Luxembourg, 17 July 2018

Environmental and Social Data Sheet

Overview

Project Name:	TALASOL SOLAR PV PLANT
Project Number:	2017-0875
Country:	Spain
Project Description:	*Construction and operation of a solar photovoltaic plant with a total capacity of 300 MW_p located in western Spain near the city of Caceres, Extremadura.*

EIA required: yes

Project included in Carbon Footprint Exercise[1]: yes

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

Environmental and Social Assessment

Environmental Assessment

The project comprises the design, construction, operation and maintenance of a 300 MW_p photovoltaic (PV) power plant located in the municipality of Talaván, around 27 km north of Cáceres, in south-western Spain. The project scope includes its overhead grid connection line of ca. 24 km in length and a voltage level of 400 kV, and the related transforming substation.

The project will span over ca. 550 ha, over two nearby plots of land, currently used as grazing areas. The vegetation on the site is predominantly composed of bushes and spare groups of trees – mostly wild olive trees, and some holm oaks.

The project is close to the following four Natura 2000 sites (three SPAs and one SCI):

1. **SPA:** Embalse de Talaván (ES0000418), Riberos del Almonte (ES0000356), and Llanos de Cáceres y Sierra de Fuentes (ES0000071),
2. **SCI:** Río Almonte (ES4320018)

In addition, the project's grid connection line crosses the SPA Embalse de Alcántara (ES0000415).

By virtue of its technical characteristics, the project falls under Annex I of the EIA Directive (Directive 2014/52/EU amending 2011/92/EU), and thus requires an Environmental Impact Assessment (EIA). The promoter sent the scoping report to the environmental authority in 2012,

[1] 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 CO2e/year absolute (gross) or 20,000 tons CO2e/year relative (net) – both increases and savings.

launching the EIA process. The environmental authority submitted this report for consultation to the relevant authorities and to several environmental protection NGOs. In this context, the competent authority for Natura 2000 sites requested to include several aspects in the Environmental Impact Study (EIS) to be prepared by the promoter. These included in particular a baseline study on the local avifauna, during a full season, to determine the expected impacts to birds, and the relevant mitigating measures.

The environmental authority provided all comments received during this phase to the promoter, in order to address them in the EIS. The EIS included an Appropriate Assessment on the project impacts on Natura 2000 sites, which proposed a number of mitigating measures (included below). In addition, the EIS included a study on avifauna based on extensive onsite surveys, which did not find any significant migratory paths close to the project site or the connection line. It however helped determine the connection line tracing that minimised the impacts on the birds present on SPA Embalse de Alcántara. In particular, it avoided the nesting area of a pair of Egyptian vultures (included in Annex 1 of the Birds Directive). The EIS public consultation process started in October 2013 and ended in June 2014. The project received its environmental permit in November 2014. The permit clearly states that, on the basis of the mitigating measures proposed in the Appropriate Assessment, the project is not likely to have significant impacts on the surrounding Natura 2000 sites.

The project permit will be connected to the transmission grid via a substation (Cañaveral 400 kV) to be built by the Spanish Transmission System Operator. The substation environmental permit is still to be issued. The Bank will require the promoter to provide this as well as the related EIA documentation once available.

The project positive environmental impacts are the reduction of emissions of air pollutants and greenhouse gases, ultimately supporting air quality protection and climate change mitigation in the European energy sector.

The project entails limited negative impacts on the fauna and flora, the landscape, the soil and groundwater and has no substantial cumulative impact on the environment. The main project impacts during the construction phase relate to:

1. Increased dust and noise due to construction related activities, as well as increased traffic in the surrounding areas;
2. Impacts to water quality due to accidental oil or fuel spills, and changes to rainwater runoff dynamics on the project site as well as additional erosion due to the loss of vegetal cover;
3. The need to fell ca. 390 trees located on the project site – mainly wild olive trees and a more limited number of holm oaks;
4. Loss or fragmentation of habitats, with potential loss of burrowing and nesting sites.

During operation, the main project impacts relate to the overhead line, in particular the risk of electrocution of avifauna due to collision with the conductors. The PV plant will use a very low volume of water, less than 1000 m^3 per year to clean the plant equipment (including the PV panels), and for human consumption.

The EIA recommends preventive, corrective and compensatory measures during the construction and operation phases, notably:

1. The promoter will regularly sprinkle the work site, access and service roads, and will use trucks equipped with tarpaulins to transport materials. In addition, works will take place only during day hours and the promoter will put in place speed limits and silencers to all vehicles;
2. The promoter will minimise earthworks, hence limiting the changes to rainfall runoff. In addition, the promoter will replace the vegetal cover immediately after the end of works, to

minimise potential erosion. Cleaning and maintenance of machinery will take place in appropriate locations, equipped with concrete slabs and sumps, to control any potential oil or fuel spill.

3. During breeding and nesting periods, the promoter will restrict traffic on any access or service road used for construction works. In addition, in order to avoid disturbances to a population of great bustards located close to a section of the power line, the promoter will plant 3 ha of legumes and grass plants on their lek site (or mating ground), to improve it. Finally, the promoter will install PV panels at no less than 10 m away from any nesting or burrowing site.
4. The promoter will install bird-flight diverters on the overhead connection line conductors to minimise the risk of bird collision. The diverters will be staggered every 10 m, with a maximum distance of 20 m between two diverters on a single conductor.
5. The promoter will install 30 nesting boxes in the project site to foster the breeding of two local bird species (lesser kestrel and European roller, both included in Annex 1 of the Birds Directive). The promoter will maintain these nesting boxes during the project operating life.
6. The promoter will put in place a replanting programme, with a replanting ratio of 1 to 10, which can increase in case of high failure ratios of the replanted trees. The replanting programme will use the same autochthonous species that need to be felled, i.e. wild olive trees and holm oaks. The trees will be replanted sparsely in nearby locations, hence mimicking the current vegetation.

The promoter has bought the land occupied by the power plant on a willing-buying willing-seller basis from its previous owner, the municipality of Talaván. The promoter has not yet secured the rights of way needed for the power line. The promoter is expecting to negotiate with the related landowners to secure these rights of way. In parallel, the promoter is expecting to obtain the public utility declaration and will only resort to launching expropriation procedures in the case where a voluntary agreement cannot be reached. The promoter expects that this will not be the case for most of the related landowners. In Spain, all projects considered of public utility, can be subject to urgent forced expropriation, to be carried out by the relevant authorities in the interest of the promoters

EIB Carbon Footprint Exercise

- The emission savings are estimated at 263 100 tons of CO_2 equivalent per year, based on 506 GWh/a average annual generation over the project life and the Bank's Carbon Footprint methodology (75% operating margin and 25% of build margin).
- 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.

Conclusions and Recommendations

The Bank will require the promoter to submit the information below, when available:

1. Environmental permit and EIA documentation related to the Cañaveral 400 kV substation.
2. Project monitoring reports in line with Bank requirements, including information on the land acquisition process, during project implementation and the first year of operations.