Natural gas and European energy mix



November 20th, 2020 Digital Version

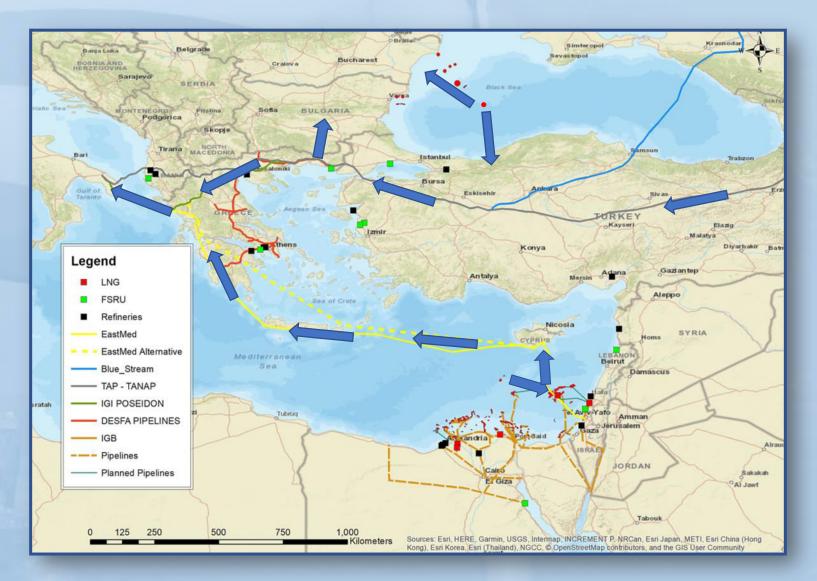
Yannis Bassias Former President and CEO of the Hellenic Hydrocarbon Management Resources

CONCENTRATION OF GAS INFRASTRUCTURES

The existing and under construction refineries, liquefaction plants, gas stations and pipelines in the SE Mediterranean reveal the increasing interest of the countries for infrastructures in order to satisfy the local needs and to play a role of hub focusing a European destination.

These three pipelines: Blue Stream=15-19 BcM/yr, TAP=10-15 BcM/yr, and Eastmed= 10 BcM/yr, are expressions of this **east** to **west** trend of the last ten years.

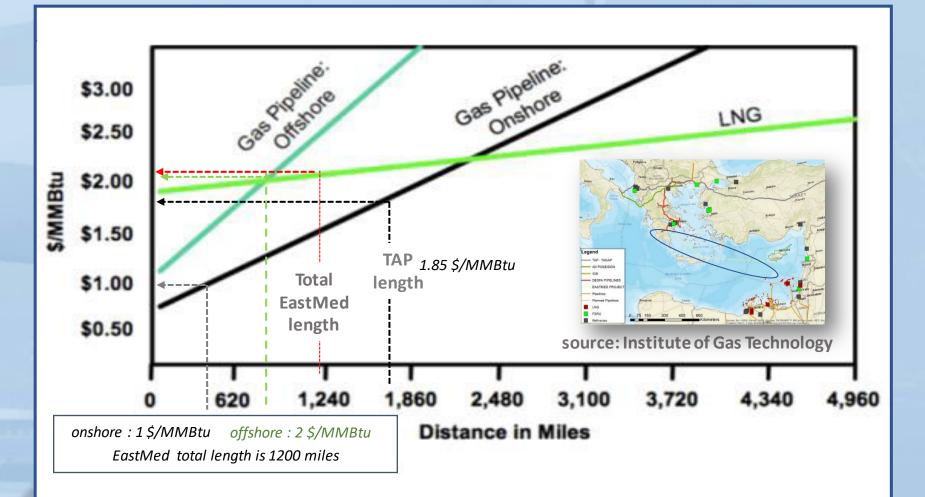
New gas production will undoubtedly require infrastructures, the cost of which can be shared with the cost of investment for transportation. Here stands the importance of successful and intensive offshore exploration west of Cyprus, pushing in the Greek waters.



GAS TRANSPORTATION COST

It will be difficult to figure out which way the scale will tilt in two years, between LNG and pipelines in the SE Med. New technology of SSFLNG (Small Scale Floating LNG) will change the economics.

From a reserves perspective, the three discoveries in Cyprus which are of similar volumetrics do not satisfy the economics of the operators to produce and cover transportation cost, while together with Leviathan and Zohr, the SE Med has today total ultimately recoverable gas reserves of around 80 Tcf (trillion cubic feet).



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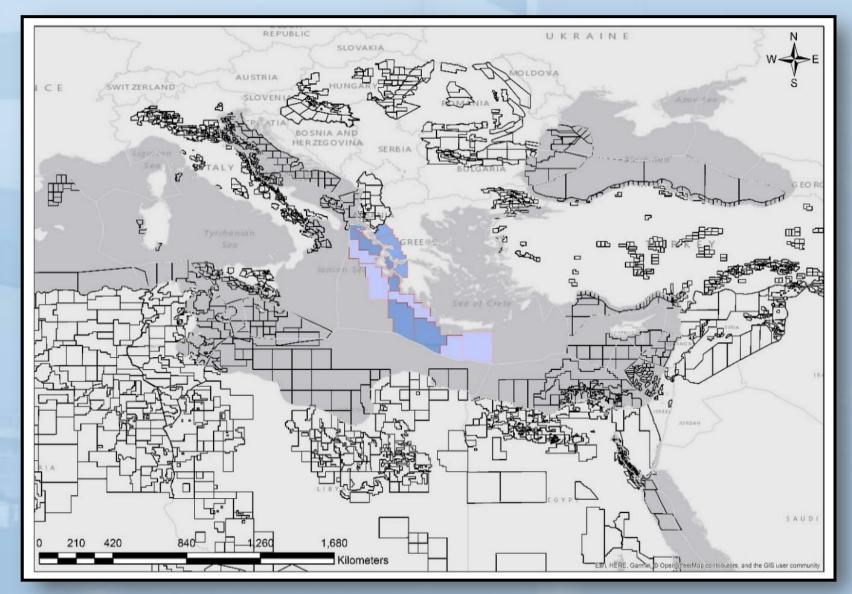
THE GEOGRAPHICAL POSITION OF GREECE

The dynamics of the international energy environment on a scale of decades are now based on natural gas and will continue to be supported by current alternative energy sources for a few decades.

From this point of view, the sea, the main host of the underwater gas fields and energy become intertwined.

At the international level, it is becoming more and more understood that all future energy games will be played at sea and this is true as everyone sees today for our region.

Greece became an important tile in the puzzle of the Eastern Mediterranean and Western Black Sea especially due to the strong probability of economically proven reserves west, south and east of Crete and in the Central Ionian Sea.



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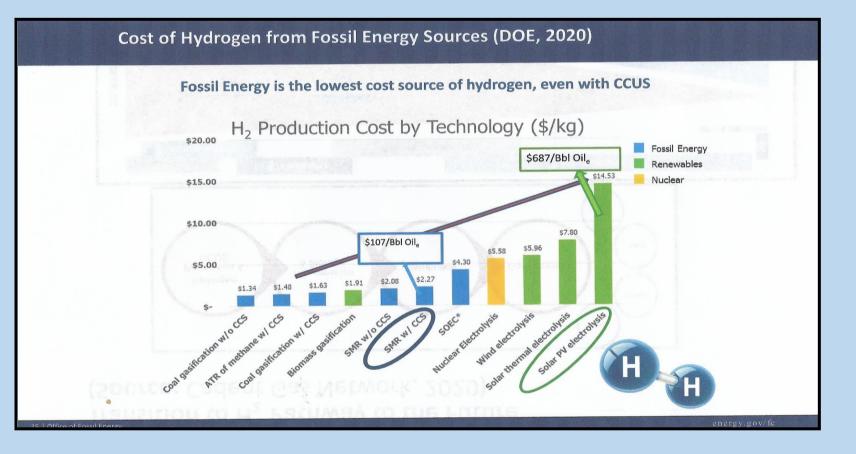
CAREFUL CONSIDERATIONS

For the Greek reality, within the next decade the Renewable Energy Sources are projected to have a share of around 30% in electricity.

But what about the remaining 70%? According to IENE, in the next decade these imports will increase from 6 bcm to around 10 bcm per year to balance the disappearance of lignite and the decrease of crude consumption.

However, lignite is a native resource, not to be stranded. This is what said the Science Academy of Athens, and what DOE released as conclusion recently.

Similarly, the research and exploitation of oil and gas must also be recognized, not only formally, in order to avoid the disappointment of the investors.



Time will show how quickly a correction can be made, but the time window is narrow.

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