InvestEU Scoreboard[1]

Presentation of the financing or investment operation:

Implementing Partner: EIB

Name of the Operation: 2022-0497 – 3SUN PV GIGAFACTORY

Type of approval :

☒ Individual financing or investment operation

Name of the final recipient: 3SUN SRL

Country(-ies) of implementation: Italy

Short description of the financing or investment operation:

The project concerns the scale up of the 3Sun Gigafactory in Catania. 3Sun produces solar PV modules and panels and it is a fully-owned subsidiary of ENEL Green Power Italia Srl.

The project includes two phases which are closely interlinked:

- **Phase 1 (HJT)**: The scale up of the 3Sun Gigafactory, which is set to become the largest PV module manufacturing plant in Europe, by increasing its current annual production capacity of 200 MW/year to about 3 GW/year by 2024. 3Sun currently produces innovative bifacial solar PV panels with HJT technology, which is the current state-of-the-art technical solution on the market. This phase of the project will include the upgrade of existing building and facilities and new high quality cell production and module assembly lines, currently and for the foreseeable future unavailable on the European and global market at this scale.

- **Phase 2 (Tandem)**: The upgrading of the 3GW/y production from HJT to Tandem[2] by 2025. Tandem is an innovative technology which will increase by c. 40% efficiency and power output in comparison to HJT. The Tandem technology has not yet reached mass production, neither in the EU nor elsewhere in the world. This project would be the first to significantly scale up such technology.

Public Statement

The operation concerns capital investments that will be carried out in the photovoltaic (PV) Gigafactory owned by the private company 3Sun Srl ("**3Sun**", the "**Borrower**") in Catania, Italy, a cohesion region under the EU Cohesion Policy.

The project is comprised of two phases:

- Phase 1 concerns the installation of a 3GW production line for photovoltaic (PV) modules based on Hetero Junction Technology ("**HJT**") – an established PV technology capable of producing modules with high efficiency and power output.
- Phase 2, covers the RDI activities for the development of new tandem perovskite-on silicon ("**Tandem**") solar PV cells and modules, and building a first-of-a-kind production line using this highly innovative technology, with the aim of bringing it from lab to commercial scale.

[1] This Scoreboard of indicators reflects the information presented to the InvestEU Investment Committee (IC) for its decision on the use of the EU guarantee for this operation. Therefore, the document does not take into account possible developments that could have occurred after this decision.

[2] Tandem perovskite-on silicon solar PV cells and modules.

The Tandem technology is capable of exceeding the theoretical solar irradiation energy conversion efficiency limits of silicon-only cells (including HJT).

The project activities are eligible under the EIB Climate Action and Environmental Sustainability guidelines as they involve both the manufacturing of renewable energy technology (for the HJT part) and Research Development and Innovation Activity, "Research development and innovation in manufacture of renewable energy technologies" (for the Tandem part).

The project is eligible under Article 309 point (a) projects for developing less-developed regions and point (c) common interest.

The project falls under the InvestEU eligibility area:

***1**. The development of the energy sector in accordance with the Energy Union priorities, including security of energy supply, clean energy transition and the commitments taken under the 2030 Agenda for Sustainable Development and the Paris Agreement, in particular through:*

(a) the expansion of the generation, supply or use of clean and sustainable renewable and safe and sustainable other zero and low-emission energy sources and solutions.

The operation is considered a flag-ship project for the EU, contributing to the transition towards renewable energy and leading to substantial GHG emission savings. It is consistent with the objectives laid out in the Commission's Net Zero Act.

The operation will support the competitiveness of a European company active on a global scale, while contributing to reshoring the production of state-of-the-art solar PV cells and modules to Europe, thus reducing dependence on Chinese imports. The operation will therefore contribute to the Strategic Energy Technologies Plan and to Repower EU.

The project addresses the following market failures (externalities):

- The project will lead to the development and deployment of innovative and process technologies with substantial environmental benefits.
- The financing of this project supports RDI activities, which generate significant positive knowledge, technology and environmental externalities, through the creation of innovative processes, products or services and through skills development and upgrading.

The operation entails a high degree of risk, in particular technological risk linked to the deployment of the Tandem technology and market risks (both supply and demand). The project will substantially benefit from the EIB contribution from a financial and non-financial standpoint. Local commercial lenders have very limited appetite for the risks associated with the project. In particular, EIB involvement has been key given the inability of other financiers to assume more than 50% of the total senior debt for a first-time borrower in a new sector segment with material technological risk, market risks. The substantial financial benefit provided by EIB allows for the improvement of the overall financials of the project.

Pillar 3 - Market failure or sub-optimal investment situation addressed by the financing or investment operation (**Very Good**)
Pillar 4 - Financial and technical contribution by the Implementing Partner (**Very Good**)
Pillar 5 - Impact of the financing or investment operation (**Very Good**)
Pillar 7 - Complementary indicators[3]
Pillar 7 - Complementary indicators[4]

[3] The abbreviation PCR stands for Project Completion Report. EIB internal methodologies are used in order to calculate the figures presented in this document. The Promoter's estimates might differ.

[4] The abbreviation PCR stands for Project Completion Report.

Key project characteristics

	Expected at PCR
Start of works	01.01.2022
End of works	31.12.2025
Project investment cost	654.90 MEUR
Mandate eligible investment mobilized	516.9 MEUR
Mandate multiplier effect	11.41
Mandate leverage effect	1.05
Amount of private financing	227.40 MEUR
Co-financing with other EU instruments (i.e. Horizon 2020, Connecting Europe Facility, etc)	138 MEUR
Climate Action indicator	95.00% Mitigation - Other (transversal) / 5.00% Mitigation - RDI (transversal
Employment during construction temporary jobs	230 person years
Employment during operation – new permanent jobs	866 FTE
Gender Tag	No Significant contribution to Gender Equality

Outputs

	Expected at PCR
Annual production capacity (Industry)	3,000.00 Mt/yr
Compliance with Best Available Technologies (BAT)	Yes
% of Development Projects translated into manufacturing stage	100.00 %
Digitalisation– PROJECT based share of project investment cost	2.00 %
Repower EU - share of project investment cost	100.00 %

Outcomes

	Expected at PCR
Annual production (Industry)	3,000.00 Mt/yr
Share of production sold to local market	62.00 %
% of sales and services from new products	100.00 %
Total sales of the promoter	580 MEUR
Percentage of promoter's sales supported by the project	100.00 %
Total potential sales resulting from the project	580.00 MEUR
Total employment of the promoter	860 FTE
Percentage of promoter's employment supported by the project	100.00 %
Employment supported by the project	662 FTE