

## Exploration and Exploitation of Hydrocarbons

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Board of Directors – Cyprus Hydrocarbons Company



**4** Δεκεμβρίου 2018 Ξενοδοχείο Hilton Park,

Λευκωσία

## **Exploration and Exploitation Phases**

Production
Sharing
Contract

**Project** 

**Execution** 

**Terminology** 

**EXPLORATION & EXPLOITATION PHASE APPRAISAL** (Exploitation Licence) **DECLARATION OF** FIFLD DEVELOPMENT **PFP** PLAN (FDP) COMMERCIALITY **IDENTIFY & CONCEPT** DEFINE **OPERATE & EXECUTE ASSESS SELECT** (FEED) **PRODUCE** START-UP **DECISION** FINAL INVESTMENT GATE 3 DECISION \$

- Above Decision Gates are very important in aligning partners, releasing funds for next phase and managing risks
- For gas fields it is good practice to have:
  - Signed Letter of Intent (LoI) for Gas Sales before FDP approval (before start of FEED)

CYPRUS HYDROCARBONS COMPANY

Signed Gas Sales Agreement before Final Investment Decision (FID)

## **Exploration Phase**

Production Sharing Contract

EXPLORATION & APPRAISAL

#### **EXPLOITATION PHASE**

(Exploitation Licence)

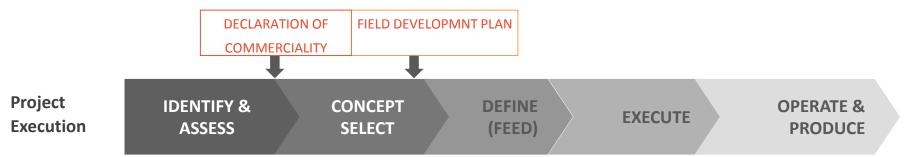
DECLARATION OF COMMERCIALITY



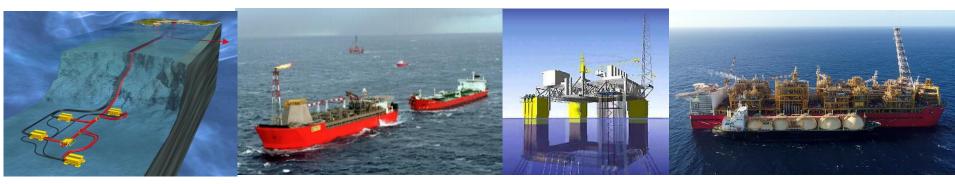
- The Zohr discovery has turned East Med into a major new gas province
- Discovery of Calypso in Block 6 (Feb 2018) confirms Carbonate play in Cyprus EEZ
- Ongoing exploration in Block 10 by Exxonmobil



## **Concept Select Phase**



**Key Selections/decisions:** [for deepwater gas fields]



Subsea to beach

FPSO for condensate storage, pipeline export for gas

Semisub for processing & pipeline export

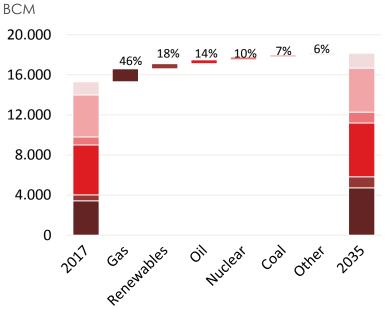
**Floating LNG** 

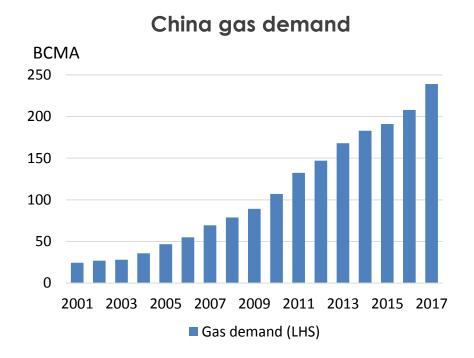
- Which gas market? How do we get gas to market? Pipeline or LNG
  - Address above questions with T E C O P lenses
    - > T= Technical, E= Economic, C= Commercial, O= Operational
    - P= Political
  - Select best option for DEFINE Phase



## **Global Energy Demand 2017-2035**

#### Global energy demand growth by fuel





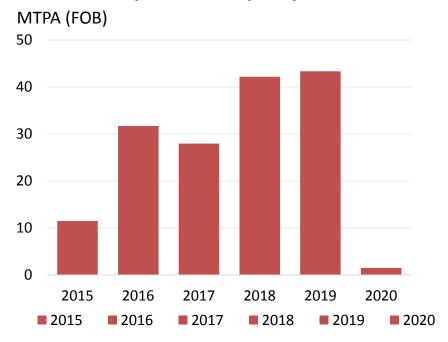
Source: Wood Mackenzie Q4 2017 data

- Growing importance of gas in meeting global energy demand [clean & abundant]
- ➤ Switch from coal to gas in power generation reduces CO<sub>2</sub> emissions by 40%
- ➤ IEA recognizes that replacement of coal by gas playing a major role in reducing CO<sub>2</sub> emissions [especially US and Europe]

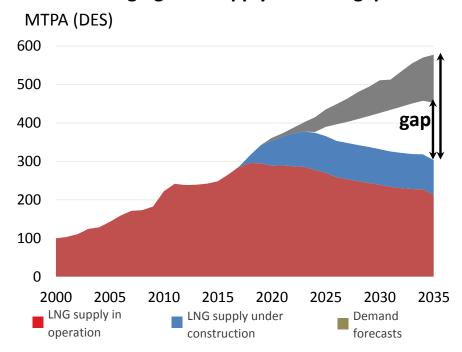


## **Unprecedented LNG Capacity expansion**

#### LNG liquefaction capacity additions



#### **Emerging LNG supply-demand gap**



Source: Shell interpretation of IHS Markit Q4 2017 data

- Growth in LNG demand continues to exceed expectations Flexibility
- Transition to clean energy supports gas and LNG





# Thank you

# Mike Efthymiou Cyprus Hydrocarbons Company



www.cyprusenergysymposium.com

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