



European
Commission



MANUFACTURING OF COMPONENTS FOR
PRODUCTION OF RENEWABLE ENERGY
OR ENERGY STORAGE

INNOVATION FUND

Deployment of net-zero and innovative technologies

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

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

introduced to drive HJT-cell based modules to maximum efficiency, leveraging significant advantages in the efficiency of solar cells. With the 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 HJT 2.0 is based on proprietary technologies and will overcome prevailing but outdated technologies like “passivated emitter and rear cell” (PERC) in the PV market.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