# "Chonos" wind farm (total wind power capacity 4,5 MW) located in Siteia Municipality, Regional Unit of Lasithi, Eastern Crete, Greece

#### **Non-Technical Summary**

#### Introduction

The Chonos wind farm has been constructed and operated by **IWECO CHONOS CRETE S.A. Company**, which is owned subsidiary of Terna Energy S.A. and is located in Itanos municipal unit, municipality of Siteia in the Lasithi Regional Unit of Eastern Crete.

The "Chonos" wind farm is under operation since 2007 (Operation Permit p.n. 4142/20.06.2007/ Regional Administration of Crete)

The project refer to the development, construction and operation of a wind farm with installed capacity of 5,4 MW, consisting of total 6 wind turbines along with the accompanying works.

The project is not located within any designated area of the European Ecological Network Natura 2000 or any other protected area.

The purpose of the proposed project is to use the high wind potential of the area for the generation of electricity and then to sell the produced energy to the electricity operator.

The project has been environmentally licensed with the Decision approving Environmental Terms (p.n. 2178/2006/06-07-2006/ Regional Administration Decentralized Administration of Eastern Crete) and the Decision for its update in new classification (p.n. 1485/17-08-2017 Decentralized Administration of Eastern Crete). The approval procedure of the EIAs also followed all the public publishing – consultation procedures according to the legal framework and all the required positive opinions were received from the co-competent authorities.

With reference to Environmental Permitting Categorization, the project falls under Group 10, item 1: Renewable energy sources/Windfarms, Category B:  $0.02 < P \le 6.5$  MW, whereby P: wind power capacity, in accordance with the current legal framework (Joint Ministerial Decision of Ministry of the Environment p.n.:17185/1069/OGG 841 B/24-02-2022).

## **Proposed Project**

The windfarm proposed main technical characteristics and it's accompanying works are the following:

 Installation of a wind farm in the location "Chonos" consisting of total 6 wind turbines with a total power output of 4,5 MW

- Point/Local road improvement works in order to facilitate the movement of the heavy vehicles transporting the wind turbine parts.
- New roads of 4.308,84 m in length.
- The aerial medium voltage transmission line from the wind farms to aerial high voltage transmission line of 4.000m in length.
- Underground transmission line 1.200m in length; connecting the wind turbines directly to the control room (where a building of 72 m<sup>2</sup> is constructed.)

### Project compatibility with spatial and urban planning commitments

The project and its accompanying works fulfill the criteria, as identified in the Special Framework for Spatial Planning and Sustainable Development for Renewable Energy Sources (OGG 2464B/03.12.2008, Articles 5 and 6).

## **Environmental impact assessment**

During the construction of the project the impacts on landscape and aesthetic environment as well as other impacts on the soil relief & morphology, waters, acoustic and atmospheric environment, considered short-term, of local extent and partial reversible, as construction sites have been removed and the sites have been restored upon completion of the construction phase.

In order to minimize impacts in the natural environment of the area, the Forest Service has approved studies for restoration of the disturbed by the construction of the project areas. The restoration of the disturbed areas has been implemented after the completion of the construction and as a result the project has been integrated into the environment.

The project's total land take is approximately 360 stremma<sup>1</sup>.

The project is likely to have minor impacts on **landscape and aesthetic environment** during operation although this impact is quite subjective.

During operation, the project is likely to have negligible impact.

With reference to **vegetation**, the project is likely to have minor impacts upon implementation of proposed mitigation measures and long-term. Furthermore, to the extent possible, the project area is rehabilitated to its initial status with reference to vegetation.

Any likely impacts (noise or light disturbances) on **avifauna** due to project operation are not considered significant; the project is not expected to negatively affect the

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 $<sup>^{1}</sup>$  1 stremma = 1000 m $^{2}$ 

degree of conservation of birds. Two neighboring Natura SPAs appear in the study area nevertheless are quite far away and their designations mainly concern coastal species and steep rock species.

With reference to other **fauna**, the project is expected to insignificant impacts of local extent and short duration during operation. Habitats of amphibians, reptiles and mammals not significantly affected.

The project is not expected to have any significant likely impacts on existing **land uses**, as its permanent land take is considered small scale; therefore, impacts are estimated as minor, and fully reversible after the end of projects life.

The project is not expected to have any significant likely impacts on the area's **built environment**, as it is situated far from existing settlements and man-made activities.

The project is not situated within designated archaeological sites and therefore no impacts are expected on the area's **historical and cultural environment** during construction or operation. However, prior to construction, the relevant archaeological bodies have been contacted so as to ensure monitoring of works.

The project is expected to have positive impacts on the area's **social and economic environment**, as it will create job opportunities during construction and operation.

The Project is not expected to have any impacts on **human health**, as construction and operation measures are in place to ensure workers' and public safety. The underground medium voltage transmission line only induces magnetic fields, which are minimized and are practically zero within a few meters distance. In any case, the underground medium voltage transmission line is constructed as per the provisions of relevant legislation, so as to ensure public safety and protection of human health.

The Project is not expected to have any impacts on the area's public **infrastructures**, with the exception of road networks where impacts are expected to be minor, reversible and short-term (during construction). There are no impacts on public infrastructures during operation.

Positive impacts on the atmospheric environment are expected during project operation as the production of Energy from wind power has significant benefits on the environment, due to the avoidance of burning fossil fuels which produce greenhouse gases.

During the operation phase, the impacts on the acoustic environment are due to the operation of wind turbines and are expected to be minor.

## **Environmental monitoring programme**

The monitoring programme investigates the Project's likely impacts on the environment during both construction and operation phases, emphasizing on impacts from waste production, flora species affected by the construction works, and monitoring the progress of the rehabilitation of the affected areas. In order to ensure environmental protection during project construction and operation, the proposed monitoring programme, focuses on the most critical parameters, as identified from the environmental impacts assessment procedure defining also the required frequency of monitoring.

Furthermore detailed case protocol, as well as systematic monitoring by a specialized ornithologist are set in place every two years, for the identification of any effects on the bird fauna.