CYPRUS



KEY FACTS:

- Cyprus currently has no gas demand or gas infrastructure
- The newly discovered Aphrodite gas reservoir is under the Cyprus exclusive economic zone (EEZ) and its production is currently being developed with a multitude of partners
- Exploration for other gas fields under the Cyprus EEZ is ongoing
- The EastMed mega pipeline project is planned to connect Cyprus to the European gas transmission system, risking more geopolitical tensions and a new dependence on fossil fuels

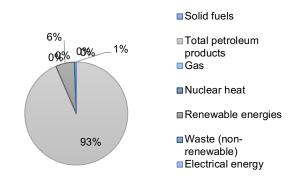
1. GAS DEMAND

There is currently no gas demand in Cyprus.¹

The energy mix pattern continues to be dominated by oil and petroleum products, which represented 93% of gross energy consumption in 2016 – see pie chart,² and which represents the highest share among all EU Member States.³

The contribution of renewable energy to gross inland energy consumption has steadily increased over recent years and is now stagnating at around 6% in 2016.

Figure 1: Cyprus 2016 Energy Mix



2. GAS SUPPLY

The Eastern Mediterranean Sea contains a cluster of proven gas fields that are under the control of Egypt, Israel and Cyprus.⁴

The **Aphrodite gas reservoir** is located in the Cyprus Exclusive Economic Zone (EEZ), block 12 - even though it looks as though the Cypriot share would represent only a **relatively modest proportion** (projected resources equaling around 129bcm) there are still discussions on the **potential discovery of other gas sources**. The bottom line for Cyprus is simply that it risks having exaggerated expectations. While there is the possibility of further discoveries in Cypriot territorial and EEZ waters, testing whether those aspirations can be turned into hard cash would require coherent development programs and, above all, drilling.⁵



CEOs of Italy's Eni and France's Total confirmed their interest for further exploration in Cyprus EEZ in 2016.⁶

The Cypriot Government has approved British Gas Group (BG) as a partner in the offshore Aphrodite (block 12) gas field. Remaining partners in the field are the Delek Group energy exploration and production units Avner Oil and Gas and Delek Drilling, which will own 15% each.⁷

Nonetheless, in August 2016, Cyprus signed a gas supply deal with Egypt, aiming to transport Cypriot fossil gas from the Aphrodite gas field to Egypt from

 $^{^{1}\} https://www.nederlandwereldwijd.nl/binaries/nederlandwereldwijd/documenten/publicaties/2017/11/20/kansen-in-de-gassector-in-cyprus/Gas+in+Cyprus.pdf$

² http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nrg_110a&lang=en

³ https://seenews.com/news/four-companies-bid-in-croatias-onshore-oil-and-gas-exploration-tender-659874

⁴ http://www.naturalgaseurope.com/beware-false-hopes-in-east-med-28534

⁵ http://www.naturalgaseurope.com/beware-false-hopes-in-east-med-28534

⁶ http://www.naturalgaseurope.com/cyprus-declares-third-offshore-round-28786

⁷ http://www.offshore-technology.com/news/newscyprus-approves-bg-group-partner-offshore-aphrodite-gas-field-4787325

2020/2022 onwards.8 It is clear though that given the Paris Agreement, the EU should be highly criticised

for encouraging the production of new gas sources.

3. GAS INFRASTRUCTURE

These offshore gas discoveries have unsurprisingly attracted interest from neighbouring EU countries, leading to proposals for an important gas project that could transmit gas from the Aphrodite reservoir to the European gas system through Greece and to Italy (through the Poseidon pipeline project which is on the PCI list).9

These discussions have sufficiently advanced, now receiving EU support through the PCI list. Another main proposed transmission project, called EastMed (see map), would be the largest and deepest offshore pipeline in the world, costing at least €6 billion. It would consist of an ~1,500km pipeline to the Greek network and about ~2,000km pipeline to the Italian



gas network with an estimated capacity of 320-350GWh/d (~11.5bcm/y) with the option to upgrade the capacity of the pipeline sections from Crete up to 510GWh/d (~16bcm/y), in case relevant reserves are discovered in the offshore territories of Crete. 10 However, in August 2016, Cyprus signed a gas supply deal with Egypt, aiming at transporting the Cypriot fossil gas from the Aphrodite gas field rather to Egypt from 2020/2022 onwards. 11

The EastMed could also transport gas from e.g. Leviathan and Tamar gas field in Israel and Zhor field in Egypt, and while the starting point of the planned pipeline is surrounded by uncertainties, it is clear that through gas exploration/extraction and export, the EU is likely to involuntarily fuel already existing tensions in the region. Incidents and conflicts linked to gas exploration have already occurred 12 and should be a warning sign for the EU - showing that the bloc is responsible for issues linked to the gas it imports.

Another PCI project linked to the EastMed scheme has been included on the 3rd PCI list, with Cyprus willing to take advantage of its strategic position within the Southern gas corridor. The Cyprus Gas2EU project with around €100 million from EU financing (40% of the envisioned total cost) is still in a preliminary phase but has already sparked intense conflict from concerned countries, as a result of its location in a region prone to energy conflict.¹³ The tensions between Greek and Turkish governments toward the exploitation of these important gas reserves are mounting, adding to the already existing conflicts between Turkey and Egypt as well as Israel and Lebanon. It seems that these gas projects could further polarize already challenging international relations in the region, instead of stabilizing them as hoped.

The presence of this project on the PCI List is particularly unjustifiable after the ratification of the Paris Agreement and the widely accepted fact that at least 80% of fossil fuel reserves should stay in the ground to achieve the objective of the Agreement. This project heavily contributes to the promotion of gas extraction and to the extension of the fossil fuel era while all efforts and limited financial capacity should instead go to renewables and efficiency measures. This project further supports the development of an industry in a country which has never consumed gas and which therefore does not currently have gas systems. Developing such transmission infrastructure is therefore extremely transmission counterproductive given that it does not benefit the country where the production occurs. But if it does start to benefit Cyprus, and if Cyprus starts to use it as a part of its future production, the project would therefore contribute towards the creation of a new reliance on fossil fuels at a time when new energy capacity installed should be strictly limited to renewable energy.



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http://www.lngworldnews.com/cyprus-egypt-sign-gas-supply-deal/

https://circabc.europa.eu/ui/group/3ba59f7e-2e01-46d0-9683-a72b39b6decf/library/9fd8175a-e8e0-4b15-a297-89929115a415/details

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¹¹ http://www.lngworldnews.com/cyprus-egypt-sign-gas-supply-deal/

¹² E.g. https://www.somo.nl/wp-content/uploads/2017/05/Beneath-troubled-waters.pdf and https://en.globes.co.il/en/article-on-the-high-seas-with-tamars-defenders-1000932479 or https://www.reuters.com/article/us-turkey-cyprus-drilling/us-and-eu-concerned-by-turkeys-plans-to-drill-off-cyprus-idUSKCN1SC0D5

https://www.politico.eu/article/natural-gas-mediterranean-cyprus-turkey-more-gas-more-problems/