



# **Development of natural gas deposits in Cyprus & the Eastern Mediterranean**

**Demetris Fessas**

Manager - Cyprus Hydrocarbons Company

*4<sup>th</sup> Energy Symposium - Nicosia  
7-8 December 2015*

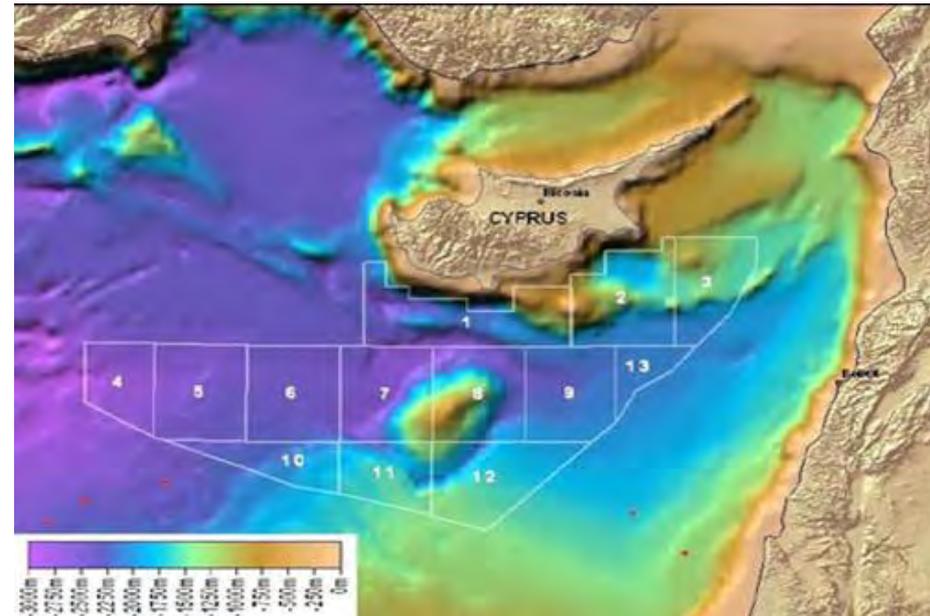
# The Cyprus Hydrocarbons Company Ltd

- The Cyprus Hydrocarbons Company operates as the **commercial arm for the Republic of Cyprus**, marketing the island's share of any future hydrocarbons production
- CHC will hold the government's **share in large infrastructure projects.**
- Participate in Production Sharing Contract related **management committees .**
- In the **future** CHC can develop into an **operator.**

# Cyprus EEZ - Exploration Licences Awarded

## Hydrocarbon exploration Licenses and PSCs signed to date:

- 1 Exploration Block (12) awarded to Noble Energy, Delek Drilling and Avner Exploration (2008)
- 3 Exploration Blocks (2, 3 & 9) awarded to ENI & KOGAS (2013)
- 2 Exploration Blocks (10 & 11) awarded to TOTAL (2013)



# Exploration Progress in Blocks Awarded in Cyprus EEZ

- Initial gas discovery offshore in Block 12 by Noble Energy, **Aphrodite field**, estimated around 4.5 trillion cubic feet
- ENI/KOGAS have Blocks 2,3,9 seismic surveys completed, Onasagoras and Amathusa drilling completed (unsuccessful), **review of geological model** underway
- TOTAL have Block 11 (Block 10 relinquished), seismic surveys completed, **valuating steps forward** and discussing with the Cyprus Government possible arrangements for further work in the area

## Block 12 Aphrodite gas field – Development Status

- Declaration of commerciality (June 2015)
- Field Development Plan submitted to the Ministry of Energy, Commerce, Tourism and Industry of the Republic of Cyprus (June 2015)
- Gas supply from the Aphrodite reserve will largely exceed domestic demand so CHC and Block 12 Partners are exploring export opportunities to Egyptian market
- Base case: An FPSO with export pipelines to Cyprus & Egypt
- Joint Gas Marketing and Sales engagement with potential buyers in Egypt is ongoing

# Block 12 Aphrodite gas field – Development Overview



# Block 12 Aphrodite gas field – Regional Coordination

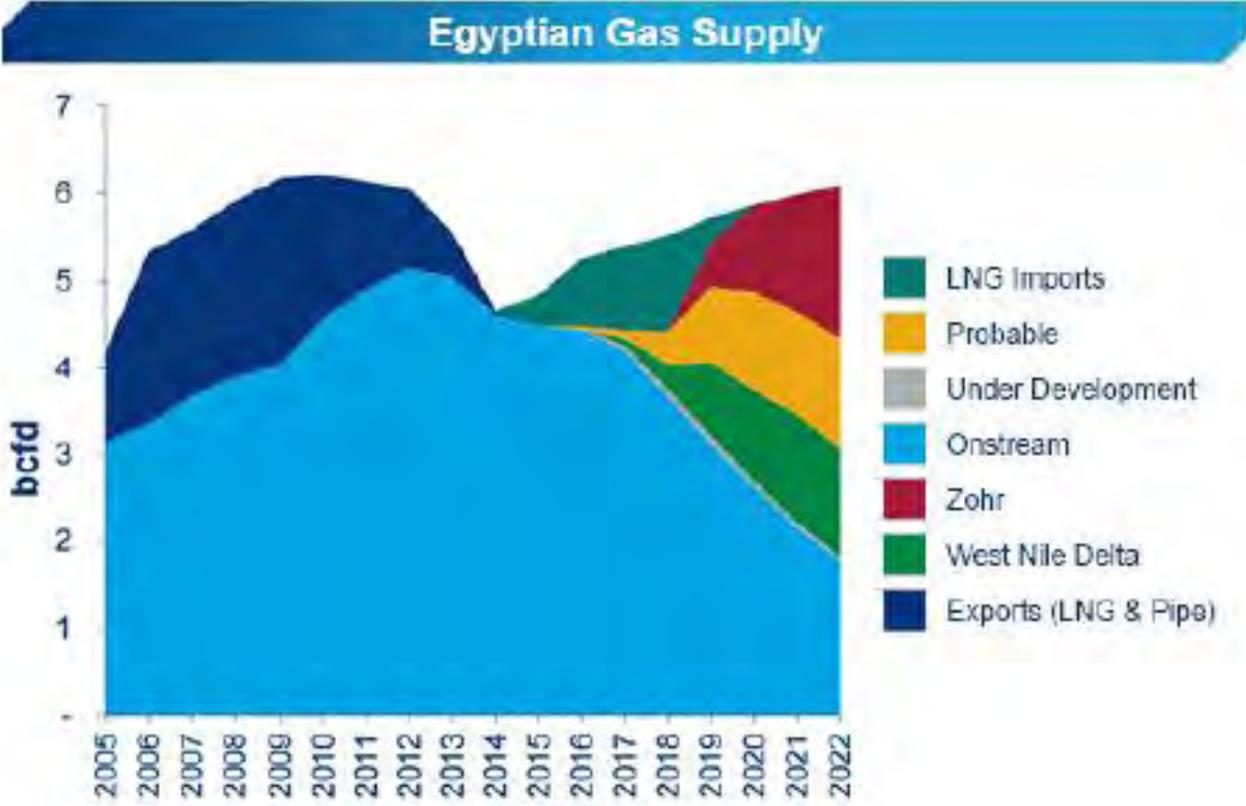
- An **MoU was signed at government level** between Cyprus and Egypt for collaboration in the oil and gas industry (Feb 2015)
- Also an **MoU was signed between EGAS, CHC, NEIL, Delek/Avner** for evaluation of different scenarios for transporting natural gas from the Aphrodite field in Block 12 to Egypt (March 2015). In this framework a **techno-economic study** was performed.

The study examined potential pipeline & onshore facilities options for possible export of natural gas from Aphrodite field to Egypt.

The Cyprus Hydrocarbons Company (CHC) coordinated the study from the Cyprus side and EGAS from Egypt side.



# Egypt Domestic Supply



Source: Wood Mackenzie

# Egypt Domestic Supply

- Current internal demand deficit to continue to at least 2020
- Deficit managed at present through LNG imports
- New discoveries (including Zohr) will assist in reduction of deficit to cover the domestic demand
- Egyptian internal consumption growth will continue
- Potential for regional gas imports to satisfy a portion of the domestic demand remains

# Egyptian LNG Facilities

- ELNG and Damietta LNG Plant
- Egyptian Strategy is to use new gas discoveries to cover the country's demand and not to feedstock the LNG facilities
- Potential for regional gas imports to satisfy LNG plant capacities remains



# Regional Competition or Potential Synergies?

- Israel: Leviathan, Tamar
- Cyprus: Aphrodite
- Egypt: Zohr



# The Benefits of Joint Operations

- Joint developments and use of major infrastructures will **achieve economies of scale**, reduction of costs and increase in revenues
- It can bring countries together which would otherwise not be cooperating, providing **security and stability in the region**
- Develop confidence in the region and attract high level **international companies** to operate in the region
- Joint marketing can make a difference in terms of **providing the region and Europe with an alternative source of energy** thus contributing to their energy security



*An incentive for Europe to support the development of relevant infrastructures and support the political dialogue between the countries in the region*

# Regional Cooperation- CHC role

**The Republic of Cyprus can play a central role in the regional cooperation and CHC in accordance with its mandate will be playing its own important part in this process in order for the countries of the region to benefit the most out of this unique opportunity.**



**Thank you**

**Demetris Fessas**

**Manager - Cyprus Hydrocarbons Company**

*4<sup>th</sup> Energy Symposium - Nicosia*

*7-8 December 2015*