Cyprus & East Med Utilizing the recent finds

21st National Conference "Energy & Development" IENE, Athens, 2016

Dr. CHARLES ELLINAS
CEO e-CNHC

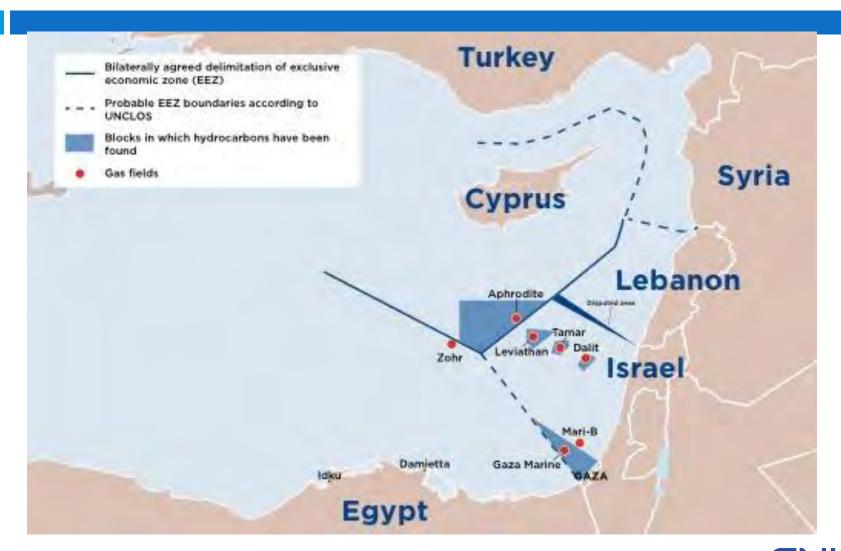


Contents

- Egypt
- Israel and the Leviathan factor
- Regional markets: Turkey
- Cyprus
- Gas in Europe
- How to get East Med gas to Europe
- Concluding remarks



The East Med



Please buy our gas

- Global energy markets are undergoing structural change
- Ratification of Paris Climate Change Agreement
- Cyprus and East Med need to find buyers for their gas
- Gas glut in global market low gas prices
- Cyprus and Israel are running out of export options
- Egypt is moving forward
- Lebanon is stagnant
- Turkey may be the catalyst



Egypt

- Egypt, Zohr, major highlights in East Med in 2016
- Zohr on fast-track to produce 10 bcm/y end of 2017 and rise to 27 bcm/y by 2019
- Egypt going through rapid transformation due to:
 - President Al-Sissi has pulled all stops
 - Egyptian market hungry for gas
 - High gas prices between \$4-\$6 per mmBTU
- Egypt can bring onstream 60 bcm/y new gas by 2019-20
- □ Can resume LNG exports by 2021-22
- Impacts hopes of Cyprus and Israel to export gas to Egypt
- Risks: ability to pay debts and security



Israel and the Leviathan factor

- Regulatory framework deal has been approved
- Sales to Idku may be thwarted by commercial and geopolitical challenges
- Question: what will Shell do with BG's assets in Egypt?
- Possible market: Turkey
- Israel-Turkey have resumed diplomatic relations
- May open the way for export of Israeli gas to Turkey
- FLNG an option



Regional markets: Turkey

- Diplomatic activity with Russia/Israel has now produced results
- Israeli gas an alternative but Cyprus in the middle
- Energy security: Turkey re-evaluating future energy mix
- TurkStream back on track
- East Med gas may no longer be an urgent priority
- Rapprochement with Israel opens way for Leviathan gas
- But there are risks



Cyprus

- Priority Cyprob negotiations
- Third offshore licensing round success blocks 6, 8 and 10
- □ Total to drill in block 11 April 2017
- Aphrodite gas exports stalled
- This leaves Turkey



Gas in Europe

- Gas demand in Europe at best stagnant down 20% from peak
 10 years ago
- It may have peaked already
- Key reasons are cheap coal and subsidized renewables
- No prospect of these factors being reversed anytime soon
- Russian gas supplies increasing due to low price, \$4/mmBTU
- US LNG trying to get in but with limited success
- Costly to develop gas-fields dependent on exports to Europe may remain stranded



How to get East Med gas to Europe

Five main options

- Get it to Egypt, liquefy it and export it to Europe as LNG
- Get it to Turkey and from there to Europe through the Southern Gas corridor
- Pipeline from Israel to Cyprus to Greece to Europe
- FCNG
- FLNG

FLNG a possible longer term option for exports to Europe and Asia



Concluding remarks

- There are opportunities for the region to export its gas, but not at any price and at any time!
- The East Med region is volatile. Developing and exporting its gas is a challenge, especially in the prevailing low demand - low price environment
- Of the regional options, export to Turkey is commercially the most viable.
- In the longer term, FLNG may become a serious option for gas exports to Europe and the Asian markets.
- East Med gas dynamics are changing rapidly and global markets and prices are undergoing a long-term structural shift. The region needs to plan with realism and pragmatism.

