European Commission

MANUFACTURING OF COMPONENTS FOR RENEWABLE ENERGY OR ENERGY STORAGE

INNOVATION FUND

Deploying innovative net-zero technologies for climate neutrality

HOPE: High-efficient Onshore PV module production in Europe

The Innovation Fund is 100% funded by the EU Emissions Trading System

| Project Factsheet

The objective of the HOPE project is to establish an additional 3.5 gigawatt (GW) annual production capacity of high-performance Photovoltaic (PV) cells and modules in Europe, to strengthen European supply chains and energy independence. A cell and a module manufacturing facility will be set up in Germany, while an additional module manufacturing facility will be established in Spain. HOPE will introduce the next generation heterojunction technology (HJT), HJT 2.0; with this innovation, enabling the production of longer-lasting, higher-efficient, cutting-edge PV modules. HJT 2.0 modules also have a significant cost advantage for investors and operators. HOPE will supply the modules to build hundreds of new PV power parks in Europe. This project will reduce greenhouse gas (GHG) emissions by 99.9% compared to the reference scenario.

In the HOPE project, the HJT 2.0 technology will be introduced to drive HJT-cell based modules to maximum efficiency, leveraging significant advantages in the efficiency of solar cells. With the

COORDINATOR
MEYER BURGER (INDUSTRIES) GMBH

LOCATION
Spain | Germany

CATEGORY
Renewable Energy (RES)

SECTOR
Manufacturing of components for production of renewable energy or energy storage

AMOUNT OF INNOVATION FUND GRANT
EUR 200,000,000

EXPECTED GHG EMISSIONS AVOIDANCE
17,080,051 tonnes CO2 equivalent

STARTING DATE
01 January, 2024

ENTRY INTO OPERATION DATE
28 February, 2027

FINANCIAL CLOSE DATE
31 January, 2025

** Calculated vs. the 2021-2025 ETS benchmark of 6.84 tCO2e/tH2, not taking into account additional carbon abatement due to substitution effects in the H2 end use application, i.e. conservative estimate.*

HOPE project, Meyer Burger will implement a set of major innovations based on a revolutionary production concept, comprising cell and module manufacturing, materials, and smart factory design. HJT 2.0 is based on proprietary technologies and will overcome prevailing but outdated technologies like “passivated emitter and rear cell” (PERC) in the PV market. An absolute greenhouse gas (GHG) emission avoidance of 17 million tonnes CO2 equivalent is expected. This has been calculated based on the proportional contribution that modules have in a PV power park, alongside other components such as inverters and installations. The total energy generated by the modules is equivalent to twice of the annual electricity consumption of the city Berlin. Additionally, the PV modules will be produced with low emissions, significantly reducing the overall carbon footprint of the PV industry.

HOPE will contribute to strengthening European strategic sovereignty in the PV value chain. The innovations in the product and process design will contribute to increased resource efficiency in Europe, and the associated new renewable energy generation capacity will be indispensable for the European Green Deal.

Nearly 1,400 new jobs will be directly generated by the project. Additionally, the job-multiplier of PV-based electricity generation is the largest among renewable technologies, with 2,200 indirect jobs that can be attributed to the project (e.g. at suppliers or linked to installing and operating the power parks). The regional economies will benefit both from local sourcing as well as from the availability of locally produced PV components.

| Participants

MEYER BURGER (INDUSTRIES) GMBH	Germany