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Oil and gas reforms create fresh investor interest

Having suffered its worst energy crisis in decades, the oil and gas industry is now bouncing back. Following bold reforms to minimize debt, a host of new agreements have been reached with international oil companies, ringing in billions in investment and setting Egypt on course to once again thrive as an oil producer

Egypt is relying on its oil and gas sector to drive its ambitious economic plan and help the country achieve its overall economic targets, a goal it will need to accomplish while the industry continues to overcome some acute challenges.

"[Achieving] sustainable economic growth is at the top of Egyptians' expectations of the current government," says Sherif Ismail, Minister of Petroleum, who oversees the agency responsible for the coordination and development of Egypt's oil and gas industry. "This means there will be more responsibility on the petroleum sector to secure the energy supplies needed to achieve targeted economic growth, which in turn means higher energy demands."

It's a tall order for an industry that has been beset with the worst energy crisis in decades. Rising energy demands, lower output from maturing oil fields, terrorist attacks on its infrastructure, and slumping oil prices have all contributed to a challenging environment, yet there's still reason to be optimistic, says Mr. Ismail.

President El-Sisi's election last year came with bold reforms aimed at the oil and gas industry. The announcement to phase out fuel subsidies, which gobbled up a quarter of the nation's budget, has helped to stimulate the economy and give the government greater flexibility in meeting its debt obligation. Falling behind on payments to foreign operators stalled oil and gas exploration for years as development plans were put on hold till arrears were paid.

The government took concrete steps to resolve the issue; in December 2013 it made a payment of $1.5 billion, whittled the debt down by another $3.5 billion last year and is on track to minimize its debt in 2015. The pay-off has led to swift and renewed interest in oil exploration and development. Since November 2013, 56 new exploration and supply agreements have been reached with international oil companies, ringing in investments worth more than $12 billion and setting Egypt on course to once again thrive as an oil producer in the region.

In fact it was energy deals that dominated Egypt's Economic Development Conference earlier this year, attracting some of the most influential power brokers in the world. British Petroleum, for instance, signed a $12 billion deal for exploration and resource appraisal activities, while International power company Eni inked a development deal with the Ministry of Petroleum worth an estimated $5 billion.

"This is of great significance since it is expected to contribute to securing supplies of gas to meet increasing local demand," says Mr. Ismail. "The total value of investments used to implement projects in the next four years will result in the production of 200 million barrels of oil and 1.3 trillion cubic feet of gas."

Oil production peaked at 922,000 barrels per day in 1996, but the country's oil fields have matured considerably and crude output has fallen to about 600,000 barrels per day, making it all the more critical for Egypt to pursue exploration initiatives to meet the needs of its growing population.

The current drop in oil prices, meanwhile, has not slowed the country's drive for greater energy independence. "Many firms may decide to reduce their total global investments as a result of falling oil prices, yet some major companies see it as an opportunity to invest in drilling operations and services," the Minister comments.

In a move to enhance the investment environment the government has shown a willingness to renegotiate energy prices to reflect the cost of exploration.

"In light of the high cost and risk of recent discoveries in Mediterranean deep water, new models for production-sharing agreements were created to achieve appropriate revenues and encourage petroleum companies to accelerate the process of putting the discoveries on the production map," continues Mr. Ismail. "This will be a win-win situation for the exploration companies and local markets."

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SHERIF ISMAIL, Minister of Petroleum

Mr. Ismail also points out that, to help accelerate bringing petroleum products to market, Egypt is expanding its refining capacity and embarking on a series of ambitious projects to develop petroleum infrastructure. "We are updating existing refineries, improving their safety, and raising capacity levels. We are also setting up new units for the production of petrol, gas oil, liquefied petroleum gas, and asphalt to meet the needs of the domestic market."

The government has sunk nearly $6 billion in upgrading facilities in Alexandria, Suez, Assiut, and Mostorod. The Middle East Oil Refinery Company (MIDOR) refinery in Alexandria is being expanded to increase capacity by 60%, with an infusion of $1.3 billion in funds; additional output is expected to come online by the end of 2017. More projects are in the works to increase output at other refineries. Construction is underway for a $220 million plant in Alexandria which is expected to produce 500,000 tons of gasoline a year, while a new unit in Assiut will produce 400,000 tons of gasoline a year to help supply the Upper Egypt region.

If the Minister is eager to fast track his exploration and development plans, there is good reason. Egypt's energy demands have been briskly outpacing its capacity. Over the last five years, energy production grew at an average rate of 1% a year while the country's consumption rate grew more than 5% annually. To help bridge the gap, the Ministry is employing a multi-pronged strategy, which includes expanding domestic natural gas production.

The North Alexandria and West Mediterranean Deepwater project, a strategic gas resource in the West Nile Delta area, is being developed in partnership with British Petroleum and German oil company, R.W.E. Dea. The project will help supply the country's natural gas requirements to the tune of 1 to 2 billion cubic feet per day, equivalent to 25% of Egypt's current natural gas production. The Ministry is also expanding operations at other offshore facilities, including The West Delta Deep Marine Project and Project Decca in the Mediterranean Sea. Onshore projects in the Western Desert are also being revitalized to improve efficiency.

Imports of liquid natural gas are also being beefed up to close the gap between production and consumption. The Ministry inked a deal with the Norwegian gas company, Hoegh, to begin providing shipments of natural gas and is negotiating a similar arrangement with Russia's Gazprom. These new contracts are being added to Egypt's growing list of international suppliers to maintain a steady stream of natural gas to the country particularly during the summer months when demand is at its highest.

Another critical part of the government's strategy is to raise public awareness of energy conservation. The elimination of fuel subsidies has driven prices higher for many, but the Minister suggests there is a positive side for consumers and the environment.

"National awareness of energy conservation will help citizens accept a system that allows for the rational and efficient use of energy," he says. "Egypt will secure a new energy mix by diversifying its resources and using new and renewable energy."

Transforming Petrochemicals

Egypt's energy crunch has the government focused on a master plan to improve energy self-sufficiency. With one eye on exploration and the other on developing the downstream sector, Egypt is one of the fastest growing petrochemical markets in the Middle East and North Africa region.

In an industry driven by private investment – as well as state initiatives – perhaps the most important recent development in the downstream sector has been the launch of the Tahrir Petrochemicals Complex by Carbon Holdings. The largest venture of its kind in the country, the $7 billion mega-project will dramatically expand Egypt's petrochemical potential.

"It is heavy industry that underpins any economy, and our government understands that and supports the industrialization of Egypt in an unparalleled way. The level of optimism I have now is very different than any level of optimism I've had previously"

BASIL EL-BAZ, Chairman and CEO of Carbon Holdings

Located at the southern end of the Suez Canal, the sprawling complex will feature a naphtha cracker plant, the first of its kind in Egypt and the largest in the world. The complex will include a dedicated 300 megawatt combined cycle power plant, a wastewater treatment plant, and a full-fledged water desalination facility that will be operated by General Electric's proprietary ultra-filtration and reverse osmosis technology.

"We are going to be the first liquid cracker," says Basil El-Baz, Chairman and CEO of Carbon Holdings. "It will produce eight or nine different products. It's a massive complex, sitting on a site of nearly 5 million square meters."

The project will take five to six years to complete and once operational is expected to generate annual revenue ranging from $6 to $9 billion and increase the country's overall annual exports by more than 25%.

Cracking in the petrochemical industry refers to the method used to break down complex hydrocarbons into the chemical raw materials that are used to manufacture products consumers use every day. Instead of relying on natural gas, Tahrir's cracker will use 350,000 tons of naphtha, a liquid hydrocarbon mixture. It is expected to produce 1.5 million tons of polyethylene, 880,000 tons of polypropylene, 215,000 tons of butadiene and 100,000 tons of Hexene-1, in addition to annual outputs of gas and petrol. Carbon Holdings' new technology is expected to give the company a competitive edge producing at a lower cost while selling at global prices.

Big ideas are not unusual for Mr. El-Baz, who as an undergraduate at Harvard University developed the concept for building an ammonia plant in Egypt. His feasibility study earned him a grant from the United States Trade Development agency and eventually financing from the Import-Export bank. What started out as a dorm room project became known as the Egyptian Basic Industries Company or EBIC. It went on to become the 6th largest global exporter of ammonia and in 2005, OCI, the Netherlands based fertilizer manufacturer, acquired a majority stake in the company.

The Carbon Holdings CEO now suggests that the Tahrir project will kick start an industrial revolution that wiii help Egypt's struggling economy get back on its feet. The construction phase of the project will create 20,000 jobs, employ more than 3,000 technicians and engineers and produce another 25,000 to 50,000 indirect jobs. Between purchasing the raw materials and selling the final product, the economic cycle will have a projected benefit of $15 billion per year.

"This will have a tremendous impact on the banking sector," says Mr. El-Baz. "Each one of these financial institutions that we are dealing with will have to employ people to handle the flow of what is taking place."

Carbon Holdings' strategic goal is to attract more domestic customers, which would create a domino effect. More domestic manufacturers would mean more Egyptian made end products that are less expensive than imports, leading to increased purchasing power and economic growth.

The spirited entrepreneur also believes an industrial revolution would be the ultimate solution to a threat that has dogged the region and kept foreign investors cautious – terrorism. "Among the region's youth, it is a common belief they are being forgotten and their governments do not care about their future, the so called Islamic State exploits this disenchantment," Mr. El-Baz wrote in a recent Op-Ed in the Global Post. He went on to argue that a military effort must be part of a broader strategy to bring fundamental change to the economy and bring hope to the country's youth.

Mr. El-Baz expects his Tahrir mega project and the ongoing facelift and expansion of the Suez Canal to help create that opportunity. "We want to set up the manufacturing right next to where the product is, ideally, adjacent to the warehouse of the storage tank. In an ideal world, there is a consumer market right next to that production facility."

Expansion of the Suez Canal is expected to draw more traffic, resulting in more logistics and warehousing operations, which in turn is expected to attract more manufacturers. "For a company like ours that produces a variety of petrochemical products, these manufacturers are going to require the products that we produce," continues Mr. El-Baz, who says there have already been serious inquiries from manufacturers who want to set up shop in Egypt.

Egypt's state initiatives in petrochemicals are also being ramped up. The government is looking to leverage its natural gas reserves with plans to spend more than $14 billion in developing its refining and petrochemicals sectors over the next five years.

The Egyptian Ethylene and Derivatives Company (ETHYDCO) is a joint venture formed by three state-run petrochemical companies and will save the country more than $500 million in annual imports and boost its exports of ethylene to Western Europe and Africa.

Egypt consumes about 500,000 tons of ethylene a year. The new factory which is expected to begin production by the end of the year will manufacture 460,000 tons of ethylene, and 400,000 tons of high and low density polyethylene annually, enough to cover 45% of local demand for ethylene. Ethylene and polyethylene are used in the production of plastics and chemicals. The plant will also be capable of producing 20,000 tons of butadiene, a first in Egypt. Butadiene derivatives are used in the manufacturing of products ranging from tires to golf balls.

"It is heavy industry that underpins any economy, and our government understands that and supports the industrialization of Egypt in an unparalleled way," explains Mr. El-Baz. "The level of optimism I have now is very different than any level of optimism I've had previously. Unlike previous governments, this government is very receptive to creative ideas and non-governmental parties raising concerns or giving suggestions. That in itself is extremely encouraging."