

Environmental and Social Data Sheet

Overview

Project Name: PROJECT SOHO - SOLAR PV
 Project Number: 2023-0905
 Country: Spain
 Project Description: The project consists of the construction and operation of 6 PV plants in Spain, totalling circa 297 MWp.

EIA required: yes

Project included in Carbon Footprint Exercise¹: yes

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

Environmental and Social Assessment

Environmental Assessment

The project is a multi-scheme investment project and consists of the construction and operation of 6 solar photovoltaic (PV) plants organized in several clusters, for a total capacity of c. 297 MWp. The plants are located in the Spanish regions of Castilla y León, Andalucía and Cataluña. The project scope includes the associated facilities, such as the grid interconnection infrastructure. The PV plants included in the project are identified in the table below, and will be implemented over the period 2024-2027:

Project name	Location (region, province)	Installed capacity (MWp)
Malvasía	Castilla y León (Zamora)	13.2
Pinot	Castilla y León (Zamora)	33.3
Dintel	Castilla y León (Valladolid)	50.0
Alisio	Andalucía (Córdoba)	100.0
Jilguero	Cataluña (Lleida)	50
Rascón	Cataluña (Lleida)	50
		296.5

Due to their technical characteristics, the solar PV plants fall under Annex II of Directive 2011/92/EU (Environmental Impact Assessment) EIA Directive, as amended by 2014/52/EU, leaving it to the national competent authority to determine according to Annex III of the said Directive whether an environmental impact assessment is required. The grid interconnection infrastructure is classified as follows: (a) some sections fall under Annex I of the EIA Directive (i.e. the double circuit 132 kV / 220kV overhead line with a length greater than 15km for the Alisio PV plant), (b) the overhead lines not included in (a) fall under Annex II, and (c) the new electricity substations and underground cables do not fall under neither of the Annexes.

¹ 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.

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Based on national and regional environmental regulations, all the PV plants have been screened in, requiring an EIA process, including public consultation. The interconnection infrastructure was either part of the EIA process of the PV plant, or part of the EIA process of another project or even subject to its own separate EIA process when for example the line is shared among different promoters (see below).

The schemes are expected to have acceptable environmental and social impacts during both construction and operation phases. During the construction phase, main impacts are associated with the presence of machinery, vehicles, construction workers, and the erection of the PV plants infrastructures. The impacts relate to 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 of habitats. During the operation phase, given the presence of the PV plants, connection infrastructures and other similar facilities in the surrounding area, the main impacts are related to loss and fragmentation of habitats, barrier effect, visual impacts and birds' collision risk with the overhead transmission lines, where applicable.

Specific mitigation measures foreseen in the EIA reports during construction and operation phases, vary per scheme, but overall can be summarised as follows:

- Implementation of general prevention and mitigation measures during construction, in particular for dust and noise emissions, protection of soil and groundwater, and prospection of flora prior to the start of the works (to rule out the presence of species of interests, or to put in place conservation measures where applicable);
- Mitigation measures related to the risk of collision and electrocution of birds with the overhead transmission lines (such as elements to enhance the visibility of conductors, in line with the applicable legislation)
- Use of specific fences to guarantee fauna permeability, mitigating barrier effects;
- Habitat conditioning (e.g. nesting aids, ponds, etc) for certain species (birds, bats, amphibians, reptiles, etc);
- Implementation of fauna monitoring programmes;
- Reuse of soil layers for restoration activities;
- Implementation of restoration and revegetation plans;
- Landscape integration plans;

The mitigation measures foreseen in the EIA reports were in some cases further complemented by the competent authority as conditions of the environmental permits (see below).

The **Malvasía Solar PV plant (13.2MWp)** and **Pinot Solar PV plant (33.3MWp)** and their interconnection infrastructure are located in the province of Zamora (region of Castilla y León). The land for the PV plant covers approximately 12 ha for Malvasia and 55 ha for Pinot. The plants are part of a larger cluster of 7 solar PV plants for a total of c. 300 MWp which are sharing the same interconnection infrastructure. The Pinot PV plant will connect through 30kV underground lines to the new shared substation SET Pozuelo (30k/132kV), which will connect through a c. 7km 132 kV underground line to the new shared substation SET Peral (30/132/400kV), which will connect to the existing REE substation at Tábara 400kV through a c. 0.4 km 400 kV overhead line. The Malvasia plant will connect directly in 30 kV to the same SET Peral through a c. 1km underground line.

Each plant underwent their own EIA process, with the EIA decision issued in December 2022. The common infrastructure that will be shared with other plants (SET Pozuelo, SET Peral, the 132 kV underground line and the 400 kV overhead line) underwent its own EIA process, with its EIA decision issued in January 2023. The EIA reports for the PV plants include the cumulative impact assessment of the whole cluster.

The area of the project is considered to be of medium sensitivity for gliding birds like the golden eagle (*Aquila chrysaetos* – Least Concern as per the IUCN Red List), the Egyptian vulture

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(*Neophron percnopterus* - Vulnerable) and the griffon vulture (*Gyps fulvus* – Least Concern). However, the southern end of the evacuation line route, in the area of the Malvasía PV plant, is in an area of higher sensitivity for this faunal group, as well as for other prey birds, such as the red kite (*Milvus milvus* – Least Concern). The northern part of the area (near the SET Pozuelos and Pinot PV plant) is considered of higher sensitivity for steppe birds, with the presence of species such as Montagu's harrier (*Circus pygargus* – VU), hen harrier (*Circus cyaneus* – LC) and lesser kestrel (*Falco naumanni* – LC). Part of the area of the 132 kV underground transmission line also counts with the presence of the Habitat of Community Interest (HCI) Pseudo-steppe with grasses and annuals of the Thero-Brachypodietea (6220*).

The project components are not located in Natura 2000 sites. The closest site is the Sierra de la Culebra (SAC ES4190033) at around 5 kms west of the cluster. The Important Birds Area (IBA) Embalse de Esla, supporting Great Bustard (*Otis tarda* -LC) population, is around 400 m east of the cluster. The EIA decisions include the reference to the Appropriate Assessments that were carried out by the competent authority (*Evaluación de las Repercusiones sobre la Red Natura 2000*), and the confirmation that the project components (plants and transmission lines) are not expected to adversely affect the integrity of the sites concerned provided that the measures set in the permit are complied with. In particular, while an overhead line was initially proposed, the entire 132kV line will eventually be completely underground, and to avoid the possible impact on the HCI, the burying shall follow the existing roads and/or other existing tracks. In order to promote the recovery of potential habitats for steppe birds, the EIA decisions of the PV plants require to implement agro-environmental measures in other areas of the province to protect and enhance habitats for those kinds of birds. The surface to be enhanced varies depending on the quality of the areas affected by the PV plants.

Malvasia was originally planned for 33 MWp capacity, but the EIA decision includes the exclusion of certain plots of land due to the pre-existence of irrigation facilities that are declared of general interest and that are incompatible with the project's construction and operation. This exclusion has resulted in a limitation of the authorised surface and thus in a reduction of Malvasia's installed capacity (c. 13 MWp).

The **Dintel Solar PV plant (50MWp)** and its interconnection infrastructure are located in the province of Valladolid (region of Castilla y León). The land for the PV plant covers approximately 80 hectares. The substation at the PV plant (SET Dintel 30/66kV) will connect with a ca. 8km 66 kV underground line to the new substation SET Ciguñuela (66/220kV), to be shared by several promoters. The electricity will be evacuated from SET Ciguñuela to the existing REE substation Zaratán (220kV) through a new ca. 0.3 km 220 kV underground line.

The PV plant was subject to an EIA and obtained the EIA decision in May 2022, covering the PV plant and the interconnection until the SET Ciguñuela. The SET Ciguñuela and connection to Zaratán was part of the EIA process of the PV plant of another promoter, which obtained its EIA decision in July 2022. The EIA report includes a study of possible synergistic and cumulative effects of all the energy infrastructures of the Nudo Zaratán 220 kV (including transmission lines, wind farms and solar PV plants in the area).

The closest Natura 2000 site is the SAC Montes Torozos y Páramos de Torquemada-Astudillo (ES4140129) at ca. 7.5 km North of the project. The competent authority concluded that the project is located at a sufficient distance from the Natura 2000 sites and therefore does not have effect on them.

The solar plant is located in an area of medium sensitivity for steppe birds, with the presence of the great bustard in the area, and low sensitivity for gliding birds and raptors (e.g. the red kite). The project does not coincide with habitats of community interests. Given the loss of usable habitat for steppe birds, the EIA decision requires the development of a program of agro-environmental measures for a surface of approx. 5ha with the objective to conserve optimal habitat for steppe birds.

The **Alisio Solar PV plant (100MWp)** and its interconnection infrastructure are located in the province of Córdoba (PV plant and transmission line) and Jaen (for the transmission line),

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region of Andalucía. The land for the PV plant covers approximately 177 hectares. The plant will connect to the grid through the new substation SET Doña María (30/132kV), adjacent to the plant and shared with another project, from where a c. 22km line in 132 kV will connect to the new, shared substation SET Promotores Guadame (132/400kV). This line is in double circuit 132/220 kV, being shared with other projects (see below). The SET Promotores Guadame (132/400kV) will connect to the existing REE substation SET Guadalquivir Medio (400kV) through a ca. 0.3 km underground 400 kV line.

The Alisio PV plant and the line until SET Guadame Promotores has been subject to an EIA process, with an EIA decision issued in May 2022. The process also covered another 100MWp solar PV plant, which is however not part of the scope of this operation. The EIA report includes the assessment of cumulative impacts with other projects present or being developed in the area. The shared SET Promotores Guadame (132/400kV) and the line to connect to the existing REE substation SET Guadalquivir Medio (400kV) were also subject to a separate EIA process (being related to PV plants subject to EIA), and was carried out by another promoter, with the EIA decision issued in December 2022. Regarding the line, the competent authority indicated the preference to integrate the 132 kV line with another 220 kV line being developed by another promoter with similar pathway, in order to reduce the cumulative impacts of the lines present and being developed in the area. This 220 kV line was also subject to an EIA process and its design has been modified accordingly in the course of the EIA process to accommodate the double circuit with the 132 kV line, and the corresponding EIA decision was issued in April 2023. This line of c. 22km is both aerial and underground (with c. 6 km underground).

The closest Natura 2000 site is the SAC Tramo Medio del Guadalquivir (ES6130015) at around 3 km from the PV plant and 1 km from the closest point to the transmission line. The competent authority confirmed that the project does not affect any protected natural space, nor protected spaces of the Natura 2000 Network, and concluded that no significant impacts are expected on those sites.

The project area counts with the presence of birds with different levels of protection such as Montagu's harrier and the Spanish imperial eagle (*Aquila adalberti* – VU). There is also evidence of the presence of specimens of Iberian lynx (*Lynx pardinus* – VU), although it is not continuously present in the area of study. Considering the loss of steppe habitat, the competent authority required a programme of agro-environmental measures for the protection and promotion of steppe birds, through the improvement of an area equivalent to area impacted by the project. The plots to be improved shall be contiguous and preferably in the vicinity of the project, but in any case, the plots shall have the potential to house the affected steppe species.

The double circuit line crosses two types of habitats of community interests (HCIs): HCI 92A0 (*Salix alba* and *Populus alba* galleries), in the two crossings that are made over the Guadalquivir River; and HIC 92D0 (Southern riparian galleries and thickets (*Nerio-Tamaricetea* and *Securinegion tinctoriae*)), over two smaller water streams. However, those habitats will not be affected in principle, since the crossing of the water bodies will be aerial. The competent authority required that improvement measures should be carried out on existing power lines, in the provinces of Córdoba and Jaén, that present a high risk of electrocution and/or collision for birdlife, in order to adapt them where needed to the current birdlife protection regulations (Decree 178/2006 and Royal Decree 1432/2008). This measure shall be implemented on an overall length equal to that of the new line (that is, for c. 22 km of existing high or medium voltage lines).

The **Jilguero Solar PV plant (50 MWp)** and the **Rascón Solar PV plant (50 MWp)** and their interconnection infrastructure are located in Lleida (region of Cataluña). The two plants will connect to a new, shared substation SET Seros (30/220kV) through underground 30 kV lines. From there, the electricity will be evacuated to the existing 220 kV REE substation Albarrec through a 13 km line in 220 kV, with overhead and underground sections (c. 5.8 km underground). The land for the PV plant covers approximately 61 ha for Jilguero and 105 ha



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for Rascon. The plants are part of a larger cluster of 4 solar PV plants for a total of 200 MWp, which are sharing the same interconnection infrastructure.

The two PV plants underwent their own EIA process, with EIA decisions issued in June 2022 for Jilguero, and in November 2022 for Rascon. The common infrastructure that will be shared (SET Seros and the 220 kV line to Albatarrac substation) underwent its own EIA process, with its EIA decision issued in June 2023. The EIA reports for the PV plants include the cumulative impact assessment of the whole cluster, other projects in the area and the shared interconnection infrastructure.

The PV plants are on each side of a high-speed railway, and the area has been intensively cultivated, resulting in a high degree of artificialisation. The closest Natura 2000 site is "Basses de Sucs i Alcarràs" (SAC and SPA, ES5130017), a small wetland around 1.6 km northwest of Jilguero, and a nesting area of the marsh harrier (*Circus aeruginosus* - LC). The EIA reports concluded that the projects are not likely to affect the key conservation elements of this Natura 2000 site. The HIC 1430 "Matorrales halonitrófilos (Pegano-Salsoletea)" is bordering the northern part of the Jilguero and the southern part of Rascon, but without being directly impacted by the project.

Steppe birds such as the little bustard (*Tetrax tetrax* - VU) are using the area of the project, which is also frequented by prey birds such as the red kite, the black kite (*Milvus migrans* - LC). The transmission line is also crossing over the Segre River, an important ecological corridor. The northern part of Jilguero (c. 20 ha) is also a sensitive area for the Bonelli's eagle (*aquila fasciata* - LC).

Some additional measures have been required by the competent authority to preserve the steppe habitats, such as the use of specific species for the plantations and revegetation to promote diverse and naturalised steppe meadow/shrub. Regarding the Bonelli's eagle, the additional measures relate to the preservation of favourable habitats, with the improvement of an equivalent area aiming at fostering the presence of prey for this species. For the interconnection, while the initial proposal of the promoter was to have an overhead line, it was substantially modified to include underground sections in the more sensitive areas for landscape and biodiversity (with underground parts in locations more important for the red kite and the cormorant, or near wetlands), and to improve the use of pre-existing infrastructure, such as running along existing roads and seeking parallelism with the existing high-speed railway to cross the Segre river.

The project substantially contributes to the climate change mitigation objective. The project has been assessed for Paris alignment and is considered to be aligned both for low carbon and resilience goals against the policies set out in the Climate Bank Roadmap and the Bank's Energy Lending Policy.

EIB Carbon Footprint Exercise

The direct CO₂ equivalent emissions of this project are negligible.

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 Spain (combined margin for intermittent electricity generation), the total relative effect of the project is a net reduction in CO₂ equivalent emissions by 177 kt CO₂e/yr.

For the annual accounting purposes of the EIB Carbon Footprint, the programme emissions will be prorated according to the EIB lending amount signed in that year, as a proportion of project cost.

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Social Assessment, where applicable

The promoter is engaging with the landowners and, for the vast majority of the plots, has reached voluntary agreements in the form of leases or surface rights or rights of way. All the privately owned land for the PV plants has been bilaterally agreed, except for one plant where a small portion is still under negotiation. The plots of land needed for the power line(s) have not all been secured yet. The promoter is expecting to continue negotiating with the related landowners to secure this land. In parallel, the promoter applied or is planning to apply for the public utility declaration, where applicable, and will only resort to launching expropriation procedures in the case where a voluntary agreement cannot be reached. In Spain, all projects considered of public utility, can be subject to expropriation, to be carried out by the relevant authorities in the interest of the promoters.

Public reports are pointing out the possibility of use of forced labour in the supply chain of solar PV panels. The promoter has a Human Rights Policy referring to international guidelines and standards, a Code of Ethics and Conduct as well as a Suppliers Code of Conduct, rejecting any form of forced or compulsory labour and with provisions for remediation in case of breach. The promoter applies a suppliers' qualification system, which includes the review of suppliers' ESG documentation.

The promoter shall make reasonable efforts to assess and address the labour risks associated with the solar PV panels used in the project, including throughout the supply chain, as required by the EIB E&S Standards. The due diligence to be performed by the promoter (including the supply chain mappings) will be reported to and reviewed by the Bank.

Public Consultation and Stakeholder Engagement

Public consultations are carried out under the EIA process, as required by the EIA Directive, and as transposed into national and regional law. The promoter has a queries and complaints channel available (<https://ignis-canaletico.appcore.es/>). This channel is administered both by a specialised external third party and by the promoter's compliance officer.

There are on-going judicial appeals against certain authorizations which are necessary to obtain the building permits for the transmission lines of Rascon, Jilguero, Malvasia and Pinot.

Other Environmental and Social Aspects

The environmental capacity of the promoter is deemed to be acceptable. It has the experience and the capacity to manage this project, having experience in the construction and operation of solar PV plants in Spain.

Conclusions and Recommendations

Based on the information available and with appropriate conditions (listed below), the project is expected to be acceptable in environmental and social terms for the Bank's financing:

- The promoter will be required to make reasonable efforts to carry out appropriate due diligence throughout its supply chains, with the aim of preventing the use of forced labour in the supply chains of the solar panels that will be used for this project. The outcome will be reported to and reviewed by the Bank.
- The project shall comply with the EIB's environmental and social standards, which foresees zero tolerance for the use of forced labour.



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- The promoter shall store and keep up to date all documents relevant for the project supporting the compliance with the provisions of EU environmental legislation, permits and environmental approvals, and shall promptly upon request deliver such documents to the EIB.
- The promoter shall keep the Bank informed regarding the on-going judicial appeals related to Rascon, Jilguero, Malvasia and Pinot, and the Bank will assess the evolution of those judicial appeals when disbursing.