

Luxembourg, 15 June 2023

Public

Environmental and Social Data Sheet¹

Overview

Project Name:	3SUN PV GIGAFACTORY
Project Number:	2022-0497
Country:	Italy
Project Description:	<p>The Project consists of the development of a PV Module “Gigafactory” increasing the cells and modules production capacity from current 200 MW/y up to 3 GW/y, leveraging on existing building and facilities and with proper investments in a new building, upgrading of existing facilities and new high quality cells production and module assembly lines.</p> <p>The Project also includes the upgrade of the 3 GW production line from HJT (Hetero Junction Technology), one of the current best technical solutions available on the market, to tandem silicon-on-perovskite technology, one of the most promising solar PV cell manufacturing technologies to increase the solar irradiation energy conversion efficiency beyond the theoretical limits of silicon.</p>

in Board Report)

EIA required:	no
Invest EU sustainability proofing required	no
Project included in Carbon Footprint Exercise ² :	yes

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

Environmental and Social Assessment

Environmental Assessment

The project involves the installation of a new cell line in the existing building and of a new module line in a brand-new building currently under construction, as part of this project, in the free area existing in the southern part of the main building.

¹ The information contained in the document reflects the requirement related to the environmental, social and climate information to be provided to Investment Committee as required by the Invest EU Regulation and it represents the equivalent of the information required in the template of the InvestEU sustainability proofing summary

² 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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For this purpose, the old photovoltaic cell production line located inside the existing building must be substituted with a new one, as well as the installation of a new photovoltaic module assembly line which will be located inside a new building to be constructed in the free area on the south of the plant. For these new installations it is necessary the construction of the new building, the review and adjustment of the characteristics of the existing utilities as well as, where necessary, the identification and construction of new utilities routes, to meet the operating needs of the installed equipment; in addition, the auxiliary systems of the plant, currently present, must be revised and calibrated according to the new requirements. Within the implementation plan, the main construction works to be executed are the rearrangement of the internal layout of the existing building and the construction of a new building.

Both the old and the new building as well as the whole manufacturing and auxiliary facilities are located in an existing industrial area neighbouring a couple of NATURA 2000 sites (SIC and ZPS areas). The old building and the manufacturing and auxiliary facilities received full environmental approval (AUA – Autorizzazione Unica Ambientale) in July 2015 from the competent regional authorities. The promoter initiated a screening procedure (VINCA – Valutazione di Incidenza Ambientale) given the substantial modifications introduced by the new building and the additional manufacturing capacity in December 2020 and the project was screened out (parere endoprocedimentale favorevole) by the responsible regional authority in March 2021. The analysis concluded that with the implementation of the recommended measures, the project is not expected to cause adverse effects on the natural and man-made environment.

The new AUA procedure was started on August 2022 and the related public consultation (conferenza dei servizi) was completed in October 2022 pending the receipt of the approvals from all the competent authorities, which was concluded in March 2023.

Meanwhile, the promoter has already received the building permit in July 2021 (Provvedimento Unico Conclusivo del Permesso di costruire) and already started construction of the new building and related auxiliary facilities in March 2022.

3SUN operates in eco-development areas (NATURA 2000) of the Oasi del Simeto, Foce del Fiume Simeto e lago Gornalunga and Biviere di Lentini. The company respects the environmental operating limits set by Italian legislation. These areas are located in the surrounding vicinity of the facility, though are some distance from it. The company has provided for all the necessary mitigation measures and has installed/will install advanced equipment to ensure the prevention of any environmental impact in the wider area, as indicated in the screen out. Thus, the existing natural environment has not been degraded nor is it expected to be.

The project will take place in an existing industrial site where flooding risks have been identified, but the facility is built on an elevated area, reducing the physical climate change risks from high to low.

The project concerns development and manufacturing of low carbon technologies (solar PV cells and modules) in industrial and general manufacturing areas and is assessed to be aligned both against low carbon and resilience goals.

According to the promoter, the total annual emissions are estimated at 48.2kt CO₂, and therefore above the thresholds defined for the Bank's Carbon Footprint Exercise (CFE).

The project has been assessed for Paris alignment and is considered to be aligned against the policies set out in the Climate Bank Roadmap.

Climate Assessment

- **Climate change mitigation** – This project contributes pro quota (95%) of the investment costs to climate action – other via manufacturing of renewable energy technologies (HJT solar PV cells and modules), first of a kind GW scale of HJT solar PV module manufacturing in the EU.



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- This project contributes pro quota (5%) of the investment costs to climate action – RDI via RDI in manufacture of renewable energy technologies, innovative solar PV modules tandem perovskite on silicon technology: mitigation RDI
 - **Climate change adaptation:** In terms of the risk and vulnerability assessment (CRVA), we identified a high risk of flooding and sea level rise in the project area at appraisal using the Acclimatise Aware tool, but we downgraded the CRA to low because:
 - For flooding:* The whole manufacturing plant area is up to 2 m above the surrounding area outside the industrial compound, which makes it not sensitive to flooding risk.
 - For sea level rise:* The forecast economic life of the project is shorter than the timeframe when sea level rise risk might materialize.
 - **Paris Alignment of projects:** The project has been assessed for Paris alignment and is considered to be aligned both against low carbon and resilience goals against the policies set out in the Climate Bank Roadmap and associated guidance and other relevant documents, in particular low carbon criteria in the CBR, energy, innovation, Research, development, demonstration, and commercialisation of innovative low-carbon energy technologies, solar PV modules

EIB Paris Alignment for Counterparties (PATH) Framework *If the counterparty is not in scope of the PATH framework, delete this section including this heading*

- The counterparty ENEL SPA is in scope and screened in to the PATH framework, because it is considered high emitting.
- The counterparty already meets the requirements of the EIB PATH framework with its existing alignment plan(s).

EIB Carbon Footprint Exercise

- GHG emissions calculation has been done based on the forecast consumption in 2025, forecast year of full standard operation Total estimated annual emissions of project in a standard year of operation: – absolute (gross) 48.2 kT CO₂e/year.
- 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

The promoter is part of a well-established multinational group, which has a clear social sustainability strategy and policies in place, including a corporate-level Code of Ethics and Human Rights Policy. In line with these, the promoter is committed to integrating social sustainability considerations across the project's value and supply chains and has defined due diligence and monitoring mechanisms to that end.

Specifically, to mitigate social risks along the project's supply chain, the promoter requires a sustainability assessment for each supplier, selecting only those that fulfil mandatory human rights and traceability criteria. Related obligations are further introduced in the suppliers' contract terms. On the medium to longer term, the promoter is committed to reshoring as much of its supply chain to Europe, which will further contribute to mitigating supply chain risks. However, for the foreseeable future (at least until 2025) the promoter will exclusively rely on wafer import from China for its cell production.



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Public Consultation and Stakeholder Engagement

The new AUA (Autorizzazione Unica Ambientale) procedure was started in August 2022 and the related public consultation (conferenza dei servizi) was completed in October 2022 pending the receipt of the approvals from all the competent authorities, which was concluded in March 2023.

The promoter has received letters of support from many public stakeholders.

Other Environmental and Social Aspects

Both the promoter and the counterparty at the Head of Group level have all the relevant ISO certifications to manage properly all the environmental and social aspects.

Conclusions and Recommendations

The new factory will reuse the existing manufacturing building and will also include a new building, which will be erected in an internal area, south of the existing building and the other neighbouring buildings.

Both the old and the new building as well the whole manufacturing and auxiliary facilities are located in an existing industrial area neighbouring a couple of NATURA 2000 sites (SIC and ZPS areas). The old building and facilities received full environmental approval (AUA – Autorizzazione Unica Ambientale) in July 2015 from the competent regional authorities. The promoter initiated a screening procedure (VINCA – Valutazione di Incidenza Ambientale) given the substantial modifications of the new building and manufacturing facilities in December 2020 and was screened out (parere endoprocedimentale favorevole) by the responsible regional authority in March 2021. The analysis concluded that with the implementation of the recommended measures, the project is not expected to cause adverse effects on the natural and man-made environment.

Sustainability proofing conclusion: the project is carried out in compliance with applicable national and EU environmental and social legislation. Based on the environment, climate and social (ECS) information and based on the review of the likely significant ECS risks and impacts and the mitigation measures and management systems in place, the project is deemed to be acceptable in terms of ECS risks and impacts under the proposed conditions.

With these conditions in place, the project is acceptable for EIB financing in environment, climate and social terms.