



# Green Bond Allocation and Impact Report

**Towards emission-free energy generation from sunlight**

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## Introduction

### Business Overview

Meyer Burger is a leading globally active technology company specializing in innovative systems and the production of cells and modules for the photovoltaic (PV) market. The company has shaped the development of photovoltaics along the entire value chain and has set essential industry standards. A large proportion of the solar modules produced worldwide today is based on technologies developed by Meyer Burger.

### Vision and Strategy

Meyer Burger's vision is to facilitate a more sustainable and accessible energy generation for a greener future. The company develops precise technical solutions to produce highly efficient solar modules, often establishing new industry standards. In this regard, the company's aim is to make these highly efficient solar modules more accessible to the private and commercial sector while considering economic costs. With continuously improving energy efficiency, Meyer Burger is continuously aiming to lower overall manufacturing costs and the production footprint, allowing its customers to achieve highly advantageous total cost of ownership in the PV industry. Meyer Burger plans to build on this development and its long-standing technological leadership to move towards emission-free energy generation from sunlight.

### Why it matters

PV by far is already the most cost-effective and climate-friendly technology for generating electricity in large parts of the world. Solar energy is affordable, clean, and available in unlimited quantities. International ambitions for more climate protection and a continuing cost reduction will allow solar power generation to become the most important and profitable energy source in the future. Indeed, PV is set up to contribute substantially to the reduction of greenhouse gas emissions. In 2021, worldwide a record of 168 GW of solar power capacity was installed entering the Solar Terawatt Age. With this exponential growth, global solar capacity is expected to more than double

to 2.3 TW by 2025.<sup>1</sup> This development will meet a globally growing electricity demand, driven by the electrification in an increasing number of sectors such as electro mobility.

Fostered by steadily improving technologies, economies of scale, competitive supply chains and a growing experience, renewable power generation costs have fallen significantly over the past decade. This development allowed the industry to become competitive with the cheapest existing brown energy sources such as coal-fired power plants. Continuing cost declines confirm that competitive renewables are a low-cost climate and decarbonization solution that aligns short-term economic needs with medium- and long-term sustainable development goals. Consequently, the growth of the PV market internationally will have an important impact on decreasing the effects of global warming.

## **Meyer Burger's leading technology innovation**

As a global leader in the solar industry, Meyer Burger offers a unique, innovative range of products, systems, and services. The manufactured solar cells and modules are essential elements of the global PV value chain. Meyer Burger focuses on the ongoing improvement of its PV technologies to maintain its leading position in the industry and improve the ecological impact of its activities. It pursues a double goal: While increasing energy efficiency of solar cells and modules, Meyer Burger simultaneously offers its customers the lowest total cost of ownership. As innovation is key to achieve these goals, the company permanently invests in new technologies lowering the cost per kilowatt-hour of solar energy while increasing cell and module quality with its Heterojunction/SmartWire technologies. It combines the latest generation of solar cells with a globally unique connection technology. Heterojunction/SmartWire modules are market-ready for large-scale production. Furthermore, acting in harmony with the environment and respecting societal values, it is most important to Meyer Burger to utilize natural resources carefully and mindfully. Certain resources are specifically generated for the manufacturing process of solar cells and modules. Through reuse, share, repair, refurbishment, remanufacturing and recycling, Meyer Burger aims to

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<sup>1</sup> Solar Power Europe, Global Market Outlook for Solar Power 2022-2026, [Global Market Outlook For Solar Power 2022-2026 - SolarPower Europe](#)

adopt the principles of a circular economy, respectively to follow the cradle-to-cradle concept, to eliminate waste, pollution and carbon emission to a maximum extent.

## **Rationale of the Green Financing Framework**

Meyer Burger is a long-standing pioneer in the development of photovoltaics along the entire value chain. The publications of the draft EU Green Bond Standards and the draft EU Taxonomy have created an opportunity for Meyer Burger to reinforce its sector leadership on sustainable matters by issuing a green bond financing for projects aligned with the Taxonomy's ambitious emission thresholds and its overall strategy and approach to sustainability. Meyer Burger believes that green bonds financing its activities highlights its sustainability objectives very effectively. Moreover, it will provide fixed income investors with a further tool to assess Meyer Burger's progress in contributing to climate change mitigation as well as benefitting society.

On 8 July 2021, MBT Systems GmbH, a directly wholly owned subsidiary of the guarantor Meyer Burger Technology Ltd, issued the green bond with an aggregate principal amount of EUR 145 million. The bond was issued with a denomination of EUR 100,000 per bond at 100% of the principal amount. It carries a coupon of 3.5% per annum payable every six months. Unless previously converted or bought back and canceled, the bond will be redeemed on 8 July 2027 at 100% of their principal amount. The bonds are convertible into approximately 247 million registered shares in Meyer Burger sourced from shares to be newly issued from conditional share capital excluding the existing shareholders' advance subscription rights. The initial conversion price has been set at EUR 0.5868, representing a premium of 25% over the issue price of the new shares translated into EUR using the CHF foreign exchange rate at the time of pricing on 1 July 2021, i.e. EUR 0.9115 per CHF 1.00. Meyer Burger is entitled to early redeem the bonds at their principal amount plus accrued interest in accordance with the terms and conditions of the bonds any time on or after 29 July 2025, if the price of a Meyer Burger share is equal to or exceeds 130% of the then prevailing conversion price over a certain period or if, at any time, less than 15% of the aggregate principal amount of the bonds remain outstanding.

## Green Bond Allocation Report

Meyer Burger applies all of the net proceeds from the issuance of the Green Bond to finance green projects ("Eligible Green Projects") satisfying one or more of the eligible indicators and performance requirements detailed in the Green Financing Framework. The process for the selection of eligible projects utilizes internal expertise and includes an assessment of whether the project substantially contributes to fighting climate change and/or contributes to natural resource preservation. At the same time, projects are assessed to be doing no significant harm to other environmental objections, expected to meet Meyer Burger's internal standards and sustainability principles and to comply with all applicable local regulations. In addition, projects need to meet the Use of Proceeds requirements detailed in Pillar 1 of the Green Financing Framework and for projects that are to be retrospectively financed; the realization period must be within the last three years.

A cross-functional Green Bond Committee ("GBC") chaired by the CEO reviews, monitors, and approves all Eligible Green Projects that meet the core criteria integrated into Meyer Burger's internal project management organization. The Green Bond Committee monitors the portfolio of projects during the life of the transaction. Specifically, the committee can decide to replace some Eligible Green Projects if an asset no longer meets the eligibility criteria or is exposed to high ESG risks. No changes were made to the allocation proceeds since the issuance of the Green Bond.

The Eligible Green Projects are:

<b>Project 1</b>	<b>Setup and ramp-up of German solar plants: solar cell fabrication in Bitterfeld-Wolfen and solar module fabrication in Freiberg</b>
Project category	Renewable energy

**Description of project**

In 2021, Meyer Burger has successfully transformed its business model towards the production of solar modules with the setup of two new plants in Bitterfeld-Wolfen, Germany and Freiberg, Germany. The ramp-up will continue over the next years and currently focuses on an expected cell and module production capacity of 1.4 Gigawatt (GW). As part of the capacity expansion, Meyer Burger plans to offer solar modules with its high-performance technology customized for the growing utility-scale solar module segment and to expand the portfolio in the residential rooftop segment to include innovative solar roof tiles. Meyer Burger has further developed its heterojunction technology towards production maturity. A module efficiency of 24.7 % was reached for the first modules produced with customary size. This figure is one of the highest module efficiencies ever achieved with silicon technology.

**Environmental benefits**      Climate change mitigation through GHG emissions reduction

**Related SDG**



<b>Project 2</b>	<b>Setup and Ramp-up of US solar plant: Solar module fabrication in Goodyear, AZ</b>
Project category	Renewable energy

**Description of project**

Meyer Burger is establishing a production site for high-performance solar modules in Goodyear, Arizona. The investment is an important step in meeting Meyer Burger's commitments to produce modules near end-customers, source material from regional suppliers, and improve overall sustainability by reducing transportation emissions and optimizing the carbon footprint of the company's solar modules.

Meyer Burger envisages an annual production capacity of up to 1.5 GW that will include capabilities to manufacture solar modules for residential, commercial/industrial rooftop, and utility-scale applications.

**Environmental benefits**      Climate change mitigation through GHG emissions reduction

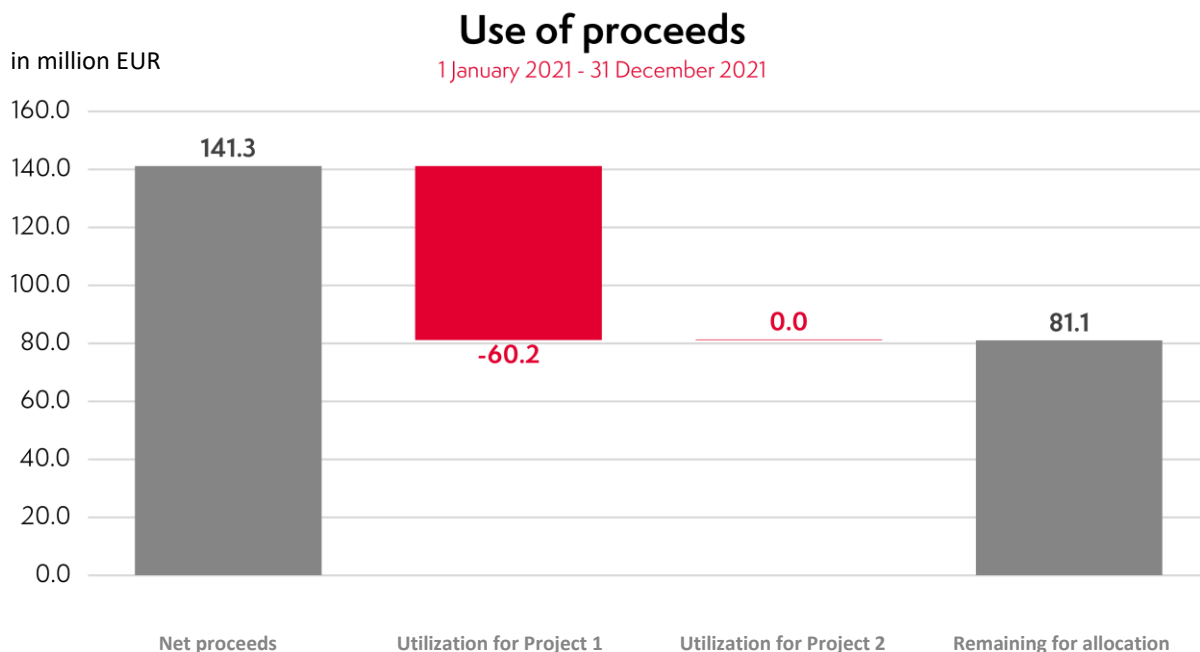
**Related SDG**



## Balance of unallocated proceeds of Green Financing Instrument

Gross proceeds from the Green Bond launched on 7 July 2021 amounted to EUR 145.0 Million. After the deduction of fees and costs, net proceeds were EUR 141.3 million. The net proceeds from the issuance of the Green Bond were deposited to a general account and an amount equal to the net proceeds was earmarked for allocation to the Eligible Green Projects as selected by Meyer Burger's GBC. The proceeds remaining for allocation are deposited to general bank accounts of the Meyer Burger group.

In accordance with the Green Financing Framework, proceeds can be allocated to costs incurred retrospectively for a look-back period of up to 36 months. Based on the selection of eligible projects and their start dates, Meyer Burger decided to use the funds from the Green Bond for costs incurred from 1 January 2021 forward. In the financial year 2021, the Green Bond proceeds were mainly allocated to cover the operational set-up and ramp-up costs of the German solar plants as well as the operational set-up costs of the US plant.<sup>2</sup> The Green Bond proceeds are allocated to the operational set-up and ramp-up cost at an issuer's share of financing of 100% and accordingly cover all operational costs in line with the definition.



<sup>2</sup> The set-up and ramp-up costs include sales of the period plus/minus changes in inventory, cost of products and services, capitalized goods and services, personnel expenses and operating expenses and accordingly reflecting the negative margin impact during the set-up and ramp-up phase.



The cost allocations are made based on the accounting records of the respective operating subsidiaries within the Meyer Burger Group responsible for the realization of the projects. Generally, the statutory financial auditors of the respective entities audit the financial statements and underlying accounting records on an annual basis.

These costs naturally arise in the realization of Meyer Burger's ambitious plan to become a global leader in solar module production and in line with the proposed strategy make the positive environmental contribution envisaged. The following impact report outlined the current and expected environmental effects of the investments made.

### **Projected allocations of Green Financing Instrument Proceeds**

In line with the Green Financing Framework, the proceeds from the Green Bond are intended to be fully allocated within 24 months after the issuance date of the Green Bond to the best of Meyer Burger's abilities. Meyer Burger will strive to maintain full allocation latest until maturity by replacing any projects that may have been divested or are no longer eligible due to other circumstances.

As of 31 December 2021, EUR 81.1 million of the Green Bond proceeds were remaining for allocation to Eligible Green Projects. Meyer Burger projects the allocation of these funds to the completion and further extension of Project 1 and Project 2 within the intended timeframe. It is expected that the utilization for Project 2 will show a comparably stronger increase in 2022 due to the status of the set-up and ramp-up of the production facilities.

## Green Bond Impact Report

Meyer Burger's vision is to enable more sustainable and accessible energy production for the future. By transforming the business model from the manufacture of photovoltaic (PV) production equipment to the integrated production of solar cells and solar modules, Meyer Burger is making sustainability the number one priority.

To set a starting point, Meyer Burger mandated the Fraunhofer Institute with an extensive lifecycle analysis of its highly efficient Heterojunction/Smart Wire (HJT)-technology based solar cells and modules. The analysis includes the three Meyer Burger module product types Glass-Backsheet (Black), Glass-Backsheet (White) and Glass-Glass as well as the Glass-Backsheet (PERC) for comparative purposes.

The lifecycle analysis included the detailed calculation of the energy payback time (EPBT) of Meyer Burger's solar cells and modules. The MB White PV system was analyzed for the use in different climate zones. The EPBT accordingly varies between 0.55 and 1.25 years inversely proportional to the respective annual irradiation values. For the averaged European location, the EPBT is 1.01 years. The relative EPBT is identical for all sites at 38% for cell production, 21% for module production, and 41% for recycling (EoL) and system components (BoS).

The analysis came to the conclusion, that overall, Meyer Burger's glass-backed film and glass-glass modules produce about 24% and 37% less CO<sub>2</sub> emissions, respectively, compared to a PERC reference module, which has about 35.5 kg of CO<sub>2</sub> equivalent emissions per megawatt-hour. The environmental impact of the production of the poly-Si, as well as the crystallization and cell processes of Meyer Burger modules in Europe compared to processes in China is significantly lower. This is mainly due to differences in the energy-intensive processes in the value chain, for which the respective energy mixes of the sites are weaker for Germany and stronger for China. The reduction in greenhouse potential can be achieved by recycling the HJT modules using the proposed recycling route Meyer Burger's recycling partner, and amounts to approximately 1.6 kg CO<sub>2</sub> equivalent emissions per megawatt-hour.

Based on the business model and the underlying sustainability goals, Meyer Burger defined three key impact performance indicators (KPIs) to measure the ecological impact of modules produced during the respective performance period. Meyer Burger utilizes these measures to analyze its environmental footprint and to set measures to increase a positive environmental impact.

The KPIs were calculated based on the actual number of modules produced by Meyer Burger over the period from 1 January 2021 and 31 December 2021. With this period definition, Meyer Burger aligns the start of the allocation of the Green Bond proceeds with the impact reporting period. The KPIs are expected to develop favorably as the period under review includes the set-up and ramp-up phase of the projects. Based on the recency of Meyer Burger’s change in business model, the lifetime results of the projects cannot be predicted with sufficient certainty and accordingly are not disclosed.

The key impact KPIs utilized by Meyer Burger to assess the impact of the eligible projects were the following:

KPI	Period from 1 January 2021 – 31 December 2021
Renewable energy capacity sold in MWp	19,55
GHG emissions avoided over expected lifetime of modules sold in CO <sub>2</sub> e tons	21,901
Energy yield over expected lifetime of modules sold in GWh	57,184

The renewable energy capacity sold in megawatt-peak (“MWp”) refers to the cumulative energy capacity of all modules sold in the respective period.

The greenhouse gas (“GHG”) emissions avoided over the expected lifetime of modules sold in CO<sub>2</sub>-equivalent (“CO<sub>2</sub>e”) tons refers to the calculatory GHG emissions avoided based on the number of modules sold in the respective period over the expected lifetime of the module estimated at the warranty period of 25-30 years.

The reported energy yield over the expected lifetime of the modules sold in gigawatt hours (“GWh”) bases on the same number of modules sold and assumptions concerning the expected lifetime of the modules.