

## Environmental and Social Data Sheet

### Overview

Project Name:	<i>IPTO CRETE ISLAND INTERCONNECTION PHASE I</i>
Project Number:	<i>2017-0114</i>
Country:	<i>Greece</i>
Project Description:	The proposed project concerns the interconnection of the island of Crete with mainland Greece, in the region of Peloponnese. The project includes two AC 150 kV submarine cables, 150 kV underground and overhead circuits, a compensation terminal in the Peloponnese and network reinforcements associated to the interconnection. The landing points of the submarine cables are in Kissamos bay (Crete) and the Malea peninsula (Peloponnese).
EIA required:	yes
Project included in Carbon Footprint Exercise <sup>1</sup> :	yes

(details for projects included are provided in section: "EIB Carbon Footprint Exercise")

### Environmental and Social Assessment

The investment programme comprises the following main components:

Component 1: Upgrades of lines and substation in the Peloponnese;

Component 2: Upgrade of Molaoi substation and new overhead circuits and new terminal station in the Peloponnese;

Component 3: New underground and submarine cables from the Peloponnese to Crete;

Component 4: New underground connection to and upgrade of Chania substation in Crete.

#### Environmental Assessment

The schemes of the project fall under Annex II of Directive 2014/52/EU amending the EIA Directive 2011/92/EU transposed to national legislation with law 4014/2011, leaving it to the competent authority to determine whether or not an Environmental Impact Assessment (EIA) is required. According to the national legislation, projects are classified into two categories on the basis of pre-defined criteria (type, voltage level, length): projects with potentially significant environmental impact (category A) and projects with only local and less significant environmental impact (category B). Projects of category A require an EIA. Projects of category B only need to comply with certain Standardized Environmental Commitments (different for each particular field of works), as described in the respective Ministerial

<sup>1</sup> Only projects that meet the scope of the Pilot Exercise, as defined in the EIB draft Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: above 100,000 tons CO<sub>2</sub>e/year absolute (gross) or 20,000 tons CO<sub>2</sub>e/year relative (net) – both increases and savings.

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Decisions for different sectors. Appropriate Assessments (AA) in line with Article 6.3 of the Habitats Directive, are carried out according to the requirements of national legislation (Ministerial decision 170225/20-1-2014).

The project is part of the national 10 year Grid Development plan 2017-2026 that underwent Strategic Environmental Assessment approved by the Ministry of Environment and Energy on May 26<sup>th</sup>, 2017.

All necessary permits have been granted. Component 1 underwent the EIA procedure for one of its schemes; the Appropriate Assessment was integrated in the EIA. The Standard Environmental Commitments procedure was followed for the remaining schemes; three environmental permits were issued (see below).

Components 2, 3 and 4 were grouped to a common EIA procedure and one environmental permit was granted. The AA for these components, where applicable, was integrated to the EIA. The permit for the components 2, 3 and 4 was issued by the Ministry of Environment and Energy on September 29<sup>th</sup>, 2017.

According to the EIA studies and the conditions under the permit, subject to the implementation of the specified mitigating measures, the project neither has significant adverse effects on the environment nor adversely affect the integrity of any European site on view of the site's conservation objectives.

Mitigations measures as determined in the relevant permits include the use of appropriate work and waste management practices during construction to prevent any pollution at land and sea, to protect vegetation from fire and to minimise disturbance during construction (noise, dust). Works that impact vegetation will not be carried out during the nesting period of birds (April – May). All earthworks including excavation will be supervised by the relevant Ephorates of Antiquities. In case of antiquities, works shall be suspended and a rescue excavation and survey shall be carried out.

Mitigations measures include the use of signs and other measures to prevent the collision of birds with the overhead lines in certain parts of the route and the restoration of the sites condition following works. Furthermore, appropriate environmental restoration studies will be conducted as part of the environmental management plans. Environmental monitoring reports should be produced on an annual basis.

Next, a more detailed presentation of the components of the project is given.

### **Component 1. Upgrades of overhead lines and substations in the Peloponnese**

This component consists of the following schemes:

- Upgrade of 150 kV overhead transmission lines of total length of approx. 110 km (Megalopoli I - Sparti I, System - Sparti II, Sparti I - Molaoi, Rouf – Ladon around substation Megalopolis I, including 1,7km underground cable).
- Extension of the substation Megalopoli I with one 150 kV bay.
- Upgrade of two 150 kV bays in substation Sparti II.

The first scheme of this component is of category A as it concerns overhead lines of voltage of 150 kV and length longer than 20 km; it underwent an EIA and the environmental permit was issued by the Ministry of Environment and Energy on September 29<sup>th</sup>, 2017. Furthermore, this scheme was subjected to an AA in line with Article 6.3 of the Habitats Directive for the parts that cross/pass along Natura 2000 sites (Special Protection Areas (SAC) and Special Conservation Areas (SPA))<sup>2</sup>.

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<sup>2</sup> "GR2550006-Mount Taygetos" (SAC), "GR2550009-Mount Taygetos-Lagada Trypis" (SPA), "GR2540003-Evrotas Estuary" (SAC), "GR2540007-Eastern Lakonia Mountains", (SPA), "GR2520001 - Oros Mainalo" (SPA) "GR2520002 – Limni Taka" (SPA), "GR2550009-Mount Taygetos-Lagada Trypis" (SPA), "GR2550009-Mount Taygetos-Lagada Trypis" (SPA).

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The other two schemes of this component are of category B and they underwent the Standard Environmental Commitments procedure; the Standard Environmental Commitments were issued on February 2<sup>nd</sup>, 2016 and on July 13<sup>th</sup>, 2016, respectively.

According to the AA report, the bird species *circetus gallicus*<sup>3</sup> (snake eagle) was found in small numbers in the periphery of SAC GR2540003. According to the AA report, the first scheme does not adversely affect the integrity of the Natura 2000 sites on view of their conservation objectives. According to the competent authority no additional mitigation measures are required (i.e. apart from measures to prevent the collision of birds with the overhead lines and works that impact vegetation will not be carried out during the nesting period).

### **Component 2. New overhead circuits and new terminal station in the Peloponnese and Upgrade of Molaoi substation.**

This component consists of the following schemes:

- Extension of the substation Molaoi I with three 150 kV bays.
- A new overhead line of 27.5 km length, from the substation Molaoi I to the new terminal substation.
- A new terminal substation in the area of Neapoli (Gas Insulated Substation for reactive power compensation equipment).

This component contains schemes of category A (overhead line of voltage of 150 kV and length longer than 20 km and substation). The promoter included all the schemes of this component in the EIA integrating the AA for the parts that cross/pass along Natura 2000 sites<sup>4</sup> and Important Bird Areas (IBA)<sup>5</sup>.

### **Component 3. New underground and submarine cables from the Peloponnese to Crete**

This component consists of the following schemes:

- A new underground cable from the Peloponnese Terminal Station of length of 9.3 km to the landing point of the submarine cable in Vatikon Bay.
- A new submarine cable from the landing point in Vatikon Bay (Malea peninsula) of length of 132 km to the landing point in Kissamos Bay.

Underground and submarine cables are not subject to the EIA according to national legislation. However, the promoter included all the schemes of this component in the EIA integrating the AA for the parts that cross/pass along Natura 2000 sites<sup>6</sup> and Important Bird Areas (IBA)<sup>7</sup>.

Regarding the submarine cables, no impact is expected on *Posidonia oceanica* fields, which are not present along the route of the cable. The route of the submarine cables was selected by the Promoter with the objective to avoid Natura 2000 sites; the path of the submarine cable will be finalised by the contractor and the cable laying method will be selected so that the impact to the seabed is minimum.

### **Component 4. New underground connection to and upgrade of Chania substation in Crete**

<sup>3</sup> The snake eagle is a threatened species listed under Annex I of the Birds Directive (Directive 2009/147/EC)

<sup>4</sup> "GR2540007 - Eastern Lakonia Mountains" (SPA), "GR2540002 - Neapolis area and Elafonisos Island" (SAC), "GR2540007 - Eastern Lakonia Mountains" (SPA), "GR2540001 - Ori Gidovouni, etc." (SCI), "GR2540007 - Eastern Lakonia Mountains" (SPA), "GR2540002 Periochi Neapolis and Nisos Elafonisos" (SCI).

<sup>5</sup> "GR123 "East Lakonia Mountains" (IBA)

<sup>6</sup> "GR2540002 - Neapolis area and Elafonisos Island" (SAC), "GR3000010 - Kithira islands: Prasonisi, Dragonera, Antidragonera" (SAC), "GR3000008 - Antikythira - Prasonisi and Lagoubardos" (SAC).

<sup>7</sup> "GR129 North, East and South Kythera" (IBA), "GR175 Tigani Peninsula, Gramvoussa and Pontikonissi Islands" (IBA).

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This component consists of the following schemes:

- A new underground cable of length of 33.7 km from the landing point in Kissamos Bay to the substation Chania I.
- Upgrade of Chania substation in Crete.

None of the schemes of this component are subject to the EIA according to national legislation. However, the promoter included all the schemes in the EIA integrating the AA for the parts that cross/pass along Natura 2000 sites<sup>8</sup> and Important Bird Areas (IBA)<sup>9</sup>.

The promoter is experienced as developer of electricity transmission infrastructures. All schemes have been designed to comply with EMF exposure limits as well as noise limits as defined in national legislation. For the overhead transmission lines, the environmental monitoring plan includes measurements of the electromagnetic fields every 5 years.

### **EIB Carbon Footprint Exercise**

The savings in CO<sub>2</sub> equivalent (CO<sub>2</sub> e) emissions are based on the fact that the project (a) will enable the connection of additional intermittent generation that will displace existing oil-fired generation on Crete and (b) oil-fired generation on Crete will be displaced by more efficient generation from mainland Greece. The integration of additional intermittent generation is at present not possible due to stability reasons and the project will ease these constraints. Over the economic life of the Project the corresponding average relative emissions are estimated at -290.6 kt CO<sub>2</sub>e per year. For the annual accounting purposes of the EIB Carbon Footprint, the project emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

### **Public Consultation and Stakeholder Engagement**

Public consultation was carried out within the EIA process. Announcements were posted on boards in the premises of the municipal authorities and publications were made in local and national newspapers. Public consultation was carried out also for the Strategic Environmental Assessment for the national 10 year Grid Development plan 2017-2026.

## **Conclusions and Recommendations**

Based on the results of the Bank's assessment, no significant long term impacts are expected to result from the construction and the operation of project. Based on the information available the project is acceptable to the Bank in environmental and social terms.

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<sup>8</sup> "GR4340003 - Rodopos Peninsula - Maleme Beach" (SAC), "GR4340006 – Agia Lake - Platania - Keritis Stream and Estuary - Fasa Valley" (SAC), "GR4340007 - Farangi Therissou" (SCI), "GR4340006 - Limni Agias - Platania - Rema kai Ekvoli Eeriti - Koilada Fasa" (SCI), "GR4340020 - Limni Agias (Chania)" (SCA).

<sup>9</sup> "GR175 "Tigani Peninsula, Gramvoussa and Pontikonissi Islands" (IBA)