

## Environmental and Social Data Sheet

### Overview

Project Name: *ALCO SOLAR PV GREEN ENERGY LOAN*  
Project Number: *2019-0833*  
Country: *Portugal*  
Project Description: *Construction and operation of four photovoltaic power generation plants in Portugal with an installed capacity of 144 MWp.*

EIA required: *yes (only for the transmission line)*

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 project concerns the design, construction and operation of four solar photovoltaic plants in Portugal, promoted by GALP, for a total capacity of 144 MWp. The four PV plants are Viçoso (48.0 MWp), Pereiro (18.7 MWp), São Marcos (48.9 MWp) and Albercas (28.4 MWp), which are located 3 to 5 kms apart from each other, occupying in total an area of ca. 270ha. The plants will connect to a common 30/150 kV substation located next to the Viçoso plant, to which the other plants will connect through 30 kV overhead lines (5.4km for Pereiro, 8.6km for Sao Marcos and 12 km for Albercas). From there, the electricity will be evacuated to the existing grid through a new 150kV overhead line of ca. 17km, with a connection at the Tavira substation (belonging to the Transmission System Operator - TSO).

#### Environmental Assessment

The project falls under Annex II of Directive 2011/92/EU (as amended by Directive 2014/52/EU) according to which the Member States shall determine whether the project shall be made subject to an assessment based on defined criteria. According to national legislation solar PV plants with more than 50 MW, or more than 20 MW if located inside sensitive areas ("*Rede Nacional de Areas Protegidas*" (RNAP) and Natura 2000 sites), are subject to a mandatory EIA, including public consultation. Transmission lines equal or above 100 kV and equal or above 10km are also subject to a mandatory EIA.

According to their characteristics, the four PV plants were subject to a screening decision by the competent authority. Based on the environmental documentation submitted by the promoter (which include a description of the potential impacts, and the associated mitigation), the competent authority decided to screen out the four PV plants of the EIA process. The decisions were issued in October 2016 for Pereiro, São Marcos and Albercas, and in May 2017 for Viçoso. The transmission line and the 30/150 kV substation were subject to a

<sup>1</sup> Only projects that meet the scope of the Carbon Footprint Exercise, as defined in the EIB Carbon Footprint Methodologies, are included, provided estimated emissions exceed the methodology thresholds: 20,000 tonnes CO2e/year absolute (gross) or 20,000 tonnes CO2e/year relative (net) – both increases and savings.

Luxembourg, 17<sup>th</sup> June 2021

mandatory EIA process, with an environmental consent issued in February 2020 (*Declaração de Impacto Ambiental*). For the transmission lines, several alternatives of corridors have been analysed. While the original design was foreseeing a 30/150 kV substation next to the Sao Marcos PV plant, the competent authority suggested to include an additional alternative starting from the Viçoso plant to minimize the length of the line. This alternative was eventually selected.

The solar PV plants will occupy land mostly dedicated to agro-forestry use (pine plantations), with undergrowth forest (broom) in the non-exploited plots, and are expected to generate minor impacts during both construction and operation phases. The impacts of the project during construction relate to the increase of dust and noise due to construction related activities, as well as increased traffic in the surrounding areas, soil erosion due to the loss of vegetal cover, and loss or fragmentation of habitats. During the operation phase, the main impacts are related to the loss and fragmentation of habitats, barrier effect, visual impacts and collision risk (for the transmission line). General prevention and mitigation measures are foreseen for the construction and operations of the PV plants, in particular for dust and noise emissions, protection of soil and groundwater, restoration and revegetation. For the transmission line, specific mitigation measures include the use of bird flight diverters, as well as anti-landing and nest support systems for white storks (*Ciconia Ciconia* – Least Concern (LC) as per the IUCN Red List).

None of the project components are located within a Natura 2000 site or a protected areas as defined in the national legislation (RNAP). The closest Natura 2000 site to the PV plants is the Site of Community Importance (SCI) Guadiana (PTCON0036), corresponding to the Guadiana riverbed, situated at 3km to 6km North of the plants (depending of the plants). Sao Marcos and Albercas are also located at ca. 6 kms of the Special Protection Area (SPA) Vale do Guadiana (PTZPE0047), which overlaps with the Guadiana SCI, and is identical to the Important Birds Area (IBA) Vale do Guadiana (PT030, 69733 ha), which is important for breeding raptors. The Tavira substation, where the 150 kV will connect to the grid, is located at ca. 3 kms North of the SCI/SPA Caldeirão (PTCON0057), which overlaps with the IBA Serra do Caldeirão (PT051, 70445 ha). This IBA is covered by extensive cork-oak groves, important for the breeding of raptors (e.g. *Hieraaetus fasciatus* - LC, *Circateus gallicus* – LC, *Bubo Bubo* – LC). The Environmental Impact Study (EIS) of the line and substation concluded that that the impacts of the facilities on the Natura 2000 sites are not likely. The EIA process of the line included the consultation of the competent authority for Natura 2000, which confirmed that the project will not have significant impacts on the integrity, stability, balance and preservation of the habitats and important species present. Similar confirmation from the competent authority will be set as an undertaking for all solar PV plants. The Promoter has also carried out biodiversity assessments for each PV plant, concluding that those are not threatening the integrity of the nature conservations areas.

The Viçoso PV plant and the common 30/150 kV substation (and therefore the starting point of the 150 kV line) are located within the edge (border area) of the Ramsar site Ribeira do Vascão, which is not included in the RNAP. Although the area of the site is 44331 hectares in total, only 770 hectares are effectively occupied by wetlands. This Vascão river is the longest river without artificial interruptions in Portugal, and its major conservation goals and ecological values are related to freshwater fishes, like the Jarabugo (*Anaocypris hispanica* - EN), the European Eel (*Anguilla anguilla* - CR) and the Sea Lamprey (*Petromyzon marinus* - LC). The EIS of the line and substation concluded that that the impacts of the facilities on the Ramsar site are not significant. The management authority for the Ramsar site is the same as for the Natura 2000 sites, and has been consulted as part of the EIA process. For the Viçoso PV plant, the promoter performed a specific impact assessment, concluding that it is highly unlikely that the project will affect the ecological values that motivated the classification of the area as a RAMSAR site, considering the distance of more than 4 kms to the river bed.

Luxembourg, 17<sup>th</sup> June 2021

As required by the legislation, the environmental documentation of the solar PV plants covers their lifecycle, including the decommissioning, and foresee the implementation of recuperation plans to reinstate the sites in their original states. Once in operation, the transmission line will be transferred to the TSO, which will have to present a decommissioning plan to the competent authority during the last year of operation, as foreseen under the environmental permit.

The project has been assessed for Paris alignment and is considered to be aligned with the policies set out in the Climate Bank Roadmap and the Bank's Energy Lending Policy.

### **EIB Carbon Footprint Exercise**

In accordance with the Bank's current Carbon Footprint methodology it is calculated that based on the avoidance of electricity generation from a combination of existing and new power plants in Portugal (combined margin for intermittent generation), the total relative effect of the project is a net reduction in CO<sub>2</sub> equivalent emissions by ca. 84 kt CO<sub>2</sub>e/yr.

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.

### **Social Assessment, where applicable**

The implementation of the project will not lead to involuntary physical or economic displacement or resettlement. The current use of the lands is mostly for agro-forestry, and such activity will continue to be carried out in the area (outside the plants perimeter) with the normal safeguards.

The promoter has engaged with the landowners to reach voluntary agreements for the project infrastructures, in the form of leases and / or surface rights or rights of way. The promoter has confirmed that voluntary agreements were obtained for all the plots of land required for all the project components.

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

Public consultation are carried out under the EIA process, as required by the EU, and as transposed into national law. The public consultation for the substation and the 150 kV line was held at the end of 2019. The Promoter has a direct channel of contact on sustainability matters ([sustentabilidade@galp.com](mailto:sustentabilidade@galp.com)), through which communications, questions, complaints or claims can be made. The promoter has reported no complaint so far for the project.

### **Other Environmental and Social Aspects**

The Promoter is known to the Bank from previous operations and has sufficient E&S capacity to implement the project, having experience in the management of complex infrastructure projects. The Promoter has a solid organisational structure.

GALP has an objective to "*bring its portfolio in line with the vision for carbon neutrality in Europe by 2050*". It plans to reduce the carbon intensity of the Group's activities by at least 15% by 2030 (versus 2017)<sup>2</sup>. It is engaged in a wide-variety of activities to achieve that target, including this project. GALP reports under the Carbon Disclosure Project. One leading assessment organisation, the Transition Pathway Initiative, rates the promoter currently as

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<sup>2</sup> The promoter indicated that its 2030 target is currently under revision, and that a more ambitious reduction target will be announced in June 2021.

Luxembourg, 17<sup>th</sup> June 2021

not aligned to the temperature goals of the Paris Agreement and having the highest management quality score of 4\*.

## Conclusions and Recommendations

As project undertakings:

- The promoter will provide the confirmation by the Natura 2000 competent authority ("*Instituto da Conservação da Natureza e das Florestas*") that there is no negative impacts on Natura 2000 sites from the solar PV Plants.
- The promoter will have to demonstrate that the measures foreseen in the environmental documentation, the EISs and the permits, including measures to avoid, reduce and mitigate the impact, as well as monitoring indicators, were put in place during the construction and operational phases.

Under these conditions, the operation is acceptable in E&S terms.