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Environmental Impact Assessment (EIA)
for the construction and operation of
EuroAsia Interconnector

-Cyprus Area-

(Interconnection between Israel – Cyprus – Crete (Greece) – Attica (Greece))

«Non-Technical Summary»

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Abbreviations/ Acronyms

Acronym	Name
A	Amperre
Ac	Alternated current
A_{max}	Peak acceleration
As	Arsenic
bar	pressure unit
C ₆ H ₆	Benzene
Cd	Cadmium sulphide
CEF	Connecting Europe Facility
cl	centi litres
Cl	Chloride
CO	Carbon Monoxide
CO ₂	Carbon Dioxide
dB	Decibel
Dc	Direct current
EAC	Electricity Authority of Cyprus
ECCP	European Climate Change Program
EFSI	European Fund for Strategic Investment
EHS	Environmental Health and Safety
EIA	Environmental Impact Assessment
ELF	Electric field
EMF	Electromagnetic field
EOCl	Organic Chlorine
EU	European Union
GCCPP	GCC power plants
HDD	Horizontal Directional Drilling
Hg	Mercury
HVDC	High Voltage Direct Current
Hz	Hertz
ICZM	Protocol on Integrated Coastal Zone Management
IFC	International Finance Coopertion
IMO	International Maritime Organization
IPPC	Integrated Pollution Prevention and Control
kg/m	kilogram/meter
kN	kiloNewton
kV	kilo Volt
m ²	Area unit
Ma	Mega Annum
MAP	Mediteranean Action Plan
MARPOL	International Convention For The Prevention of Pollution From Ships

Acronym	Name
mm	Milimeter
MVDC	Medium Voltage Direct Signals
MW	Mega Watt
mΩ/km	Micro ohm/kilometer
nF	nanoFarat
ng/l	nanogram/liter
Ni	Nickel
NO ₂	Nitrogen Dioxide
NO ₃	Nitrate
NO _x	Nitrogen oxides
NSI	North-South interconnector
NSOG	North Seas offshore Grid
O ₃	Ozone
OSPAR	Oslo/Paris convention
PA6	Nylon 6
Pb	Lead
PCI	Project of Common interest
pH	Scale to specify the acidity or basicity of an aqueous solution
PM ₁₀	Particulate matter
PTFE	Polytetrafluoroethylene
PUA	Public utilities authority (Greece)
PVC	Polyvinyl chloride
RES	Renewable energy sources
ROV	Remotely Operated Vechicle
SF ₆	Sulfur hexafluoride
SO ₂	Sulphur Dioxide
SO ₄	Sulfate
SPA	Specially Protected Area
SW	South-West
VSC	Voltage Source Converters
WFD	Waste Framework Directive
μG	microGauss
μT	microTesla
Ω	Ohm

3 EXECUTIVE SUMMARY IN ENGLISH

The following study is carried out within the project EuroAsia Interconnector. The project involves the electrical interconnection between Israel, Cyprus, and Greece. The project budget amounts to EUR 3.5 billion. Given the nature and the needs the project serves, it has classified by the European Commission as a Project of Common Interest.

This study concerns the assessment of the project's impacts on the land and sea within the area of Cyprus (limits of EEZ) .The study has been prepared based on all international and national regulations governing the realization EIA for transboundary projects of common interest.

During the study there was ongoing consultation with all stakeholders, in order to ensure compliance with all their suggestions, comments and to avoid delays or conflicts in the project planning process.

At the same time, there was a close and constant communication with all the partners from Cyprus (Euroasia Interconnector Ltd), Greece (Enveco) and Italy (CESI SpA.), for processing and analysis of all data including, data from maritime and land-based field research, data theoretical research and the general discussion of the various issues that had arisen.

The project is separated into three parts, Israel - Cyprus, Cyprus - Greece (Crete), Greece (Crete) - Greece (Attica). The project will be implemented in two phases. During the first phase two of the cables will be installed in each route as well the facilities for 4 converter stations of 1000MW each. The first phase will be completed in the end of 2022. The second phase will include the installation of 2 additional cables in the existing corridors for updating the system's capacity.

It is worth noting that, the current EIA is for environmental licensing of the first phase only. The second phase is likely to require a separate EIA or amend existing one depending of the final comments from the Department of Environment of the Republic of Cyprus.

The type of the selected system will be HVDC (high-voltage continuous-current) type. This technology enables high voltage power transfer over long distances. In total, 6 converter

stations with conversion capacity of 1000MW each (2 in Israel, 1 in Cyprus, 1 in Crete and 2 in Attica) will be constructed. For the connection of each location, XLPE cables will be installed in corridors of more than 1500 km long. The produced direct current will be converted into AC and supplied to national networks through adjacent distribution substations. Each substation will include electrodes. The electrodes will act as a grounding system in case of malfunction of the system. The minimum distance between the electrodes and the converter station will be determined during the design stage based on the actual capacity and design standards.

For the region of Cyprus, the landing point will be located in the community of Alaminos, the converter station will be placed in Kofinou community and the electrodes will be placed 3.5 kilometers northeast of the landing point in Petounta area of Mazotos community. The cable corridors connecting the landing point and the converted station will be located within the limits of the Alaminos – Kofinou road.

All the locations and routes have been selected after detailed study of the wider region and considered as the most appropriate basis of impact on the natural environment and local residents.

The terrestrial natural environment includes phryganic vegetation in undisturbed areas sclerophyllous and tree vegetation including olive trees and annual and permanent crops.

There no areas under Natura 2000 or specially protected area within the limits of the project. However, it must be noted that the project area is situated between the passage of migratory birds and of Pouzis and Tremithos River without crossing them. The River Xeros is evaluated (Under Basin Management Plan) with moderate conservation status. The amount discharge is not considered important. The coastal area of Alaminos Mazotos is not considered as a specially protected area. However, amounts of Poseidonia are present at coastal depths.

The wider marine environment in the area of Cyprus consists of the Levantine Sea. The main features are the Eratosthenes Mountain and the Mediterranean ridge. The majority of the basin is considered to be deep waters. The depth in the area can reach up to 3000 meters and is located between Crete and Cyprus. The hydrology and biology of the area is mainly

affected by the inflow of fresh water and sediments from the Nile River and the opening of the Suez Canal.

The impact assessment has been prepared based on the method of multi-criteria analysis. The results of site visits assessed against predetermined criteria as mentioned in the chapter Environmental Impact Assessment report. Briefly the impacts evaluated are:

Terrestrial Environment
- Impacts on fauna and flora
- Noise Impacts
- Air Quality Impacts
- Impacts on Road Network
- Visual Impacts on landscape
- Socioeconomic Impacts
- Impacts on electromagnetic fields levels
- Impacts on existing utilities

Marine Environment
Impacts from seabed disturbance
- Impacts on baseline noise levels
- Impacts on water properties (chemical physical)
- Impacts on existing telecommunication cables.
- Pollution of marine environment
- Transboundary Impacts

In the cases where the effects are considered adverse effects mitigation measures are being proposed and a monitoring plan will be implemented to ensure compliance with the measures.

In conclusion, the proposed project is expected to have a positive impact not only in Cyprus but also in the wider region of Eastern Mediterranean making Cyprus as a hub for the energy cooperation between Europe and Asia.