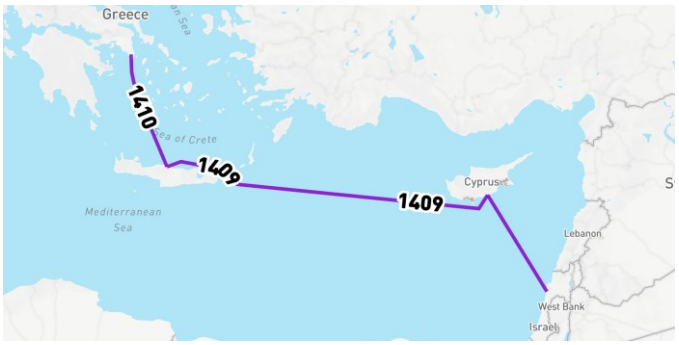
Project 219 - EuroAsia Interconnector

The Euro Asia Interconnector consists of a 400 kV DC underwater electric cable and any essential equipment and/or installation for interconnecting the Cypriot, Israeli and the Greek transmission networks (offshore). The Interconnector will have a capacity of 2000 MW and a total length of around 820 nautical miles/around 1518 km (approx. 329 km between CY and IL, 879 km between CY and Crete and 310 km between Crete and Athens) and allow for reverse transmission of electricity

Classification	Mid-term project
Boundary	Cyprus - Greece - Israel
PCI label	
Promoted by	EuroAsia Interconnector

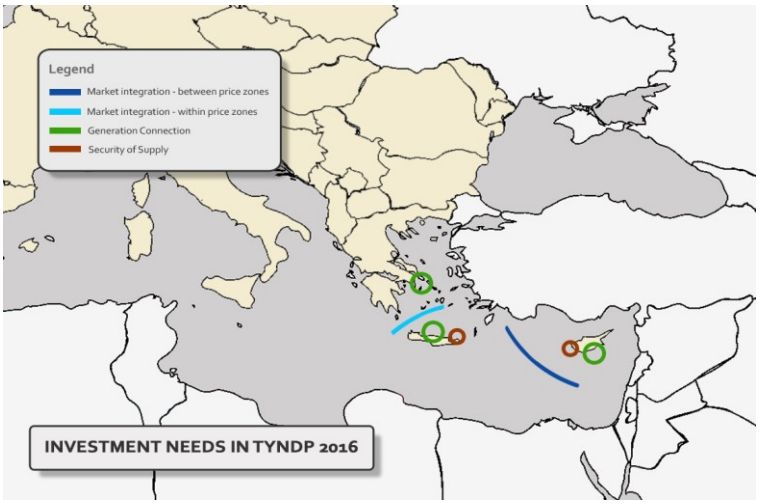


Investments

Investment ID	Description	GTC Contribution	Substation 1	Substation 2	Present Status	Commissioning Date	Evolution since TYNDP 2014	Evolution Driver
1407		100%	Hadera Site	Vasilikos Site	Planning	2019		
1409		100%	Vasilikos Site	Korakia (Crete)Site	Planning	2022		
1410		100%	Korakia (Crete)Site	Athens Site		2020		

Investment needs

This project was promoted for TYNDP inclusion by a non-ENTSO-E member, complying with the EC's draft guidelines for treatment of all promoters. This project proposal does not result directly from planning studies coordinated in ENTSO-E's Regional Groups. (additional statement needed from RG in case the project relates to an investment need for which a TSO project is in the list)



Project Cost Benefit Analysis

This project has been assessed by ENTSO-E in line with the Cost Benefit Analysis methodology, approved by the EC in February 2015.

The indicators B6/B7 reflect particular technical system aspects of projects based on a summation of qualitative performance indicators, in line with the CBA methodology; these cannot be used as a proxy for the security of supply indicator.

The assessment of losses variations induced by the projects improved in the TYNDP 2016 compared to the TYNDP 2014 with a comprehensive all year round computations on a wide-area model capturing all relevant flows.

The results must however be considered with caution and not totally reliable due to their very high sensitivity to assumptions regarding the detailed location of generation which are not secured.

General CBA Indicators	
Delta GTC contribution (2020) [MW]	CY-GR: 2000
	GR-CY: 2000
Delta GTC contribution (2030) [MW]	CY-GR: 2000
	GR-CY: 2000
Capex Costs 2015 (M€) Source: Project Promoter	4246.9
Cost explanation	
S1	NA
S2	NA
B6	+
B7	+

Scenario specific CBA indicators	EP2020	Vision 1	Vision 2	Vision 3	Vision 4
B1 SoS (MWh/yr)	N/A	N/A	N/A	N/A	N/A
B2 SEW (MEuros/yr)	360 ±40	660 ±100	580 ±90	1010 ±150	1120 ±170
B3 RES integration (GWh/yr)	750 ±50	4080 ±820	4070 ±810	3260 ±650	3010 ±600
B4 Losses (GWh/yr)	1250 ±125	1100 ±110	1100 ±110	1225 ±122	2050 ±205
B4 Losses (Meuros/yr)	54 ±5	59 ±6	51 ±5	73 ±7	137 ±14
B5 CO2 Emissions (kT/year)	±100	-5600 ±800	-6800 ±	-2300 ±300	-1300 ±200

Congestion is manifested when there are market opportunities between two market areas. Such opportunities cannot be achieved, due to an interconnection capacity limitation. Based on the results of the Cost-Benfit-Analysis Study the interconnector is almost in full utilised in the direction Israel to Cyprus to Crete to mainland Greece. Thus, congestions are expected to be substantial.

Complementary information about the border on which the project is located	Vision 1	Vision 2	Vision 3	Vision 4
Average marginal cost difference in the reference case [€/MWh]	0.01	0.01	0.01	0.01
Standard deviation marginal cost difference in the reference case [€/MWh]	0.00	0.00	0.00	0.00
Reduction of marginal cost difference due to all mid-term and long-term projects [€/MWh]	0.00	0.00	0.00	0.00