to review the elements that determine the shape and the actual existence of the companies in the Egyptian petroleum market, one might detect the importance of the company's control; one can confirm how successful the company is in handling its activities in the Egyptian petroleum sector, others have problems in maintaining the required high-level performance required

By Hanan Abdel Moneim, Assistant General Manager for Business Development, PMS

As a matter of fact, the effectiveness of human resource management (HRM) practices is contingent on organizational climate and competitive strategy. The concepts of internal and external fit suggest that the positive relationship between HRM and subsequent productivity will be stronger for firms with a positive organizational climate and for firms using differentiation strategies. On the other hand, the resource allocation theories of motivation predict that the relationship between HRM and productivity will be stronger for firms with a poor climate because employees working in these firms should have the greatest amount of spare capacity.

Framework to link management and productivity

The framework is five inter-related phases. We can start on one phase at a time or implement them simultaneously.

1. Establish a productive management structure

The first phase of the frame works includes the introduction of a formal organizational structure with responsibilities and accountabilities. Moreover, the overall productivity goals should be specified and set. Also, this phase requires the commitment of the top management, creation of the importance of improving the productivity and the engagement of all teams/colleagues to take part in this framework.

2. Diagnose

The Diagnose phase revolves around the assessment of the current state of business as the rate of productivity is evaluated. This second stage contributes to the identification of strengths and weighs the points of weakness. Moreover, it diagnoses the area of possible improvements.

A productivity diagnosis assesses the company's productivity performance, through two main methodologies; quantitative and qualitative assessments. The first uses key indicators such as labor productivity (value added per employee) and sales per employee. On the other side, the qualitative one looks at productivity levels, such as product innovation, automation, service excellence… etc.

3. Develop road map

Reaching the third component of the suggested framework, this phase draws up a road map or action plan based on the findings from the productivity diagnosis. It sustains the part of decision making, as it identifies the action plan that should be implemented to increase productivity. This phase plans put into action determined timelines, targets and responsibilities.

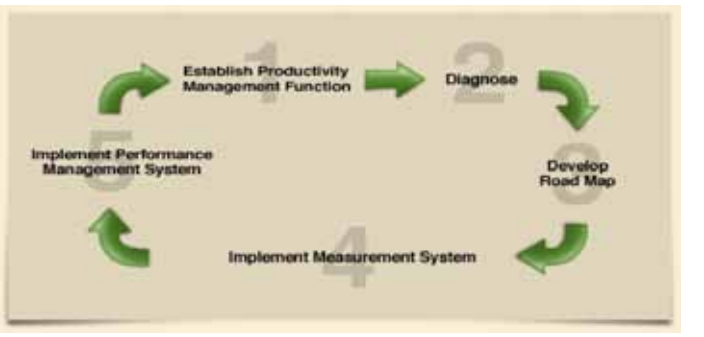
4. Implement a productivity measurement system

Setting business plans is not limited to the implementation stage only, on the contrary, it should be extended to include a periodical evaluation of the plans set. Hence, this is the prime objective of the fourth stage. It should evaluate the effectiveness of the action plan, monitor performance and measure results. In addition, it should integrate productivity measurements into the existing management system.

5. Apply a performance management system

The last stage of the suggested framework monitors and compares productivity performance against department, organization and industry targets and benchmarks. Also, it puts in place a review and feedback mechanism in order to gather feedback on periodical basis with employees. This stage includes also a reward for employees based on their efforts by linking their performance appraisals, staff recognitions and incentive schemes to productivity. Not less importantly, the fifth stage aims at achieving maximum efficiency possible.

In conclusion, no one can deny the importance of the perfect mix that connects all elements of management combined with working environment to result in successful production process. It is our duty to adopt new administrative techniques hoping that they will aid our companies working in oil industry in Egypt in achieving the desired outcomes.



Training: Filling the gap

Who is running your rigs? Who keeps them operating? These are questions that may well be at the forefront of your mind as you see the age of your experienced electricians and mechanics moving up

By Alan Macfarlane, Academy Trainer, ModuSpec Engineering (International) B.V.

Your training aim is to achieve an increase in the skills and experience of your workforce. All training needs to be relevant and specific to the rig equipment that your people need to maintain. Of course, a training matrix with the required courses can be used merely as a tick-box exercise for your current client or the next one. These matrices often cover the minimum requirements and leave trade-specific training in the "as-needed" box. The required rig-specific training can be easily missed if the tick-box compliance route is taken in isolation.

However, a training program that provides a career structure, introduces newcomers to the industry and turns them into experienced and solid team members of the drilling rig maintenance crew can only be beneficial. The winners in such a program are the drilling company for having a better standard of maintenance personnel, the employee as he can see a career path with clearly defined training courses, the rig equipment that receives better maintenance and suffers less downtime, and the client who can be certain that the crew is receiving adequate training and field experience. In other words, winners are all around.

The indefinable effects of a proper training program are that the company is regarded as progressive, a good company to work for and one that is focused on the local workforce. These effects cannot be easily calculated for the balance sheet, but as one of our clients said, "A contractor that retains his staff and considers long-term assets is always worth a second look."

A defined training program is not just a bunch of courses thrown together. A training program should be conceived and constructed to match the requirements of the industry's existing levels of competency. But how would you define this? One method is to define where you want to be. Taking each pocket of the company in isolation is not always an effective way to achieve an overview of the best place to be. So, where do you want to be?

In order to find that out, the following components need to be considered:

- The company should make policies to ensure that the people can work and operate the equipment in a safe manner.
- The equipment needs to be more effective and operationally efficient.
- The people who operate and maintain the equipment need to know how to use and maintain it.

This can be graphically represented by means of three circles:

The cloud in Figure 1 represents the Safe Zone, the area where everyone wants to be. How do we get there? With better equipment the circle moves to the right. With refined policies the circle moves to the left. By training the people to be competent at their job the circle moves up.

Once all three circles have moved in the right direction, there is an overlap: the Golden Triangle, the place where we want to be. Of the three components, people are the variable factor. Equipment is basically the same on any rig; policies are the same on rigs of one and the same company. It is only the people that make a significant difference between one drilling unit and another. The training of people, if undertaken correctly, can have a highly positive effect on the rig's operational standards.

Historically, training of skilled tradesmen was done by means of an apprenticeship where experience was handed down and classroom work was undertaken to gain theoretical knowledge. By being taught both sides of the trade, the trainee became a safety-conscious and effective team member. By looking at the way the ModuSpec Academy is constructed it is obvious that it mirrors the apprentice schemes that are now, in general, a thing of the past. It should be noted that an apprenticeship in oilfield drilling equipment was always an unusual thing in the first place.

ModuSpec's experience with training programs has proven that this method of obtaining information and gaining experience is highly effective. The following example illustrates this. One of our training sessions produced an unusual effect. As is expected by both ModuSpec and the client company, trainees asked rig-experienced crew members to help them with their assignments only to find that some of the rig staff did not know the answers themselves. The rig-experienced crewmembers requested their company to be sent to the training course to ensure the rig would have all the up-to-date information and to expand the company's know-how.

At another training session one candidate asked an equipment-specific question. The whole class started to discuss the issue, which turned out to be a common fault on the equipment. The way each rig crew had tried to overcome the problem was openly discussed. The next day several hard drives and data sticks were produced and information was exchanged. At the start of the course, the candidates in the class did not know each other personally, but now they exchanged e-mail addresses and created a network to overcome equipment problems they face every day. How would you calculate this value for your company? In conclusion: training is not just spouting information; it is about making the candidates get in contact and start discussions with each other.

At each of the three stages, examinations are taken allowing benchmarking of the candidates developing themselves throughout the programme. These marks can then be easily transferred into the company's training and personnel files. The exams are marked independently and used as an unbiased assessment of each candidate.

Experience is not gained instantly, it takes time to grow. The length of this time depends on the candidate and his exposure to the rig equipment. Therefore, the speed at which the candidate progresses through the programme cannot be clearly predefined. Carrying out assignments on the rig takes rig time, and so does being exposed to the equipment and conducting all the maintenance tasks that go with it.

An apprenticeship normally takes four years, which is similar to the time required to move through the Academy from the first entry introduction to the end of the advanced course. With this kind of commitment, both in time and effort, the candidate and company show their commitment to each other in the long run. Retention of trained staff is not only achieved by the height of the salary. Long-term prospects and defined training programmes can be an advantage, possibly an advantage over a competitor.

ModuSpec works closely with the client to ensure that the provided training is effective. By using company rigs, the company has its own standards, policies and equipment worked on and the employees are trained on equipment that may not just be generic, but entail complete systems.

The ModuSpec Academy has been set up to be your partner in providing knowledge, expertise and high-quality training services within the drilling industry.

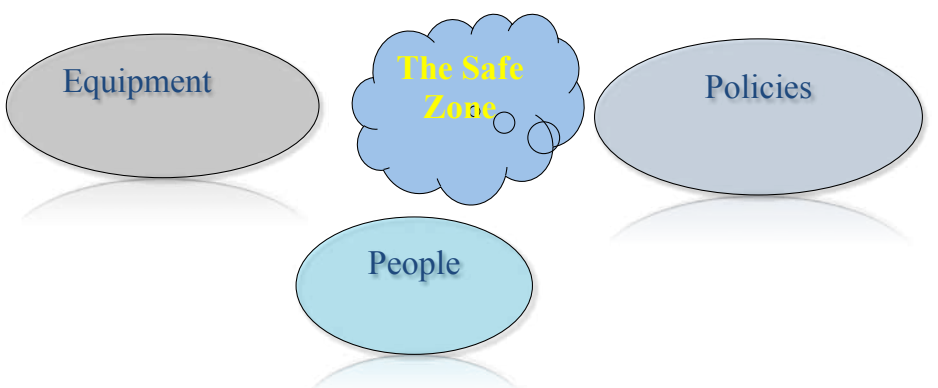


Figure 1: The three components.

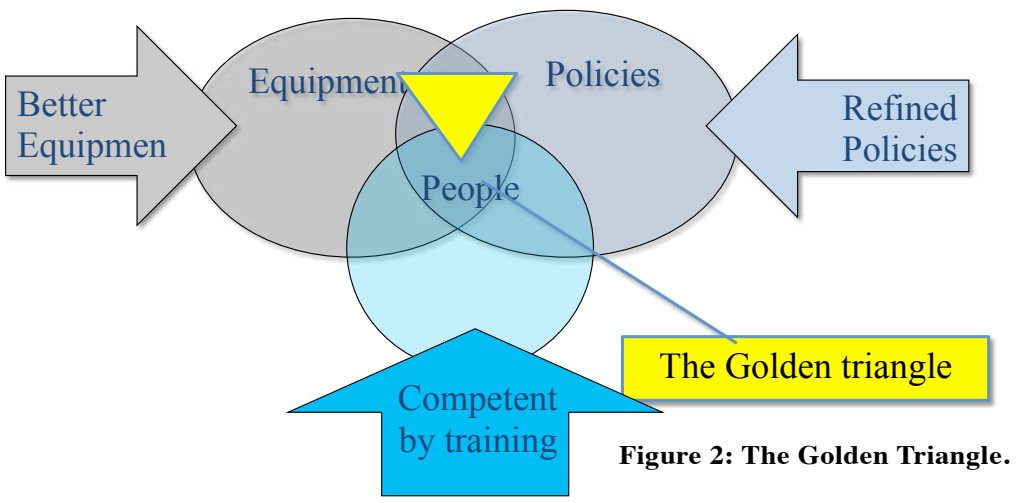


Figure 2: The Golden Triangle.

A giant comes to life in the Qatari deserts

Imagine a technology that could turn natural gas into premium oil products, such as low-sulphur vehicle fuels, petrochemical feedstock and high-quality lubricants. This technology does not only exist, but is also being implemented at massive scale in the deserts of Qatar by Shell. Having invested $19 billion in constructing this modern-day wonder of the world, Shell is in the process of starting it up. This small country has became a prominent economic power crouching to find its place among super powers

Prepared by Mostafa Mabrouk, Vice Chairman Assistant For Economic Affairs, Ganope

Shell opted to build a gigantic plant in Qatar, which has the world's third-largest reserves of natural gas and has created one of the most welcoming business environments in the world for large-scale energy projects. In 2002, when Pearl GTL was mooted, Shell's presence in Qatar consisted of an office staffed by one executive and a secretary. This was kind of ironic when you consider that it was Shell that discovered Qatar's North Field, source of 99% of the country's gas reserves, in the 1970s. Today, Shell has overtaken ExxonMobil to become the largest foreign investor in Qatar's natural gas industry. Its two big gas projects in the country, the Qatargas 4 LNG mega-train and Pearl GTL, represent an investment by Shell of some $21 billion.

Most of that is accounted for Pearl, which is a world-class generator of superlatives. The site is as large as London's Hyde Park. For those in the energy business, however, its true scale can perhaps be measured by how much product it will produce and how much cash it will generate. When ramped up to full output it will produce 140,000 b/d of GTL products, from two 70,000 b/d trains and 120,000 b/d of liquefied petroleum Gas (LPG), a total hydrocarbons output of 260,000 b/d. In other words, around 7.5% of Shell's hydrocarbons output last year.

At a final capital cost of $18-19 billion, Pearl is one of the most expensive energy projects ever built. When the project was first proposed in 2002, Shell estimated it would cost $4-5 billion. By the time of final investment decision in 2006, cost estimates had risen to $12-18 billion.

However, while the capital cost of the project rocketed, so did oil prices. Even when priced conservatively at just the crude oil price, Pearl's combined hydrocarbons output - at 95% availability and $ 100/b crude - would generate annual revenue of $9 billion. That, ignoring operating costs of a few percentage points, would mean a payback period of just over two years. At $50 oil, well below even the most pessimistic long-term forecasts, the payback period would be around four years. Right now, oil price is well over $ 100/b. To put it another way, Pearl will take gas that costs around $ 6 / barrel of oil equivalent to produce and convert it into products that currently attract more than $ 100/boe.

Despite the scale and complexity of the plant, the project was on track to start up its first GTL train by the middle of this year and the second before the year-end. As expected the plant to ramp up to full output by the middle of next year.

Oil Production

Qatar is the second smallest crude oil producer in OPEC, with its production exceeding only that of Ecuador. In 2009, Qatar produced approximately 1.2 million barrels per day (bbl/d) of total liquids: 830,000 bbl /d of crude and 380,000 bbl /d of non-crude liquids. Preliminary estimates for production in 2010 indicate total production of liquids to be about 1.4 million bbl/d: 850,000 bbl /d of crude and 590 bbl /d of non-crude liquids. The country's crude oil production capacity was estimated to be just over one million bbl/d in 2010, falling just below its condensate and natural gas liquids production capacity for the same year.

Though Qatar petroleum production has grown steadily since 2002, Qatar's fields are maturing, and output at Dukhan formerly the largest producing field is in decline. To offset anticipated declines, enhanced oil recovery (EOR) techniques are being considered for several fields including Al-Shaheen, Dukhan, Bul Hanine, and Maydan Marjam. Danish company Maersks offshore field Al-Shaheen is an important source for future production growth. Though it averaged just under 300,000 bbl/d of production in 2009, Maersk completed an expansion project in 2010 that increased its production capacity to 525,000 bbl /d.

Refining Capacity

According to Oil and Gas Journal, as of January 1, 2011, Qatar has 338,700 bbl/d of refining capacity. There are currently two refineries in Qatar, located in the major port cities of Umm Said and Ras Laffan. The 138,700 bbl/d Ras Laffan condensate refinery began operations in late September 2009. The Laffan refinery is controlled by a consortium of investors: Qatar Petroleum 51%, ExxonMobil 10%, and Total 10%, and Japanese companies Idemitsu 10%, Cosmo 10%, Mitsui 4.5% and Marubeni 4.5%. The refinery will have the capacity to produce about 60,000 bbl/d of naphtha, 50,000 bbl/d of jet fuel, 25,000 bbl/d of gasoil, and 10,000 bbl/d of LPG. Plans call for a doubling of Ras Laffans refining capacity by 2015, primarily to refine a greater portion of the North Fields rapidly growing production of condensate. Although Qatar Petroleum was considering an additional 250,000 bbl/d refinery to process the heavier Al-Shaheen crude, the project has been put on hold.

Natural Gas

According to Oil and Gas Journal, Qatar's proven natural gas reserves stood at approximately 896 TCF as of January 1, 2011. Qatar holds almost 14% of total world natural gas reserves and is the third largest in the world behind Russia and Iran. The majority of Qatar's natural gas is located in the massive offshore North Field, which spans an area roughly equivalent to Qatar itself. Part of the worlds largest non-associated natural gas field, the North Field is a geological extension of Irans South Pars field, which holds an additional 450 TCF of recoverable natural gas reserves. The North Field is key to Qatar's natural gas development and production plans, as the site of nearly all of the country's natural gas reserves. In 2005, Qatari government officials placed a moratorium on additional natural gas development projects at the North Field to allow time to study field development optimization. The moratorium did not affect exploration and production projects already approved or underway, allowing Qatar to continue its growth in natural gas production. Although the moratorium had been scheduled for review in 2014, the Energy Ministry indicated in late 2010 that it does not plan to lift the moratorium at this time. The Barzan gas project, which will produce about an additional 600 BCF per year, was the last North field project to be approved prior to the moratorium. The project will be a 90-10 joint venture between Qatar Petroleum and ExxonMobil, and is expected to come online between 2014 and 2015.

Qatar continues to expand natural gas production. In 2009, Qatar produced billion cubic feet of natural gas, three times the amount produced in 2000. Although the increase in natural gas production fuels the growing natural gas requirements of domestic industry and its gas-to-liquids (GTL) projects, the bulk of this increase is going towards LNG exports. Qatar's natural gas consumption in 2009 was approximately 745 BCF.

As for exportation, Qatar exported over 2,400 BCF of natural gas in 2009, of which about 70% was liquefied natural gas (LNG). Qatar currently exports about 2 BCF/d of natural gas to the UAE and Oman through the Dolphin pipeline.

Liquefied Natural Gas

Qatar is the worlds leading LNG exporter. In 2009, Qatar exported nearly 1,800 BCF of LNG. Japan, South Korea, and India were the primary destinations for Qatars LNG exports, accounting for about 57%. European markets including Belgium, the United Kingdom and Spain were also significant buyers of Qatari LNG, accounting for an additional 33%.

Although Qatar began exporting LNG in 1997, heavy government emphasis on this sector, in terms of making investments and attracting foreign investors, contributed to the rapid development of Qatar LNG capacity. This LNG sector is dominated by Qatargas Operating Company Limited (Qatargas), which operates four major LNG ventures (Qatargas I-IV) and Ras Laffan Company Limited (RasGas), which operate three major LNG ventures (RasGas I-III). RasGas is owned by Qatar Petroleum (70%) and ExxonMobil (30%), while the Qatargas consortium includes Qatar Petroleum, Total, ExxonMobil, Mitsui, Marubeni, ConocoPhillips, and Shell. Each venture has an individual ownership structure, though Qatar Petroleum owns at least 65% of all the above ventures.

RasGas and Qatargas have 14 LNG trains currently online, with a total LNG liquefaction capacity of 3,400 BCF/year (69.2 MMT/year). Five of these trains were added in 2009 and 2010. RasGas III, Train 7, with a liquefaction capacity of 380 BCF/year (7.8 MMT) of LNG began operations in February of 2010. Qatargas III, Train 6, came online in November of 2010 with the same liquefaction capacity. The 7.8 MMT train is considered as a mega-train, and is currently the largest worldwide.

In March of 2011, Qatar will complete its monumental cycle of LNG infrastructure expansion with the inauguration Qatargas IV, Train 7 (80 BCF/year or 7.8 MMT), which will bring the total capacity to 3,750 BCF/year (77MMt / year). Qatari government officials have noted that they do not anticipate building any more LNG facilities in the near-term future, and that any additional capacity increases will be the result of improvements in the existing facilities. Although the most recent train additions were originally intended with U.S. markets as the primary target, low U.S. gas prices due to the shale gas boom have caused Qatar to pursue contract options with countries particularly China and India. In the first 10 months of 2010, the United States had imported only 33 BCF of LNG from Qatar.

Dolphin Project

Qatar is the supplier for the Dolphin Project, which connects the natural gas networks of Qatar, the UAE, and Oman with the first cross-border natural gas pipeline in the Gulf Arab region. The pipeline currently exports 2 BCF/d from Qatar, though it has a design capacity of 3.2 BCF/d. Dolphin Energy has been trying to secure additional Qatari gas to meet the rapidly growing demand for gas in the UAE, however, increased supplies from Qatar are uncertain.

Gas-to-Liquids

Gas-to-liquids (GTL) technology uses a refining process to turn natural gas into liquid fuels such as low-sulfur diesel and naphtha, among other products. Qatar is one of the sole three countries; South Africa, Malaysia, and Qatar to have operational GTL facilities. Qatars Oryx GTL plant (Qatar Petroleum 51%, Sasol-Chevron GTL 49%) came online in 2007, but due to initial problems, was not fully operational until early 2009. At full capacity, the Oryx project uses about 330 MMCF/d of natural gas feedstock from the Al Khaleej field to produce 30,000 bbl / d of GTL. The Pearl GTL project (Qatar Petroleum 51%, Shell 49%) is expected to use 1.6 BCF/d of natural gas feedstock to produce 140,000 bbl/d of GTL products as well as 120,000 bbl/d of associated condensate and LPG. Shell announced that the plants initial phase would begin operations in the first quarter of 2011, and that the second phase would come online in the first half of 2012. In addition to being the largest GTL plant in the world, the Pearl project will also be the first integrated GTL operation, meaning it will have upstream natural gas production integrated with the onshore conversion plant.

Undiscovered energy sources

Egypt's civilization is deep rooted in the world's history; great achievements in astrology, medicine… and other fields are recorded in Egypt's standing civilization. Its history in renewable energy is also recorded for having the first solar power demonstration about 100 years ago

By Aly Salah

Egypt has huge potential for being one of the richest-renewable energy countries worldwide. Its sunny weather characterizes almost all Egyptian governorates; in addition to the high wind speed in many areas and the River Nile can all give Egypt a huge leap forward. As a matter of fact, the energy sector is the spinal chord of any economy, as it is involved in all industries, whether agriculture, manufacturing, transportation…etc. Hence, increasing energy supply can ease up and decrease the cost of every aspect of life. For instance, the electricity demand in Egypt is mainly consumed by the residential and industrial sectors, which used 39.2% and 33.4% respectively in 2008-2009.

In Egypt, over the past few years, a special attention has been attributed to the renewable energy. According to a governmental plan, Egypt should be supplying 20% of the country's total electricity generation through renewables by 2020. The plan is implemented under the supervision of The New and Renewable Energy Authority (NREA), established in 1986 to oversee Egypt's integration of renewable energy technologies and their implementation.

Around 33% of this plan will be financed by the public sector and executed by the Egyptian Electricity Transmission Company. As for the remaining 67% will be offered as lucrative business opportunities, to the private sector and foreign investments.

Currently, Egypt has a total installed energy capacity of 23,502 MW, according to the Egyptian Electricity Holding Company's Annual Book 2008-2009. Of this total capacity, 11.9% are generated from hydropower, 1.8% from wind power and more than 80% from conventional thermal energy sources.

When we consider that renewable energy sources comprise 4% of the world's total power capacity and 3% of its total electricity capacity, we come to the conclusion that Egypt is already way ahead when compared to global rates as it generates about 13.7% of its electricity capacity from renewables.

In addition to environmental sustainability, another argument can be made about the cost effectiveness of renewable energy projects. Therefore, one must analyze the cost-benefit analysis for each geographic region's specific conditions; for instance, power generated from solar energy in London yields totally different results compared to Egypt's Wahat El-Kharga.

In the following paragraphs, Egypt's potential and opportunities in this regard will be analyzed and renewable energy sources will be contrasted with the currently dominating oil and gas energy sources. This will be undertaken primarily in terms of their economic benefits and their impact on the environment.

Wind Generated Power

Wind power in Egypt currently generates a mere 1.8% of its total capacity. In 2006, Egypt generated 225MW from wind power and the government planned to increase this figure to 845MW by 2010. However, according to Fathi Ameen, NREA Vice Chairman, Egypt's wind power generation did not exceed the 400MW in 2009.

The Egyptian government allocated about 15,500 sq. km for wind farms; 8,000 of which are in the Red Sea area and the rest on the Nile Basin and in Upper Egypt.

According to a study conducted by M. El-Shimy from the Electric Power and Machines Department at Ain Shams University, the Red Sea region has a potential to generate 20,000 MW from wind sources, as the average wind speed there averages 8-10 m/s, a rate comparable to the best in the world. Ameen noted that the 2020 plan is to generate 7,200 MW from wind. If achieved, this rate can decrease Egypt's CO2 emissions by 17 million tons and generate 12% of Egypt's projected electricity demand. Zaafarana wind farms can be considered as a model for future projects.

In addition to the Red Sea region, there are other potentially useful areas with average wind speeds of 7-8 m/s on both sides of the Nile River, Beni Sueif, Al-Minya and Al-Kharga Oasis.

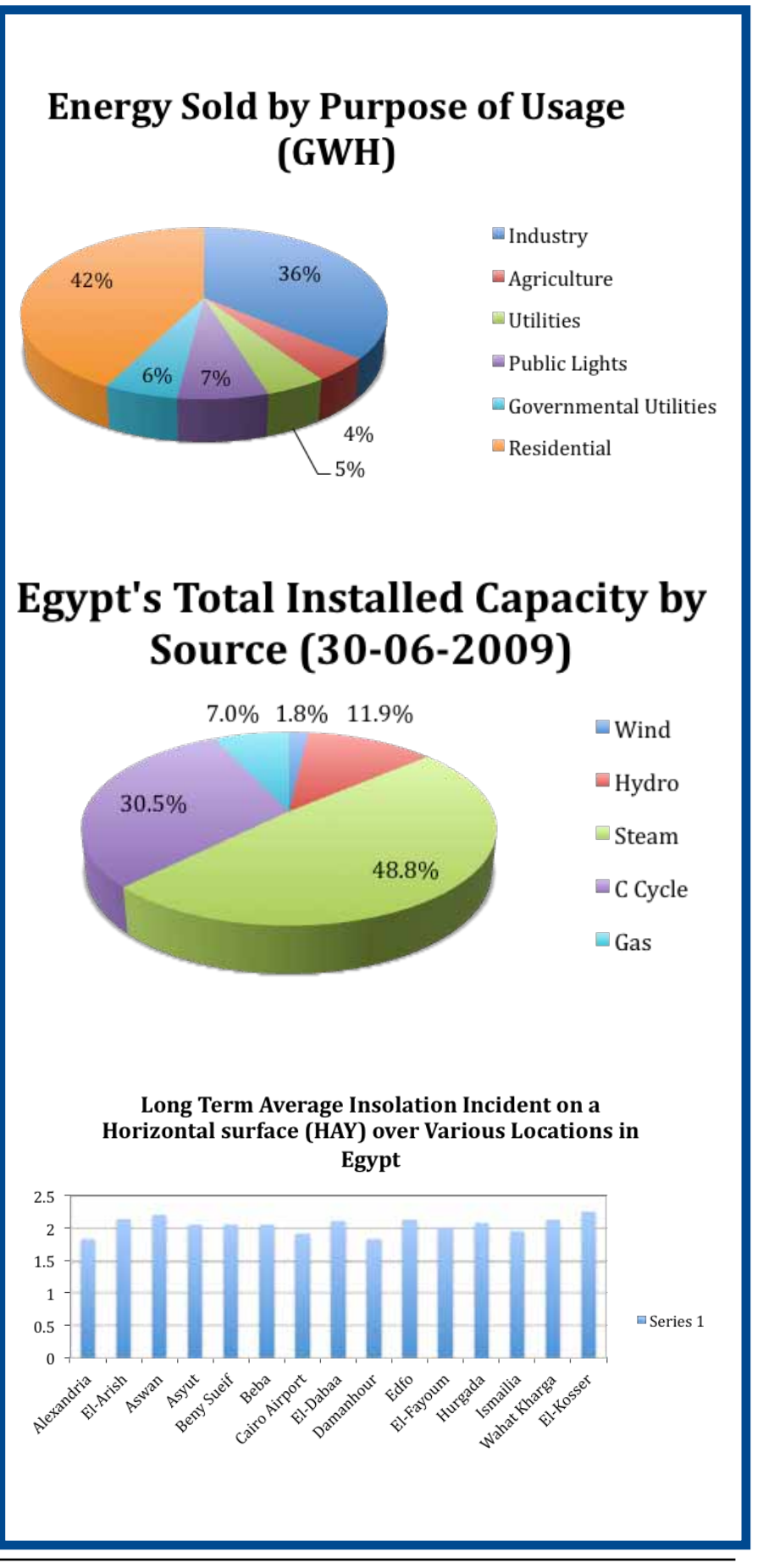
The Egyptian government supports wind farm projects implemented by the private sector by easing up permits for land, which are already obtained by NREA; in addition to exempting investors from custom duties on all imports related to renewable energy equipment. Financial risks on investors are also reduced by long-term power purchase agreements that extend to 20-25 years.

Solar Energy

According to El-Shimy's study, having an average solar radiation of 5.7301 KW/m. sq./day, "Egypt is considered one of the best regions all over the globe for solar energy related projects." As a result, a feasibility study was performed to measure the returns on investments of photovoltaic power plants in different areas of Egypt. Wahat El-Kharga, with its 29.493 GWH/year capacity is considered as the best region in Egypt for generating solar-based power, and investors can cover their costs within 4.9 years. Safaga is the lowest of the studied regions with a capacity of 24.202 GWH/year and a return on investments can be achieved within 6.08 years.

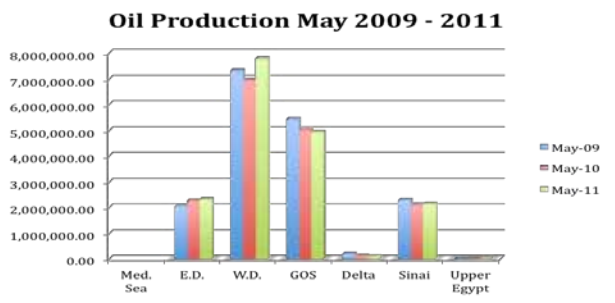
It is worth mentioning that if a 10MW photovoltaic power plant is installed in Wahat El_kharga, a total of 30,187 barrels of oil will be saved sparing the environment 14,538 tons of CO2 emissions.

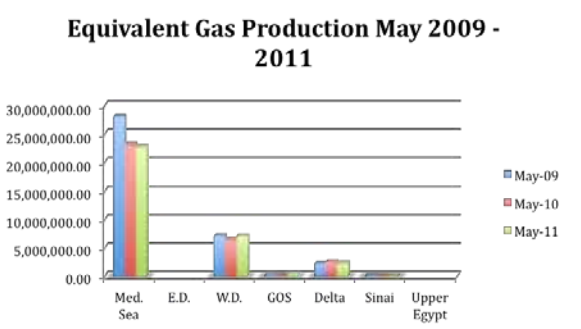
In conclusion, the coming governments should support the renewable energy sector and seize the opportunities symbolized in God's given endowments to Egypt.

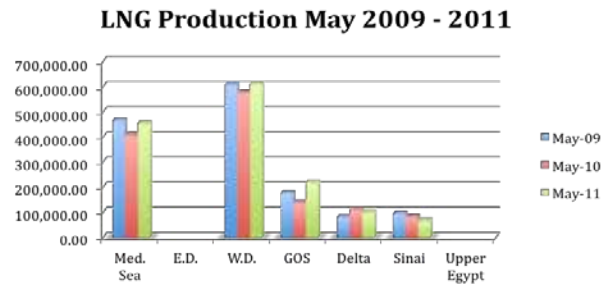


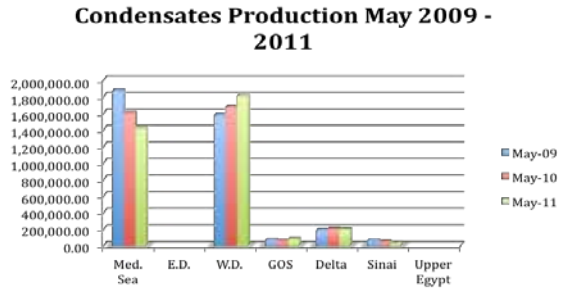
Egypt Statistics

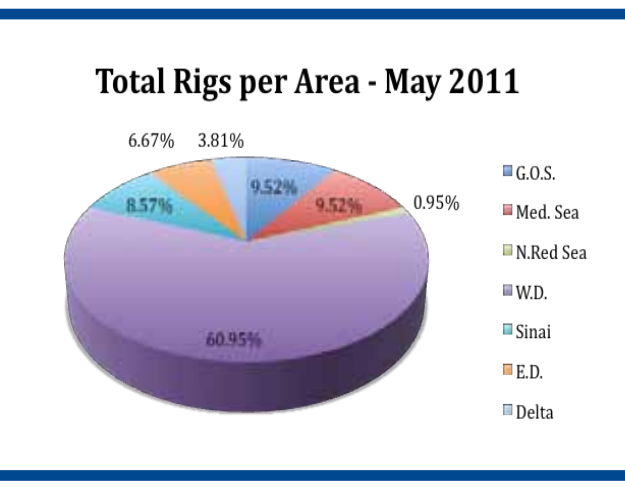
	Oil			Equivalent Gas			Condensate			Liquefied Gas		
	Barrel			Barrel			Barrel			Barrel		
	May-09	May-10	May-11	May-09	May-10	May-11	May-09	May-10	May-11	May-09	May-10	May-11
Med. Sea				28,074,600	23,207,321	22,724,464	1,871,489	1,601,306	1,421,421	465,914	406,131	454,671
E.D.	2,052,941	2,269,946	2,329,040									
W.D.	7,316,617	6,960,139	7,789,304	7,109,800	6,454,821	7,057,143	1,580,092	1,674,026	1,809,361	609,313	577,086	610,784
GOS	5,434,233	5,026,408	4,943,372	186,800	104,643	333,214	67,361	59,463	80,311	177,638	139,520	219,217
Delta	202,024	129,719	102,479	2,222,200	2,536,607	2,307,679	186,404	206,585	196,702	81,424	112,290	100,798
Sinai	2,292,995	2,116,704	2,139,977	103,400	56,429	32,500	64,107	50,022	33,399	95,936	82,863	68,777
Upper Egypt	3,328	15,803	26,892									
Total												

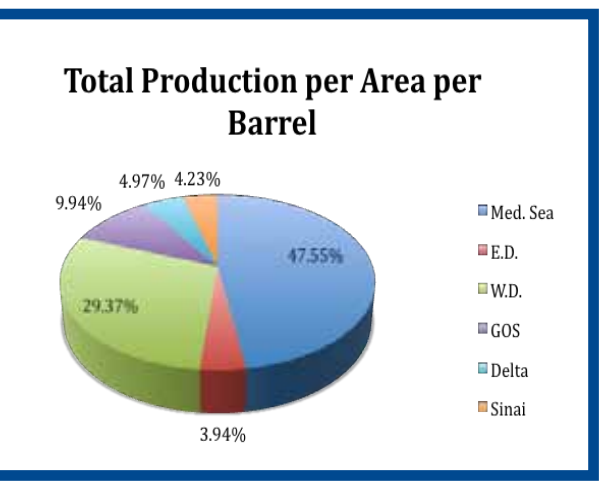












EGYPT OIL&GAS RESEARCH & ANALYSIS

Table 1 Egypt Rig Count per Area -March 2011

Area		RIG COUNT Total	Percentage of Total Area
Area			
Gulf of Suez		10	9.5%
Offshore	10		
Land			
Mediterranean Sea		10	9.5%
Offshore	10		
Land			
N.Red Sea		1	1%
Offshore	1		
Land			
Western Desert		64	60.6%
Offshore			
Land	64		
Sinai		9	8%
Offshore			
Land	9		
Eastern Desert		7	6.6%%
Offshore			
Land	7		
Delta		4	3.8%
Offshore			
Land	4		
Total		105	100%