

# ELIAMEP Briefing Notes

25 /2013

November 2013

## The Case Against an Israeli-Turkish Export Pipeline

by Dr. Theodore Tsakiris

Research Fellow, Coordinator of the Geopolitics of Energy Programme, ELIAMEP, Greece  
Assistant Professor Geopolitics of Hydrocarbons, University of Nicosia

Although an Israeli-Turkish pipeline connecting Leviathan with Ceyhan (LCP) would be the less costly option to construct for Israeli/Cypriot exporters, an LNG option centered around Vassilikos remains –even if it is delayed by 18-24 months- the most attractive export option for Cyprus for the following reasons:

(I) The recent disappointing results of the appraisal drilling on the Aphrodite field –announced on 3 October 2013- means that there is simply not enough gas to satisfy both the LNG *and* the pipeline to Turkey option, even if such a pipeline was politically feasible which is not. If Aphrodite contains anywhere between 4.5-5.5 tcf even the Vassilikos option becomes an impossibility for economic reasons and a Turkey pipeline option becomes an impossibility even as a complementary export option.

Even if there are a few Greek-Cypriot politicians who would be ready to discuss a “Turkish” pipeline as a parallel option to Vassilikos no one would be ready to drop Vassilikos in favor of a pipeline option regardless of whether it would end up to Turkey or (for that matter) Greece. Aphrodite’s size is too small to give Ankara the necessary incentives to move the Turkish-Cypriots closer to a comprehensive solution of the Cypriot problem in order to import 5-6 bcm/y from Aphrodite through a theoretically re-united Cyprus. The only quick method to change these dynamics and give Ankara a more “tangible” energy incentive would be to add another 10-12 bcm/y from Leviathan through a pipeline that would bring Israeli gas to Vassilikos.

The political significance of this incentive should not be overestimated though, especially if it is linked to the restart of the proximity talks between the island’s two ethnic communities. Such a restart is problematic for several reasons, not the least one, due to the persistence of the Turkish government to not recognize the existence of the Republic of Cyprus. One variation of this scenario – namely the linking of the gas pipeline with a comprehensive settlement- would have the gas shipped to Turkey via Cyprus and/or its Exclusive Economic Zone/EEZ, something Nicosia would consider *only after* the comprehensive resolution of the Cypriot Question *and* the construction of the Vassilikos LNG terminal. A second variation of this scenario calls for the construction of a Turkish-Israeli pipeline through the Cypriot EEZ, and in particular through blocks 12, 9 and 2, without the prior resolution of the Cypriot Question. According to this scenario, a so called interim solution would be agreed in order to secure the “right of way” of the pipeline through Cypriot waters.

It is not clear exactly what Cyprus would win from this interim solution but one of the most imaginative ideas recently presented in an international gas conference in Pafos last September is that Delek and Noble would utilize the profits from the sale of the gas to Turkey to finance the construction of the Vassilikos LNG plant. The fact that this idea comes from a member of the board of the Turkish company –Turcas- which wants to build the Turkish-Israeli pipeline may make one question its credibility. Yet even if one were to accept this idea there is no guarantee that the profits would actually go towards building an LNG in Vassilikos. Cyprus would have indirectly recognized the “TRNC” in exchange for exactly what?

Would a more politically tangible *quid pro quo* be more acceptable to Nicosia? Would Ankara be ready to offer such an incentive, like for example the return of the Varosia area to its proper inhabitants under UN/EU control, in exchange for a Cypriot permit to Zorlu or Turcas or any one else who wants to build the Leviathan-Ceyhan pipeline? This

## The Case Against an Israeli-Turkish Export Pipeline

by Dr. Theodore Tsakiris

is quintessentially a political question and it appears extremely unlikely that any stakeholder would be either willing or even able to provide the appropriate answer especially since Turkey's Prime Minister refuses to even recognize the right of the Republic of Cyprus to exist.

(II) Why would Nicosia and Tel Aviv not choose an LNG option over a pipeline to Turkey even if it is less costly to construct? There are several reasons for this:

(a) *Higher LNG Profit Margins:* The best price Turkish off-takers would be willing to pay for Cypriot/Israeli gas is estimated at approximately \$8.5/mbtu (million british thermal units). LNG prices in Europe are estimated at \$11-12/mbtu and Japanese benchmark prices are anywhere between \$15-17/mbtu. If Delek and Noble decide to liquefy 10 bcm/y of their gas in Vassilikos the net profit margins of the LNG option for the second LNG train can be several times higher than the \$1-\$1.75/mbtu Cypriot and Israeli exporters would hope to get from selling their gas to Turkey. Turcas has claimed that they would be willing to cover the entire cost of constructing and operating a 480km underwater pipeline. If that is the case then the actual price they would be willing to pay would be closer to \$11/mbtu which is close to average LNG prices for European destinations. ***In this scenario, if Noble/Delek, are not burdened at all with the cost of transporting the gas to Turkey, Turkey becomes nearly equally attractive (at \$2.5-\$3/mbtu), in terms of net profits for Leviathan's developers as any LNG destination in Europe, provided Israeli gas is consumed in Turkey and does not transit to Europe.***

If the overall cost for the development of Aphrodite/Leviathan gas through an LNG terminal in Vassilikos is around \$8-\$9/mbtu, then gas exports to Europe's less interconnected and higher value Mediterranean destinations in Italy, Greece, Spain and France, can generate a net profit of approximately \$2.5-\$3/mbtu. If export contracts to Asian markets are closed by Delek/Noble within 2014-2015, especially before East African LNG development projects (especially from Mozambique) are launched, then the potential profit margins could be as high as \$7-\$8/mbtu.

That is why it is more likely that at least 50% of the projected exports from Aphrodite and Leviathan would find their way to Asian markets and not the EU. The participation of KOGAS, South Korea's state controlled natural gas company, in the ENI-led consortium, which is exploring for hydrocarbons in Cyprus' offshore Blocks 2,3 & 9, guarantees that a significant share of Cypriot exports would eventually reach Asian markets, even if they are exclusively consumed by South Koreans. Seoul is, at the end of the day, the world's second largest consumer of LNG, after Japan. Such an export strategy -equally dividing Cypriot LNG exports between Europe and Asia- would generate an average net profit for LNG exports at \$5.125/mbtu compared to a best estimate of \$3/mbtu for the Turkish pipeline option.

(b) *Higher Demand Security due to Multiple and "Substitutable" Export Destinations:* Another important advantage of LNG is that it ensures a higher level of demand security from the exporter's point of view. Pipelines commit an exporter to one particular market for a very long time and at a relatively steady price, especially if this market is not well interconnected with other markets so as to provide alternative client options to the exporter. Committing a high percentage or the near totality of your exports to one market through one export venue is not a very good idea for a new exporting country if the political climate between exporter/importer is unstable. There are no "Peace Pipelines" who were constructed and operated in a hostile political environment for a very long time, unless the economic cost of breaking this relationship was equally high for both sides, as was the case with the Soviet gas pipelines to Western Europe in the 1980s. This is not the case for a potential Israeli/Cypriot pipeline to Turkey. An Israeli export pipeline to Turkey, regardless of its size and route, will also need to overcome a series of major geopolitical impediments that relate not only to the region's increasing volatility but also to the political preconditions necessary to construct a multibillion USD investment which will need to operate for decades.

Any meaningful long-term contract of Israeli exports to Turkey would represent a *minimal* volume of 10 bcm/y for a period of 15-20 years equal to around 40%-50% of Israel's entire *present* export potential of 380 bcm and around 100% of Cyprus' *entire* export potential. Would Israel accept to commit over a period of 15-20 years such a large portion of its current export potential towards a country with which it has no practical diplomatic relations since 2010? If

## The Case Against an Israeli-Turkish Export Pipeline by Dr. Theodore Tsakiris

*Turkish-Israeli relations would return to a status of hostility within the life expectancy of the Leviathan-Ceyhan pipeline, can Israel find readily available alternative export destinations in case Turkey cancels its own imports or stops the transit of Israeli gas through its territory even if such a transit were economically viable?*

The answer is probably no. Gas pipelines do not get build in a matter of months. LNG liquefaction capacities are not constructed in a matter of months and they cost a lot of money to remain iddle as Egypt's experience clearly illustrates. Building excess LNG export capacity as a back-up to a potential disruption of pipeline-based exports is highly expensive and counterintuitive. Furthermore, the structure of the international gas market is too inflexible to allow an exporter to find alternative clients in case its principal market destination is lost, especially if this market was serviced through pipelines and represented such a large portion of its entire export capacity as it would be the case between Turkey and Israel.

On the other hand, Turkey can replace the potential loss of Israeli imports with far greater ease compared to either Israel or Cyprus. Turkey is very well connected with Azerbaijan, Iran, Russia and has long-term contracts for LNG imports from Nigeria and Algeria. Azeri exports are set to increase from Shah Deniz Phase 2 and beyond while there is also a high probability for increased imports from Turkmenistan (via Iran) and most importantly from Kurdish Iraq.

(c) *No Viable Transit Option to Europe Via Turkey:* A pipeline to Turkey could become more attractive to Cypriot/Israeli exporters if Turkey were able to offer a steady and transparent transit regime to Europe. There is no free transit capacity in the Turkish National Gas Transmission System (NGTS), nor enough free capacity in TANAP (at least not more than 5 bcm/y) to make a transit option attractive for Israeli exporters. Moreover, there is little trust in the transparency of the Turkish NGTS so –as it happened with TANAP- Israeli companies may demand to control 50% of the pipeline *within* Turkish territory to make sure that the gas would reach its final European destinations but that would mean that they would have to share in the costs of its construction. If that is the case, the cost of building from scratch a dedicated, independent pipeline from Ceyhan to the Turkish-EU border will make the overall cost of the project higher than the marginal cost of building two LNG trains in Vassilikos.

(d) *Minimal Transit Risk:* Another major advantage of the LNG option is that it has no transit risk. In this context, the Russian-Ukrainian gas transit crisis is irrelevant. The possibility of a new war between Russia and Georgia as well as PKK attacks on the pipeline routes in North-Eastern Asia Minor are also irrelevant. The experience of the last 10 years illustrates the need to maximize the diversification of EU imports routes and limit EU dependence on one or more transit states. No one wants to see Turkey, especially a Turkey that does not comply with the EU *acquis*, to emerge as a second Ukraine in terms of the volumes of gas that would be crossing Turkish territory in their way to European destinations.

(e) *More Cost Effective Scalability:* The second LNG train is on average 25% less expensive that the 1<sup>st</sup> and the third 25% less expensive than the second. LNG trains do not require the same space and land acquisition costs as a second parallel pipeline with the same capacity as the first one. That is why Vassilikos can accommodate a maximum of 3 LNG trains but could grow to 8 trains if Cyprus relocates a small naval base that is adjacent to the Vassilikos area. The cost of building a second Leviathan-Ceyhan underwater pipeline will be exactly the same as the cost of building the first underwater link.

(III) Given the less than expected results of the Aphrodite appraisal well, Leviathan gas is absolutely necessary for the Vassilikos project to move forward, if Nicosia wants to reach a final investment decision on the Vassilikos terminal as early as the fist semester of 2015. If Israel does not committ the abovementioned 10 bcm/y, Cyprus would need to wait for at least one more year for the second appraisal well on Aphrodite and the exploration drilling of at least one more promising prospect within Block 12 in order to accumulate enough proven reserves to go ahead with the construction of the first LNG train in Vassilikos. Actually in strict technical terms even Aphrodite's reserves are still not proven. What we have are relatively accurate estimates of prospective reserves that will be fully verified after the production test which will follow the completion of the second appraisal wells that will drilled in the second half of 2014.

## The Case Against an Israeli-Turkish Export Pipeline

by Dr. Theodore Tsakiris

It is not unlikely that Block 12 as a whole may contain the 6 tcf necessary for the construction of the first LNG liquefaction train in Vassilikos, but this is something we would eventually know in late 2014. It is quite possible that by that time, Israel would have taken the final decision to support or to not support the Vassilikos LNG option. If Israel chooses against Vassilikos, then Cyprus would have to postpone its export plans for at least 18-24 months in expectation of new discoveries from Total and ENI/Kogas. Even if Israel chooses against Vassilikos an underwater pipeline to Turkey would still not make political, commercial and economic sense compared to the advantages of an LNG facility based in EU-soil.

If Israel decides against Ceyhan and Vassilikos, it would have to choose between a land LNG option in Eilat that would exclusively serve Asian markets and a combination of a land-based LNG in the Mediterranean or a still untested Floating LNG option that would pose a plethora of security problems for what remains a medium-size Israeli navy. Moreover the geostrategic links constructed between Israel-Cyprus and Israel-Greece will be significantly weakened as a result of this decision.

*In this scenario the economic cost and the “expectations management” cost for Cyprus would be significant but it would not be catastrophic. Cyprus can afford to wait for at least 18-24 months until ENI and Total complete their exploration programmes before taking its final decisions, rather than concede to a pipeline option that would primarily favor Turkish interests at this juncture. Sending all Cypriot gas exports to Turkey would essentially create a monopsony relationship that is by definition against the interests of any exporter even if there were no political impediments governing this commercial relationship.*

### Hellenic Foundation for European & Foreign Policy (ELIAMEP)

Vas. Sofias, 10676 Athens, Greece | Tel. +30 210 7257 110 | Fax +30 210 7257 114 | E-mail [eliamep@eliamep.gr](mailto:eliamep@eliamep.gr)

*ELIAMEP offers a forum for debate on international and European issues. Its non-partisan character supports the right to free and well-documented discourse. ELIAMEP publications aim to contribute to scholarly knowledge and to provide policy relevant analyses. As such, they solely represent the views of the author(s) and not necessarily those of the Foundation.*

**Learn more about our work** - Visit our website at [www.eliamep.gr/en](http://www.eliamep.gr/en)

Should you wish to **unsubscribe** from our mailing list please send a blank message to [unsubscribe@eliamep.gr](mailto:unsubscribe@eliamep.gr)