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Energean brings Karish online

Energean announced on October 26 that it delivered first gas from its flagship Karish project offshore Israel, a day after the Energy Ministry granted it permission to start production. The 1.4 Tcf gas field became Israel's third producing gas field after Tamar and Leviathan.

A short history of Karish

Karish was discovered by Noble Energy in 2013. But the US company and its partner Delek were required to sell their stakes in Karish and the nearby Tanin gas field to open the sector in Israel for competition.

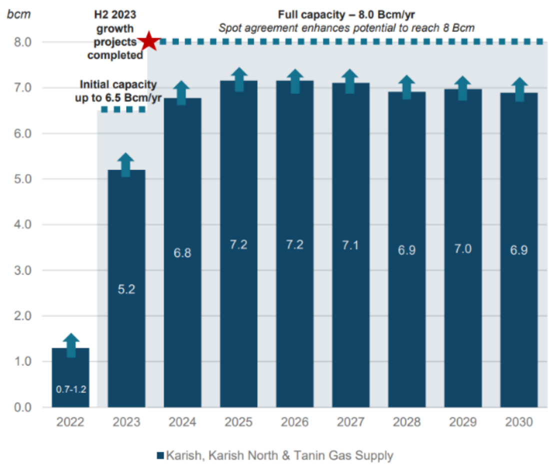
Not fully aware of the geopolitical risks involved, Energean acquired both gas fields in 2016 with the understanding that production would be reserved for the domestic market. The Greek company took FID to develop Karish and Tanin in 2018. First gas was initially expected in 2021 but was delayed due to the Covid-19 pandemic.

But an even greater challenge was brewing: When indirect negotiations between Israel and Lebanon were launched in October 2020, the Lebanese negotiating team defended a maximalist position ending in Point 29 expanding the disputed area and cutting through the Karish gas field. Though these claims were never officially endorsed, the arrival of the Energean Power FPSO in early June was seen as an act of aggression by

Lebanon, prompting the US to intensify its diplomatic efforts. Tensions escalated further in July when Hezbollah launched drones on a reconnaissance mission towards Karish and threatened to retaliate if the gas field is brought onstream before Lebanese demands are secured. In the end, first gas was announced on October 26, after a deal was reached and a day before it entered into effect.

Planned output

The Greek company signed 20 gas sales agreements with local clients for the supply of 7.2 bcm per year as production ramps up, for a weighted average price of $4.3/mmBTU. Spot agreements, like the one signed with the government-owned Israel Electric Corporation in March 2022, could allow Energean to utilize the full capacity of its 8 bcm/year FPSO.



Source: Energean

Karish is expected to produce around 1 bcm in 2022. Planned output is expected to reach 5.2 bcm in 2023, 6.8 bcm in 2024 before plateauing at 7.2 bcm per year as of 2025.

With Karish now online, Energean expects to pay its first dividend by the end of this year.

Egypt: Masdar, Acwa planning 10GW wind farms

UAE's Masdar, along with its Infinity Power joint venture with Egypt's renewable energy developer Infinity, and Hassan Allam Utilities signed an MoU on November 8 to develop a 10 GW onshore wind farm in Egypt. The deal was signed on the sidelines of COP27 in the presence of Emirati President Sheikh Mohamed bin Zayed Al-Nahyan and his Egyptian counterpart Abdel Fattah al-Sisi.

According to the press release, the wind farm will produce 47,790 GWh of clean energy annually when completed and offset 23.8 million tons of carbon dioxide emissions. This is equivalent to around 9% of Egypt's current CO2 emissions. The project will also save Egypt an estimated $5 billion in annual natural gas costs and free up additional volumes for exports. It is estimated to cost $10-12 billion and is expected to be completed within five years after the conclusion of feasibility studies.

The news came a week after Saudi renewable energy developer ACWA Power signed an MoU with Egypt's New and Renewable Energy Authority and the Egyptian Electricity Transmission Company to build another 10 GW wind farm in Egypt.

If these ambitious projects are completed, they would be among the largest wind farms in the world and would dwarf Egypt's current wind capacity, estimated at just over 1.6 GW, and total renewable energy generation capacity, which stood at about 3.4 GW in 2021. Such projects could give Egypt a big boost towards reaching its climate goals. At last year's COP26, Egypt announced an updated target to generate 42% of its electricity from renewable energy sources by 2030, five years ahead of its original schedule.

Lebanon, Israel approve maritime border deal

US President Joe Biden announced that the maritime border deal between Lebanon and Israel came into effect on October 27, on the day Lebanese President Michel Aoun and Israeli Prime Minister Yair Lapid signed separate letters agreeing to the terms of the agreement brokered by the US. The letters were delivered to the US Special Presidential Coordinator Amos Hochstein during a ceremony held at the United Nations' peacekeeping base in Naqoura, south Lebanon, near the Israeli border. Both countries then submitted the coordinates of the permanent maritime boundary to the Secretary-General of the United Nations. The deal allows both countries to pursue operations along the border under more stable conditions.

On the eve of the ceremony, Energean announced first gas from Karish on the Israeli side of the border. The Greek company is also preparing to bring Karish-North online towards the end of 2023.

In Lebanon, preparations are underway to carry out the first exploratory drilling in Block 9 next year. The makeup of the consortium holding exploration and production rights in the block has changed since the license was awarded in December 2017 to Total E&P Liban (40%), ENI Lebanon (40%) and Novatek Lebanon (20%).
Russia's Novatek announced its intention to pull out of the consortium last June and its stake was assigned to the Lebanese State. The maritime border deal imposed another reconfiguration of the consortium since it clearly states that the entities holding exploration and exploitation rights in Block 9 cannot be "Israeli or Lebanese corporations". In a decision issued on October 21, the Prime Minister approved the Energy Minister's request to transfer TotalEnergies' stake in the block to a firm called DAJA 215 and the Lebanese state's share to DAJA 216. Both entities are TotalEnergies vehicles. The decision was issued on an exceptional basis and will have to be formally approved by the Council of Ministers once a new cabinet is formed. It is expected that DAJA 216's share will be acquired by a third party within a maximum period of three months (or be recovered by the Lebanese state). QatarEnergy's CEO Saad al-Kaabi confirmed on October 30 that the company is in talks with the Lebanese government, Total and ENI to acquire a 30% interest in the block, comprising DAJA 216's share (20%) in addition to five percentage points from Total's and ENI's stakes.
On November 15, Total announced that the company, along with partner ENI, have signed a framework agreement with Israel. This will allow the operator to lay the groundwork for its first exploration drilling at Qana-Sidon, a prospect in Lebanon's Block 9 which may extend into Israeli waters.

Israel, Jordan move forward with water-for-power deal

Israel, Jordan and the United Arab Emirates moved one step closer towards implementing Project Prosperity with the signing of a Memorandum of Understanding on November 8, on the sidelines of the UN Climate Change Conference (COP27).

The project involves building a 600-MW solar power facility in Jordan by UAE's Masdar. The electricity generated will be exported to Israel. In return, Israel will provide 200 million cubic meters of desalinated water per year for Jordan.

The deal is intended as a win-win: If completed, it would contribute to alleviate Jordan's deepening water crisis and would help Israel meet its climate targets (cutting GHG emissions and expanding the share of renewable energy in its energy mix). The deal seeks a mutually beneficial solution to swap water for energy by leveraging each side's advantages to overcome the limitations that have hindered their advancement on their own: Unlike Israel, Jordan has vast swaths of land available for solar energy. On the other hand, Israel has easy access to the sea, while Jordan only has a small coastline on the Red Sea, far from its population centers.

The three countries signed an initial Declaration of Intent in November 2021 to explore the feasibility of the project. Technical and economic feasibility studies should have been completed earlier this year. According to the MoU, the studies "have been ongoing" and the project has "positive potential prospects". The parties expect to develop the necessary implementation plans this year and unveil a schedule for completing the project at COP28, which will be held in the UAE in November 2023.

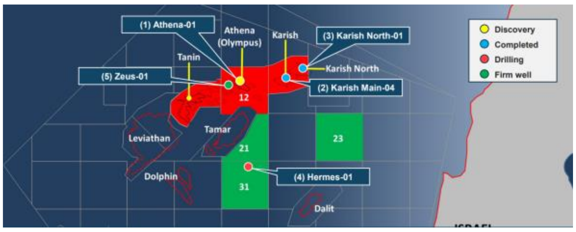
Energean hits gas at Zeus

Energean announced a "commercial gas discovery" at its Zeus-01 exploration well in Block 12 offshore Israel on November 7. Zeus is estimated to hold 13.3 bcm of recoverable natural gas resources, slightly more than the 10-12 bcm initially targeted.

This is the third exploratory drilling carried out by Energean as part of its 2022 drilling campaign in Israel, and the third to hit gas.

Earlier this year, the company drilled a first exploration well in Block 12, Athena-01. Preliminary analysis indicated Athena may hold around 8 bcm of recoverable gas resources. Energean believes the discovery de-risked an additional 50 bcm of prospective resources across the "Olympus Area". In its November 7 press release announcing the discovery of Zeus, Energean indicated that new studies show that Athena may hold an additional 3.75 bcm.

Last month, the Greek company announced a second gas discovery following its Hermes-01 exploration well in Block 31. According to preliminary estimates, Hermes is believed to hold between 7 and 15 bcm of recoverable gas resources.



Source: Energean

The Stena IceMax drillship is now in Block 23 where it will drill a fourth exploration well dubbed Hercules-01 targeting a potential 8-12 bcm of gas resources.

Energean is considering various monetization options for its new gas finds in the Olympus Area. It had previously indicated that they could be tied to the Energean Power FPSO or be part of a wider Olympus Area development. The Greek company is pursuing various options for commercialization, including further sales to the domestic market or exporting the gas to regional and European markets by pipeline or in LNG form via Cyprus and/or Egypt. The company expects to update the market on the total resource volumes within the Olympus area and on its development plans early next year.

EGAS nears deal to develop Gaza Marine

The state-owned Egyptian Natural Gas Holding Company (EGAS) and the Palestine Investment Fund (PIF) are expected to sign an agreement to develop the Gaza Marine gas field by the end of Q1 2023 according to Egypt's Petroleum Minister Tarek El Molla, who was speaking on the sidelines of the Gas Exporting Countries Forum (GECF) in Cairo on 25 October.

The 1-Tcf gas field was discovered in 2000 off the Gaza strip by British Gas, along with partner CC Oil & Gas. The field was never developed, due to the conflict with Israel and internal Palestinian rivalries.
Following Shell's acquisition of BG in 2016, the Palestinian Investment Fund and CC Oil & Gas (a company formed by the CCC Group) acquired Shell's working interest in Gaza Marine with the hope of attracting an international operator. In February 2021, the partners signed an MoU with EGAS for the purpose of developing the field. If a final agreement is reached, part of the gas will supply the domestic market, and the rest will be transported to Egypt, either to supply the Egyptian market or for re-export to world markets via one of the country's LNG terminals.

NewMed, Uniper eye a potential LNG, hydrogen collaboration

Israel's NewMed Energy, which holds a 45.3% stake in Leviathan, and Germany's Uniper announced on November 8 that they have signed a non-binding memorandum of understanding (MoU) to evaluate a potential collaboration to supply natural gas to Europe and produce blue and green hydrogen.

On the short term, the two companies will look into supplying Germany with LNG via Egypt's liquefaction terminals. On the longer term, the plan could involve direct LNG deliveries from Leviathan if the operator and its partners opt for a floating liquefaction facility for phase 1B of the gas field's development plan.

The MoU also includes a provision on a potential collaboration to produce blue and green hydrogen in Israel and export it to Europe.
Last June, the European Union, Egypt and Israel signed an MoU to ensure stable supplies of natural gas from Israel, Egypt and potentially other sources in the Eastern Mediterranean to the EU via Egypt's LNG terminals. The framework agreement paves the way for gas companies to conclude commercial agreements, though no biding deals have been concluded to date.