



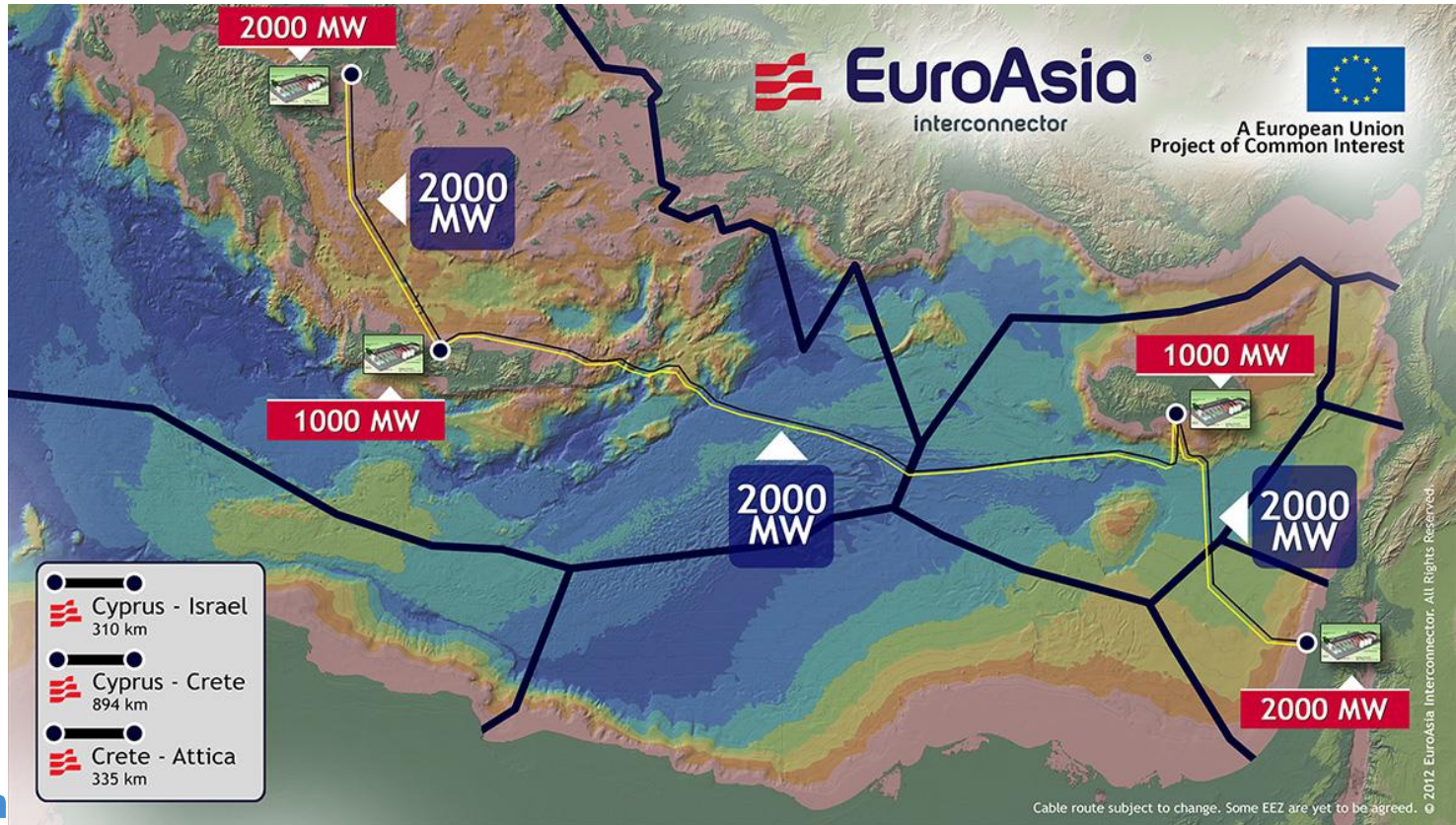
EuroAsia Interconnector

Status of the Project

Presented to PES HVDC/FACT Subcommittee

07 Aug 2019

PROJECT OVERVIEW



PROJECT DESCRIPTION

- EuroAsia Interconnector - two stage project:

Stage 1:

First stage consists of three steps, each at 1000 MW rating :

- Attica – Crete Connection
- Attica – Crete – Cyprus Connection
- Attica – Crete – Cyprus – Israel Connection

Stage 2:

Two 1000 MW converter stations will be added at the Attica and Israel stations and cables connecting the new and Stage 1 converters.

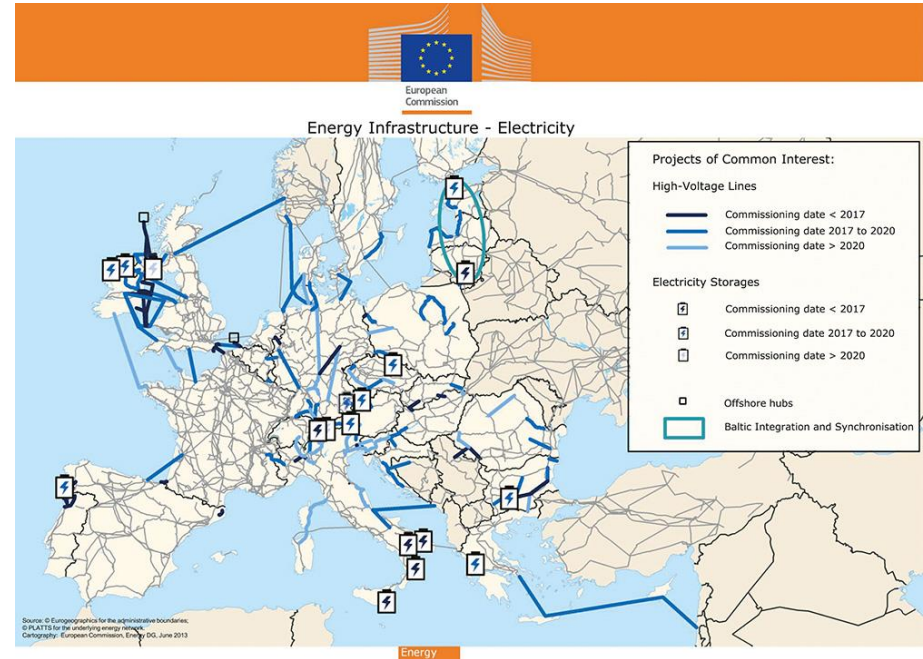
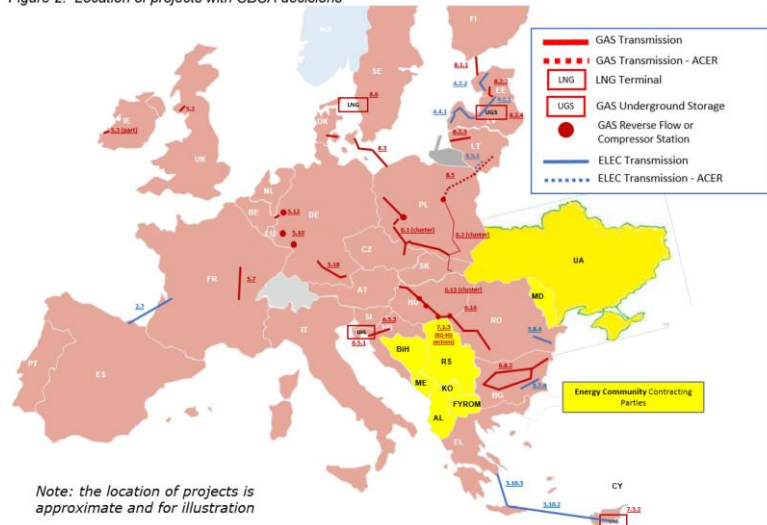
PROJECT DESCRIPTION

- Multi-terminal VSC-HVDC scheme connecting Attica, Crete, Cyprus, and Israel.
- HVDC Interconnector designed for a 1000 MW transmission capacity in Stage 1.
- At full deployment after Stage 2, transmission capacity is 2000 MW.
- Operating voltage is +/-500 kV.
- The converter stations at each location consist of 2x500 MW VSC converters in bipolar configuration.

EUROPEAN PROJECT OF COMMON INTEREST (PCI)



Figure 2: Location of projects with CBCA decisions



PROJECT PROMOTER AND FINANCING

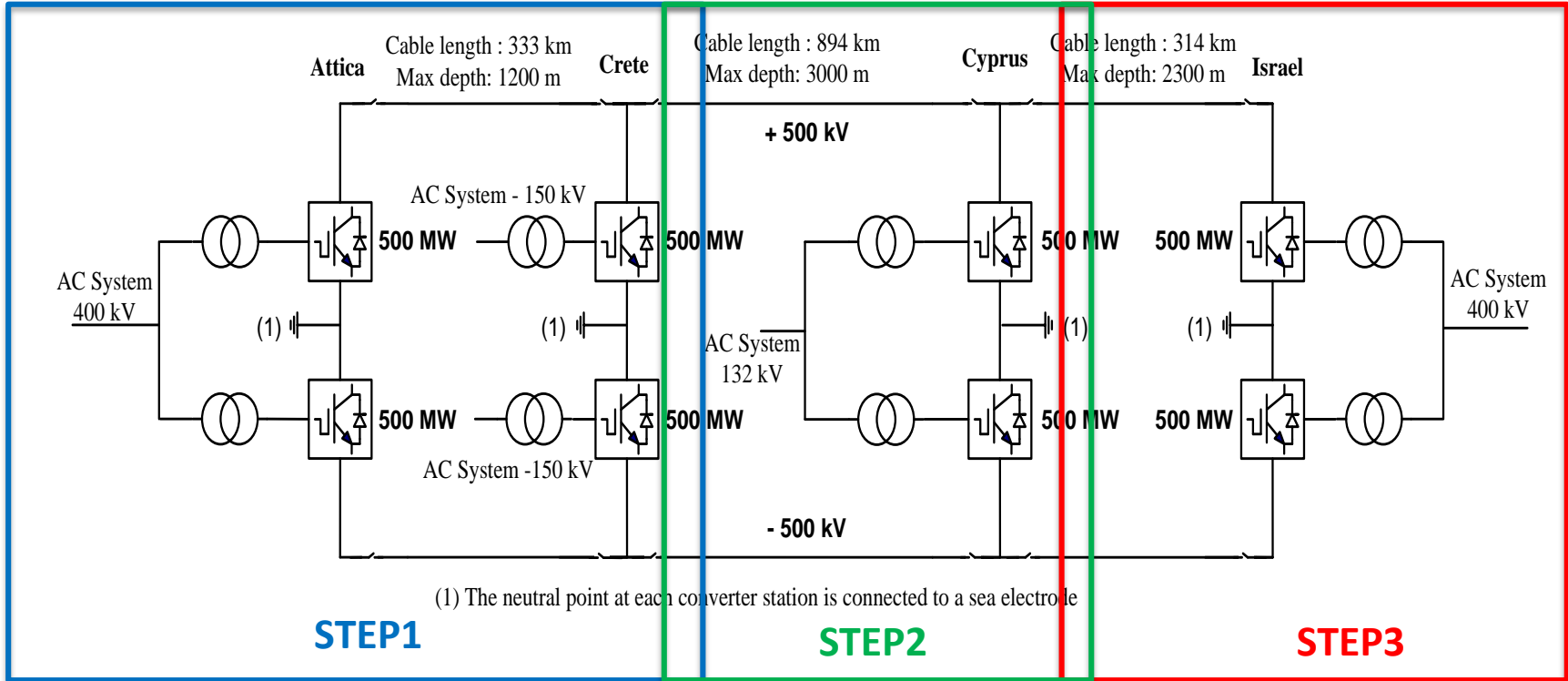


**Co-financed by the Connecting Europe
Facility of the European Union**

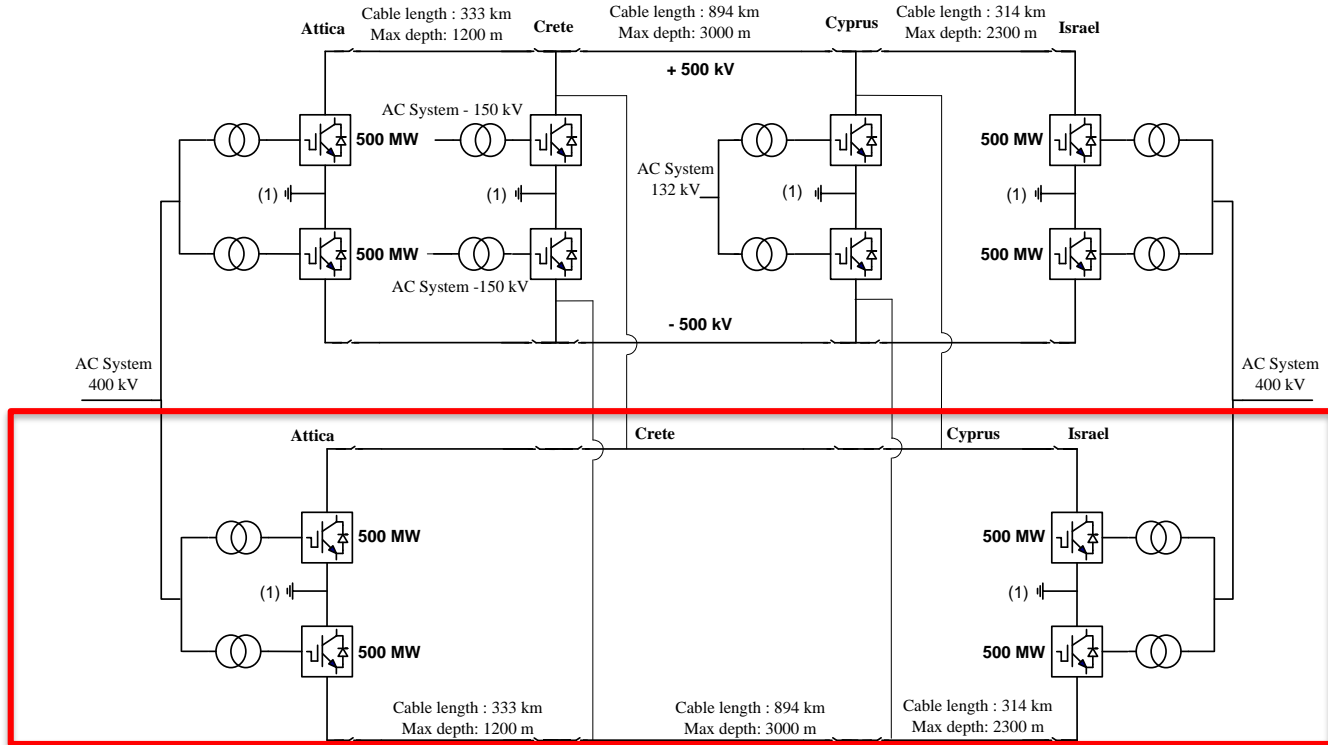
PROJECT BENEFITS

- Retirement of thermal generation in Crete (heavy penalties as per EU regulations)
 - Contribute to the EU's energy and climate goals.
- End energy isolation of Cyprus (last EU country to be connected to the EU Grid).
 - Single European energy market.
- Grid reinforcement of Crete as well as Cyprus (security of supply).
- Export renewable energy in Crete to Europe.
- Geopolitical strategic alliance

EUROASIA CONFIGURATION – END OF STAGE 1



EUROASIA CONFIGURATION – END OF STAGE 2



(1) The neutral point at each converter station is connected to a sea electrode

SUBMARINE CABLE ROUTES

- Reconnaissance survey performed in 2016.

	Link 1 (Cyprus-Israel)	Link 2 (Crete-Cyprus)	Link 3 (Attica-Crete)
Route length (km)	314	894	333
Maximum water depth (m)	2200	3000	1200
Maximum underwater slope	17°	57°	33°

SUBMARINE CABLE INSTALLATION DEPTHS

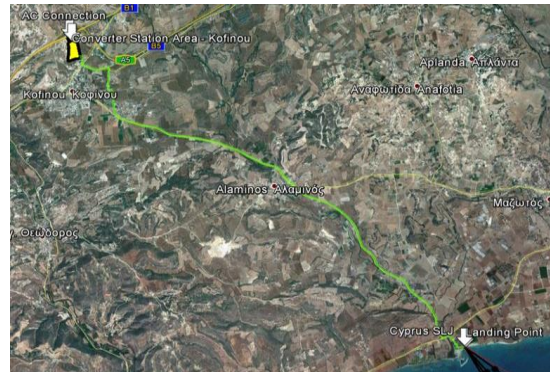
- Deepest cable installations in the world once complete.
- New cable technologies/installation methods may be required.

km per depth ranges	Depth Ranges (m)				Total km per Link
	<700	700-1000	1000-2000	>2000	
Link 3 (Attica-Crete)	148	92	93	-	333
Link 2 (Crete-Cyprus)	198	83	85	528	894
Link 1 (Cyprus-Israel)	72	29	139	74	314

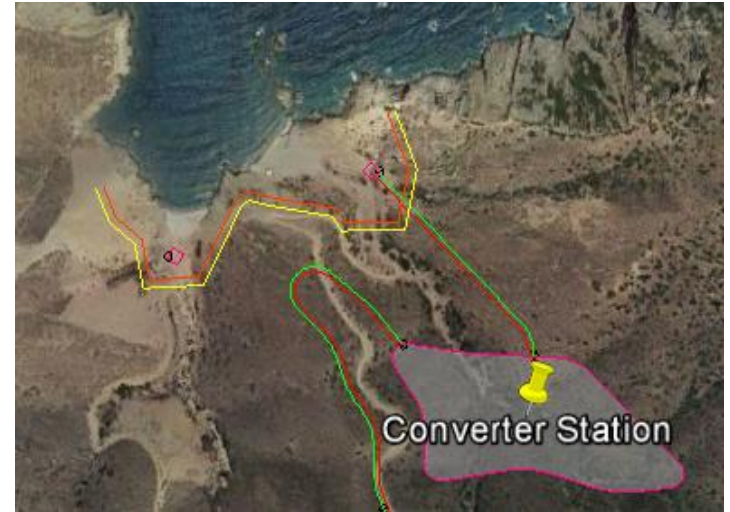
LAND CABLE ROUTES AND CONVERTER STATION LOCATIONS



Attica (36 km)



Cyprus (11 km)



Crete (0.6 km)

STAGE 1 CONTRACTS

Converter Stations - 4 Stations

Civil Works - Attica

Civil Works - Crete

Civil Works - Cyprus

Civil Works - Israel

Cable Supply*
Pole 1 - Link 3

Cable Supply*
Pole 1 - Link 2

Cable Supply*
Pole 1 - Link 1

Cable Installation
Pole 1 - Link 3

Cable Installation
Pole 1 - Link 2

Cable Installation
Pole 1 - Link 1

Cable Supply*
Pole 2 - Link 3

Cable Supply*
Pole 2 - Link 2

Cable Supply*
Pole 2 - Link 1

Cable Installation
Pole 2 - Link 3

Cable Installation
Pole 2 - Link 2

Cable Installation
Pole 2 - Link 1

* - includes land cable installation

INVITATIONS TO TENDER ISSUED

Tender	Estimated Value of Contract (€M)
VSC-HVDC Converter Stations	1020
HVDC Submarine Cables and Land Cables for Link 1: Israel – Cyprus	440
HVDC Submarine Cables and Land Cables for Link 2: Cyprus-Crete	1270
HVDC Submarine Cables and Land Cables for Link 3: Crete-Attica	535



QUESTIONS?