European Investment Bank

Luxembourg, 20th May 2025

Environmental and Social Data Sheet

Overview

Project Name:	SUNRISE SOLAR PV
Project Number:	2024-0814
Country:	PORTUGAL
Project Description:	Financing the construction of a 258MWp solar photovoltaic portfolio in Portugal (the "Project")
EIA required:	yes
Invest EU sustainability proofing 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

The Project consists of the construction and operation of a portfolio of four solar power plants, totalling 258MW_p in two clusters and its ancillary facilities, hybridized with two existing wind farms by sharing their existing grid interconnection infrastructures.

PROJECT	MWp	Location	Hybridization (grid connection to)	Current installed Wind capacity (MW)
Sendim	121	Tabuaço	Cluster Alto Douro – São Martinho Substation 60/220	253
Riodades	60	São Joao Da Pesqueira		
Benespera	21	Guarda	Cluster Raia – Senhora da Povoa substation 60/220	129
Senhora da Povoa	56	Penamacor (Castrelo Branco)		

Each one of the plants will use the interconnection points and part of the existing electrical infrastructures of the wind farms.

The new interconnection infrastructures associated to the Project, consist of 60kV lines (ca. 100m underground in the case of Sendim, ca. 2 km overhead in the case and Riodades) and 30kV underground of ca. 500m in the case of Sra. Povoa solar plant. Benespera is located beside the existing substation and is directly connected through an underground 30kV line.

[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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Environmental Assessment

Due to their technical characteristics, the solar PV plants fall under the Annex II of the EIA (Environmental Impact Assessment) Directive (Directive 2014/52/EU amending the EIA Directive 2011/92/EU), therefore leaving it to the competent authority to determine according to Annex III of the said Directive whether an Environmental Impact Assessment (EIA) is required. Each PV plant has been subject to its own EIA process under the transposed legislation.

The four solar projects present several common potential impacts, as reported in their EIA reports and environmental authorizations. During construction, negative impacts on geology and geomorphology arise from earthworks, such as excavation and terrain levelling, which are considered minor and reversible. There are risks of soil erosion and changes in drainage conditions, potentially affecting water quality. Construction activities lead to temporary and reversible changes in land use and soil quality, with impacts generally minor to moderate. Some ecosystems of flora and fauna can be impacted, particularly during construction, due to habitat loss and disturbances. Visual and structural impacts on the landscape, deforestation and the presence of solar panels may contribute to landscape artificialization. Construction activities could pose potential risks to cultural heritage, requiring careful monitoring and protection measures. Despite temporary greenhouse gas emissions during construction, each project contributes positively to climate change by reducing CO2 emissions.

To mitigate those impacts, authorizations include several measures like minimizing earthworks limiting topographical changes, restore terrain post-construction including habitat restoration and setting protective buffer zones around watercourses, installing appropriate drainage to manage runoff and prevent erosion. In addition, the authorizations require traffic management plans to reduce local traffic impact and ensure resident safety. Compliance with land use regulations and minimizing infrastructure footprint contribute to reduce permanent impacts.

The projects are significatively distant from nature conservation areas, whether of the Natura 2000 (distances between ca. 14km and 3km from the projects) or to areas of the Rede Nacional de Areas Protegidas of Portugal (RNAP).

General quality of the EIA reports is considered acceptable, particularly in terms of the impact assessment methodology and the studies and fieldwork conducted. These reports consider the cumulative impacts with other neighbouring plants.

SENDIM

The project scope includes:

- The solar photovoltaic generation plant, distributed in several plots of land creating two main fields.
- Underground interconnections in 20kV to connect the different photovoltaic fields to the step-up substations.
- Substations 20/60 kV directly connected through underground 60kV lines (ca. 100m) to an existing line within the solar plant area, which collects the energy of other existing wind projects of the same Promoter and connects to the national grid at São Martinho substation.

All the components of the project scope, including the underground medium voltage internal lines, the substation and the interconnection line, have been included in a single EIA and assessed together by the competent authority, including public consultation.

The environmental permit (“Título Único Ambiental, TUA”) was obtained on September 29th 2021, with conditions and technical measures to mitigate the potential impacts.

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Apart from the common impacts and mitigation measures, there are others that are specific to this plant. In particular, the project is located near a critical area for the Bonelli's eagle (Aquila fasciata), requiring specific mitigation measures, like building underground the 60 kV line to protect its critical bird nesting areas.

Additional conditions established by the TUA for this project, include among others the following: the project layout must be adjusted to ensure that photovoltaic panel tables are not installed on granite blocks and that geomorphological features are preserved. Certain heritage sites have to be protected. Existing trees, particularly Quercus and Castanea species, should be preserved with appropriate buffers and significant specimens should be documented. Internal paths and cable trenches should be designed to avoid sensitive vegetation and water lines, utilizing perimeter access to minimize impact. The project must avoid solar panels in slopes over 20% to maintain existing vegetation, areas with dry stone walls, and high-altitude areas exposed to the Alto Douro Vinhateiro (UNESCO World Heritage) unless visual impact minimization is demonstrated.

The minimum distance of the plant with Red Natura 2000 or RNAP areas is ca.15km. The EIA report does not foresee interferences with the protected elements of the closest areas and the TUA is not considering any potential impact to those environment protection areas.

RIODADES

The project scope include:

- The solar photovoltaic generation plant, distributed in several plots of land.
- Underground interconnections in 30kV to connect the different photovoltaic fields to the plant step-up substation.
- Substation 30/60 kV and interconnection through an overhead line 60kV (ca. 2 km) to an existing line of the same Promoter, which connects to the national grid together with other generation plants.

All the components of the Project scope, including the underground medium voltage internal lines, the substation and the interconnection line, have been included in a single EIA and assessed together by the competent authority, including public consultation.

The environmental permit ("Título Único Ambiental, TUA") was obtained on October 28th 2022, with conditions and technical measures to mitigate the potential impacts.

Apart from the common impacts and mitigation measures and the usual impacts and mitigations in construction sites, there are others that are specific to this plant. In particular, the electrical lines can potentially affect the Bonelli's eagle (Aquila fasciata), requiring as specific mitigation measures, safety features as bird-saving devices installed in the overhead line to prevent electrocution and bird collisions, minimize light pollution and using non-reflective exterior materials.

The minimum distance of the plant with a Red Natura 2000 or RNAP areas is ca.15km. The study area of the EIA report does not cover any of those sensitive natural conservation areas. The TUA is not considering any potential impact to those environment protection areas.

SENHORA DO POVOA

The project scope include:

- The solar photovoltaic generation plant, distributed in several plots of land.
- Underground cables in 30kV to connect the different photovoltaic fields to the step-up substation. This substation is connected to an existing adjacent substation beside the interconnection point to the grid also called Senhora da Povoa.

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All the components of the Project scope, including the underground medium voltage internal lines and the step-up substation, have been included in a single EIA and assessed together by the competent authority, including public consultation.

The environmental permit ("Título Único Ambiental, TUA") was obtained on October 1st 2021, with conditions and technical measures to mitigate the potential impacts.

Apart from the common impacts and mitigation measures, there are others that are specific to this plant. The project impacts identified in the EIA report and TUA include minor effects on agricultural systems, requiring protecting sensitive areas and support in that case the agricultural activities. The TUA requires to ensure that there are no impacts to the lands, water conductions and transport infrastructures of a nearby hydro-agricultural community.

In addition, the conditions in the TUA require among others planting native species in an area equivalent to the affected forest. Relevant specimens of existing trees, such as stone pines, oaks, olive trees, ashes, willows, cork oaks, and holm oaks, should be preserved and documented according to their size and phytosanitary stratus. The project must not affect extensive livestock farming, rural investments, or agricultural areas, including irrigation infrastructure, ensuring their continued operation.

The minimum distance of the plant with a Red Natura 2000 or RNAP areas is ca. 2.75 km to SPA PTZPE0007 Serra da Malcata, which overlaps with SCI PTCON0004 Malcata and Natural reserve of Serra da Malcata of the RNAP, whose predominant natural characteristics are different to the project. The zone between the project and the protected area includes roads, agricultural crops and an urbanized sector nearby, hindering connectivity. Neither the EIA report nor the TUA consider any potential impact to those environment protection areas. According to the outcome of the evaluation committee for the project, including the opinion from the Instituto Da Conservação Da Natureza E Das Florestas (ICNF), the area of the project does not cover locations integrated in the National System of Classified Areas as Red Natura 2000, RNAP or others.

With regard to the potential impacts related to the National Ecological Reserve regime, in particular on watercourses, respective beds and banks, areas of infiltration and recharge of aquifers and high risk soil erosion areas, the intervention is identified in the applicable regulations as "action compatible with the objectives of ecological and environmental protection and prevention and reduction of natural risks in areas integrated in REN" and it is considered that the functions of the typologies of REN areas covered in the area under study are not compromised.

<u>BENESPERA</u>

The project scope include:

- The solar photovoltaic generation plant, distributed in several plots of land.
- Underground interconnections in 30kV to connect the different photovoltaic fields to a collector cabin
- A new 30kV overhead line (ca. 536m), connecting to an existing evacuation line to an existing substation of a wind farm

All the components of the Project scope, including the underground medium voltage internal lines and the step-up substation, have been included in a single EIA and assessed together by the competent authority, including public consultation.

The environmental permit ("Título Único Ambiental, TUA") was obtained on October 28th 2022, with conditions and technical measures to mitigate the potential impacts.

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Apart from the common impacts and mitigation measures, there are others that are specific to this plant. Among others, the potential impacts on cultural heritage (i.e dry-stone walls and ethnographic elements). On biodiversity, flora, fauna and ecosystems, impacts are expected to be minor. Habitats of community interest, or priority are not expected to be affected by the project, nor will species of protected flora or fauna.

The minimum distance of the plant with a Red Natura 2000 or RNAP areas is ca. 9 km to SCI (PTCON0014) Serra da Estrela. The distance to SCI PTCON0004 Malcata is ca. 11km. Neither the EIA report nor the TUA consider any potential impact to those environment protection areas.

Climate Assessment

The Project substantially contributes to the climate change mitigation objective. The Project has been assessed for Paris alignment and is considered to be aligned with low carbon and resilience goals set out in the Climate Bank Roadmap and the Bank's Energy Lending Policy. Residual risks from physical climate hazards are deemed low.

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_2 equivalent emissions by ca. 130 kt CO2-eq/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.

EIB Paris Alignment for Counterparties (PATH) Framework

The borrower, a Special Purpose Vehicle, is fully owned by Finerge SA, therefore in scope of the PATH framework. The PATH assessment has been performed at the level of the single shareholder. Being Finerge SA a renewable energy producer, it is screened-out of PATH as it does not operate in a high emitting sector and it is not considered high vulnerability. No further actions are required.

Social Assessment, where applicable

Most of the land plots required for the Project are private and have been already purchased via bilateral agreements, including those for the transmission lines. The Promoter expects to secure all of them via easements, not considering to resort on expropriation procedures.
The implementation of the Project will not lead to involuntary physical displacement and is not expected to lead to involuntary economic displacement.

Public Consultation and Stakeholder Engagement

Public consultations have been carried out under the EIA processes for each plant.
The Promoter has in place a public whistleblower channel:
https://www.finerge.pt/en/whistleblowing-channel/

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Other Environmental and Social Aspects

Public reports are pointing out the possibility of use of forced labour in the supply chain of solar PV panels. The Promoter has its own *Code of Ethics and Conduct* and *Code of Conduct for Suppliers.* The Promoter performs due diligences on its PV modules suppliers, including on ESG aspects, and incorporates in the module's supply contracts the acknowledgement of the suppliers to its *Code of Conduct for Suppliers* as well as requirements related to traceability and information on supply chain mappings.

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 supply contract of the solar modules has been already closed for two of the four plants and a supply chain mapping for that part has been provided. The due diligence to be performed by the promoter will be reported to and reviewed by the Bank.

The Promoter is deemed to have sufficient E&S (Environmental and Social) capacity to implement the Project in line with EIB's requirements.

Conclusions and Recommendations

Considering that the EIA processes are concluded and limited residual environmental risk is identified in the relevant documentation -subject to the implementation of the measures envisaged in the permits-, no further sustainability proofing is needed for the environmental dimension.

For the climate dimension, considering that the Project comprises PV plants, the aforementioned climate assessment and the outcome of the carbon footprint exercise, the sustainability proofing is completed with no further actions required.

The outcome of the screening on the social dimension, indicated a risk linked to the forced labour in the PV supply chain, thus requiring further measures/actions to be undertaken, covered by the conditions listed below, resulting in a medium residual risk.

As Project undertakings:

The Project shall comply with the relevant provisions of the Bank's labour standard, which foresees zero tolerance for the use of forced labour. 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 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.

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