



DEBATE: What Is the Best Way to Transport Levantine Gas to Europe?

Moderated by George N. Tzogopoulos

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Q: Energy discoveries in the Eastern Mediterranean are changing regional dynamics in the Basin. Key players – principally Cyprus, Egypt, and Israel – are taking steps to achieve energy independence and are exploring opportunities for exports. The EU, which is interested in reducing its energy dependency on Russia, could be a client in the future. BESA joins the debate by asking: How can natural gas from the Eastern Mediterranean be better transported to Europe?

Respondents: Michael Ratner, Gallia Lindenstrauss, Tim Boersma, Defne Sadıklar-Arslan, Marc-Antoine Eyl-Mazzega, Theodore Tsakiris, Sohbet Karbuz



**Michael Ratner, Specialist in Energy Policy,
Congressional Research Service, Washington, DC**

The questions of whether or not natural gas produced from the Levantine Basin goes to Europe, and, if so, how it is transported there, will likely be determined by the market, given market and non-market factors. There are proposed projects for

each method of transportation, pipeline and liquefied (LNG), and to different parts of the world. Allowing the existing main finds in the region – Tamar and Leviathan in Israel, Aphrodite in Cyprus, Zohr in Egypt – and future discoveries to be developed according to market pressures would most efficiently deliver the natural gas to markets, whether by pipeline or as LNG.

That is not to say that non-market factors should not be considered. Contract terms, such as duration, pricing, and destination, should be geared towards establishing a global natural gas market, while addressing other policy concerns. However, as has been shown, natural gas when freed from non-market forces will go to the highest-priced market. Israel, Cyprus, Egypt, Lebanon, and Syria have all faced problems developing their resources in part because of non-market issues, whether political, economic, environmental, or security. This has led to market distortions that have hindered the resources from being developed.



**Gallia Lindenstrauss, Research Fellow, Institute for National Security Studies
and a visiting fellow at the Bipartisan Policy Center, Tel Aviv**

The substantial technical difficulties and the economic cost of building the EastMed pipeline will continue to keep the option of Israeli gas export to Turkey (and from there possibly to Europe) open. According to Israeli energy officials, the EastMed pipeline also does not exclude the option of an Israel-Turkey pipeline. Still, negotiations between Israel and Turkey are not proceeding as planned. The Turkish Energy Minister had planned to visit Israel in winter 2017, supposedly to conclude the deal, but this did not happen. Meanwhile, the Turkish reaction to US President Donald Trump's recognition of Jerusalem as Israel's capital (as well as some other rhetorical clashes between Ankara and Jerusalem in 2017) have yet again negatively influenced the atmosphere between the two states.

The risk that Turkey in the future will tamper with the pipeline from Israel, in case of another rupture of relations, is not high in my view. A good precedent is the continuing flow of oil from Azerbaijan to Israel via Turkey without disruption despite the flotilla crisis and its aftermath. However, it is a risk that those invested

in the project cannot ignore and will require guarantees that will add to the price of Israeli gas if exported via Turkey.



Tim Boersma, Senior Research Scholar and Director of Global Natural Gas Markets at the Center on Global Energy Policy, Columbia University, New York

Major gas reserves have been discovered in the Levant basin in recent years, and with exploration activities ongoing, more findings are not unlikely. Some of those resources have found their way to market. Most notably, in 2013 the Tamar gas field started production, providing Israel with a steady source of supply for the coming decades. Starting in the coming months, production from the Zohr field is expected to serve Egypt in a similar fashion, relieving it from a steep import bill that comes with importing liquefied natural gas.

Other resource finds, however, most notably the Leviathan field offshore Israel and the smaller Aphrodite field offshore Cyprus, have struggled to find markets. Large-scale liquefaction capacity is economically challenging, surely in the current climate. Despite governmental agreements, the construction of major trunk lines to ship natural gas through the Mediterranean seems challenging, because of deep seas, high costs, and uncertainties regarding territorial waters. Building infrastructure overland to Turkey is not possible given the war in Syria and the sour relations between Lebanon and Israel.

The good news might be twofold. First, additional resource finds are not unlikely, and if so might tilt the economics of specific projects in the right way at some point in the future. Second, the newly found resources are increasingly finding local markets despite the challenging and at times volatile context.



Defne Sadıklar-Arslan, Executive Director – Atlantic Council’s regional representative with a specific focus on Turkey

The pipeline from Israel to Turkey, currently under negotiation, remains the most economically viable and realistic way of transporting natural gas from the Eastern Mediterranean to Europe. Due to its geographical proximity and the favorability of its domestic market, Turkey offers the most attractive option for export. The pipeline could connect to the Southern Gas Corridor for surplus gas to be re-exported to Europe through Greece, Albania, and Italy.

The other proposed pipeline, one directly to Greece, would be more than double the cost, with lowest estimates at around \$6 billion versus around \$3 billion for the pipeline to Turkey. According to Israeli Minister of Energy and Water Resources Yuval Steinitz, it would be the longest undersea pipeline and experts are still undecided on the project’s feasibility and economic viability. Exporting through liquefied or compressed natural gas has also been floated but given the surplus of LNG in the market and the fact that it would have to compete against very cheap and growing LNG from countries such as the US, I am not sure it is viable.

Geopolitics are still an obstacle standing in the way of a pipeline to Turkey, however. The issue of Cyprus, whose territory the pipeline would have to pass, and continuing tensions between Turkey and Israel still remain. Nevertheless, the pipeline fits the energy security and foreign policy goals of both the EU and the US, whose support would be crucial in realizing a project of this magnitude.

Despite the challenges, I believe energy resources can and should be used to engender regional cooperation and improve strained relations between countries. This appears to be a perfect opportunity for that and would at the same time contribute to European energy security.



**Marc-Antoine Eyl-Mazzega, Director of the Centre for Energy,
Institut Français des Relations Internationales (IFRI), Paris**

The gas resource, production, and export potential in the Eastern Mediterranean has been at the center of attention of industry and policy makers from the region for the past several years. Yet since the first large discoveries were made, the results in terms of export projects have been rather modest. There is one clear winner: Egypt and ENI; one stakeholder, Israel, that missed its big chance to become a leading exporter and is now trying to catch up; one stakeholder, Lebanon, that has been absent so far; and one, Cyprus, that is disappointed but still sees some uncertain potential.

And there are two entities with no concrete gas supply perspectives from the Mediterranean: Turkey and the EU. The key questions still are: will there be LNG exports from new or existing infrastructures? Will a pipeline be built to Turkey? Is one to the EU viable? Several issues need to be taken into account: Turkey's gas demand prospects are much less positive than anticipated; the Southern gas corridor is soon to open; gas supplies must be competitive in a lower price environment, which requires working on the cheapest options; and cooperation among regional companies and countries will be key. Bets are still open and meeting the demand of Israel or Egypt is no less important than that of Europe.



**Theodoros Tsakiris, Assistant Professor for Energy Policy & Geopolitics at the
University of Nicosia, Member of the Executive Board,
Hellenic Association for Energy Economics**

The monetization of Leviathan's gas reserves, especially with regard to their potential export to Europe, is a matter of strategic significance for Israeli industry executives and the nation's leaders who often compete on how to reach EU markets. It needs to first be clarified that the possibility of exporting to Europe is not an issue of immediate concern for decision makers.

After more than three years of regulatory impasse and political infighting triggered by the decision of David Gilo, the then head of the Antitrust Authority, to cancel the export license of the Leviathan consortium in December 2014, the developers of the field took their Final Investment Decision on the first phase of Leviathan's development. Most of the 12 bcm/y of the prospective production from Leviathan's phase 1 will be directed to the domestic market with a mere 3 bcm/y available for export, most likely, to Jordan where the necessary permit has been secured from the Cabinet.

A preliminary agreement to export 3 bcm/y to Jordan in order to cover nearly the totality of the country's gas demand has been signed since September 2016, but the contract has not been finalized. This is due primarily to political reasons, linked in part to the Arab reaction to the decision by President Trump to move the US embassy from Tel Aviv to Jerusalem.

Any gas from Leviathan's phase 1 will not be available before 2020, so a second production phase that could be exported to the EU is unlikely to be available prior to late 2022 or early 2023 at the earliest.

On the question of what is the optimal export option, there are three potential answers: (a) a pipeline to Turkey and then to Europe, (b) a pipeline to one or both of the Egyptian LNG terminals for liquefaction, and (c) the East Med Gas pipeline (EMGP).

From these options, if new significant discoveries are not made in the Cypriot EEZ (something we will find out about in 2018), then it would be rather difficult to support the EMGP exclusively with Israeli reserves from Leviathan. The endeavor is too ambitious and risky for only one exporter to take the whole risk, especially if this exporter is not an EU state and the prices of gas in the EU markets remain at record low levels, although after 2017-2018 they will start to rebound.

In the absence of a solution to the Cyprus problem, a pipeline to Turkey that crosses the semi-occupied Exclusive Economic Zone of Cyprus would pitch Israel against Cyprus and Greece and in extension the EU Council. If Israel builds such a pipeline in conflict with and in opposition to Nicosia and Athens, it would seriously endanger their ongoing trilateral cooperation and more importantly would not reach Europe. Turkey does not have the capacity to even transport the gas from its

southern provinces to its EU border, let alone export it further afield. If Leviathan gas reaches Turkey, it will be consumed in Turkey!

The only viable option to reach the EU, and one not without difficulty, is to reach the idle LNG terminals in Egypt that can accommodate the entire production capacity of Leviathan's Phase 2 and leave room for the liquefaction of some Cypriot gas from Aphrodite. A joint development plan between Leviathan and Aphrodite, which are a mere 20 km apart, is a sensible option to avoid duplicating costs, especially since there is a strong presence by Delek and Noble in Aphrodite.



**Sohbet Karbuz, Director of the Hydrocarbons Division,
Mediterranean Energy Observatory (OME), Paris**

The “how” part of the question, excluding the adjective “better,” is easy. There are three options currently under negotiation to export gas to Europe: by pipeline, via LNG, and a combination of both. To pinpoint which of those is “better” is not that easy because each option presents technical, commercial, administrative, security, legal, and political challenges with some geopolitical implications. It is like trying to solve a stochastic multi-objective decision making problem, which is not that easy. Therefore it is better to start with a core question: Can natural gas from the Levantine Basin be sold to Europe? Yes, if there a binding gas sales and purchase agreement in place. Yes, if the price is right, particularly for the buyers. Only then can we talk about the ways and means of transporting gas from the region to Europe. Do we have such an agreement in place? No, because companies will sign such a contract only if it is commercially viable with a favorable rate of return.

Currently, only gas from the Leviathan field can potentially be exported to Europe, if it finds a buyer with the right price. However, if the drilling campaign in Cyprus this year ends with positive results, it would not be surprising to see Cypriot gas arrive in Europe first. There is an old African proverb that says, “If you want to go fast, go alone. If you want to go far, go together.” For the benefit of the people in EastMed, where geopolitics and history matter, gas exports from the region should go far and start quickly. This will require geopolitical game changers, namely cooperation and collaboration.

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