



2024 Green Bond Report

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Introduction

At Alcoa (“the Company”)¹, we work toward embedding sustainability in a holistic and meaningful way throughout our company. Incorporating sustainability in our decision-making is a continuously evolving process of learning and improving our systems, practices and approaches. Our unwavering commitment to innovation and adherence to best practices forms the cornerstone of our sustainability strategy.

Alcoa has three strategic priorities: reduce complexity, drive returns, and advance sustainably. Green Finance Instruments support our investments and products that help enable the transition to a lower carbon economy, aligning with our strategic priority to advance sustainably.

In March 2024, we completed our inaugural Green Finance Instrument of \$750 million aggregate principal amount of 7.125% senior notes due 2031 (or “Green Bond”) and have allocated an amount equal to the net proceeds of that offering to fund Eligible Green Projects, as described below. This report provides an overview of our Green Finance Framework (“the Framework”) and summarizes the use of proceeds and impact metrics of our Green Bond.

¹ Unless the context indicates otherwise, references in this 2024 Green Bond Report to “Alcoa,” “Company,” “we,” “us” or “our” refer to Alcoa Corporation and its consolidated entities.

Alcoa's Approach to Sustainability

At Alcoa, we Act with Integrity, Operate with Excellence, Care for People, and Lead with Courage. These values form the foundation of our sustainability practice and provide the opportunity for us to deliver ongoing value to our stakeholders.

We do this by integrating sustainability considerations into our daily operations, our interactions with communities and our employees, and the development of innovative products that we use each and every day.

Our Operations

Sustainability practices are integrated into our operations to support the development and execution of our business strategy.

Our People and Communities

We aim to create value for our various stakeholders and our host communities.

Our Products

As the innovators behind the original aluminum production technology still used today, we work to develop products and production processes that are designed to meet our customers' needs now and in the future.

To learn more, please visit
www.alcoa.com/sustainability.





Green Bond Report

Alcoa Green Finance Framework

In March 2024, Alcoa established its Green Finance Framework which governs the issuance of Green Finance Instruments. The Framework outlines the criteria for what constitutes an Eligible Green Project and provides a structured approach for Alcoa to assess, select and report on its Green Finance initiatives, assisting the Company to better align its sustainability and financing strategy.

Alcoa appointed Morningstar Sustainalytics to provide a Second Party Opinion on the Framework and its alignment with the principles established by the International Capital Markets Association (“ICMA”) and Loan Markets Association (“LMA”), Asia-Pacific Loan Markets Association (“APLMA”) and Loan Syndications and Trading Association (“LSTA”).

The Framework and Second Party Opinion are both available on Alcoa’s website at www.alcoa.com/sustainability.

Use of Proceeds

This report outlines the Company’s allocation of the net proceeds from the Green Bond to Eligible Green Projects and their anticipated impacts. The net proceeds from the issuance of the Green Bond, of \$737.4 million after deducting underwriting discounts and offering expenses, have been allocated to Eligible Green Projects.

These projects fall into one or more categories and meet the eligibility criteria as outlined in the Framework:

- Circular Economy Adapted Products, Production Technologies and Processes, and/or Certified Eco-efficient Products
- Renewable Energy
- Pollution Prevention and Control
- Water and Wastewater Management

Existing projects qualify with a 24-month look-back period from the time of issuance of the Green Finance Instrument.

Green Bond Governance

Alcoa has established a Green Finance Committee responsible for governing the evaluation and selection of Eligible Green Projects, managing the allocation of net proceeds from Green Finance Instrument to Eligible Green Projects, ensuring the amount is properly allocated to projects that comply with the outlined criteria, among other responsibilities. The Green Finance Committee is composed of representatives from the Company's Legal, Treasury, Accounting, Sustainability, Environment, and Investor Relations functions.


The Green Finance Committee maintains a Green Financing Register to record, on an ongoing basis, the allocation of net proceeds from the Green Finance Instrument to Eligible Green Projects.

Alcoa's corporate policies, guidelines, and commitments set standards for environmental and social compliance in the conduct of Alcoa's businesses. Alcoa's policies are used by the Green Finance Committee to ensure that environmental and social impacts that could be potentially associated with any Eligible Green Projects are properly assessed, mitigated, and monitored through Alcoa's due diligence.



Allocation of Net Proceeds and Impact

As of December 31, 2024, Alcoa has allocated 100% of the net proceeds of \$737.4 million from the Green Bond to Eligible Green Projects that met the four criteria. As permitted by the Framework, projects qualify with a 24-month look-back period from the issuance date. This report has been validated by the Green Finance Committee and the allocation reporting has been verified by an external party, as defined in the Framework.

Eligible Green Project Category and Eligibility Criteria	Contribution to UN SDGs ²	Allocated amount as of Dec. 31, 2024 (in USD M) ³	Impact
Circular Economy Adapted Products, Production Technologies and Processes, and/or Certified Eco-efficient Products			
Recycled content products Expenditures related to the sourcing of pre- and post-consumer scrap and certification costs for recycled content products.		\$6.1	Mosjøen smelter induction furnace The Mosjøen induction furnace enables Alcoa, in partnership with MMG Aluminium AG, to repurpose pre-consumer scrap aluminum using electric induction melting. Typically, remelting scrap involves using furnaces powered by natural gas burners. However, Mosjøen's induction furnace runs on electricity sourced from wind and hydropower and uses alternating current that runs through a resisting coil, creating heat. In 2024, ~5,000 metric tons of pre-consumer scrap aluminum was melted. Once cast into new shapes and sizes, the melted aluminum can be repurposed.
Secondary aluminum recycling process Expenditures related to the acquisition, research & development, design & redesign and development of secondary aluminum recycling manufacturing processes, technologies, and/or infrastructure.			
			ASTRAEA™ The ASTRAEA process is a proprietary technology under development to purify post-consumer aluminum scrap, regardless of alloy combination, and beneficiate it up to high purity levels that exceed what is produced at most primary aluminum smelters operating today, permitting use in high tolerance applications. The process itself generates no Greenhouse Gas (GHG) emissions, and has a potential carbon footprint of ~1 t carbon dioxide equivalent (CO ₂ e)/t aluminum is derived from the energy used for remelting scrap prior to processing, compared to a global average of primary aluminum of 14.8 t CO ₂ e (global average based on International Aluminium Institute ("IAI") 2023 data).


² Alcoa reports our contributions toward the United Nations Sustainable Development Goals (UN SDGs). For more information, refer to the Alcoa Corporation Sustainability Report at <https://www.alcoa.com/sustainability>.

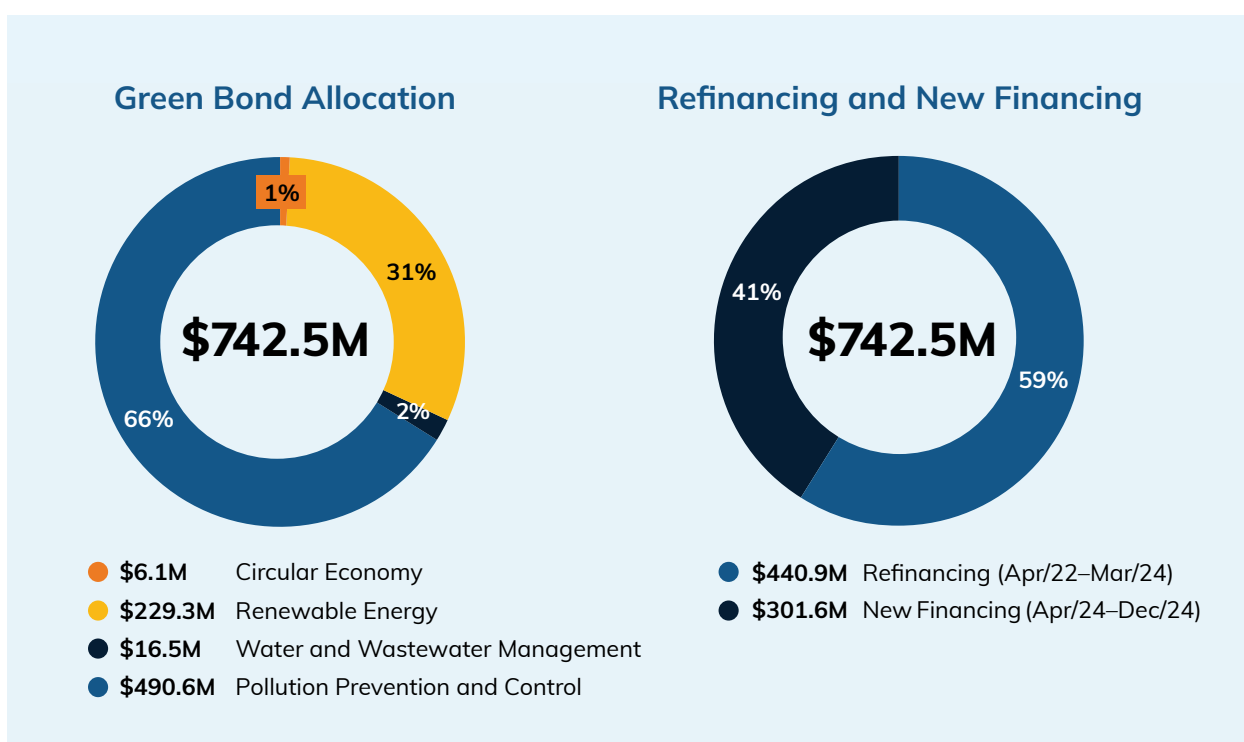
³ Represents the funded amounts of Eligible Green Projects to which proceeds from the issuance of the Green Bond were allocated. Only amounts funded within the look-back period have been included. The total funded amount allocated with respect to the Eligible Green Projects referenced in the table (\$742.5 million) reflects amounts actually disbursed by Alcoa, and such total funded amount exceeds the amount of net proceeds from the issuance of the Notes (\$737.4 million). The management assertion on page 12 of this report is given with respect to the amount of net proceeds from the issuance of the Green Bonds.

Eligible Green Project Category and Eligibility Criteria	Contribution to UN SDGs ²	Allocated amount as of Dec. 31, 2024 (in USD M) ³	Impact
Renewable Energy			
<p>Expenditures related to the acquisition, development, operation, and maintenance of renewable power generation plants, both on- and off-site, from:</p> <ul style="list-style-type: none"> • Wind and Solar photovoltaic ("PV") sources <p>Expenditures related to the procurement of power through long-term power purchase agreements ("PPAs") or virtual PPAs for wind, solar PV and hydro projects. Alcoa intends that such contract(s) shall have a tenor of at least 5 years.</p>	 	\$229.3	The selected PPAs included in this report support wind projects in Australia and Europe as well as hydropower in Brazil. These PPAs will generate approximately five million megawatt hours of renewable electricity annually through the life of the contracts.
Pollution Prevention and Control			
<p>Low-carbon vs. lower-carbon All expenditures related to sites dedicated to manufacturing the following low-carbon products: EcoLum® aluminum Lower-carbon primary aluminum with a maximum 4.0 metric tons of CO₂e per tonne of metal produced, including both direct and indirect (Scope 1 and Scope 2) emissions across bauxite, alumina, smelting, and casting.</p> <p>Carbon-free aluminum (smelting) process Expenditures related to the research and development, design and redesign and development of carbon-free aluminum manufacturing processes, technologies and/or infrastructure. This includes ELYSIS® smelting technology, currently in research and development, which has the potential to replace traditional carbon anodes with inert, proprietary materials using next-generation electrode design.</p> <p>Refinery of the Future™ Expenditures for technologies related to Alcoa's Refinery of the Future program.</p>		\$490.6	<p>EcoLum EcoLum sales in Europe have grown by 8 to 9 times in 2024, compared to 2021 baseline, reaching up to 361,000 tonnes. By operating smelters using renewable energy and sourcing bauxite and low-carbon alumina, EcoLum is primary aluminum with an emissions intensity that is one-third the industry average^{4,5}.</p> <p>ELYSIS smelting process ELYSIS smelting technology, currently in research and development, eliminates all direct GHG emissions from the smelting process. In contrast, traditional smelting emits 2.3 t CO₂e/t Al (global average based on IAI 2023, excluding anode production). This breakthrough technology has the potential to help decarbonize the aluminum industry that, in 2023, generated 1.116 billion tonnes of CO₂e (2% of global emissions). For example, a single smelter producing 500,000 tonnes of aluminum annually could cut emissions by 1.15 million tonnes of CO₂e per year.</p> <p>Refinery of the Future Our Refinery of the Future technologies, which are currently under development, aim to reduce the emissions generated from the thermal energy used in the refining process as well as reduce waste and water usage.</p> <p>New technologies may be deployed across our global refinery operations to:</p> <ul style="list-style-type: none"> • reduce energy demand within operations or reuse waste energy to lower energy demand and intake • reduce and/or transform waste into new products that reduce environmental impacts, bringing benefits to adjacent industries and local communities, improve alumina production yields, and product quality that meets our rising customer demands

⁴ Scope 1 and 2 emissions from mining, refining, smelting, and casting for EcoLum and from mining and refining for EcoSource®. The emissions are reported in accordance with the International Aluminium Institute (IAI) Aluminium Sector GHG Protocol, addendum to the WRI/WBCSD GHG protocol, the WRI/WBCSD Calculation Tool for Direct Emissions from Stationary Combustion, and the WRI GHG Protocol Scope 2 Protocol.

⁵ CRU emissions intensity data, 2023

Eligible Green Project Category and Eligibility Criteria	Contribution to UN SDGs ²	Allocated amount as of Dec. 31, 2024 (in USD M) ³	Impact
Water and Wastewater Management			
Expenditures related to water efficiency, recycling, reuse, and conservation projects in Alcoa's operations, particularly at locations with high water consumption, competing users or water supply risks.		\$16.5	Pinjarra refinery residue filtration Stage 2 The Pinjarra refinery residue filtration project is expected to enable the recovery of approximately one gigaliter of alkaline water for reuse in the process per year and reduces drying area requirements due to advanced filtration technologies.
Total Use of Net Proceeds for Eligible Green Projects		\$742.5	
Net Proceeds from the Issuance of the Green Bond		\$737.4	
Percentage of Net Proceeds Allocated (%)		100.7%	



Allocation of net proceeds to Eligible Green Projects is based on actual cash expenditures and includes:

- Capital expenditures (“CAPEX”).
- Operational expenditures (“OPEX”), in the form of maintenance, procurement, purchasing and other direct manufacturing costs.
- Late-stage Research and Development expenditures (“R&D”), explicitly tied to Eligible Green Projects.

Featured Projects

This section highlights notable Eligible Green Projects by category. These projects have been carefully selected based on the pre-defined criteria. Each category encompasses a range of initiatives aimed at addressing the key focus areas: Circular Economy Adapted Products, Production Technologies and Processes, and/or Certified Eco-efficient Products, Renewable Energy, Pollution Prevention and Control, and Water and Wastewater Management

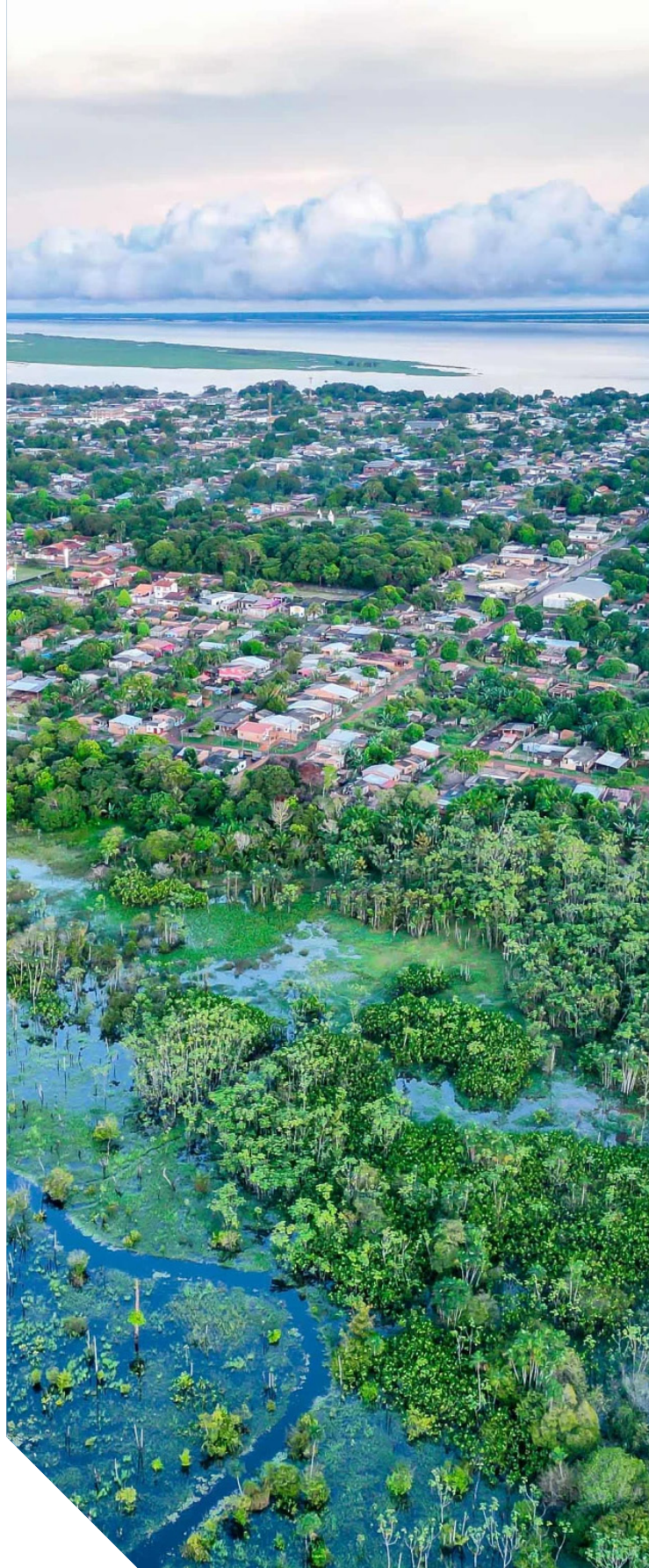
Renewable Energy

Alcoa Operations in Norway, Australia, and Brazil Powered by Wind and Hydropower

The Mosjøen smelter is powered in part by the Guleslettene and Øyfjellet Wind Farms, located near the town of Mosjøen, in the municipality of Vefsn, Nordland County, Norway. The power generated by the wind farms has been supplied to Alcoa Norway for more than 15 years.

The Portland, Australia smelter is also partially powered by offshore wind power in Victoria, Western Australia, via the Pacific Blue Wind Farm.

Additionally, Alcoa's smelting and refinery operations in São Luis, Brazil, have a self-declaration that allows reporting of our equity Scope 2 (market-based) emissions as 100% hydropower. The location-based emissions are supplied by the grid, which had more than 90% renewable sources in 2024.





Water and Wastewater Management

Western Australia – Pinjarra Refinery Residue Filtration

At our refineries in Western Australia, we implemented a process called bauxite residue filtration. Traditionally, bauxite residue is sent to drying areas as a thickened slurry and then dries in the sun. This innovative project utilizes residue filtration technology to reduce water consumption and required land storage areas for the solar drying of bauxite residue. By being more resourceful and changing the residue management process, we are improving water recovery and demonstrating our ongoing commitment to improve the sustainability of our operations. The Pinjarra Refinery Residue Filtration Stage 2 project will provide further water savings by enabling the recovery of an additional gigaliter of alkaline water for use in the refining process. This is equivalent to the amount of water needed to fill over 400 Olympic-sized swimming pools.

Brad Klopper, Alcoa's Global Residue Filtration Technology Director, explained: "This innovative technology allows us to improve our business in a number of different aspects. The geotechnical stability of our residue areas is improved. We reduce our land use, and we reduce our freshwater usage."





Appendices & Additional Information

Appendix A: Management assertion

Management of Alcoa Corporation asserts that, as of December 31, 2024, the net proceeds of \$737.4 million, from the March 7, 2024 issuance of \$750 million aggregate principal amount of 7.125% Senior Notes due 2031 (the 2031 Notes), were allocated to finance or refinance expenditures incurred from April 1, 2022 to December 31, 2024 for Eligible Green Projects that meet the eligibility criteria as described in the “Eligible Green Project Category and Eligibility Criteria” column and the corresponding dollar amounts presented in the table included in the Allocation of Net Proceeds and Impact section, located on page 7 of this report. Alcoa’s management is responsible for the accuracy and validity of this management assertion.

Appendix B: Sustainalytics third-party verification

Morningstar Sustainalytics, a globally-recognized provider of Environment, Social and Governance (ESG) research, ratings and data, evaluated Alcoa's Framework and the alignment thereof with relevant industry standards and provided views on the robustness and credibility of the Framework. The Green Bond Report, whether in whole or in part shall not be construed as part of the offering, and shall not be considered as an offer or advertisement to buy a security, solicitation of votes or proxies, investment advice, expert opinion or negative assurance letter as defined by the applicable legislation. The Sustainalytics third-party verification report can be found on Alcoa's website at www.alcoa.com/sustainability.

Disclaimer

The information and opinions contained in this document are provided as of the date of this document and are subject to change without notice. We reserve the right to update this document at any time in our sole discretion. None of Alcoa Corporation, its subsidiaries or its affiliates do not assume any responsibility or obligation to update or revise the statements contained in this document, regardless of whether those statements are affected by the results of new information, future events or otherwise. This document is not intended to, nor can it be relied on, to create legal relations, rights or obligations.

This document is intended to provide non-exhaustive, general information. This document may contain or incorporate by reference public information not separately reviewed, approved or endorsed by Alcoa and, accordingly, no representation, warranty or undertaking, express or implied, is made and no responsibility or liability is accepted by Alcoa as to the fairness, accuracy, reasonableness or completeness of such information.

This document includes forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995 regarding our sustainability goals, commitments and strategies. All statements other than statements of historical or current facts, including statements regarding our plans, initiatives, projections, goals, commitments, expectations, or prospects, are forward-looking. Forward-looking statements are subject to risks and uncertainties, including those identified in our Annual Report on Form 10-K for the year ended December 31, 2024 ("2024 Form 10-K"), and other filings with the Securities and Exchange Commission (the "SEC"), which could cause actual results to differ materially from such statements. In particular, future events or circumstances may change Alcoa's approach to this document or to Alcoa's sustainability or environment, social and governance strategy. Thus, there can be no assurance that the Eligible Green Projects (as defined herein) will

achieve the results or outcomes (environmental, social, or otherwise) originally expected or anticipated by Alcoa or as contemplated by this document. Words such as “aims,” “ambition,” “anticipates,” “believes,” “could,” “develop,” “endeavors,” “estimates,” “expects,” “forecasts,” “goal,” “intends,” “may,” “outlook,” “potential,” “plans,” “projects,” “reach,” “seeks,” “sees,” “should,” “strive,” “targets,” “will,” “working,” “would,” and other similar words that can be used to describe future events and trends are intended to identify forward-looking statements. Our actual results could differ materially from our expectations due to a variety of factors, including assumptions not being realized, scientific or technological developments, geopolitical events, fluctuations in cost and availability of raw materials, evolving sustainability strategies, regulatory or governmental policy changes or other risks and uncertainties. There may also be other risks that we are unable to predict at this time that may cause actual results to differ materially from those in forward-looking statements. Information concerning important factors that could cause actual events or results to be materially different from the forward-looking statements can be found in the “Risk Factors” section of our 2024 Form 10-K, and in our other filings with the SEC. Although we believe the expectations reflected in the applicable forward-looking statements are based upon reasonable assumptions, it is not possible to foresee or identify all factors that could have a material and negative impact on our future performance. The forward-looking statements contained in this document are made on the basis of management’s assumptions and analyses, as of the time the statements are made, in light of their experience and perception of historical conditions, expected future developments and other factors believed to be appropriate under the circumstances. None of the future plans, initiatives, projections, goals, commitments, expectations, or prospects in this document should be taken as forecasts or promises nor should they be taken as implying any indication, assurance, or guarantee that the assumptions on which such future plans, initiatives, projections, goals, commitments, expectations, or prospects have been prepared are correct or exhaustive or, in the case of assumptions, fully stated in the document. Readers are cautioned not to place undue reliance on these forward-looking statements, which speak only as of the date on which they are made. We disclaim any obligation to update publicly any forward-looking statements, whether in response to new information, future events or otherwise, except as required by applicable law.

This document is not and is not intended to be, and does not form part of or contain an offer to sell or an invitation to buy, or a solicitation of any offer or invitation to buy, any securities. No representation is made as to the suitability of any Eligible Green Project to fulfill environmental and sustainability criteria and Eligible Green Projects may not satisfy expectations concerning environmental or sustainability benefits and may result in adverse impacts.

Data in this document reflect estimates using methodologies and assumptions that may change in the future as a result of new information or subsequent developments. The amounts presented are approximate unless otherwise indicated.

About us

Alcoa (NYSE: AA, ASX: AAL) is a global industry leader in bauxite, alumina, and aluminum products. With a values-based approach that encompasses acting with integrity, operating with excellence, caring for people and leading with courage, our purpose is to Turn Raw Potential into Real Progress. Since developing the process that made aluminum an affordable and vital part of modern life, our talented Alcoans have developed breakthrough innovations and best practices that have led to greater safety, efficiency, sustainability, and stronger communities wherever we operate.



