

Israel Sees Gas Exports Playing Key Geopolitical Role

As Chevron eyes expansion of Israel's key Leviathan field, Israeli officials are looking to reap the geopolitical gains of becoming a regional gas superpower.

Israel is already a significant gas player in the East Mediterranean following the 2013 start up of the 10.5tcf Tamar field and then by the giant 22.7tcf Leviathan field in late 2019 (MEES, 3 January 2020).

Though combined production, a record 2.02bn cfd for Q3 (MEES, 5 November), remains well below Egypt's 5.2bn cfd of Mediterranean gas output (MEES, 12 November), Israel's much smaller domestic market means it has already become a substantial exporter to both Egypt and Jordan (MEES, 20 August).

GETTING THE NEIGHBORS HOOKED

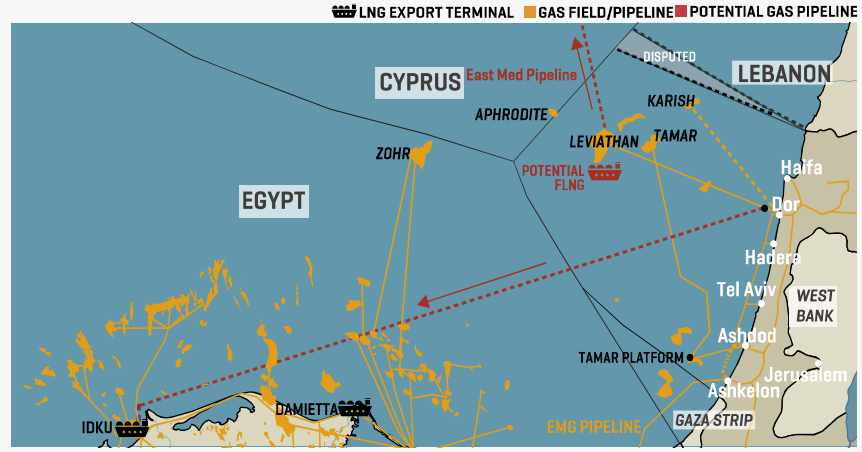
This has the geopolitical benefit for Israel of making these two key Arab neighbors reliant on Israel for a vital energy source. This is the case for Amman in particular, given that for Jordan, Israeli gas is and is set to remain the dominant power fuel. A recent deal to supply 'Egyptian' gas to Lebanon would effectively also leave Beirut – which unlike Egypt and Jordan has no diplomatic relations with Israel – also reliant on Israeli gas (MEES, 24 September).

Israel's energy diplomacy took another step forward when, following last year's 'Abraham Accords' peace treaty, UAE state firm Mubadala purchased a 22% stake in the Tamar field from Israeli firm Delek (MEES, 3 September). Already the country's upstream had taken a major step towards international recognition when US major Chevron last year became the country's top upstream player as its \$5bn purchase of Noble Energy gave it operator's stakes at both Leviathan and Tamar (MEES, 9 October 2020).

Jonathan Miller, Special Envoy for Energy at Israel's Ministry of Foreign Affairs says the presence of these two firms "opens up the possibility for cooperation with additional companies that [previously] refrained from entering the Israeli gas sector." Until Chevron's entry, majors and large IOCs had given Israel a wide berth for fear of being blackballed by key Arab producers.

And Mr Miller, in a wide-ranging interview with MEES*, says that "relations developing between Israel and the UAE hold great potential for establishing regional energy inter connectivity and an energy channel of cooperation on renewable energy from the Gulf region, and even

ISRAEL GAS INFRASTRUCTURE & POTENTIAL EXPORT OPTIONS



India, through Israel and on to Europe."

MORE EXPORTS, MORE POLITICS

Indeed, with Chevron looking to expedite expansion of Leviathan from 1.2bn cfd to at least 2.1bn cfd and possibly more (MEES, 5 November), Israeli officials hope that expansion of the country's gas output via new export infrastructure holds out the possibility of strengthening ties with other regional countries and potentially Europe too.

Fully tapping Israel's 35tcf of proved and probable reserves would enable the country to massively increase both export volumes and the resultant geopolitical, socioeconomic and geostrategic ties.

"Israel is on the verge of an extraordinarily important period in terms of... the state's economy and geopolitical relations, especially with neighboring countries," Gina Cohen, a key advisor to the Israeli authorities on energy strategy notes. Ms Cohen has just completed a study, seen by MEES, commissioned by the Israeli government entitled 'The Natural Gas In The Eastern Basin Of The Mediterranean.'

Chevron's key options for Leviathan expansion are a floating LNG (FLNG) vessel or a pipeline to one of Egypt's underutilized LNG plants (see map).

In discussing these export options Mr Miller notes that "Energy is a national interest in all countries and creates an interdependence, rather than a dependence. The interdependence in the gas sector and the cooperation that is necessary, lays positive foundations and has a spill-over effect into other areas of economic cooperation - potentially strengthening the overall ties between Israel and its neighbors, as well as increasing wider regional cooperation."

EAST MED PIPELINE: 'GEO-STRATEGIC'

More ambitious yet are Israel's hopes of

reaping the geopolitical benefits of becoming a key gas supplier to Europe via the 'East Med Pipeline' which would link Israel with Cyprus, Greece and the rest of Europe (MEES, 25 September 2020). Whilst the key companies involved in East Med gas have shown little interest in the plans, which appear widely uneconomic, Mr Miller remains hopeful.

"We are aware of the economic and technical challenges of this project but it also has geo-strategic importance," he says, adding that a maritime survey of the potential route is ongoing and due for mid-2022 completion.

Ultimately if Israel wants to see the pipeline have any chance of being built it will likely have to put a price tag on this "geo-strategic" importance. Ms Cohen recommends the Israeli government should "assist in cost reduction means to enable it to sign long-term contracts needed to erect a pipeline to southern Europe."

She adds energy transition dynamics limit Israel's "window of opportunity" to around 20-25 years in terms of finding a market for the 400bcm (14tcf) or so of gas reserves that remain uncommitted. As such she recommends that the Israeli authorities heed the draft conclusions of an inter-ministerial committee to review the country's export quotas. Published in June this year, this states it "is necessary for the government to encourage and promote gas exports" (MEES, 20 August).

She remains critical, however, that the report "falls surprisingly short in providing any practical recommendations for implementation and even maintains certain restrictions in place regarding the need of new fields to be connected to the local market, as well as taxation and tariff issues which will hinder further exploration, exports and regional cooperation and even in its limited form it has not yet been endorsed by the new government". ♦♦

*See p12 for full transcript





Israel Foreign Ministry: Gas Key To Low Carbon Future

Fresh from the COP26 global climate talks in Glasgow, MEES caught up with Jonathan Miller, Special Envoy for Energy at Israel's Ministry of Foreign Affairs. In a wide-ranging interview, Mr Miller outlined Israel's ambitious plans to decarbonize but also the key role of natural gas in the energy transition.

Q: You've recently returned from COP26 in Glasgow where world leaders have been attempting to address the climate crisis. What concrete steps is Israel set to take in the next few years to try and meet its self-imposed goal of net-zero carbon emissions by 2050? What steps is Israel taking to increase renewables capacity?

A: Over the past few years, Israel has been transitioning to greener energy, based on the increased usage of natural gas and renewables, while phasing out the use of coal. We are working towards the complete phasing out of coal burning in power stations, converting them all to natural gas by 2025 [MEES, 4 June]. Israel has already succeeded in transforming about 70% of its electricity production to natural gas, and by the end of 2021 we anticipate achieving 10% from renewable energy.

Achieving our net-zero goals by 2050 is possible but will require major and far-reaching steps. Israel has conditions that intensify the challenge of transitioning to green energy, such as limited land area, high population density and an inability to produce hydro-electric or wind power. Israel's greatest potential in transitioning to renewable energy lies in solar power. Israel is one of the leaders in the production of electricity from solar power, which accounts for roughly 90% of our renewable energy.

We are undertaking a number of significant steps in this direction. In network development, we are strengthening our ability to transmit high amounts of renewable energy, together with network stabilization. Decisions on major new technological developments will be made in the near future.

We are developing energy storage capacity, as high storage capacity is needed. Our existing storage level, 300MW, must be significantly increased to a required 18-60GW. Israel is also seeking international connectivity in order to reach our net zero goal.

Solar power offers numerous benefits. But relying on it requires the development of technologies that

ensure efficient and affordable energy storage. We are supporting innovative technologies to promote energy storage facilities that enable a dual use of land such as rooftops, water tanks and fishponds, agricultural fields, enclosed installations, and others.

Q: Do you envisage Israel pursuing low-carbon hydrogen production?

A: We are following the developments in Europe and other regions regarding hydrogen usage in the future, especially the EU concept of North Africa and the Middle East as potential regions for green hydrogen production [MEES, 1 October].

Our small land area available for solar PV limits our ability in the future to produce significant amounts of green hydrogen. However, we see ourselves potentially integrated into regional projects of low-carbon hydrogen, either as part of the passage to Europe or on the research and development side. With regard to R&D, I see a role for Israeli innovation in the development of greener technologies for blue hydrogen production and the gas sector, in general.

Q: We've seen recent agreements signed by Egypt to link its electricity grid to Saudi Arabia, Greece and Cyprus [MEES, 8 October & MEES, 22 October]. Is Israel also looking at the possibility of connecting its grid to Jordan and Egypt, and by doing so possibly benefitting from increasing Jordanian renewable energy?

A: We understand that in order to successfully reach our emissions reduction targets, we will not be able to rely solely on electricity production from renewables in Israel. The potential for cooperation with our neighbors on clean energy production and transmission is a common interest and key to greening our region.

Q: Turning to the upstream, the last decade has seen Israel's gas sector leap forward with the 10.5tcf Tamar field being brought online in 2013



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and the giant 22.7tcf Leviathan field coming online in late 2019 [MEES, 3 January 2020]. What role can natural gas play in the energy transition as a bridge fuel, and do you foresee challenges in raising investment for natural gas development?

A: Israel has been developing and expanding its natural gas grid and furthering the conversion of industry to natural gas. With natural gas reservoirs of around 1,000 bcm [35tcf] and annual usage is approximately 12 bcm [1.2bn cfd], there are valuable economic benefits to produce natural gas for both the local and export market.

Israel's transition to renewable energies is a challenging and gradual process. Natural gas will continue to play a major role in our energy mix for the foreseeable future due the fact that solar power is currently our only source of renewables.

Like the rest of the world, Israel's gas sector is not untouched by the global trends and regulations necessary to deal with the effects of climate change. However, like our neighbors in the region, gas will remain a bridge fuel for perhaps longer than in other parts of the

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