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# High Noon in the Mediterranean

**Egypt is the new major power player in the region.**

Last September's discovery of the Zohr LNG field in Egyptian waters came at just the right time to help the country's volatile economy and ever-increasing energy requirements. It is not just the size of the field, which could conceivably hold 30 trillion cubic feet (Tcf) of lean gas, but rather Egypt's ability, speed and desire to develop that sets it apart in the region.

However, adding to an already overcrowded marketplace and eliminating the possibility of Egypt as a primary energy importer will have resounding effects on the global market.

This article examines how the discovery of Zohr differs from other recent LNG field finds in the eastern Mediterranean and what the worldwide influence on LNG markets will be.

### **Pace of Development**

Egypt's new field has been described as a "supergiant" by the Italian company Eni, who have been granted exploration and upstream production rights for the Nile Delta area. Zohr, which means "noon" in Arabic, is expected to be the largest LNG field in the Eastern Mediterranean Gas Basin but it certainly wasn't the first big field to be found in the region. In 2010, Israel discovered the Leviathan gas field with a projected 22 Tcf of gas, the Tamar field with 10 Tcf the year before and Cyprus found the Aphrodite field with a projected 4.5 Tcf most recently, in 2011.

But only a year after being detected, Zohr is on the fast track to successful development. Eni is developing 20 fields and has pledged to invest an estimated \$12m in the project. The first exploration period for the 100 square kilometer area is planned for January of 2017. The progress made here stands out all the more because of Leviathan and Aphrodite's lack of development just north in the Levantine Basin.

When the Israeli Delek Group and the American company, Noble Energy discovered the Leviathan gas field, it dwarfed all others in the Eastern Mediterranean. However, a long legal battle with anti-trust authorities thrust the

project into purgatory for years. Although Leviathan was given the green light last November, in February the Israeli Supreme Court challenged the decision to move forward with the project. Although the cooperation was able to bring the Tamar field online only one and a half years after its discovery in 2009, due to these ongoing domestic debates, Leviathan is not expected to start producing before 2018 – a full eight years after it was initially discovered.

Cyprus has also been working with Nobel Energy and Delek Group to put together a development plan for Aphrodite. There have been a variety of infrastructure improvement schemes and ideas including building a pipeline to Egypt, or an LNG plant on the south coast of the divided island, but none have come to fruition. Cyprus has also been part of trilateral meetings with Greece and Israel to discuss the possibility of a pipeline, which would stretch from Israel to Europe and eventually interconnect all three nations' electricity grids. Nonetheless, Aphrodite's gas remains underground and untapped.

Because these fields have remained undeveloped, Cyprus and Israel were not able to make agreements to export under the higher prices of the past. With the addition of gas from Zohr into the region, these fields have depreciated in monetary value.

### **Energy Trade Negotiations**

Egypt is in the middle of a metamorphosis from energy importer to exporter: the country plans to stop importing LNG by 2020. Although the potential for future energy independence is there, one cannot ignore that the country continues to struggle with significantly disproportional supply and demand.

After the 2011 revolution, an energy crisis began which has had serious effects on the country's ability to govern, produce and restabilize. Although Eni has promised that Zohr could meet Egypt's natural gas demands for decades to come, the imbalance will not be satisfied overnight. The nation has a high budget deficit and the Egyptian General Petroleum Corporation (EGPC)'s has not been able to pay off its debt to foreign operators.



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As a result, Egypt has struggled to find an affordable energy source it can rely on. Considering the bargaining chip Zohr offers, it is a real advantage that Egypt is not committed to a long-term import contract. This new leverage will have powerful ramifications on energy trade agreements as the country is in a much better position to negotiate and plan for the future.

Six years ago, Israel planned to sell surplus gas from Leviathan and Tamar to Egypt, but a definitive agreement was never reached. Since then, the possibility of Israel to Egypt export has become less likely. In December, the Egyptian Petroleum Minister put all energy trade negotiations between Israel and all companies (including private) in Egypt on hold. The halt came after an International Chamber of Commerce's arbitration which ordered Egypt to pay Israel reparations for breaking an energy-export contract in 2012. Egypt had supplied Israel with 40% of their LNG, but they stopped exporting, citing pipeline security and payment problems. As contract negotiations have been put on pause until the appeal process is complete, Israel may have missed its last chance to make a long-term deal with Egypt.

### **A Foundation in the Nile Delta**

The fact that infrastructure is available in Egypt makes moving forward with Zohr plausible and practical. The Idku and Diametta fields off the north coast already have LNG plants in place—facilities to convert gas into liquid for shipment via either pipeline or vessel. Having not just one but two of these very expensive plants sets the country's ability to emerge as an exporter apart from Israel and Cyprus.

For the last few years, both of these very valuable plants have sat idle because there was not enough feed gas available to export – the country currently consumes

more gas than it produces. Since the beginning of the Arab Spring, over five years ago, Egypt has been facing power outages in the summer and occasionally very long lines at the pump. Zohr represents a solution to a grave issue facing the country and it is no wonder the government is fervently working with Eni to develop the field as quickly as possible.

In the course of just one year, the country has made impressive strides to stabilize its energy situation. Besides making progress with this latest LNG field, the state-owned Egyptian National Gas holding Company (EGAS) has recently rented two floating storage and regasification units (FSRU) to feed its power grid. A plan to rent a third LNG floating import terminal by the end of this year has also been announced

### **Global Consequence**

Egypt's prospective energy independence and resurgence as an exporting nation will have a wide impact. Not only will there be less Egyptian demand on the regional and global market, but also in a few short years, there will be this additional injection of LNG into an already full market place. This unexpected reservoir will add to the global glut and prolong market saturation.

In order to survive and thrive, aspects of the market need to evolve. Producers will need more ingenuity than before to produce the most low-cost, high-quality product. Although LNG has been regarded as a widely-available, preferred energy source in the past, in order to succeed, companies must improve and be even more reliable and disciplined.

Zohr's exploration process seems to have begun smoothly and the ambitious timetable appears to be on track. Considering the potential of gas, the existing infrastructure in place and Egypt's desire to move forward quickly, the project will likely take precedent in Eni's diverse portfolio and could affect investment in contending ventures.

The low price of LNG has deterred investors from beginning new projects. Many undertakings in their infancy are expected to be postponed, possibly indefinitely. Cost cutting and efficiency are now more important than ever for competing energy producers to keep cost-viability. Companies will need to react to changing prices by significantly reducing capital costs, embracing innovative management policies and reevaluating portfolio risk.

Continuous improvement projects must be implemented across all disciplines within organizations. Frequently,

lost time and inefficiency can be reversed with proper management and changing company culture. Managers must be proactive leaders who resolve all issues that can cause costly delays before they happen.

The eastern Mediterranean, in particular, offers great opportunity for energy producers to reach consumers. Asia can easily be accessed via the Suez Canal, where LNG prices are higher. To the north, the European Union and Turkey offer consumers who are actively seeking more energy import diversity to minimize their reliance on Russia. Working with local populations, who have diverse cultures, and sovereign nations with complicated international relationships is no easy feat but can yield attractive rewards.

Even with the emergence of such a supply giant like Zohr, very low prices, and increased costs of infrastructure, global LNG demand is expected to continue to grow for the next decade. Producers will have to brave what may be a hard time ahead, but those who can conform to the new market, move quickly, make quick decisions and manage their risk will come out on top.