

# Micron Green Bond Report 2023










## Introduction

Micron Technology is an industry leader in innovative memory and storage solutions transforming how the world uses information to enrich life *for all*. With a relentless focus on our customers, technology leadership, and manufacturing and operational excellence, Micron delivers a rich portfolio of high-performance DRAM, NAND and NOR memory and storage products through our Micron® and Crucial® brands. Every day, the innovations that our people create fuel the data economy, enabling advances in artificial intelligence and 5G applications that unleash opportunities — from the data center to the intelligent edge and across the client and mobile user experience.

Micron’s approximately 43,000 team members live our values: collaboration, customer focus, innovation, people and tenacity. We share a common goal to pursue technology, product innovation and manufacturing excellence for our customers, partners, communities and society.

On Nov. 1, 2021, Micron [announced](#) the closing of a \$1 billion green bond, intending to allocate the net proceeds in accordance with the [Micron green bond framework](#) to support the company’s significant environmental priorities, including LEED Gold construction and aggressive goals for greenhouse gas emissions reductions, renewable energy use, water management, and pollution control.

OUR ENVIRONMENTAL TARGETS

-  **42%**  
absolute reduction in scope 1 GHG emissions by CY30 from CY20 baseline
-  **Net zero**  
GHG emissions from operations and energy use by CY50
-  **100%**  
renewable electricity in the United States in CY25 and in Malaysia in CY22
-  **75%**  
water conservation through reuse, recycling and restoration in CY30
-  **95%**  
waste reuse, recycling and recovery, and zero hazardous waste to landfill in CY30, subject to vendor availability

Micron is pleased to issue this green bond report outlining the allocation of our \$1 billion 2.703% senior notes due 2032 (the “green bond”). As of Aug. 31, 2023, 100% of net proceeds have been allocated and dispersed for eligible projects, including a two-year lookback period from the date of issuance. This report outlines allocation by project category, including third party limited assurance of allocation occurring from December 1, 2019 through August 31, 2023. The report also reviews the project categories, a selection of project descriptions, and estimated impact metrics from the projects funded.

The completion of this allocation is another milestone in Micron’s sustainability efforts, continuing the pattern we have established with aggressive long-term environmental goals set in 2020, sustainability-linked credit facilities and the green bond issued in 2021, establishment of some of the most aggressive greenhouse gas reduction goals in the memory and storage manufacturing industry in 2022, and the announcement of new leading-edge memory manufacturing facilities to be built in [Idaho](#) and [New York](#) with significant environmental features. The strength of the company’s environmental, social and governance

programs has been recognized among the leaders in the semiconductor industry by Sustainalytics, S&P’s Corporate Sustainability Assessment, ISS ESG, EcoVadis and others. More information about our sustainability programs can be found at [www.micron.com/sustainability](http://www.micron.com/sustainability). We anticipate that the projects funded by the green bond will enable us to continue on this leadership path.



This report contains forward-looking statements regarding our sustainability plans, goals, and commitments, expected results from sustainability-related projects, and related matters. Such forward-looking statements may be identified by words such as “aim,” “anticipate,” “expect,” “intend,” “pledge,” “committed,” “plan,” “opportunities,” “future,” “believe,” “hope,” “target,” “on track,” “estimate,” “continue,” “likely,” “may,” “will,” “would,” “should,” “could,” and variations of such words and similar expressions. However, the absence of these words or similar expressions does not mean that a statement is not forward-looking. These forward-looking statements are subject to a number of risks and uncertainties that could cause actual results to differ materially. Please refer to the documents we file with the U.S. Securities and Exchange Commission, including our most recent Form 10-K. These documents contain and identify important factors that could cause our actual results to differ materially from those contained in these forward-looking statements. These certain factors can be found at [micron.com/certainfactors](https://micron.com/certainfactors). Although we believe that the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee future results, levels of activity, performance, or achievements. We are under no duty to update any of the forward-looking statements to conform these statements to actual results.



## Green Bond Allocation and Reporting Process

Micron's [Green Bond Framework](#) published in October 2021, provides more detail about how the green bond issued by the company will be managed, and that process is summarized here.

The framework outlines the following green use of proceeds categories eligible for allocation from a green bond:

- Green buildings
- Renewable energy
- Energy efficiency
- Sustainable water and wastewater management
- Pollution prevention and control
- Circular economy adapted products, production technologies and processes

Micron has established a Green Bond Committee to oversee the implementation of the allocation and selection process for eligible projects. The Green Bond Committee includes representatives of the Micron Finance, Operations, Sustainability and Legal teams. Members of Micron's Operations team maintain an internal tracking system to monitor and account for the cost and impact of environmental projects, and recommend projects to the Green Bond Committee in alignment with the company's Green Bond Framework. The Green Bond Committee finalized the project list for approval by the company's CFO.

This allocation report is accompanied by a report from Moss Adams LLP in respect to its review of the green bond allocation, in accordance with attestation standards established by the American Institute of Certified Public Accountants, for the time period of Dec. 1, 2019 through Aug. 31, 2023.



## Green Bond Allocation Reporting

### December 2019-August 2023 Allocation

#### Receiving third party limited assurance

Eligible Project Categories	Allocation Period & Amount (\$ millions)			
	12/2019-11/2020	12/2020-11/2021	12/2021-11/2022	12/2022-8/2023
Green Buildings	\$ 334.1	\$ 237.1	\$ 110.4	\$ 241.0
Renewable Energy	\$ -	\$ 0.2	\$ 0.1	\$ -
Energy Efficiency	\$ -	\$ 7.3	\$ 16.4	\$ 14.6
Sustainable Water Management	\$ 0.1	\$ 7.8	\$ 19.9	\$ 10.4
Pollution Prevention and Control	\$ -	\$ 0.2	\$ 0.4	\$ -
<b>TOTAL</b>	<b>\$ 334.2</b>	<b>\$ 252.6</b>	<b>\$ 147.2</b>	<b>\$ 266.0</b>
<b>% of Total Allocation*</b>	<b>33.4%</b>	<b>25.3%</b>	<b>14.7%</b>	<b>26.6%</b>

**Percentage of Net Proceeds Allocated to Eligible Project Categories and Assured** **100%**

**As of August 31, 2023**

\*Percentage allocation within lookback period: 58.7%, percentage allocation after issuance date of the bond: 41.3%

Micron's Green Bond Committee approved an increase in allocation toward projects in the Green Buildings category in comparison with the allocations reported in the 2022 Green Bond Report, as well as adjustments in other categories that resulted from changes in project expenditures reported in the previous report. These changes in expenditure were made in response to market conditions, as discussed in Micron's financial disclosures. Specific changes to allocations in the 12/2019-11/2021 time periods that were the focus of Micron's 2022 Green Bond Report were as follows:

- Decreased allocation of \$0.1 million in 12/2020-11/2021 to the Sustainable Water Management category due to a canceled project
- Increased allocations to one Green Building project of \$139.9 million in 12/2019-11/2020 and \$85.5 million in 12/2020-11/2021



## Eligible Project Categories, Examples, and Impact Metrics

### Green Buildings

**Expected Impact:** Micron is investing green bond funds to support LEED Gold or better certification across nine facilities in Taiwan, China, Japan, Malaysia and the U.S. These facilities total more than 500 thousand square meters of floor space. Investments are focused on advanced water and air handling equipment and energy efficiency features, together with a range of other improvements.

Micron's A3 fabrication facility in Taiwan is one of the company's most significant buildings to receive the LEED Gold designation, as well as International WELL Building Institute Certification and certification by the EEWH, a green building organization in Taiwan. To earn these certifications, the fab incorporated features such as rooftops that are designed to harvest rainwater, landscaping that covers approximately 30% of the campus' outdoor space and water-saving technologies that reuse and recycle 75% of the fab's water consumption, estimated to save more than 16 million cubic meters of water per year. A3's power-efficient design is expected to save approximately 90 million kilowatt hours (kWh) of energy annually, equivalent to power for 18,500 Taiwan households and reducing greenhouse gas emissions by nearly 46,000 metric tons of CO<sub>2</sub> equivalent annually. Using LEED performance criteria, the building is estimated to achieve a 14% energy savings compared to baseline, as well as 50% reduction in indoor water use and 100% reduction in outdoor water use compared to baseline facilities.

Another example is Micron's planned fab in Boise, Idaho, which broke ground in September 2022. Micron plans to use green infrastructure and sustainable building attributes for the construction of this new leading-edge fab that is expected to achieve LEED Gold status and aims to achieve 100% water reuse, recycling and restoration together with 100% renewable electricity use for cleanroom space that will ultimately reach 600,000 square feet (55,740 square meters).

### Renewable Energy

**Expected Impact:** Micron initiated one of its first on-site solar self-investment projects at our manufacturing facility in Hiroshima, Japan, installing 150kW capacity which is expected to generate 150 MWh annually and support 94 MTCO<sub>2</sub>e reductions in annual greenhouse gas emissions. Since issuing the green bond, we have allocated funds to support on-site solar installation at our Xi'an, China, facility expected to generate 120 MWh annually and identified additional opportunities to build out on-site solar projects that we hope to initiate in the near future. Given the scale of Micron's renewable energy needs, our primary focus is on establishing off-site power purchase agreements which have not required funding through the company's green bond to date.

### Energy Efficiency

**Expected Impact:** Twenty-four energy efficiency projects meet Micron's criteria for green bond allocation. In total these investments are expected to directly achieve 115,000 MWh in avoided energy use annually, supporting 62,000 MTCO<sub>2</sub>e reductions in annual greenhouse gas emissions. The funded projects include three compressed dry air projects, five chilled water plant upgrades, and three cooling tower upgrades. Nine projects were funded in Taiwan; four in the U.S.; three each in China, Singapore, and Malaysia; and two in Japan.

Over one-third of the projected energy savings (44,100 MWh) are expected to come from chilled water plant upgrades at facilities in the U.S., Singapore, Taiwan and Malaysia, including large-scale



replacement of chillers and pumps along with system optimization in Singapore, which is expected to save 33,000 MWh annually. Another of the most impactful projects is the installation of variable frequency drives at our existing Boise facility to align power demand with the mechanical work required, rather than continuously running equipment at 100%, saving an estimated 15,000 MWh annually.

### Sustainable Water and Wastewater Management

**Expected Impact:** Micron's green bond funds are also being allocated toward twenty water management projects, expected to save approximately 4 million cubic meters of water per year across all of Micron's existing manufacturing sites through efficiency improvements, recycling and reuse. Micron's Taiwan facilities saw one of the most cost-effective projects, a system reclaiming over 1.1 million cubic meters annually.

### Pollution Prevention and Control

**Expected Impact:** Micron's green bond funds are being allocated to four pollution prevention and control projects expected to reduce waste by 2.4 million kilograms annually. These include a dehydration system to reduce waste in our Xi'an, China, plant by over two million kilograms annually.

An important element of Micron's environmental sustainability initiatives is awareness-raising and employee engagement to support ongoing progress toward our corporate goals. With that in mind, we also invested in "reverse vending machines" in Singapore to encourage team members to consider their role in Micron's sustainability efforts while recycling bottles and cans.

### Circular economy adapted products, production technologies and processes

While Micron did not choose to allocate any funds from the company's 2021 green bond to this category, the company has a significant focus on the development of energy-efficient products and active initiatives exploring material recovery and use of recycled content. We may choose to allocate a portion of the proceeds from any future green bond funds to this category.



Eligible Project Category	Allocated & Assured Green Bond Spend (\$ millions, 12/19-8/2023)	Number of Projects	Expected Impact Metrics		
Green Buildings	\$ 922.6	9 total	>500,000 square meters of LEED Gold facilities		
Renewable Energy	\$ 0.3	2	150kW capacity installed	Generating 270 MWh annually	90 MTCO <sub>2</sub> e annual GHG reduction
Energy Efficiency	\$ 38.3	24	139,000 MWh annual savings	62,000 MTCO <sub>2</sub> e annual GHG reduction	
Sustainable Water and Wastewater Management	\$ 38.2	20	4 million cubic meters annual water savings		
Pollution Prevention and Control	\$ 0.6	4	2.4 million kg annual waste reduction		



## Independent Accountant's Report

To the Stakeholders  
Micron Technology, Inc.

We have reviewed the Green Bond Allocation Reporting included in the accompanying Green Bond Report of Micron Technology, Inc. for the periods from December 1, 2019 through November 30, 2021, and December 1, 2021 through August 31, 2023 (the Allocation), appearing on page 5. Micron's management is responsible for preparing the Allocation in accordance with the Micron October 2021 Green Bond Framework (the Criteria) as referenced on page 4. Our responsibility is to express a conclusion on the Allocation based on our review.

Our review was conducted in accordance with attestation standards established by the American Institute of Certified Public Accountants. Those standards require that we plan and perform the review to obtain limited assurance about whether any material modifications should be made to the Allocation in order for it to be in accordance with the Criteria. The procedures performed in a review vary in nature and timing from and are substantially less in extent than an examination, the objective of which is to obtain reasonable assurance about whether the Allocation is in accordance with the Criteria, in all material respects, in order to express an opinion. Accordingly, we do not express such an opinion. Because of the limited nature of the engagement, the level of assurance obtained in a review is substantially lower than the assurance that would have been obtained had an examination been performed. We believe that the review evidence obtained is sufficient and appropriate to provide a reasonable basis for our conclusion.

We are required to be independent and to meet our other ethical responsibilities in accordance with relevant ethical requirements related to the engagement.

The procedures we performed were based on our professional judgment and consisted primarily of analytical procedures and inquiries, as well as review of detailed supporting schedules and other documents provided by management, as deemed appropriate.

Only the Allocation for the periods from December 1, 2019 through November 30, 2021, and December 1, 2021 through August 31, 2023, included in the table on page 5, is part of our review engagement. The other information in the Green Bond Report has not been subjected to the procedures applied in our review engagement, and accordingly, we make no comment as to its completeness and accuracy and do not express a conclusion or provide any assurance on such information.

In our report dated November 28, 2022, we expressed a conclusion that we were not aware of any material modifications that should be made to the Allocation for the period from December 1, 2019, through November 30, 2021, previously reported in the 2022 Green Bond Report, in order for it to be in accordance with the Micron October 2021 Green Bond Framework. As described on page 5, Micron's Green Bond Committee approved changes in the allocations toward projects in the Green Buildings and Sustainable Water Management categories and retrospectively adjusted the previously reported allocations for the period December 1, 2019 through November 30, 2021. This report replaces our previously issued review report, which should no longer be relied upon.

Based on our review, we are not aware of any material modifications that should be made to the Allocation for the periods from December 1, 2019 through November 30, 2021, and December 1, 2021 through August 31, 2023, in order for it to be in accordance with the Micron October 2021 Green Bond Framework.

*Moss Adams LLP*

Seattle, Washington  
December 21, 2023



[micron.com/sustainability](https://micron.com/sustainability)

#### **About Micron Technology, Inc.**

We are an industry leader in innovative memory and storage solutions transforming how the world uses information to enrich life for all. With a relentless focus on our customers, technology leadership, and manufacturing and operational excellence, Micron delivers a rich portfolio of high-performance DRAM, NAND and NOR memory and storage products through our Micron® and Crucial® brands. Every day, the innovations that our people create fuel the data economy, enabling advances in artificial intelligence and 5G applications that unleash opportunities – from the data center to the intelligent edge and across the client and mobile user experience. To learn more about Micron Technology, Inc. (Nasdaq: MU), visit [micron.com](https://micron.com).

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