

# Green Bond Allocation and Impact Report

Towards emission-free energy generation from sunlight



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### Introduction

#### **Business Overview**

Meyer Burger is a 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 constantly aiming to lower overall manufacturing costs and the production footprint, allowing its customers to achieve highly advantageous total cost of ownership. 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 is already by far 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 2023, worldwide a record of about 375 Gigawatt (GW) of solar power capacity was installed.<sup>1</sup> The long-term outlook for solar as a renewable energy source has once again become significantly more positive. Industry experts believe that the installed photovoltaic capacity in 2027 will be up to

<sup>&</sup>lt;sup>1</sup> International Energy Agency, Renewables 2023, January 2024, Executive summary – Renewables 2023 – Analysis - IEA



3.5 Terrawatt (TW).<sup>2</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 technology innovation

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 attractive position in the industry and improve the ecological impact of its activities. It pursues two goals: While increasing energy efficiency of solar cells and modules, Meyer Burger simultaneously aims to offer 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 (kWh) 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. 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.

## 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 by the European Union (EU) of the European Green Bond Standards and

<sup>&</sup>lt;sup>2</sup> Solar Power Europe, Global Market Outlook for Solar Power 2023-2027, <u>Global Market Outlook For Solar Power</u> 2023 - 2027 - <u>SolarPower Europe</u>



the EU Taxonomy have created an opportunity for Meyer Burger to strengthen the focus 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 obtaining financing via green bonds 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 10 May 2023, MBT Systems GmbH, a directly wholly owned subsidiary of the guarantor Meyer Burger Technology AG, issued a green bond with an aggregate principal amount of EUR 216.3 million (ISIN CH1239464675). The bond was issued with a denomination of EUR 100,000 per bond at 100% of the principal amount. It carries a coupon of 3.75% per annum payable every six months. Unless previously converted or bought back and cancelled, the bond will be redeemed on 17 May 2029 at 100% of their principal amount. The initial conversion price has been set at EUR 0.6953, representing a premium of 27.5% over the issue price of the new shares translated into EUR using the CHF foreign exchange rate at the time of pricing. According to clause 6 (Adjustments to the Conversion Price) of the terms and conditions of the bond, the conversion conditions of the convertible bond provide for an adjustment of the initial conversion price in case of a capital increase. Due to the capital increase of CHF 206.75 million executed in March and April 2024, the conversion price was adjusted from EUR 0.6963 per registered share to EUR 0.23. All other conditions remain unchanged.

#### **External Review**

Meyer Burger's Green Bond Allocation and Impact Report will be subject to an external review until the net proceeds are allocated in full to Eligible Green Projects. The annual assurance report will be posted on our website (https://www.meyerburger.com/en/investor-relations/debt-investors).

## **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. 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 GBC 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.

#### The Eligible Green Projects are:

Project 1	Setup and ramp-up of German solar plants: Solar cell plant in Bitterfeld-Wolfen and solar module plant in Freiberg
Project category	Renewable energy

#### Description of project

Since 2021, Meyer Burger has continuously expanded its new plants for the production of solar cells in Bitterfeld-Wolfen, Germany, and the production of solar modules in Freiberg, Germany. The target capacity of 1.4 GW was reached by the end of 2023.

Meyer Burger offers solar modules with its high-performance technology customized for the growing utility-scale solar module segment and the residential rooftop segment. Meyer Burger has further developed its heterojunction technology towards production maturity. A module efficiency of 21.8 % was reached in the production process. It also plans to expand into the segment of innovative solar roof tiles as well as balcony solar systems.

**Environmental benefits** 

Climate change mitigation through GHG emissions reduction

**Related SDG** 













Project 2	tup and Ramp-up of US solar plants: Solar module plant in Goodyear, Arizona	
	and solar cell plant in Colorado Springs, Colorado	

Project category

Renewable energy

#### Description of project

Meyer Burger is establishing a production site for high-performance solar modules in Goodyear, Arizona and for solar cells in Colorado Springs, Colorado. The investment is an important step in meeting Meyer Burger's commitments to produce cells and 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 cell and module production capacity of 2.0 GW that will include capabilities to manufacture solar modules for residential, commercial and industrial rooftops as well as utility-scale applications.

**Environmental benefits** 

Climate change mitigation through GHG emissions reduction

**Related SDG** 











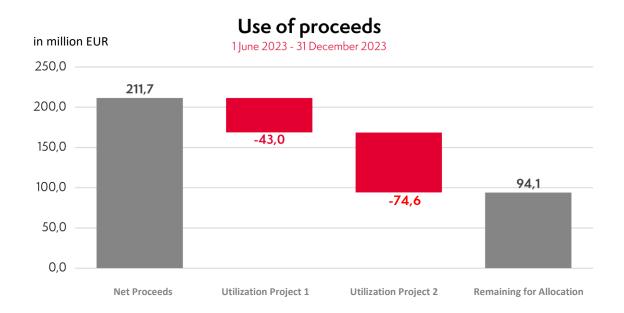
## Use of proceeds of Green Financing Instrument

Gross proceeds from the Green Bond launched on 10 May 2023 amounted to EUR 216.3 million (ISIN CH1239464675). The bond matures on 17 May 2029. After the deduction of fees and costs, net proceeds were EUR 211.7 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. However, Meyer Burger has opted not to apply any funds retrospectively. Based on the selection of eligible projects and the receipt of the funds, Meyer Burger decided to use the funds from the Green Bond for costs incurred from 1 June 2023 forward. In the financial year 2023, the Green Bond proceeds were allocated to cover the capital expenditures for the German solar plants (Project 1), predominantly the completion of the third production line, capital expenditures for the solar module plant in the USA (Project 2) as



well as operational set-up and ramp-up costs<sup>3</sup> of the solar module plant in the USA (Project 2). The Green Bond proceeds are allocated to the capital expenditures as well as the operational set-up and ramp-up costs at an issuer's share of financing of 100% and accordingly cover all operational costs in line with the definition.



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. The auditors of the respective entities audit the financial statements and underlying accounting records on an annual basis.

## **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.

<sup>&</sup>lt;sup>3</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 income/expenses and accordingly reflecting the negative margin impact during the set-up and ramp-up phase.



As of 31 December 2023, EUR 91.4 million of the Green Bond proceeds were remaining for allocation to Eligible Green Projects. Meyer Burger projects the allocation of these funds within the intended timeframe.

## **Green Bond Impact Report**

Meyer Burger's vision is to enable more sustainable and accessible energy production for the future and it is making sustainability the number one priority. Meyer Burger mandated the Fraunhofer Institute with an extensive lifecycle analysis of its highly efficient Heterojunction (HJT)/Smart Wiretechnology 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 Meyer Burger 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 portion of EPBT is identical for all sites at 38% for cell production, 21% for module production, and 41% for system components (Balance of System) and recycling (End of Life).

The lifecycle analysis came to the conclusion, that overall, Meyer Burger's glass-backed film and glass-glass modules produce about 24% and 37% less CO2 emissions, respectively, compared to a PERC reference module, which has about 35.5 kg of CO2 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 CO2 equivalent emissions per megawatt-hour.



Based on the business model and the underlying sustainability goals, Meyer Burger has 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 proceeds used from the green bond issued on 10 May 2023 for Project 1 relate predominantly to the third solar cell and solar module production lines of the German production sites. In contrast, the first and second solar cell and solar module production lines were financed primarily due to the proceeds from the convertible bond issued on 8 July 2021. The third solar cell and solar module production lines of Project 1 were not fully in operation until 31 December 2023. The setup of the solar module plant in Goodyear, Arizona (Project 2) is still ongoing as of 31 December 2023. Therefore, there is no actual impact determined with regard to Project 2 until end of December 31, 2023. Nonetheless, once the production ramp-up is completed, the Project 2 will have an impact. Completion of the ramp-up the first production line of the solar module plant in Goodyear, Arizona (Project 2) is planned in 2024. Due to the lack of a clear delimitation of the impacts between the three solar cell and solar module production lines of Project 1 and existing interdependencies between Project 1 and Project 2, the impacts of Project 1 and Project 2 are reported as a whole. The key impact KPIs utilized by Meyer Burger to assess the impact of the Eligible Green Projects are the following:

KPI	Actual impact January 1, 2023 – December 31, 2023
Renewable energy capacity sold in MWp	312
GHG emissions avoided over expected lifetime of modules sold in $\mathrm{CO}_2\mathrm{e}$ tons	1,381,292
Energy yield over expected lifetime of modules sold in GWh	8,987

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 CO2-equivalent (CO2e) tons refers to the calculated GHG emissions avoided based on the renewable energy capacity sold in the respective period over the expected lifetime of the modules estimated



at the warranty period of 25-30 years. An expected emission factor in 2030 as used by the EU Commission of 0.1757 tons CO2/MWh is used as an input factor in order to calculate the GHG emissions avoided.

The reported energy yield over the expected lifetime of the modules sold in gigawatt hours (GWh) bases on the renewable energy capacity sold, the expected lifetime of the modules estimated at the warranty period of 25-30 years as well as the estimated lifetime energy yield as determined by the Fraunhofer Institute for Solar Energy Systems ISE.