Israel's Gas Disappointment

by Simon Henderson **(/experts/simon-henderson)**

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Brief Analysis

The country's continuing political and commercial challenges, including limited export possibilities, are hampering development of its Eastern Mediterranean natural gas.

The development of Israel's offshore natural gas resources, once seen as a wonderful economic blessing, has slowed to a painful crawl in recent months. On December 13, the government announced that it was awarding licenses for just six of the twenty-four offshore blocks on offer. Each of the six had received only a single bid, and the three-year permits do not include an obligation to actually drill. Israel's snail's pace development—largely a product of its shifting regulatory environment and falling global gas prices—highlights the country's persistent domestic and diplomatic obstacles, which are having a ripple effect on Eastern Mediterranean gas projects.

SIGNS OF ISRAEL'S WEAK HAND

Five of the six licenses announced last week were awarded to an independent Greek company, Energean, while the sixth went to a consortium of Indian state companies (ONGC Videsh, Bharat PetroResources, Indian Oil Corporation, and Oil India). The absence of major international firms is at least partly a consequence of their historical caution about being commercially involved with Israel—after all, top firms Eni and Total placed bids in Lebanon's recent license round despite the country's thorny (to put it mildly) domestic politics.

The Indian bids likely reflect a recent warming of diplomatic ties: Prime Minister Narendra Modi came to Israel in July, the first ever visit by an Indian head of government. But the substance of the bids may be superficial: two of the Indian companies have no exploration experience.

The ultimate value of Energean's bid is uncertain as well. The company's current oil production is a miniscule 5,000 barrels per day from a field in shallow waters off Greece. It also owns two small Israeli offshore gas fields: Karish and Tanin, both undeveloped. It bought the fields from a consortium led by Houston-based Noble Energy, which originally discovered them but was forced to sell by the Israeli government in order to meet monopoly rules. The Greek company's immediate challenge is raising capital to develop the fields; it has secured provisional deals to sell the gas to Israeli generating companies by offering a surprisingly low price, but actual development awaits a "final investment decision" by Energean, which is not expected until early in the new year. The fields are located about fifty and eighty miles off Israel's northern coast, respectively, in water more than 5,000 feet deep; development is estimated to cost around $1.5 billion and requires a special "floating production storage and offloading vessel."

Indeed, exploring for natural gas in the deep waters of the Eastern Mediterranean is an expensive challenge, but it remains enticing for many international companies due to past successes and the prospect of major finds. Gas has been produced from fields off Egypt's coast for many years, and optimism in the area's potential was renewed after the Italian company Eni discovered the giant Zohr field in 2013. Estimated to contain 30 trillion cubic feet (tcf) of gas, Zohr is tantalizingly close to Cyprus's exclusive economic zone, resulting in renewed exploration but, so far, no commercially viable discoveries.

Israel's fields, and another found by Noble off Cyprus, are in the geological area known as the Levant Basin. Currently only one of these fields, Tamar, is producing. Its gas is sent via pipeline to a platform off the southern Israeli port of Ashdod, and then to a shore facility for processing. Israel's largest field—Leviathan, estimated at 22 tcf—is still being prepared for production. A giant platform is under construction in Texas; upon completion, it will be loaded onto a barge and towed thousands of miles before being positioned on the seabed a few miles south of Haifa, where gas will be processed before being piped ashore.

Status of Eastern Mediterranean Gas Fields

Field	Discovered	Reserves (tcf)	Production date
Tamar (Israel)	2009	11	2013
Leviathan (Israel)	2010	22	2019 (estimated)
Aphrodite (Cyprus)	2011	5	Unknown
Karish/Tanin (Israel)	2013/2011	2.4	2020 (estimated)
Zohr (Egypt)	2013	30	2017

Israel's current discoveries are more than enough to meet domestic demand for the foreseeable future, but development makes better commercial sense if the gas is produced at greater volumes, with the surplus exported regionally or further afield. Several export options are under consideration:

Jordan. Noble has an agreement to supply Leviathan gas to Jordan's electric power company, though none is expected to flow for at least two years. The deal is a very sensitive subject in Jordan, where historical tensions with Israel have been exacerbated by recent rows over Jerusalem and the closing of the Israeli embassy after a guard killed two Jordanians during a violent argument. Rival, though less realistic, schemes have been mentioned for gas imports from Iraq or local nuclear power plants. Jordan's current imports are via liquefied natural gas (LNG) tankers arriving from the Persian Gulf at the Red Sea port of Aqaba. Small-scale imports of Tamar gas are already delivered via pipeline from Israel to factories on the Jordanian side of the Dead Sea.

Egypt via Jordan. Leviathan gas could theoretically reach Egypt via a circuitous route: across Israel, then through Jordan to the Red Sea, where it could link with an existing Egyptian pipeline crossing the Sinai Peninsula. But previous terrorist attacks on this section of the pipeline argue against this option.

Egypt via old offshore pipeline. Until 2012, Egyptian gas flowed to Israel via a pipeline running offshore from al-Arish to Ashdod. This line could theoretically be used for sending Israeli gas in the other direction to underutilized LNG plants in the Nile Delta, from where it could be exported via tanker. But the pipeline is encumbered with overlapping legal disputes, including a Swiss court judgment awarding Israel $1.7 billion for Egypt's decision to stop the gas flow after the overthrow of Mubarak.

Egypt via undersea pipeline from Cyprus. Last month, senior Noble executives visited Cairo for talks with Petroleum Minister Tarek al-Molla, discussing investment possibilities as well as the construction of a seabed pipeline from the island's Aphrodite field to Egypt.

Italy via undersea pipeline involving Cyprus and Greece. An ambitious seabed proposal for an "EastMed Pipeline Project" remains under active consideration by Israel, Cyprus, Greece, and Italy, whose energy ministers met in Cyprus on December 5. The project is described as feasible, though it would cost an estimated $7.36 billion, take six to seven years to build, and involve considerable technical challenges due to the water's extreme depth. The project's viability probably depends on yet to be discovered gas.

Turkey. Schemes for a pipeline across Cyprus or on the seabed through its exclusive economic zone are hampered by continued failures to resolve the island's disputed 1974 partition. Turkey's diplomatic hostility toward Israel is also a problem, despite the quiet success of Turkish transit trade across Israel from Haifa port to Jordan and onward to the Gulf.

JORDAN AND EGYPT ARE THE BEST PARTNERS

Apart from exporting Leviathan gas to Jordan, one of the Egyptian options is probably the most realistic for Israel. From a financial point of view, Noble would doubtless favor converting the gas into LNG for export rather than selling into the domestic market and joining Egypt's long line of creditors. According to the *Wall Street Journal*, the Saudi energy minister told reporters earlier this month that he was interested in Mediterranean gas to replace oil as a power generating fuel, suggesting that perhaps one day Israeli gas could end up in Saudi Arabia via an Egyptian LNG plant. Given the apparently close military and intelligence contacts between Cairo and Israel, Egypt is probably the best political option as well. U.S. diplomatic resources are stretched thin in the Middle East these days, but natural gas cooperation is good for America's regional allies—and, for now, much more feasible than headline-making peace initiatives.

Simon Henderson is the Baker Fellow and director of the Gulf and Energy Policy Program at The Washington Institute. ❖

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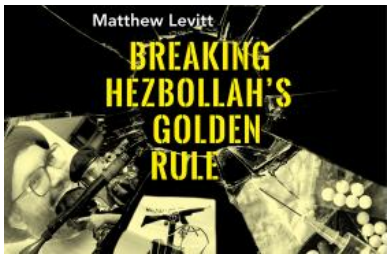

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