EGYPT
AN EMERGING GAS HUB

Egypt’s energy sector is undergoing a major transformation, especially with respect to the natural gas sector. The Government of Egypt’s energy market reforms as well as the pace and progress of its economic reform program have shifted investors' sentiment towards Egypt and its oil and gas industry.

Major natural gas discoveries in the East Mediterranean are paving the way for the elevation of the region’s status as a gas producing hub while providing new opportunities for regional integration.

The Egyptian government, cognizant of the potential opportunities associated with these developments, has since taken operational steps to promote Egypt as a regional oil and gas hub. These steps have included the establishment of the Eastern Mediterranean Gas Forum.
OVERVIEW

Egypt is the largest non-OPEC oil producer in Africa and has the largest oil refining capacity in the continent. The country serves as a major transit route for oil shipped from the Persian Gulf to Europe and to the United States. Egypt is also the third-largest dry natural gas producer on the continent following Algeria and Nigeria.

Egypt’s oil and gas sector is undergoing a major transformation. The Government of Egypt (GoE) has embarked on gas market reforms, including the issuance of Law No. 196/2017 on Gas Market Regulation and the establishment of the Gas Regulatory Authority (GasReg).

The GoE has also sought to increase some offtake gas pricing, resolve contract disputes and arbitration cases with international oil companies (IOCs), and conducted further reforms in the exploration and production (E&P) contractual terms resulting in attracting new entrants.

Egypt is seeking to overhaul the national oil and gas sector to enhance the country’s capacities to stand out in the regional market as the right and one-and-only option for such a hub. Simultaneous major natural gas discoveries in the Eastern Mediterranean region- with discovered volumes exceeding the domestic market capacities of the mentioned countries - are paving the way for the elevation of the region’s status as a gas producing hub.

Regional cooperation with Egypt has emerged as the economically viable option for Eastern Mediterranean countries, such as Cyprus and Israel, to export surplus volumes over their respective local market demand, by leveraging Egypt’s existing infrastructure, with the additional supplementary facilities (Suez Canal, SUMED, LNG facilities in Damietta and Idku, an FSRU, the Arab Gas Pipeline connecting Egypt to Jordan, Lebanon, and Syria, Alexandria and Suez Refining centers).

The GoE realized the potential opportunities associated with its transformation to an energy hub and has since taken operational steps to promote Egypt as a regional energy hub under the Oil and Gas Modernization Program, launched in 2016. These steps have included the establishment of the Eastern Mediterranean Gas Forum (EMGF), which will be based in Cairo.

The potential impact of these developments go beyond the energy sector, and have political, foreign policy, developmental and socio-economic implications.
EGYPT’S NATURAL GAS RESERVES

Exploration for natural gas in Egypt started in the early 1960s in the Mediterranean, Nile Delta and Western Desert areas. The first gas field discovered was Abu Madi field in the Nile Delta, by the Italian energy company ENI. This was followed by another discovery in Abu Qir in the Mediterranean in 1967.

In 1997, the West Delta Deep Marine discoveries by British Gas (BG) witnessed the drilling of 17 successful wells. This marked a new phase of huge natural gas discoveries and a boom in production.

For years later, Egypt accumulated considerable gas reserves and became an exporter of gas, mainly to the US, France, Spain, Israel and Jordan. However, the events of the January 2011 revolution led to a deficit in production and a halt in Egypt’s gas export operation, turning Egypt into a natural gas importer to meet domestic rising demand.

The discovery of the Zohr field in 2015, and subsequent government reforms, renewed international interest and flow of investments to Egypt’s natural gas sector. Bidding activities in upstream projects have since witnessed significant improvement leading to the signing of varies agreements with IOCs for gas exploration and development projects.

In September 2018, Egypt achieved natural gas self-sufficiency with its production rate rising to a record 6.3 billion cubic feet of gas a day (BCFD), up by more than 30% since 2016, turning Egypt into one of the biggest producers in North Africa and the Middle East. Gas output is expected to continue rising to reach 8 BCFD during the fiscal year 2019/2020.

Egypt’s natural gas reserves are estimated to be 62.8 trillion cubic feet by the end of 2017, the third largest in Africa after Nigeria and Algeria. Natural gas reserves in Egypt increased by 33.3% since 2015, reaching 90 trillion cubic feet in 2019.

Furthermore, Egypt is expected to export 12 million tons of natural gas worth USD 2 billion in FY2019-20. Egypt has exported 4 million tons of gas worth a total USD 589 million during the current fiscal year.

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1 Source: British Petroleum statistical review of world energy
Since the discovery of Zohr, Egypt concluded two notable agreements to import and liquefy natural gas in its two big liquefied natural gas (LNG) plants, as a step towards exporting gas to Europe. One was signed between the private Egyptian company Dolphinus Holdings and Israeli company Delek Drilling and Texas-based Noble Energy, who are partners in Israel’s Tamar and Leviathan fields. The second was concluded with Cyprus in September 2018 to establish a natural gas subsea pipeline between the two countries, in order to facilitate natural gas delivery from Cyprus to Egypt’s liquefaction plants in Idku and Damietta.

According to the Ministry of Petroleum and Mineral Resources (MoP), Egypt, in FY 2019-20, plans to develop and operate 11 exploration and production projects in the oil and gas sectors in the deep waters of the Mediterranean Sea, the Gulf of Suez, Delta and the Western Desert. These projects are expected to increase Egypt’s production by 2.5 billion cubic feet per day (bcf/d) of natural gas and 32,000 barrels per day (b/d) of crude oil and condensates.

Simultaneously, the South Valley Egyptian Petroleum Holding Company (Ganope) has launched a tender in March 2019 for 10 oil and gas exploration blocks off the Red Sea coast under a new production sharing contract. The launch of the tender came following the demarcation agreement between Egypt and Saudi Arabia and the completion of seismic scans in the area by Schlumberger, Norway’s TGS and three other oil companies. Schlumberger’s data suggests there is a high probability of natural gas discoveries, noting that the seafloor resembles the gas-rich terrain of neighboring Saudi Arabia.
**RECENT GAS DISCOVERIES**

The recently discovered gas reserves enhanced Egypt’s available liquefaction capacity, enhancing the country’s transformation into a regional gas hub.

**Zohr**

Discovered in August 2015 by ENI, the Zohr Field, is located within the 3,752 km² Shorouk Block, within the Egyptian Exclusive Economic Zone (EEZ) in the Mediterranean Sea. The field is situated more than 150 km from Egypt’s Mediterranean coast.

Zohr is considered the biggest gas field in the Mediterranean with reserves expected to reach 30 trillion cubic meters at cost of USD 12 billion. Its production capacity has reached 2000 million cubic meters per day, and is expected to rise to 2700 mmcf/d by December 2019.

**Atoll**

BP announced the Atoll gas field discovery in March 2015 and started its gas production in 2018. Atoll’s production reached 350 mmcf/d in 2019, and is expected to amount at 1.5 trillion cubic meters at cost of USD 900 million.

**West Nile Delta Project (WND)**

The West Nile Delta Project, operated by BP, includes five gas fields across the North Alexandria and the Mediterranean deep-water...
offshore concession areas. The total reserves are expected to reach 5 trillion cubic meters at the cost of USD 11.3 billion. The project, which produces gas from the Giza and Fayoum fields, is currently in its second stage.

**Nooros (Baltim South West)**

Owned by ENI and BP (50/50), the Nooros gas field was discovered in July 2015 and started production in September of the same year. In March 2018, ENI announced that the field had reached a production rate of 32 mmcf/d. At the time, such level of production marked the highest ever recorded by an ENI operated field in Egypt during the past 50 years.

**West Delta Deep Marine (WDDM)**

The West Delta Deep Marine concession in the Mediterranean Sea is comprised of 19 fields, of which 12 fields (Scarab, Saffron, Simian, Sienna, Sapphire, Serpent, Saurus, Sequoia, SimSat-P2, Sapsat-1, Sapsat-2 and Swan) are in production mode. In September 2018, the Egyptian General Petroleum Corporation (EGPC) signed an E&P agreement with Shell and Petronas (1 billion USD) to drill 8 wells within WDDM.

Shell’s WDDM phase 9B gas field’s reserves are estimated at 400 billion cubic feet (bcf). The well’s initial output is estimated at 20 mmcf/d and the entire project is set to be fully operational by 2H2019, producing up to 400 mmcf/d. (Source: Reuters)

**Nour-1 New Field Wildcat**

The most recent gas discovery (March 2019) is located in the Nour North Sinai Concession in the Eastern Egyptian Mediterranean, about 50 km north of Sinai. In the concession, which is in participation with Egyptian Natural Gas Holding Company (EGAS), ENI is the operator with a 40% stake, BP holds a 25% stake, Mubadala Petroleum has a 20% stake, while Tharwa Petroleum Company holds a 15% stake of the contractor’s share. This field in still in the exploration mode.

**ADVANCED INFRASTRUCTURE**

Egypt has a relatively large natural gas export infrastructure, but is underutilized. With a total length of 7,485 km of transmission grid and 38,000 km of distribution grid, Egypt has the largest infrastructure in the East Mediterranean area.
Egypt’s existing infrastructure with the additional supplementary facilities include:

- The Suez Canal
- SUMED pipeline running from the Ain Sukhna terminal on the Gulf of Suez to offshore Sidi Kerir, Alexandria on the Mediterranean Sea
- LNG facilities in Damietta
- LNG facilities in Idku
- A floating storage regasification Unit FSRU
- The Arab Gas Pipeline connecting Egypt to Jordan, Lebanon, and Syria
- Alexandria and Suez refining centers

Multiple entry and exit points to the grid enhance Egypt’s potential as a gas hub:

**Entry points:**

- Foreign importation pipelines (Arab Gas Pipeline, El- Arish-Ashkelon Pipeline, and planned Cyprus – Egypt)
- LNG regasification terminal (750 MMSCFD)
- National production fields

**Exit Points:**

- Interconnection with exporting pipelines
- Interconnection with local distribution networks
- The premises of final consumers
- LNG liquefaction terminals (1,880 MMSCFD)

**GOVERNMENT REFORMS**

**The Vision**

In 2016, the MoP launched an ambitious “Oil and Gas Sector Modernization Project”, which aims at “realizing the petroleum sector’s full potential by 2021 as a sustainable development engine and a role model for the modern Egypt.”

In this regard, the MoP adopted a new integrated strategy in the petroleum, gas and mineral resources domains. Its primary targets are ensuring energy security, fulfilling local demand requirements, achieving value-added and optimal utilization of Egypt’s natural resources, as well as raising human resources qualifications and efficiency. The MoP’s strategy consists of several measures that aim to narrow the gap between production and consumption throughout a five-year plan, supported by short and long term plans. These measures include reforming the energy subsidies and managing energy demand, in addition to encouraging and attracting new investments in exploration and development domains. Fast-tracking development of new gas discoveries, enhancing infrastructure, developing petrochemical industries, diversifying Egypt’s energy mix and increasing its efficiency, transforming Egypt into a regional hub for trading and exchanging gas and oil, restructuring the oil...
and gas sector in addition to developing mineral resources.

**Gas Market Reforms**

1. **NEW GAS LAW**

   Adopted in August 2017, Law # 196/2017 on gas market regulations allowed the private sector entities, for the first time, to procure and market their own gas supplies directly without going through EGAS. The liberalization of the procurement process is a major step towards increasing gas supply availability to the domestic market.

   By engaging the private sector, the GoE reduced the monopoly of state-owned entities such as EGAS, in procuring, transporting (through GASCO) and managing gas supplies to domestic gas users.

   Law 196/2017 established the **Gas Market Regulatory Authority (GasReg)**, as an independent public body, with a mandate to monitor the functioning of the gas market, encourage new investments, regulate the gas market activities, introduce competition amongst potential market players by allowing Third Party Access to gas networks and availed facilities under a fair and non-discriminatory basis, along with increasing the quality of services provided, and protecting the consumers’ rights.

   GasReg’s role, by virtue of the law, also includes:

   - Monitoring the performance of gas market players
   - Granting licenses for shipping, supplying and distributing natural gas in the local market
   - Approving codes for usage of gas networks and facilities
   - Setting the methodologies for calculating the tariffs against the access of gas networks and facilities
   - Handling complaints that may arise between market players

2. **GAS PRICING MECHANISM**

   In response to concerns of IOCs on investing in high risk high cost upstream projects, the GoE established a mechanism for an agreed-upon pricing structure between IOCs and EGAS. The structure takes into account the development cost and the upstream project return for new discoveries and developments.

   Previously, the pricing of the share of gas supplies purchased from IOCs was linked to the oil price with floor and ceiling limits applied to all agreements regardless of the gas supply cost incurred.
3. PAYMENT OF GOVERNMENT ARREARS

GoE arrears to IOCs in Egypt peaked to 6.3 billion USD by the end of 2013 as a result of the prevailing economic conditions and challenges. By the end of 2018, that debt was reduced to 1.2 billion USD as part of a government arrears payment plan to encourage IOCs to re-pump investments in Egypt. MoP plans to settle total arrears for IOCs by the end of 2019.

ADDITIONAL REQUIRED STEPS

As required by Law 196/2017, GasReg is in the process of preparing a gas market liberalization plan for the GoE to adopt and issue.

At the same time, and in order to build on the progress achieved in reforming the gas market, the GoE should consider additional steps in the following sectors to enhance the liberalization of the downstream gas market entailing including by benefiting from the experiences acquired by IOCs in their global market operations. Having witnessed and supported the evolution of free markets in other countries, IOCs could bring lessons learnt to Egypt in areas such as:

- Gas price reform
- Upstream and downstream gas release programs
- Eligibility of consumers
- Handling of legacy sales contracts

EGYPT AS A REGIONAL HUB

What is a gas hub?

A gas hub is a (virtual or physical) “point”, a marketplace, in the center of a gas infrastructure network. Deals and trades are facilitated in the hub due to infrastructure, liquidity, transparency, and standardization. It may be used by shippers and traders for balancing and risk management purposes.

Why hub?

- Reduce financial liabilities
- Ensure economic worthiness
- Secure supply
- Growth of the value adding industries
- Strengthen role in the region
- Market affordability
- Accelerate economic development
- Provide employment opportunities
Types of hubs

Physical Hub

A geographical point in the pipeline network where a price is set for commodity delivered to and transferred from that location or commodity can be traded at a physical location on the transmission network.

Virtual Hub

It is a virtual (balancing) point inside a pipeline system or commodity that can be traded at a notional point in a wider geographical area, such as an entire transmission network.

Transit Hub

It is an actual transit location, or a physical point, at which participants can choose to trade commodity.

Evolution of a Gas Hub

Establishing a gas trading hub takes considerable time (10-15 years), investment and political will to let prices develop without regulatory intervention. The process would also be disruptive to the players that previously dominated the market.

The transition requires the commitment of all stakeholders – governments, suppliers and system operators – to achieve a smooth transition. A market that has indigenous production and/or is well supplied by competing sources of gas, is likely to achieve the goal more quickly and establish a more successful, liquid trading hub.
Transition towards a hub

1. The process usually starts with a move to Third Party Access (TPA) to the network infrastructure, often requiring legislative changes to force incumbents to release infrastructure capacity and gas supply volumes. When the market is liberalized, independents are incentivized to enter the market.

   It is then required to adopt rules and regulations to govern the physical side of the business, whilst the emergence of standardized contracts will favor the commercial aspects.

2. Bilateral trading would follow, often aided by the first brokers, helping to create trading opportunities between counterparties. These trades start to be reported in the trade press, thus creating the beginnings of a transparent market.

3. With price disclosure comes price discovery which in turn attracts more players to the market. Often at this stage smaller physical traders and the first tentative moves by financial players occur.

4. The creation of exchange products, based on the underlying physical contracts, offers greater access to the market, especially by non-physical players (who will always close out their trading positions before maturity).

5. Gradually, as increasing numbers of varied participants come to trade in a particular market, a forward curve will develop and this will be used for risk management purposes.

6. The final stage of maturity is when the hub develops sufficient liquidity for traders to use specific traded products (such as the Day Ahead or the Month Ahead) as indices on which to price their physical transactions

Hub dynamics

1. Competition. An element of a gas hub is usually set in motion by the government but should be later sustained by the market. IOCs in possession of the equity gas are expected to use the infrastructure, supply consumers and engage in standardizing of sales contract and eventually disclose sales price in a transparent market.
2. The government’s role will shift from the market’s sole player to a role similar to that of a competition authority. It would only regulate and monitor.

3. Old institutions would be dismantled and new ones would be built to support the competitiveness of the market. The new institutions will result from applying the following:
   - A hands-off government approach to natural gas markets
   - Separation of transport and commercial activities
   - Wholesale price deregulation

4. Excess gas is extracted from regional suppliers. This will pave the way for further commercialization of that excess gas in the local gas market.

5. Reduced mobilization time and optimize cost by driving exploration and production support service providers to locate in the region and utilize the cooperation between the regional countries.

6. Creating swap and arbitrage opportunities through expansions and further inclusion of other energy forms such as liquid fuels, electric power and renewables.

7. Adding value to the IOC’S equity gas in the energy hub by transforming it into electric power and/or petrochemical products.

**Why Egypt?**

1. LOCATION: Egypt is in a strategic location and proximate to the gas resources-rich countries, in addition to the existence of the Suez Canal that acts as a link between the north and south.

2. INFRASTRUCTURE: In comparison to other countries on the Mediterranean, Egypt’s gas infrastructure is more advanced. Existing LNG
terminals on the two branches of Nile Delta provide Egypt with an edge as a transit point for gas coming from Cyprus and Israel. The two plants are capable of exporting 1.8 BCFD, providing a platform to handle the combined production of both Leviathan and Aphrodite gas fields.

3. CHEAPER STARTING COST: Connecting the Mediterranean discoveries to Egyptian infrastructure requires substantially lower investment than the construction of Greenfield LNG facilities in Cyprus or Israel. The Egyptian option is beneficial to all parties involved and enhances the role of Egypt in the region and its ability to secure revenue from being a transit route and re-operating the two LNG plants.

4. SECURING SUPPLY: By exploiting its own gas reserves and allowing the other countries to utilize theirs too, the region is guaranteeing energy supply to its growing populations.

5. MEETING INTERNATIONAL DEMAND: As a strategic exit point, the East Mediterranean region should seize the opportunity within global markets. Gas demand is growing in the EU and Asia accompanied by a decline in domestic production and expiration of long term contracts with Norway and Russia.

**Egypt’s steps towards regional integration**

**The European Union**

- Initiated a strategic dialogue with the EU on energy
- Signed a Memorandum of Understanding on an Egypt-EU Strategic Energy Partnership (April 2018)

**Cyprus**

- Signed an agreement with Cyprus to establish a natural gas subsea pipeline between the two countries, in order to facilitate natural gas delivery from Cyprus to Egypt’s liquefaction plants in Idku and Damietta. (September 2018)

**Greece**

- Ongoing bilateral and trilateral (including Cyprus) discussions on means of enhancing economic cooperation, including on oil and gas.
Jordan

- Resumed exporting natural gas to Jordan
- Integrated existing natural gas reception facilities in Aqaba and Ain Sokhna to ensure supplies and sustainability
- Signed an MoU on cooperation in the field of energy with an emphasis on natural gas (April 2017)
- Signed an MoU to enhance cooperation in the field of training and exchange of expertise in the field of natural gas industry and to benefit from the training centers of the Egyptian petroleum sector companies (October 2018)
- Signed MoUs between natural gas companies in both countries to regulate the sale and purchase of natural gas (January 2019)

Iraq

- Signed an MoU with Iraq and Jordan to transport Iraqi natural gas and crude oil to Egypt via Jordan

EAST MEDITERRANEAN GAS FORUM

Simultaneous major gas discoveries in offshore Egypt, Israel and Cyprus have presented a new opportunity for further regional integration. The discovered volumes are exceeding the domestic market capacities of the mentioned countries and therefore opens the capabilities of acting as exporting countries.

Regional cooperation with Egypt has emerged as the economically viable option for regional countries, such as Cyprus and Israel, to export surplus volumes over their respective local market demand.

Upon Egypt’s invitation, the energy ministers of Egypt, Cyprus, Greece, Jordan and Israel, with representatives from Italy and Palestine met in Cairo on January 14 2019 to consult on the inauguration of the Eastern Mediterranean Gas Forum (EMGF).
The Forum, based in Cairo, will enhance Egypt’s role as the main player in the regional gas business, including by take advantage of Egypt’s strong gas infrastructure and strategic location.

The potential impact of the formation of this strategic alliance go beyond the energy sector, and will have political, foreign policy, developmental and socio-economic implications. It also offers promising opportunities in other sectors and sub-sectors, including maritime transport, energy infrastructure, and gas market liberalization with implications for mid-stream and down-stream opportunities.

**EMGF Main Objectives**

1. Assist the creation of a regional gas market that benefits the members through security of supply and demand, optimized resource development and infrastructure cost, competitive pricing, and improved commercial relationships
2. Ensure security of supply and demand for EMGF members, optimize resource development, utilize efficiently existing and new infrastructure, ensure competitive pricing, and promote improved commercial relationships
3. Create a structured and systematic dialogue on natural gas, including regional natural gas policies
4. Support producing countries, and countries with gas reserves in the region, in their efforts to monetize their existing and future reserves,
5. Help consumer countries in their endeavors to secure their needs, and together with the transit countries formulate the gas policies in the region
6. Ensure the environmental sustainability of gas exploration, production, transportation and infrastructure building, and promote gas integration with other energy resources, notably renewables, and in the power grid.

**Notable Absences?**

During their meeting in Cairo, EMGF members declared that any East Mediterranean country with gas reserves, a gas producer, consumer or transit country sharing the common interests and objectives of the Forum may join in the future after completing all the required membership procedures. They also declared that the Forum would be open for countries, or regional or international organizations as Observers. A number of organizations and countries have expressed interest in obtaining
observer status within the EMGF, including the EU and the US. However, the EMGF has notable absences from Eastern Mediterranean gas players, including Turkey, Lebanon and war-torn Syria. Political tensions between various EMGF members and Ankara explain why it was not part of the alliance. Turkey, an influential player in the region, has opposed gas exploration off Cyprus in areas it considers disputed waters. Most recently, Egypt and the EU warned Turkey regarding its plans to drill off the western coast of Cyprus, citing negative ramifications on stability in the eastern Mediterranean region. Lebanon has so-far chosen not to participate while its unresolved maritime border dispute with Israel - which it regards as an enemy country- over a sea area of about 860 square kilometers extending along the edge of three of Lebanon's southern energy blocks, persists. However, recent political gestures have been made by Beirut to establish a mechanism to resolve this maritime dispute.

**Role of The Private Sector?**

1. The Cairo Declaration establishing the EMGF stressed the importance of the private sector’s contribution to the forum’s activities and organizational bodies, establishing a permanent *Gas Industry Advisory Group* (GIAG).
2. The GIAG is expected to be the expert consultative body to the EMGF, to build on existing contacts with industry, and to strengthen the dialogue with the private sector.
sector on the main directions of the EMGF, with a focus on risk mitigation, improvement of the business climate and the functioning of energy markets.

3. The criteria for selecting the members of the GIAG and its *modus operandi* have yet to be developed.

4. Through the GIAG, IOCs can play a notable role in shaping the direction of the EMGF by sharing their experiences in enhancing economics of regional gas fields development, as well as in presenting integrated project solutions from production, transportation, liquefaction to shipping and trading of LNG.

### POSSIBLE CHALLENGES TO EGYPT’S QUEST FOR HUB STATUS

1. Rising local demand in Egypt, insufficient export capacity to liquefy all the surplus local and regional gas production, pricing risks and incomplete reforms, which may turn regional gas players to other optimal export routes.

2. Disputes over legal title. For example:
   - Disputes over maritime boundaries between Turkey and Cyprus pose a challenge to the development of Cypriot gas finds
   - Maritime boundaries between Israel and both its neighboring countries are also disputed

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**Eastern Mediterranean border delineation**

**Cyprus-Turkey**
- No agreement; ‘Turkey rejects Cyprus’ claims to any EEZ, arguing that Cypriot unification must come first

**Cyprus-Northern Cyprus**
- No agreement; overlapping areas delineated and awarded in the southeast of the island

**Cyprus-Egypt**
- Agreement signed in 2003, Morsi government considered repealing, but Sisi government has boosted cooperation and agreed MoU on gas imports.

**Cyprus-Israel**
- Agreement signed Dec 2010. Discussions continue on joint development, including Aphrodite.

**Egypt-Israel**
- No official agreement; some overlap based on Cyprus-Egypt and Cyprus-Israel agreements. One overlapping area seems to have been quietly resolved.

**Cyprus-Syria**
- No agreement or efforts to delineate border

**Turkey-Syria**
- No agreement; talks held in 2001 but with no resolution

**Lebanon-Syria**
- No agreement; even land borders not clearly demarcated

**Cyprus-Lebanon**
- Agreement signed but not ratified by Lebanon

**Egypt-Gaza**
- No agreement or previous efforts to delineate border

**Gaza-Israel**
- Waters off Gaza Strip recognized as Palestinian in two agreements from the mid-1990s, but under Israeli control

*Source: IHS Markit PEPS Oil & Gas Risk*
3. Possible delays in regional gas development due to the excess of gas discoveries compared to local demand
4. Resistance to energy market reforms in Egypt, including challenges associated with economic and social conditions.
5. Possible emergence of other export schemes. For example:

- The competing EastMed Pipeline connecting Aphrodite and Leviathan fields to Italy via Cyprus, Crete and Greece mainland, which is supported by the EU.
- Possible consideration of new pipelines to EU via Turkey
- Cyprus’ decision to issue a tender for an onshore liquefaction plant in Vasilikos
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