

Cyprus Potential Role in the East Med Energy Developments

FOUR LATERAL MEETING BETWEEN REGULATORS
ISRAEL, GREECE, ITALY, CYPRUS

24TH OCTOBER 2013
JERUSALEM, ISRAEL



GEORGE SHAMMAS
CHAIRMAN

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CERA's Legal Status

- CERA is the National Energy Regulatory Authority of Cyprus and was established by the Law on Regulating the Electricity Market of 2003, N.122/(I) 2003.
- CERA's main task is regulating and supervising Cyprus Energy Market (Electricity & Natural Gas) and Electricity and NG Undertakings
- CERA participates in the EU Regulators Bodies CEER & ACER



European Energy Policy

EU OBJECTIVES

**Promotion of
competition**

**Security of
Supply**

**Protection of
the
Environment**

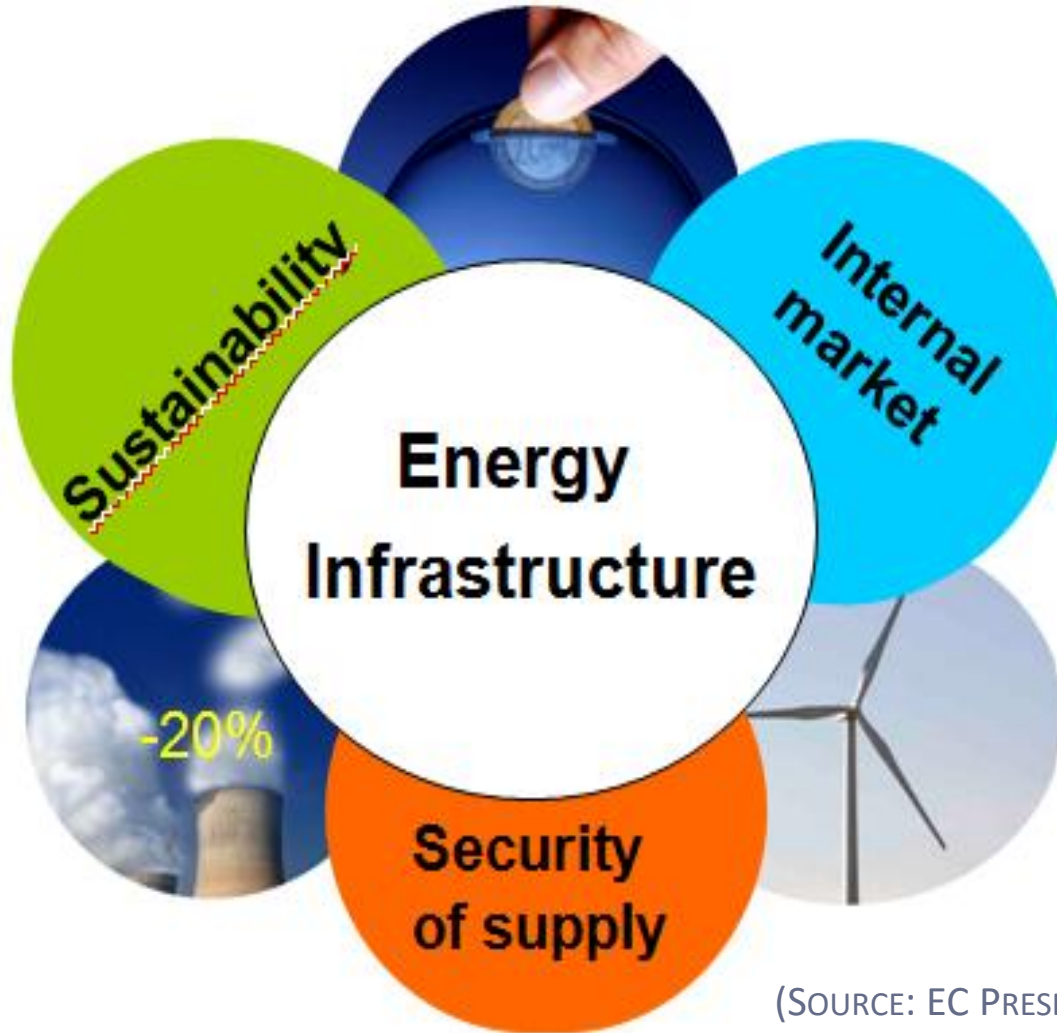
3rd EU Energy Package – Legislative framework

The aim of the third energy package is:

- ❖ the creation of a fully operational **internal electricity & NG market** with enhanced **competitiveness**,
- ❖ the **secure supply** of electricity & NG that is of vital importance for the development of European society,
- ❖ the implementation of a **sustainable climate change policy**,
- ❖ the provision of a **real choice for the consumers** in all EU countries, that will help to keep prices as low as possible and increase standards of service and security of supply.

Energy Infrastructure

The heart of EU energy and climate policy goals

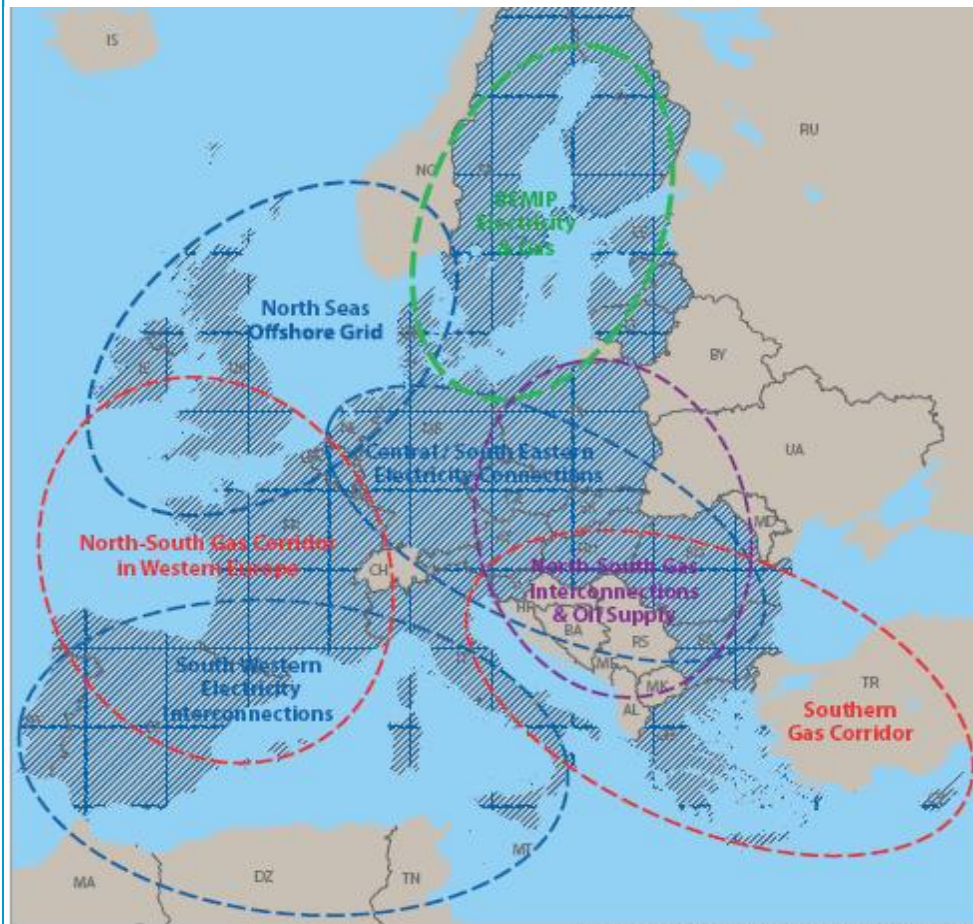


Included under the flagship initiative “Resource efficient Europe”



(SOURCE: EC PRESENTATION TO NRAS)

Infrastructure Priorities



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- Natural Gas
- Electricity
- Electricity and natural gas
- Oil and natural gas
- Smart interconnected grids in the EU

On 14 October 2013, the European Commission has adopted a list of 248 key energy infrastructure projects.

These projects have been selected by 12 regional groups established by the new guidelines for trans-European energy infrastructure (TEN-E).

Carrying the label "**projects of common interest**" (PCI) they will benefit from:

- faster and more efficient permit granting procedures and
- improved regulatory treatment.
- possible financial support from the Connecting Europe Facility (CEF), under which a €5.85 billion budget has been allocated to trans-European energy infrastructure for the period 2014-20.

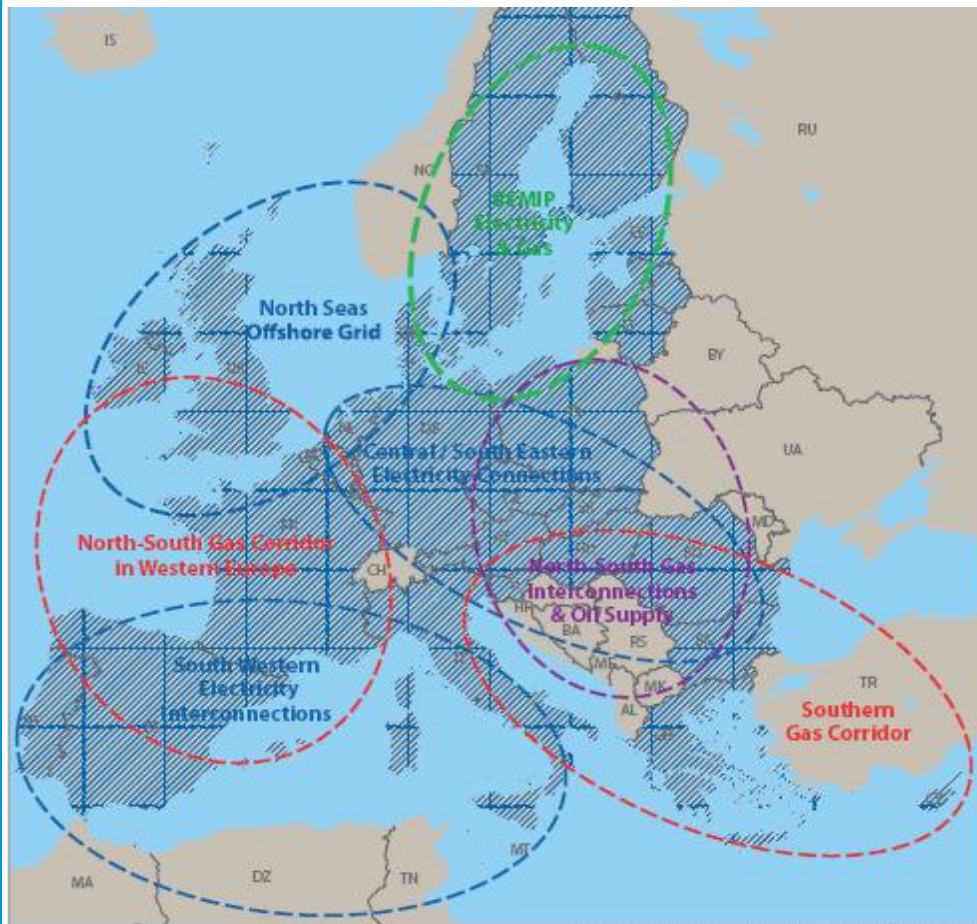
The list of PCIs will be updated every 2 years.

Project of Common Interest (PCI)

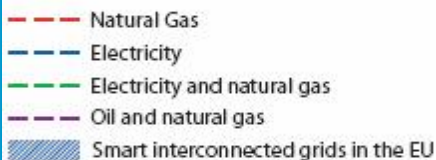
Project of common interest means a project, which can be one or several transmission lines, pipelines, storage facilities, or installations falling under the energy infrastructure categories which is necessary to implement the energy infrastructure priority corridors and areas



Cyprus Participation in Corridors



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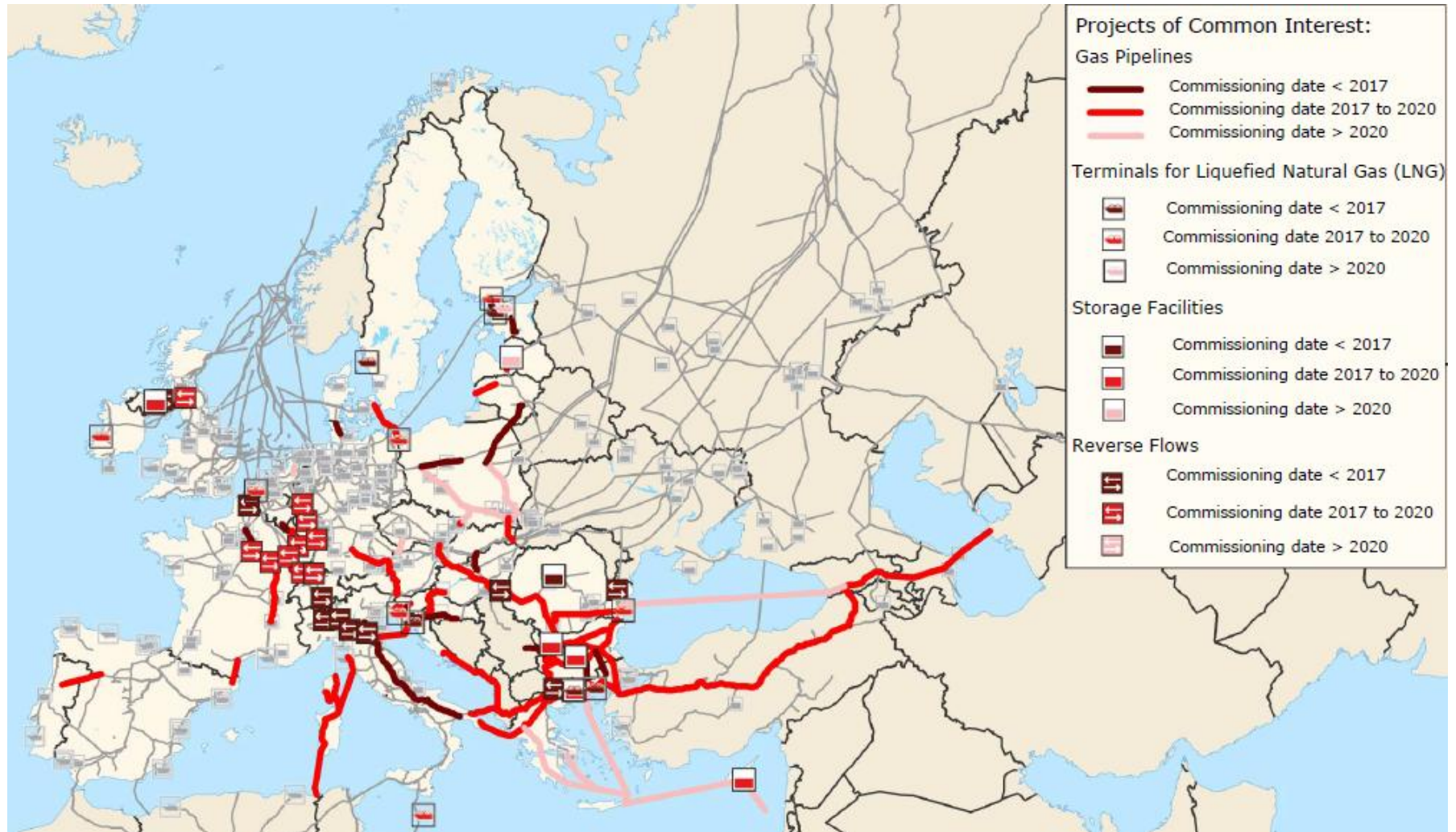


Cyprus has been included in the:

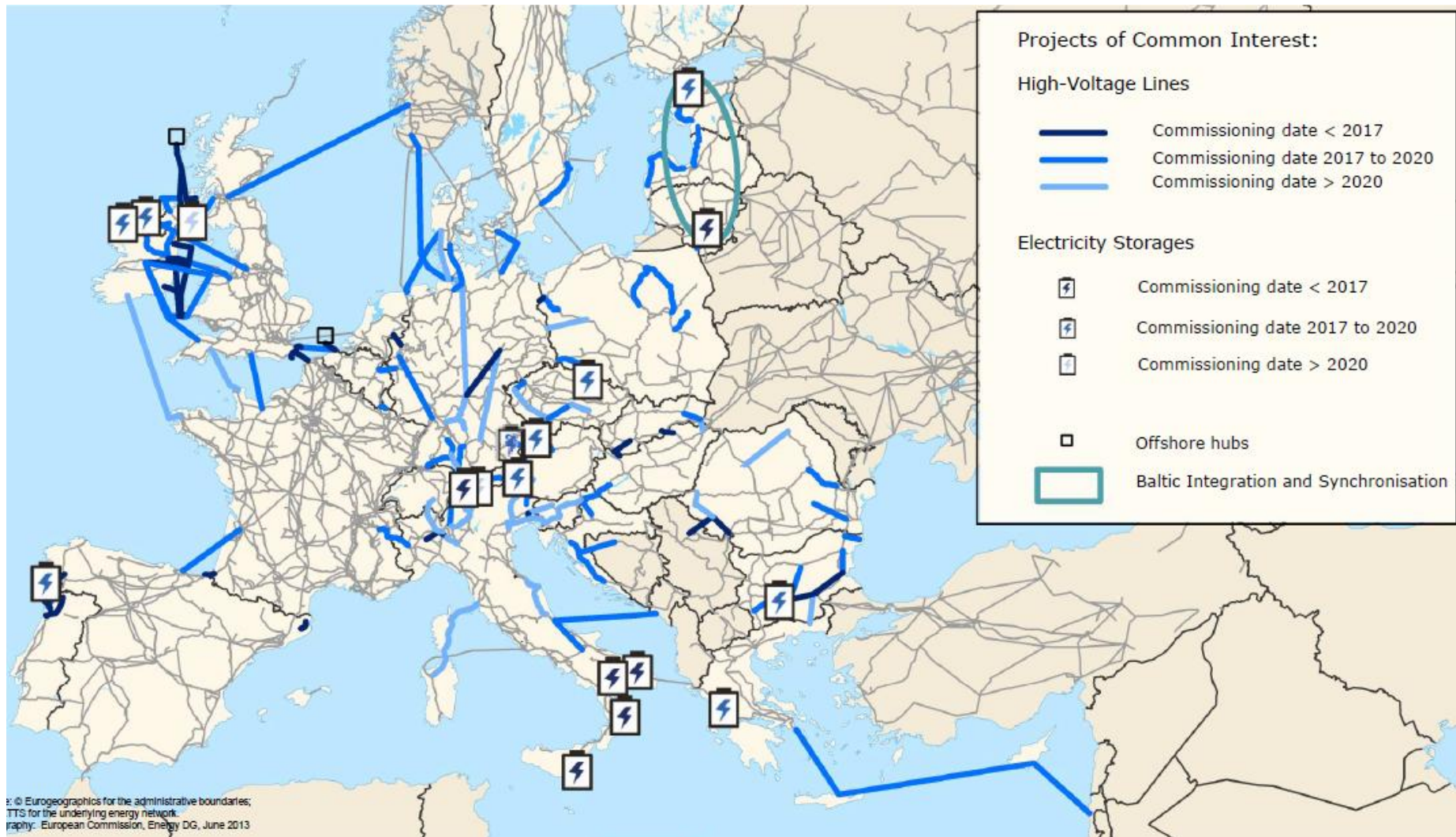
➤ **Southern Gas Corridor ("SGC")** for the transmission of gas from the Caspian Basin, Central Asia, the Middle East and the Eastern Mediterranean Basin to the Union to enhance diversification of gas supplies

➤ electricity priority corridor and is mentioned in the **North-South electricity interconnections in Central Eastern and South Eastern Europe (NSI East Electricity)** which is related to interconnections and internal lines in North-South and East-West directions with a view to completing the internal market and integrate generation from renewable energy sources.

Energy Infrastructure – Natural Gas



Energy Infrastructure – Electricity



International Bilateral Agreements

□ Arab Republic of Egypt

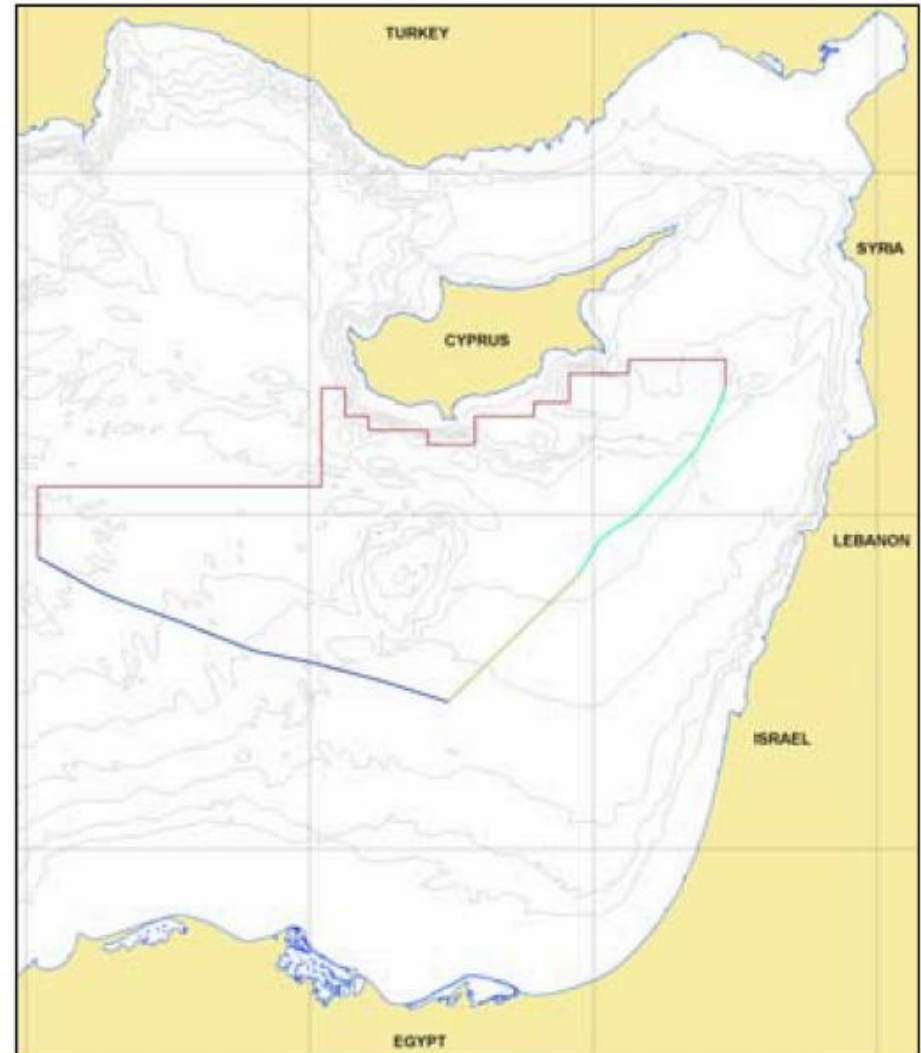
- Delimitation of the EEZ (2003)
- Framework Agreement concerning the development of cross-median line hydrocarbon resources (2006)
- Confidentiality Agreement (2006)

□ Lebanon

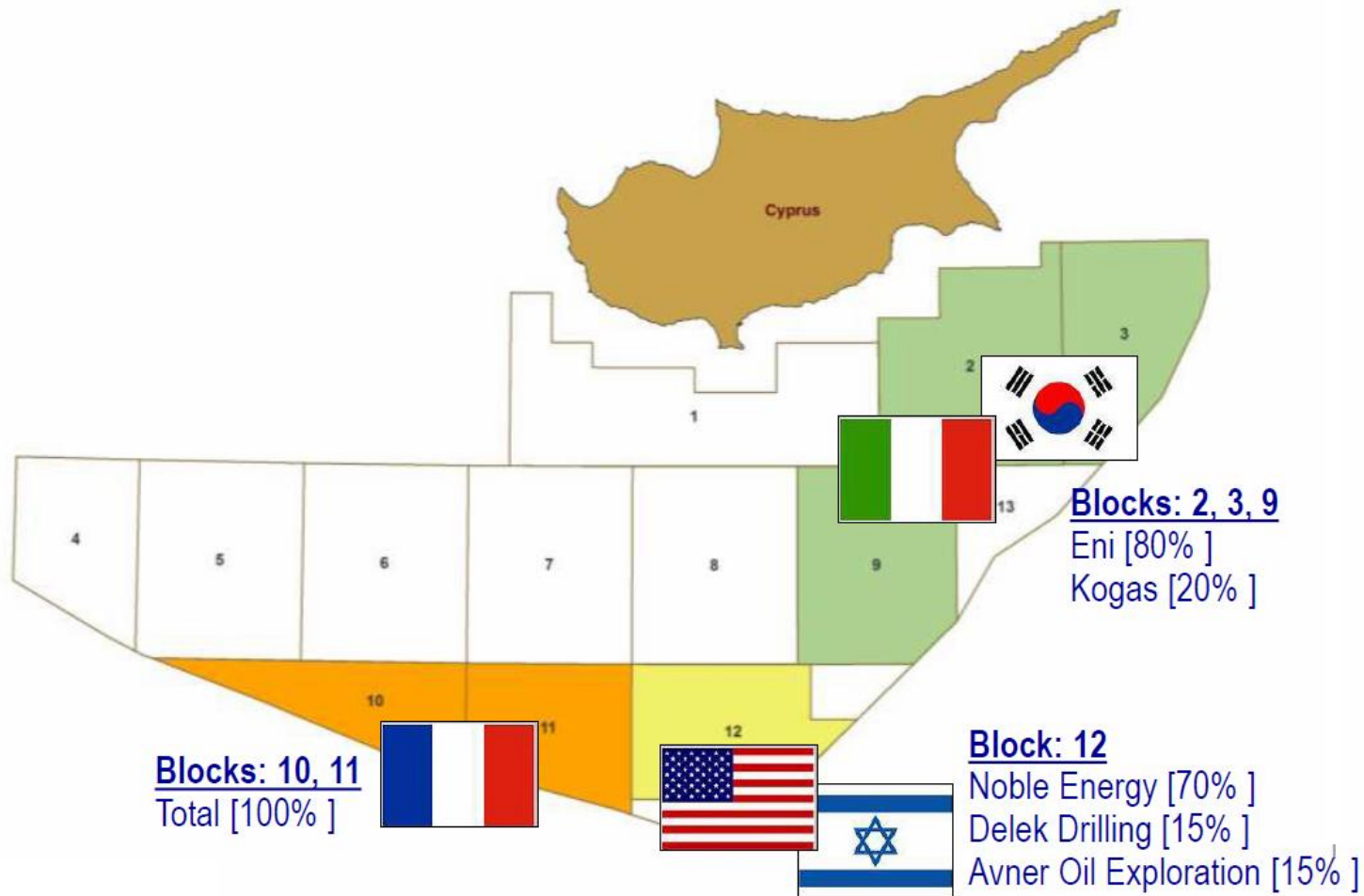
- Delimitation of the EEZ (2007)

□ Israel

- Delimitation of the EEZ (2010)



Exploration licenses – 1st & 2nd Round



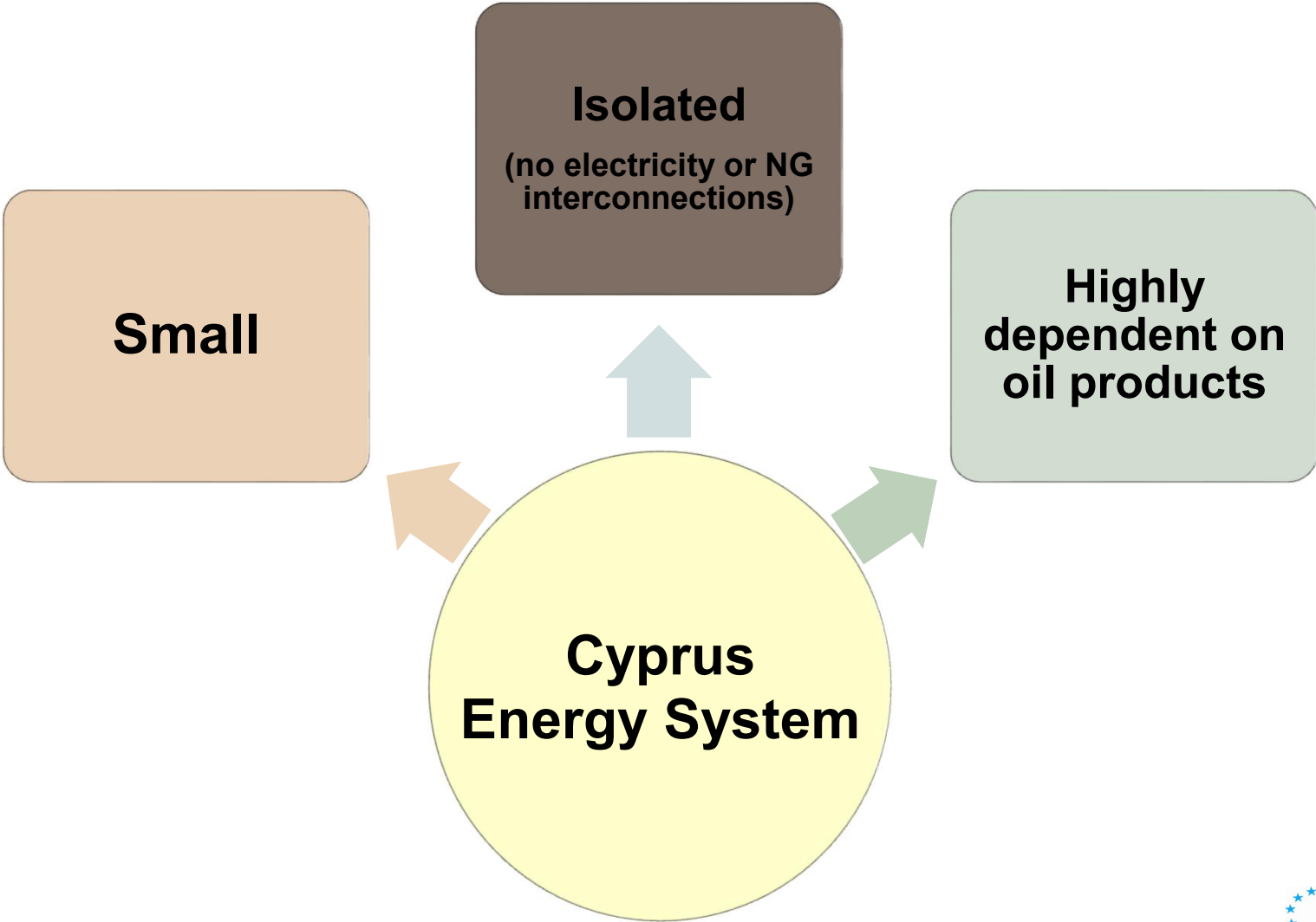
(Source: MCIT)

Cyprus New Era – HC exploration potentials

- ❑ In December 2011 the success of the first well offshore Cyprus was announced.
- ❑ In October 2013 the appraisal well confirmed the presence of very large quantities of good quality natural gas in Block 12. The preliminary results estimate the hydrocarbon reserve between 3.6tcf and 6tcf with a gross mean resource of 5tcf.
- ❑ The confirmation of the presence of significant quantities of natural gas reserves in the EE Zone of Cyprus, signals the start of a new era for Cyprus, an era during which Cyprus must claim a key position in the regional energy map and can be transformed into a **regional energy hub**.

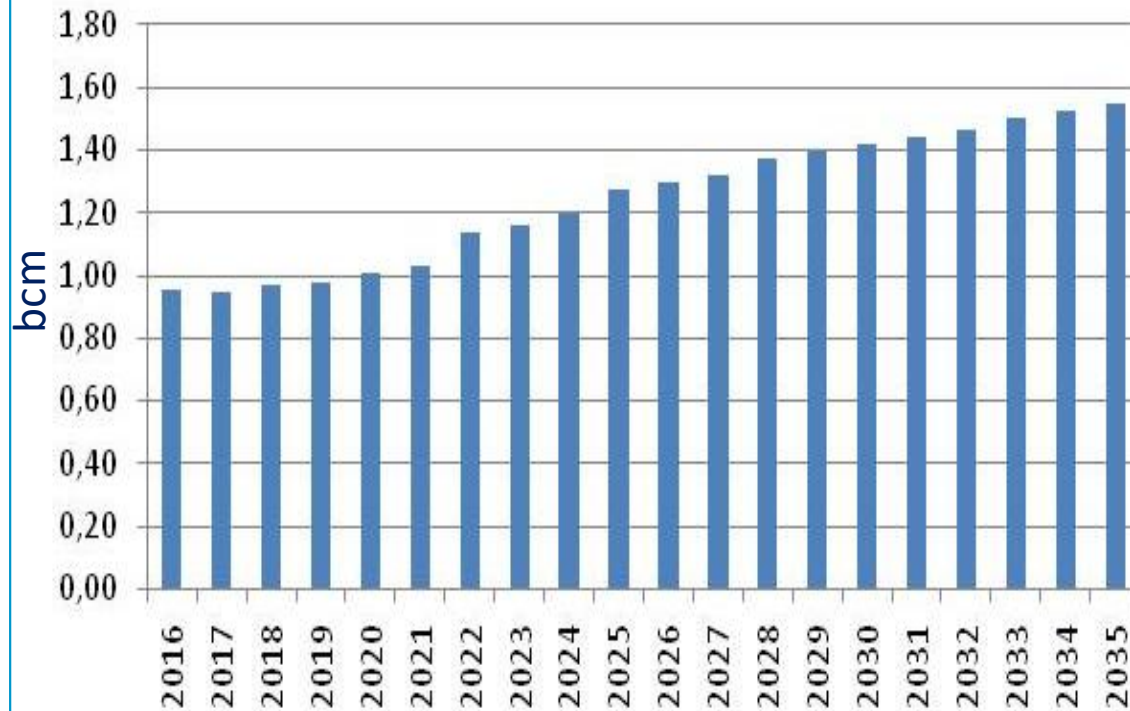


Cyprus Energy Data



NG Sector - Cyprus Energy Data

Natural Gas is not yet available in Cyprus

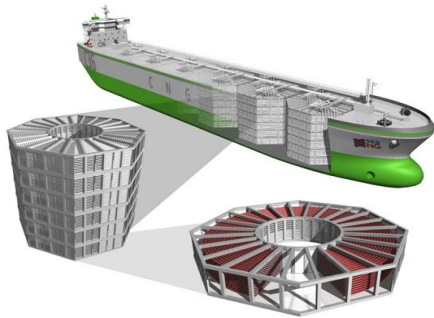


It is estimated that approximately 25 bcm of NG will be necessary for power generation purposes until the year 2035.

Consequently, large quantities of NG are available to be exported.

NG Export options

- ❑ Export of NG to Greece through an underwater pipeline.
- ❑ Establishment of a floating liquefaction unit



- ❑ Establishment of a NG Compression Station

- ❑ Establishment of a Power Generation Station with a capacity of 2000MW

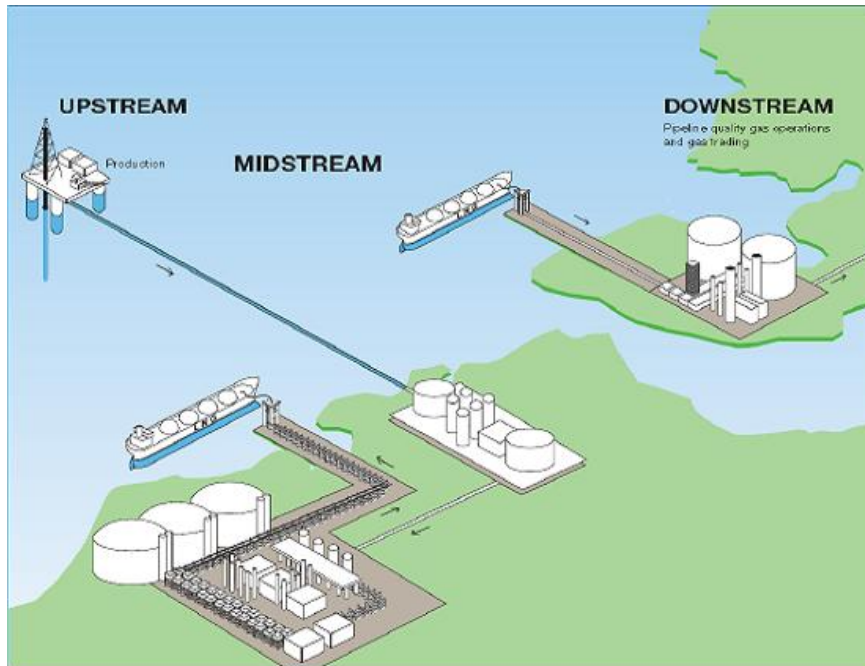
- ❑ Establishment of a GTL unit

- ❑ **Establishment of an LNG Liquefaction plant**



Cyprus Liquefaction Plant

Cyprus has chosen, as the first and main export option the development of an **LNG export terminal**.



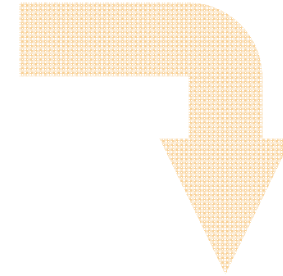
LNG Chain

This ambitious project presents technical, financial and commercial challenges that have to be handled professionally in order to be successful.

Through the development of the **LNG Liquefaction plant** the key objective of the transformation of Cyprus into a regional energy hub in the Southern eastern Mediterranean will be accomplished.

Cyprus Liquefaction Plant

Main Strategic Goal of Cyprus



IN LINE TO EU POLICY

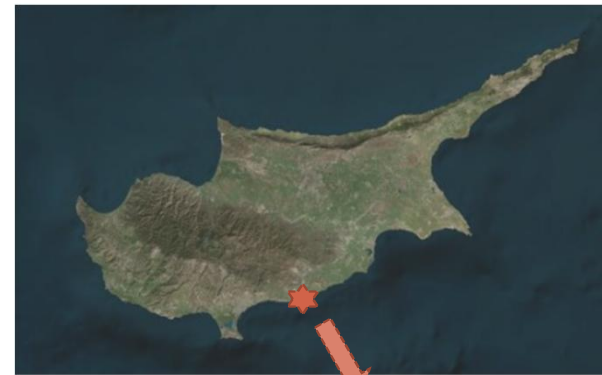
- ❑ Diversification of Energy Supply
- ❑ EU Security of Supply,
- ❑ Flexibility,
- ❑ Storage

Transforming Cyprus to an energy exporting country

Cyprus signed in June 2013, a Memorandum of Understanding with Noble Energy International, Israel's Delek Drilling and Avner Oil , stating their intent for the development of a natural gas liquefaction plant on the island. Currently negotiations regarding the LNG Project Agreement are in progress.

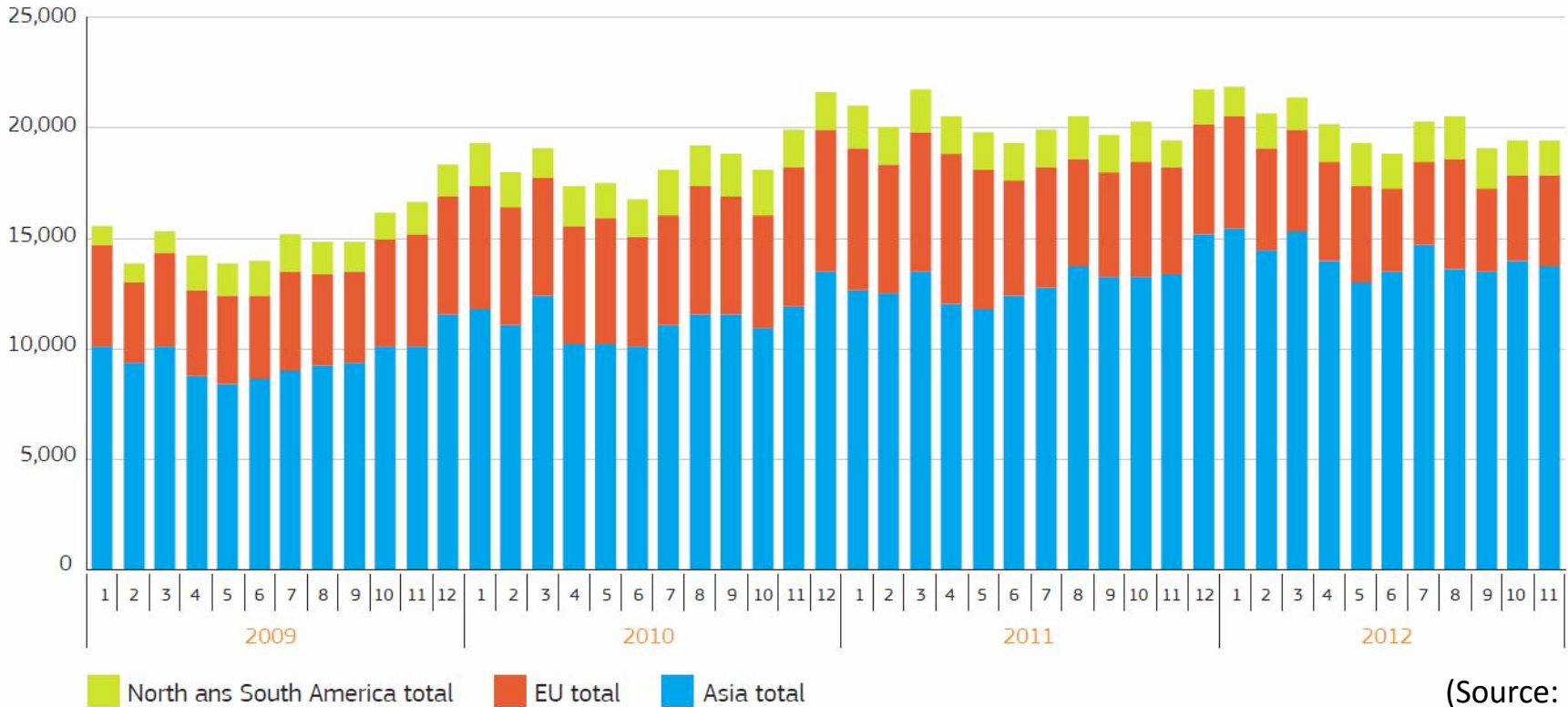
A Memorandum of Understanding between Cyprus and Total who is interested in participating in the development of a gas liquefaction terminal was approved recently by the Cabinet and is expected to be signed within the next days.

The Liquefaction Plant is the fundamental and necessary infrastructure that will allow the export of natural gas from the Eastern Mediterranean to European and global markets



World LNG Imports by Region

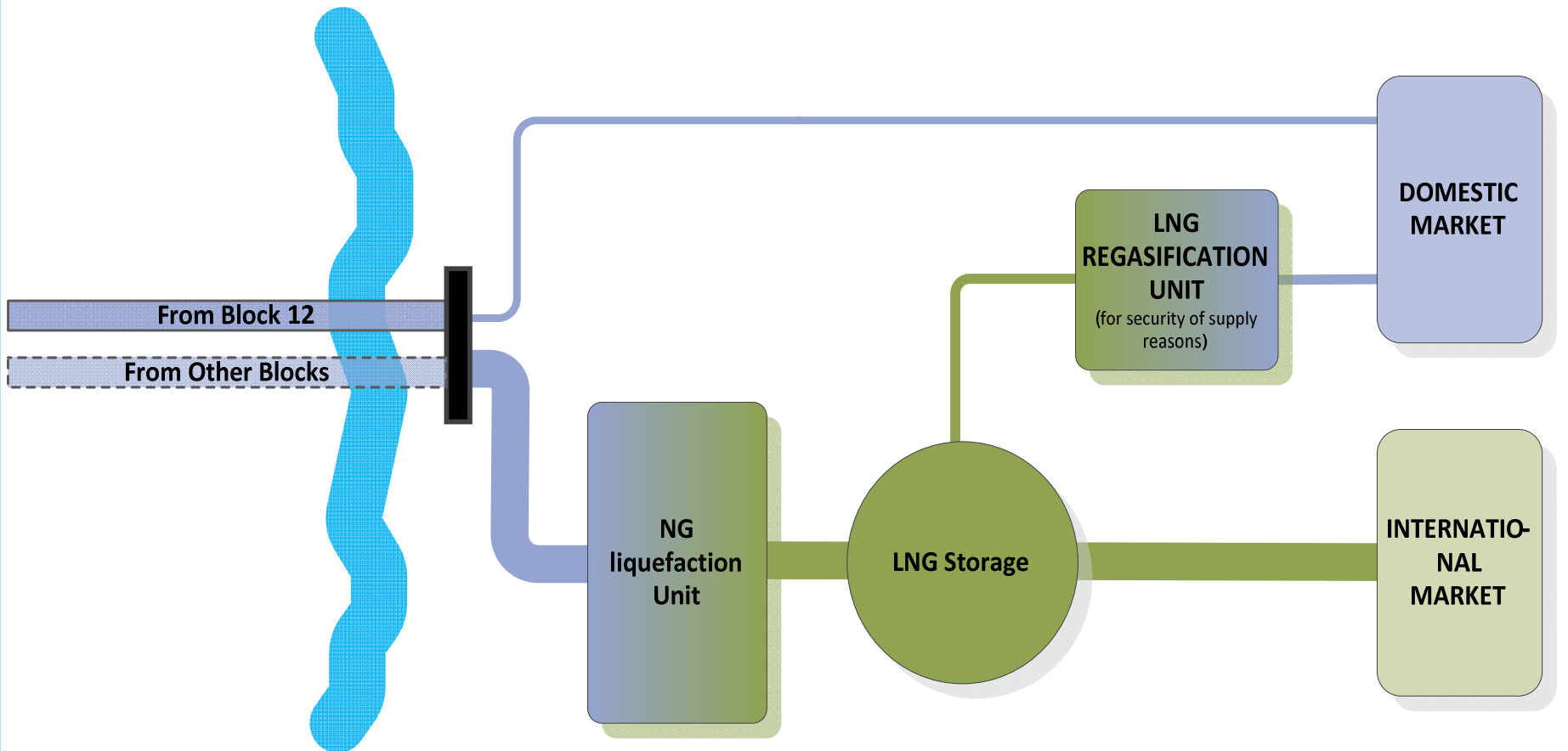
thousand metric tonnes



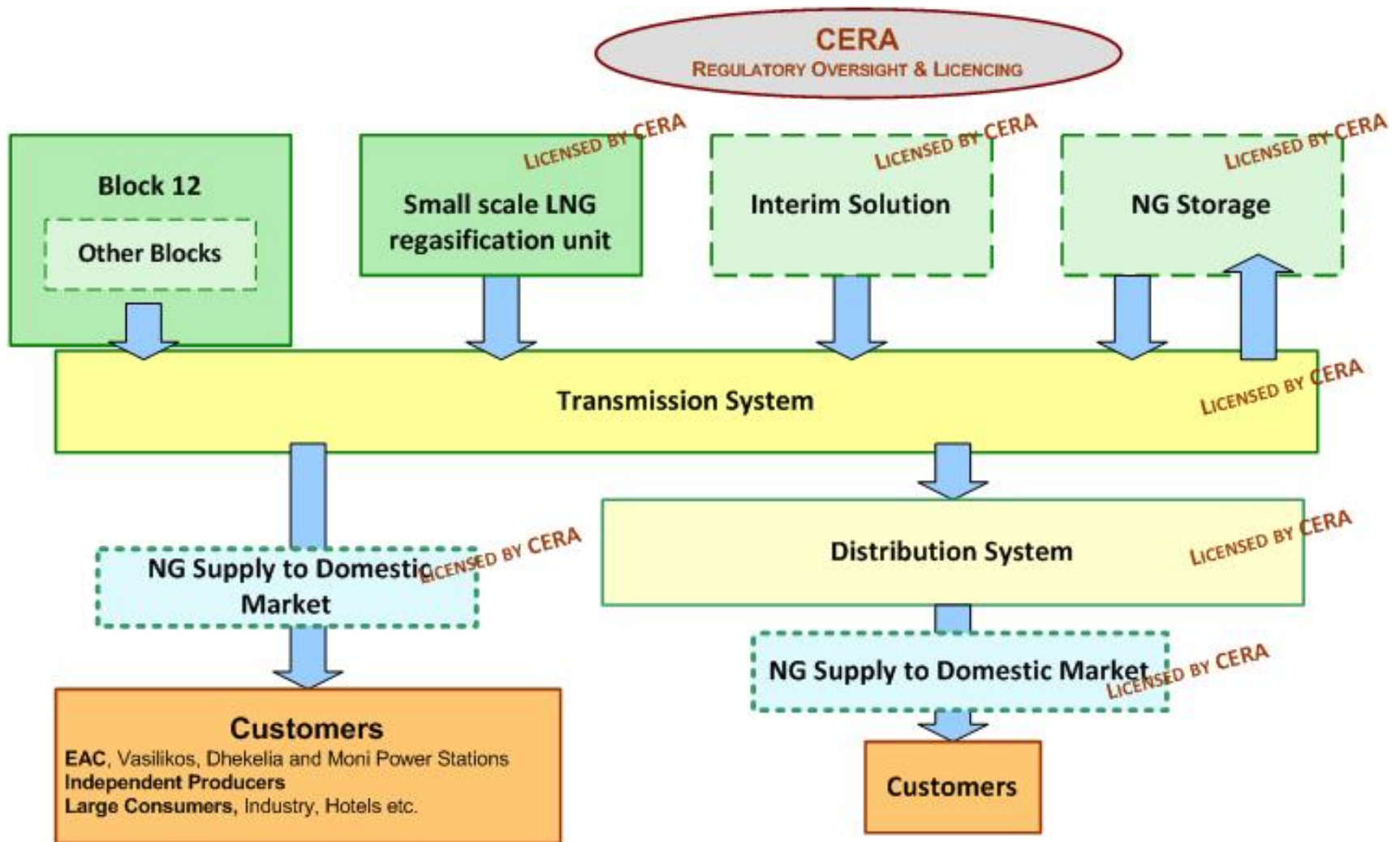
(Source: EC)

In absolute terms, the **Asia-Pacific region increasingly depends on global LNG supplies**, a trend that has intensified over the period 2007-2011 with near doubling of Qatari supplies. EU stable demand – Supply Shortage expected after 2025

NG System



Natural Gas Domestic Market



Conclusions – Next Steps

- ❑ Developing an LNG Terminal is the best option of exporting natural gas to European and Asian Markets
- ❑ Developing the LNG Terminal requires prompt decisions and signing all agreements on time
- ❑ Israel/Cyprus joint development of the LNG plant will undoubtedly make it more feasible because of the economies of scale (two trains)
- ❑ The energy sector is a key area of **cooperation** between the countries of the region which can also constitute a ground of stability
- ❑ Successful LNG Project Development – Transforms Cyprus into a **regional energy hub** and **an energy and political bridge** between EU and Middle East Countries.

Cyprus Potential Role in the East Med Energy Developments

THANK YOU FOR YOUR ATTENTION



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