

Second-Party Opinion Air Products Green Finance Framework



Evaluation Summary

Use of Proceeds Instruments

Green Bond Principles 2021 and Green Loan Principles 2021

Sustainalytics is of the opinion that the Air Products Green Finance Framework is credible and impactful and aligns with the four core components of the Green Bond Principles 2021 and Green Loan Principles 2021 (the “Use of Proceeds Principles”). The eligible categories for the use of proceeds (Pollution Prevention and Control – Green and Blue Hydrogen and Green and Blue Ammonia; Renewable Energy; and Sustainable Aviation Fuel) are aligned with those recognized by the Use of Proceeds Principles. Sustainalytics considers that investments in the project categories are expected to deliver positive environmental impacts and considers them to be credible from a transition perspective.

Climate Transition Finance Handbook

Sustainalytics has evaluated Air Products’ transition governance, strategy, decarbonization targets, and intentions to report on transition progress and finds the Company to be aligned with the recommendations of the Climate Transition Finance Handbook 2020. While Sustainalytics acknowledges Air Products’ sustainability strategy to achieve carbon neutrality by 2050, it notes that its emissions reduction targets cannot be benchmarked owing to the lack of an external and credible decarbonization trajectory for the chemical sector.

Evaluation Date	February 1, 2023
Issuer Location	Allentown, PA USA

The UoPs contribute to the following SDGs:



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Scope of Work and Limitations

Sustainalytics' Second-Party Opinion reflects Sustainalytics' independent¹ opinion on the alignment of the Air Products Green Finance Framework (the "Framework") with current market standards. As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework's alignment with the Green Bond Principles 2021 and Green Loan Principles 2021^{2,3} (the "Use of Proceeds Principles" or the "Principles");
- The credibility and anticipated positive impacts of the use of proceeds;
- The issuer's sustainability strategy, performance and sustainability risk management; and
- The alignment with the recommendations of the Climate Transition Finance Handbook 2020.⁴

As part of this engagement, Sustainalytics held conversations with various members of Air Products' management team to understand the sustainability impact of their business processes and the core components of the Framework. Air Products' representatives have confirmed that:

- (1) They understand it is the sole responsibility of Air Product to ensure that the information provided is complete, accurate or up to date;
- (2) They have provided Sustainalytics with all relevant information; and
- (3) Any provided material information has been duly disclosed in a timely manner.

Sustainalytics also reviewed relevant public documents and non-public information. This document contains Sustainalytics' opinion of the Framework and should be read in conjunction with that Framework. Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and Air Products.

Sustainalytics' Second-Party Opinion, while reflecting on the alignment of the Framework with market standards, is no guarantee of alignment nor warrants any alignment with future versions of relevant market standards. The Second-Party Opinion is valid for issuances made aligned with the respective Framework for which the opinion was written. Upon twenty-four (24) months following the evaluation date set stated herein, Air Products and Chemicals, Inc. is encouraged to update the Framework, if necessary, and seek an update to the Second-Party Opinion to ensure ongoing alignment of the Framework with market standards and expectations.

For use of proceeds instruments, Sustainalytics relied on its internal taxonomy, version 1.12, which is informed by market practice and Sustainalytics' expertise as an ESG research provider. The Second-Party Opinion:

- Addresses the anticipated impacts of eligible projects expected to be financed with bond proceeds but does not measure the actual impact. The measurement and reporting of the impact achieved through projects financed under the Framework is the responsibility of the Framework owner.
- Opines on the potential allocation of proceeds but does not guarantee the realized allocation of the bond proceeds towards eligible activities

No information provided by Sustainalytics under the present Second-Party Opinion shall be considered as being a statement, representation, warrant or argument, either in favour or against, the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that Air Products has made available to Sustainalytics for the purpose of this Second-Party Opinion.

For inquiries, contact the Sustainable Finance Solutions project team:

¹ When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics' hallmarks is integrity, another is transparency.

² The bond Principles, Guidelines and Handbooks are administered by the International Capital Market Association and are available at: <https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/>

³ The loan Principles and Guidelines are administered by the Loan Market Association, Asia Pacific Loan Market Association and Loan Syndications and Trading Association and are available at: https://www.lsta.org/content/?_industry_sector=guidelines-memos-primary-market

⁴ The Climate Transition Finance Handbook is administered by the International Capital Market Association and is available at: <https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/Climate-Transition-Finance-Handbook-December-2020-091220.pdf>

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Introduction

Air Products and Chemicals, Inc. (“Air Products”, the “Company” or the “Issuer”) is a United States-based producer and seller of atmospheric and specialty gases to industries such as refining, chemical, gasification, metals, electronics, manufacturing, food and beverage. The Company is headquartered in Allentown, Pennsylvania and, as of September 2022, had a workforce of approximately 21,900 employees⁵ across more than 750 operating facilities in over 50 countries.⁶

Air Products has developed the Air Products Green Finance Framework dated January 2023 (the “Framework”) under which it intends to issue secured⁷ and unsecured bonds, promissory notes, commercial papers and other securities,⁸ and obtain loans, revolving and term credit facilities. Air Products engaged Sustainalytics to review the Framework and provide a second-party opinion on the Framework’s alignment with market expectations including the Green Bond Principles 2021 and Green Loan Principles 2021 (the “Principles”), and the recommendations of the Climate Transition Finance Handbook 2020.^{9,10} The Framework has been published in a separate document.¹¹

Under use of proceeds instruments, the proceeds will finance and refinance, in whole or in part, existing or future projects that are expected to facilitate the transition to a low-carbon economy. The Framework defines eligibility criteria in three areas:

1. Pollution Prevention and Control – Green and Blue Hydrogen and Green and Blue Ammonia
2. Renewable Energy
3. Sustainable Aviation Fuel

Sustainalytics’ Opinion

Section 1: Sustainalytics’ Opinion on the Alignment of the Framework with Relevant Market Standards

Alignment of bonds and loans with Use of Proceeds Principles

Sustainalytics is of the opinion that the Air Products Green Finance Framework is credible, impactful and aligns with the Use of Proceeds Principles. For detailed information, please refer to Appendix 1: Green Bond/ Green Bond Programme External Review Form. Sustainalytics highlights the following elements of Air Products Green Finance Framework:

⁵ Air Products, “2022 Annual Filing”, at: <https://investors.airproducts.com/static-files/9ce48e81-bb32-43c9-a5d9-1d4cfe6cfade>

⁶ Air Products, “2022 Sustainability Report”, at: <https://www.airproducts.com/company/sustainability/sustainability-report>

⁷ Air Products has communicated to Sustainalytics that bonds issued under the Framework may be both secured green standard bonds or secured green collateral bonds and that it will ensure no double counting of the underlying assets with other outstanding green or sustainability issuances per the voluntary process guidelines published in [June 2022 Appendix 1 of the GBP 2021](#). Air Products has also communicated a commitment to disclosing these details in the offering documents of each issuance.

⁸ Sustainalytics has reviewed the criteria for just those securities that are specified in the Framework, namely bonds and promissory notes.

⁹ The Green Bond Principles are administered by the International Capital Market Association and are available at:

<https://www.icmagroup.org/green-social-and-sustainability-bonds/sustainability-bond-guidelines-sbg/>

¹⁰ The Green Loan Principles are administered by the Loan Market Association, Asia Pacific Loan Market Association and Loan Syndications & Trading Association and are available at <https://www.lsta.org/content/green-loan-principles/>; <https://www.lsta.org/content/social-loan-principles-slp/>

¹¹ The Air Products Green Finance Framework is available on Air Products’ website at: <https://www.airproducts.com/>



Use of Proceeds

Overall Assessment of Use of Proceeds

Use of Proceeds	Activity	Sustainalytics' Assessment
<p>Pollution Prevention and Control – Green and Blue Hydrogen and Green and Blue Ammonia</p>	<p>Projects and investments related to hydrogen or ammonia production</p>	<ul style="list-style-type: none"> - Development, construction, installation of hydrogen or ammonia production projects and maintenance of associated assets, namely electrolytical hydrogen or ammonia production using wind or photovoltaic (PV) solar energy. - Sustainalytics recognizes that the production of hydrogen and ammonia using renewable energy (such as electrolysis powered by renewable energy) is required in the long-term to achieve a low-carbon economy and considers such investments to be suitable for green financing.
	<p>Projects and investments related to hydrogen or ammonia production</p> <p>Development, construction, and installation of CCUS technologies to decarbonize transitional activities</p> <p>Transportation of captured CO₂</p>	<ul style="list-style-type: none"> - i) Development, construction, installation of hydrogen production projects and maintenance of associated assets, namely hydrogen production using hydrocarbons as feedstock with carbon capture utilization and storage (CCUS) technologies with lifecycle GHG emissions of no more than 4.37 tCO₂e/tH₂; ii) expenditures related to the development, installation and improvement of carbon capture and sequestration units, technologies and solutions for the production of blue hydrogen; and iii) investments to facilitate the transportation of captured CO₂ through pipeline and conversion of existing networks and terminals into CO₂ transportation networks. - The Framework requires the captured CO₂ to not be used for activities that support oil recovery operations. Beyond this requirement, the Framework does not include criteria for the intended use or storage solutions for the captured CO₂. Sustainalytics encourages the Company to ensure long-term sequestration of captured CO₂ and to report on the final use or the adopted storage solutions on a periodic basis. - Sustainalytics notes that the Framework adopts CertifHy's definition for eligible hydrogen, with a carbon intensity of 4.37 tCO₂/t of H₂ (60% below the carbon intensity of hydrogen produced from natural gas), and views positively the use of a threshold and the reliance on industry guidelines to establish the applicable level. - Sustainalytics acknowledges that many decarbonization pathways rely on the use of hydrogen, and that the production of lower-carbon hydrogen will support the climate transition in a variety of industrial sectors. Sustainalytics further recognizes that blue hydrogen can act as a pertinent interim solution for scaling up hydrogen production while also noting that the deep decarbonization of hydrogen production will require a shift away from reliance on fossil fuels. - For the transportation of captured CO₂, the Company has communicated to Sustainalytics that it will adopt appropriate measures to mitigate and manage the risk of gas leakage. - Sustainalytics is of the opinion that such expenditures are suitable for transition financing given that there is a transition plan in place which addresses the most carbon intensive aspects (such as energy consumption) of production. Air Products has communicated to Sustainalytics that it has a transition strategy in place which aims to facilitate the move towards a low-carbon hydrogen economy, by producing hydrogen through electrolysis, using renewable energy sources.
	<p>Conversion of hydrogen or ammonia to end-products</p>	<ul style="list-style-type: none"> - Expenditures related to infrastructure dedicated for conversion and/or disassociation of hydrogen and ammonia. - Sustainalytics recognizes the potential of converting and dissociating hydrogen and ammonia to enhance the uptake of these gases and the use of such hydrogen and ammonia can support the climate transition in a variety of industrial sectors.

		<ul style="list-style-type: none"> - Sustainalytics notes that the conversion and disassociation process is inherently energy intensive and encourages the Company to report on the energy intensity of such processes on a periodic basis.
	R&D to reduce environmental impact of hydrogen or ammonia projects	<ul style="list-style-type: none"> - R&D related expenditures for improving existing and developing new products and solutions to reduce the environmental impact of construction, installation and maintenance of green and blue hydrogen and ammonia projects and assets. - The Company has communicated to Sustainalytics that R&D expenditures will primarily include capex costs and that it intends to allocate a minority percentage (<10%) of the proceeds to such expenditures. - Sustainalytics considers investments in R&D for green hydrogen and blue hydrogen to be suitable for green finance and transition finance, respectively.
Renewable Energy	Generation and procurement of renewable energy	<ul style="list-style-type: none"> - Investments related to the design, construction, installation and maintenance of wind and PV solar energy projects. - Long-term (more than five years) power purchase agreements (PPAs) and virtual PPAs based on wind and PV solar projects. - Sustainalytics considers investments in the generation and procurement of the above-mentioned renewable energy projects to be suitable for green finance.
Sustainable Aviation Fuel	Aircraft fuel manufacturing facilities	<ul style="list-style-type: none"> - Expenditures and investments related to the development, construction, and installation of aircraft fuels manufacturing facilities that utilize renewable and non-fossil fuel-based inputs with a resulting lifecycle emissions intensity that is 50 to 75% lower than conventional aircraft fuel.¹² Sustainalytics recognizes the critical role of Sustainable Aviation Fuel (SAF) in the decarbonization of the aviation industry, and notes that the relative emission intensity range (50-75%) noted in the Framework compares favorably at the high end with the threshold specified in the EU Taxonomy Delegated Act (65%)¹³ and, at the low end, aligns with the lifecycle emission reduction established by the US Inflation Reduction Act for tax credits relating to SAF.¹⁴ - Air Products has also communicated to Sustainalytics that while it will develop and operate the SAF production facility, under the Framework, it will finance only the facility development and construction expenditures and not the expenditures associated with its operation, including the feedstock procurement expenditures. Sustainalytics notes the uncertainty around the specific feedstocks that may be used by the SAF production facility, and that the environmental and social impacts associated with the feedstock, including those related to direct and indirect land use change, vary based on the type of feedstock. - Sustainalytics considers the allocation of proceeds to such expenditures to be suitable for green financing and encourages the Company to report, to the extent possible, on the lifecycle emissions intensity and the types of feedstocks used at the financed SAF facility on a periodic basis.

Additional Considerations on Use of Proceeds

- The Framework has established a look-back period of 24 months for refinancing activities. Sustainalytics considers this criterion to be in line with market practice.

¹² The Framework clarifies that the 50%-to-75% threshold is calculated by Air Products based on the definition of “Sustainable Aviation Fuel” included in the Inflation Reduction Act of 2022.

¹³ European Commission, “Commission Delegated Regulation (EU) 2021/2139”, at: <https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32021R2139&from=EN>

¹⁴ White House, “Building a Clean Energy Economy: A Guidebook to the Inflation Reduction Act’s Investments in Clean Energy and Climate Action”, at: <https://www.whitehouse.gov/wp-content/uploads/2022/12/Inflation-Reduction-Act-Guidebook.pdf>



Project Evaluation and Selection

- Air Products will set up a committee (the “Committee”) comprising representatives from its Treasury and Sustainability teams, which will be responsible for the evaluation and selection of projects in line with the Framework’s eligibility criteria.
- The Committee will also be responsible for ensuring compliance with the Company’s existing policies and procedures and addressing environmental and social risks associated with the financed projects. For additional details, please see Section 2.
- Based on the presence of cross-functional oversight for project selection and the presence of risk management systems, Sustainalytics considers this process to be in line with the Principles.



Management of Proceeds

- Air Products has communicated that its Treasury team will be responsible for the allocation and tracking of proceeds to eligible projects.
- The Company intends to achieve full allocation of proceeds within three years of each issuance.
- Pending full allocation, the proceeds may be temporarily held or invested in the Company’s Treasury liquidity portfolio (including cash, cash equivalents or money market funds) in line with its Treasury management policies or used to repay a portion of existing debt. Air Products has communicated to Sustainalytics that the existing debt will have no association with carbon-intensive activities.
- Based on the delineation of responsibility and disclosure on the temporary allocation of proceeds, Sustainalytics considers this process to be in line with the Principles.



Reporting

- Air Products intends to report on the allocation of proceeds and its corresponding impacts through a Green Finance Report, which will be published on its website on an annual basis until full allocation.
- Allocation reporting will include information on the net proceeds of outstanding issuances, category-level disclosure on the amount of net proceeds allocated to eligible projects, approximate amount of net proceeds allocated to projects that are not yet operational versus operational projects, and the remaining balance of unallocated proceeds.
- The Company will report on qualitative and, where feasible, quantitative relevant impact indicators, including hydrogen capacity, CO₂ emissions avoided from green and blue hydrogen, annual energy savings, and electricity consumption from renewable sources.
- For projects that are not operational at the time of reporting, Air Products may provide estimates of future performance or impact. Where relevant, information may be provided on data reporting and impact assessment methodologies. For a full list of impact metrics, please refer to Appendix 1: Green Bond/ Green Bond Programme External Review Form.
- Based on the commitment to both allocation and impact reporting, Sustainalytics considers this process to be in line with market practice.

Alignment against the Climate Transition Finance Handbook 2020

Sustainalytics has assessed the Air Products’ alignment with the recommendations of the Climate Transition Finance Handbook and considers the Company’s transition strategy to be aligned overall. Sustainalytics highlights the following key elements of the assessment:

Key Elements	ICMA Recommendation	Sustainalytics’ Assessment	
Issuer’s climate transition strategy and governance	<ul style="list-style-type: none"> - Transition strategy to address climate-related risks and contribute to the alignment with the goals of the Paris Agreement - Relevant interim targets on the trajectory towards the long-term goal - Governance of transition strategy 	<ul style="list-style-type: none"> - Air Products’ path to decarbonization includes its pledge to reach net zero carbon emissions from its operations by 2050. The Company set a medium-term target to reduce its scope 1 and 2 emissions to 61 kgCO₂e/MM BTU by 2030, compared to a 2015 baseline (92 kgCO₂e/BTU million). It also intends to reduce its scope 3 emissions to 25 kg CO₂e/BTU million by the same year, compared to the 2015 estimations (37 kg CO₂e/BTU million). Air Products intends to achieve these targets through a five-pronged mechanism that includes executing carbon capture projects, producing carbon-free hydrogen, implementing low-carbon projects, continually improving the Company’s operations, and increasing the use of renewable energy.¹⁵ See the detailed assessment of the decarbonization pathway and implementation plan in Section 2. - Air Products’ Chairman, President and CEO have the overall responsibility for developing and executing the Company’s sustainability strategy. The Company’s Board of Directors, specifically the Corporate Governance and Nominating Committee, oversees the execution of its sustainability plan and environmental performance. Air Products’ Enterprise Risk Management (ERM) programme, includes identifying climate-related risks and opportunities which are reviewed annually by the Board.¹⁶ 	Aligned
Business model environmental materiality	<ul style="list-style-type: none"> - Transition trajectory should be relevant to the environmentally-material parts of the issuer’s business model 	<ul style="list-style-type: none"> - Air Products transition strategy is centered around enabling the production of more energy efficient and sustainable products and reducing its carbon emissions through increased deployment of its carbon capture technologies, gasification for cleaner chemicals and materials, use of hydrogen as a sustainable fuel for mobility, and greater use of renewable energy in its operations.¹⁷ - The initiatives outlined in Air Products’ transition strategy are directly linked to reducing the environmental impact of its operations. 	Aligned
Climate transition strategy to be science-based including targets and pathways	<ul style="list-style-type: none"> - Transition strategy should reference science-based targets and transition pathways 	<ul style="list-style-type: none"> - Air Products intends to be net carbon neutral by 2050 and reduce its scope 1, 2 and 3 emission intensity by 33% by 2030, compared to a 2015 baseline.¹⁸ 	Aligned ²⁰

¹⁵ Air Products, “2022 Sustainability Report”, at: <https://www.airproducts.com/company/sustainability/sustainability-report>

¹⁶ Air Products, “CDP Climate Change Questionnaire 2022”, at: <https://www.airproducts.com/-/media/airproducts/files/en/sustainability/cdp-climate-change-response.pdf>

¹⁷ Ibid.

¹⁸ Air Products, “2022 Sustainability Report”, at: <https://www.airproducts.com/company/sustainability/sustainability-report>

²⁰ While Sustainalytics acknowledges Air Products’ sustainability strategy to achieve carbon neutrality by 2050, it notes that its emissions reduction targets cannot be benchmarked owing to the lack of an external and credible decarbonization trajectory for the chemical sector.

		<ul style="list-style-type: none"> - The Company additionally commits to increasing its capital for energy transition to USD 15 billion through 2027.¹⁹ - Sustainalytics notes that there is no decarbonization (B2DS) trajectory for the Chemical sector. - Please see detailed assessment in Section 2. 	
<p>Implementation transparency</p>	<ul style="list-style-type: none"> - Disclosure of capex and opex plans - Climate-related outcomes and impacts of expenditures 	<ul style="list-style-type: none"> - Air Products annually reports on climate-related risks and opportunities in its Management’s Discussion and Analysis (MD&A), corporate sustainability reports and integrated annual reports as well as details on the capital expenditures. The Company intends to continue reporting on these parameters along with the outcome related to its transition strategy. - In addition, Air Products intends to publish an Impact Report for all climate-related expenditures financed under the Framework which will be made publicly available on its website. The report will include: i) net proceeds raised from the outstanding green finance instruments; ii) allocation to operating expenditures; and iii) qualitative and, where feasible, quantitative relevant impact indicators. - Air Products primarily adheres to the reporting guidelines of the Global Reporting Initiative (GRI) and aligns the reporting of its sustainability efforts with recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD) and Sustainability Accounting Standards Board (SASB). Finally, the Company also makes annual submissions to the CDP Climate Change Response Questionnaire, which is available on its website. 	<p>Aligned</p>

Section 2: Assessment of Air Products’ Sustainability Strategy

Credibility of Air Products’ Climate Transition Strategy

Emission-Reduction Targets

In 2020, Air Products established a medium-term target of reducing its scope 1 and 2 CO₂ emissions intensity to 61 kg CO₂e/BTU million by 2030 compared to a 2015 baseline (92 kg CO₂e/ BTU million). The Company also intends to reduce its scope 3 emissions to 25 kg CO₂e/MM BTU by the same year, compared to the 2015 baseline.

Air Products’ commitment towards sustainability and its roadmap for decarbonization also includes its pledge to reach net-zero carbon emissions from its operations by 2050, its commitment to invest USD 15 billion on energy transition capex projects from 2018 through 2027, and its engagement with the Science Based Targets Initiative (SBTi) for developing a framework and methodology for the chemicals sector.²¹

Sustainalytics considers these targets to have a positive impact on Air Products’ transition towards low-carbon operations.

Decarbonization Pathway and Implementation Plan

Air Products’ decarbonization roadmap includes its medium-term 2030 target of reducing scope 1, 2 and 3 emissions intensity by 33%, versus a 2015 baseline. To deliver this target, the Company has devised a five-pronged mechanism that includes executing

¹⁹ Air Products, “Air Products announces additional “Third by 30” CO₂ emissions reduction goal, commitment to net zero by 2050, and increase in new capital for energy transition to USD 15 billion”, (2022), at: <https://www.airproducts.com/news-center/2022/07/0725-air-products-announces-additional-sustainability-commitments>

²¹ Air Products, “Sustainability Commitments”, at: <https://www.airproducts.com/our-sustainability-commitments>

carbon capture projects, producing carbon-free hydrogen, implementing low-carbon projects, continually improving the Company's operations and increasing the use of renewable energy across its facilities.²²

Air Products considers investments in CCUS and gasification technologies and the increased use of hydrogen as a clean, sustainable fuel source as key opportunities and essential components for energy transition and it intends to prioritize investments in the following:²³

1. Building and implementing carbon capture and related technology projects to reduce emissions and potentially use for sequestration and other productive uses of CO₂
2. Using gasification for converting low-value hydrocarbons into useful chemicals and energy while reducing harmful pollutants
3. Expanding the use of lower-carbon or carbon-free hydrogen for sustainable transportation

To support its decarbonization strategy, Air Products aims to scale up hydrogen infrastructure by committing USD 8.5 billion to build, with its partners, the world's largest green hydrogen project in NEOM, Saudi Arabia. By 2026, this project is expected to enable the daily supply of 650 tonnes of carbon-free hydrogen for buses and trucks globally and reduce 3 million tonnes of CO₂ emissions annually. In 2021, the Company announced further commitments to expand hydrogen production through CAD 1.6 billion (USD 1.2 billion) and USD 4.5 billion of investments in two blue hydrogen projects in Western Canada and the US Gulf Coast that are expected to be operational by 2024 and 2026, respectively.²⁴ Additionally, in 2022, Air Products announced plans to invest USD 4 billion to build, own and operate a green hydrogen production facility in Texas, US with a partner. The facility, which is intended to be made operational by 2027, is expected to have the capacity to produce over 200 tonnes/day of green hydrogen and generate 1.4 GW of wind and solar power.²⁵

With carbon capture considered as an essential technology for meeting the Paris Agreement climate goals, Air Products is also engaged in developing proprietary CO₂ storage and utilization technologies that can be deployed in high carbon capture projects.²⁶

For Air Products, increasing the use of renewable energy is a key strategy for reducing emissions in its operations. In 2021, the Company procured 27% of its electricity from renewable sources, either directly from energy suppliers or by buying renewable energy certificates (RECs) to link power consumption to specific assets.²⁷ As part of its aim to reduce emissions, Air Products has also committed to increasing the efficiency of its transport vehicles by transitioning its fleet of 2,000 heavy-duty trucks to hydrogen fuel cell, zero-emission vehicles.²⁸

Sustainalytics considers Air Products' transition strategy to be credible and supportive of the Company's decarbonization targets and encourages Air Products to prioritize investments in green hydrogen projects as part of its decarbonization strategy.

Air Products' Environmental and Social Risk Management

Sustainalytics recognizes that the net proceeds from the instruments issued under the Framework will be directed towards eligible projects that are expected to have positive environmental impacts. However, Sustainalytics is aware that such eligible activities could also lead to negative environmental and social outcomes. Some key environmental and social risks commonly associated with the eligible projects could include land use and biodiversity issues associated with large-scale infrastructure development, occupational health and safety issues, hazardous and non-hazardous waste generated during industrial production processes, and community relations and stakeholder engagement issues.

Sustainalytics is of the opinion that Air Products is able to manage and/or mitigate potential risks through implementation of the following:

- To address land use and biodiversity issues, Air Products assesses potential environmental impacts of new projects, including ecosystem considerations such as a focus on threatened and endangered species and wetlands. These assessments can influence where the projects are located and may require mitigation plans to minimize environmental impact. Moreover, Air Products' physical and transition risks related to climate change are identified by regional environmental experts who share the information with their potentially impacted businesses, particularly with the

²² Air Products, "2022 Sustainability Report", at: <https://www.airproducts.com/company/sustainability/sustainability-report>

²³ Air Products, "2021 CDP Climate Change Response", (2021), at: <https://www.airproducts.com/company/sustainability>

²⁴ Air Products, "2022 Sustainability Report", at: <https://www.airproducts.com/company/sustainability/sustainability-report>

²⁵ Air Products, "Air Products and AES Announce Plans to Invest Approximately \$4 Billion to Build First Mega-scale Green Hydrogen Production Facility in Texas", at: <https://www.airproducts.com/news-center/2022/12/1208-air-products-and-aes-to-invest-to-build-first-mega-scale-green-hydrogen-facility-in-texas>

²⁶ Air Products, "2022 Sustainability Report", at: <https://www.airproducts.com/company/sustainability/sustainability-report>

²⁷ Ibid.

²⁸ Ibid.

Company's Sustainability Leadership Council and the Board of Directors, if needed. With energy sourcing identified as a key area with the most potential for impact on biodiversity, Air Products has also initiated a programme to evaluate biodiversity efforts of its energy suppliers.²⁹

- Air Products has developed an Environment, Health and Safety (EHS) Policy that addresses land use and biodiversity issues, and occupational health and safety risks. The Policy includes overarching EHS objectives aimed at the reduction of environmental impact of the Company's operations, and continual improvement in health, safety and security performance at its facilities, with the goal of zero injuries.³⁰ Moreover, Air Products has established an EHS management system applicable to all of its operations, which implements environmental, health and safety standards and procedures, and is aligned with the ISO 14001 and ISO 45001 standards.^{31,32,33}
- Regarding waste management, Air Products manages and treats waste in accordance with regulatory requirements of the jurisdiction in which the waste is generated. Waste that cannot be recycled is disposed off in an environmentally sound and regulatory compliant manner. Waste disposal methods are provided by waste disposal contractors.³⁴ Sustainalytics also notes that a majority of the financing under the Framework is expected to take place in Canada or the US, which are among the list of Designated Countries under the Equator Principles, indicating that environmental and social governance legislation systems and institutional capacity are sufficient to ensure the mitigation of common environmental and social risks, including hazardous materials handling and waste treatment and disposal.³⁵
- Air Products collaborates with its key stakeholders, including customers, employees, investors, communities, suppliers and government regulators through regular meetings, presentations and dialogue. The Company conducts an annual stakeholder assessment, evaluates identified sustainability issues, interviews key stakeholders to understand their sustainability concerns and priorities, and reviews the results with the Company's Sustainability Leadership Council to confirm the priorities and further discuss sustainability efforts. To foster relations with the communities in which it operates, Air Products also undertakes investment plans and initiatives to support economic and workforce development, arts and culture, education and health services in the communities.³⁶
- The Company's Code of Conduct applies to all employees, board members, agents, consultants, contractors, distributors, joint venture partners, suppliers and other third parties. It outlines principles in the areas of business ethics, fraud, bribery and corruption, equal employment opportunities and prevention of harassment, environment, health, safety and security, workplace violence, sustainability and corporate social responsibility, among other topics. Air Products has also set up internal mechanisms for confidential reporting of any violation of the Code of Conduct.³⁷
- Air Products discloses information on governance, strategy, risk management, and metrics and targets in line with the recommendations of the TCFD guidelines.^{38,39} Additionally, Air Products reports on energy management, hazardous waste management, community relations, workforce health and safety, and safety and environmental stewardship of chemicals, among other topics, in line with the SASB standards.^{40,41}

Based on these policies, standards and assessments, Sustainalytics is of the opinion that Air Products has implemented adequate measures and is well positioned to manage and mitigate environmental and social risks commonly associated with the eligible categories.

²⁹ Ibid.

³⁰ Air Products, "Environment, Health and Safety Policy", (2022), at: <https://www.airproducts.com/company/sustainability/ehs-policy>

³¹ ISO 14001: <https://www.iso.org/iso-14001-environmental-management.html>

³² ISO 45001: <https://www.iso.org/iso-45001-occupational-health-and-safety.html>

³³ Air Products, "2022 Sustainability Report", (2022), at: <https://www.airproducts.com/company/sustainability/sustainability-report>

³⁴ Air Products, "Global Reporting Initiative (GRI) Content Index", (2022), at: <https://www.airproducts.com/-/media/airproducts/files/en/sustainability/global-reporting-initiative-gri-content-index.pdf?la=en&hash=265DA92F1F136656522B9478028D1BBD>

³⁵ Equator Principles, "Designated Countries", (2020) at: <https://equator-principles.com/about-the-equator-principles/designated-countries>

³⁶ Air Products, "2022 Sustainability Report", (2022), at: <https://www.airproducts.com/company/sustainability/sustainability-report>

³⁷ Air Products, "Code of Conduct", at: <https://www.airproducts.com/company/governance/code-of-conduct>

³⁸ Air Products, "Air Products' Alignment with Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)", at: <https://www.airproducts.com/company/sustainability/sustainability-report>

³⁹ TCFD Recommendations: <https://www.fsb-tcfd.org/recommendations/>

⁴⁰ Air Products, "Air Products' Alignment with the Sustainability Accounting Standards Board (SASB) Disclosures", at: <https://www.airproducts.com/company/sustainability/sustainability-report>

⁴¹ SASB Standards: <https://www.sasb.org/standards/>

Section 3: Impact of the Selected Use of Proceeds

All three use of proceeds categories are aligned with those recognized by the Principles. Sustainalytics has focused on one category below where the impact is specifically relevant in the local context.

Importance of Hydrogen in the Energy Transition

The transportation, electric power and industrial sectors are primary sources of GHG emissions in the US, representing a combined 76% of total GHG emissions in the country, due to their heavy reliance on the use of fossil fuels.⁴² Hydrogen is considered a critical resource for reducing the dependency on fossil fuels and realizing the decarbonization goals set out in the Paris Agreement.⁴³ Given its multiple applications, hydrogen can aid the energy transition by enabling a greater adoption of sustainable fuels and renewables across multiple industries, including electricity generation, transportation and hard-to-abate sectors such as chemical, metal and materials production.^{44,45}

Produced from a diverse array of resources with the potential for near-zero GHG emissions, hydrogen generates electrical power by emitting only water vapor and warm air.⁴⁶ However, the production of hydrogen may have associated GHG emissions depending on the technology used. While the so-called green hydrogen can be produced through electrolysis using only renewable sources such as wind, water or solar,⁴⁷ the production of grey hydrogen from natural gas includes more emission intensive processes, including steam methane reforming (SMR) and autothermal reforming. Grey hydrogen produced through the SMR process, for example, may release approximately 7 kgs of CO₂ for every kilogram of hydrogen gas produced.^{48,49} When combined with carbon capture and sequestration, the SMR process can produce blue hydrogen which has a lower carbon intensity of 3 kgs of CO₂ for every kilogram of hydrogen gas produced.⁵⁰ Moreover, given a majority of the CO₂ is captured and stored in the process, blue hydrogen is nominally referred to as “carbon neutral”.⁵¹ Despite these upstream emissions, hydrogen from natural gas has been calculated to release fewer lifecycle emissions than the lifecycle emissions of fossil fuels for mobile engine applications.⁵²

In 2021, the production of hydrogen from unabated natural gas and coal, used in the global industrial sector, including glassmaking, chemicals and electronics, accounted for 630 Mt of direct CO₂ emissions on a net basis, equivalent to 7% of industrial CO₂ emissions.⁵³ However, blue hydrogen produced with carbon capture and storage or sequestration could lead to 50%-80% of CO₂-equivalent emission reductions compared with standard natural gas-based hydrogen production without CO₂ capture and storage.⁵⁴ In the same year, 0.6 Mt of blue hydrogen was produced globally, capturing around 10 Mt of CO₂.⁵⁵

Global hydrogen demand is growing and is estimated to reach 115 Mt by 2030, and 200 Mt are needed by 2030 to realize the 2050 goal of net zero emissions for the global energy sector.⁵⁶ The need to reduce dependency on fossil fuels, facilitate the transition

⁴² US Environmental Protection Agency, “Sources of Greenhouse Gas Emissions”, (2020) at: <https://www.epa.gov/ghgemissions/sources-greenhouse-gas-emissions>

⁴³ Reuters, “The Potential of Hydrogen Energy”, (2021) at: <https://www.reuters.com/brandfeature/road-to-a-new-day/the-potential-of-hydrogen-energy>

⁴⁴ Ibid.

⁴⁵ National Association of State Energy Officials, “Hydrogen: Critical Decarbonization Element for the Grid, Manufacturing and Transportation”, (2021) at: https://naseo.org/data/sites/1/documents/publications/NASEO_Hydrogen_Decarbonization_FINAL.pdf

⁴⁶ US Department of Energy, “Hydrogen Benefits and Considerations”, at: https://afdc.energy.gov/fuels/hydrogen_benefits.html#:~:text=Hydrogen%20can%20be%20produced%20from,stationary%20and%20transportation%20energy%20sectors

⁴⁷ L.E.K, “Green Hydrogen – Zero Emissions, One Careful Balancing Act”, (2022) at: <https://www.lek.com/insights/ei/green-hydrogen-zero-emissions-one-careful-balancing-act>

⁴⁸ Office of Energy Efficiency & Renewable Energy: <https://www.energy.gov/eere/fuelcells/hydrogen-production-natural-gas-reforming>

⁴⁹ Soltani et al, “Assessment of CO₂ capture options from various points in steam methane reforming for hydrogen production”, at: <https://www.sciencedirect.com/science/article/abs/pii/S0360319914027566>

⁵⁰ ICF, “Why should we care about hydrogen carbon intensity?”, (2022), at: <https://www.icf.com/insights/energy/care-about-hydrogen-carbon-intensity>

⁵¹ WEF, “Grey, blue, green – why are there so many colours of hydrogen?”, (2021) at: <https://www.weforum.org/agenda/2021/07/clean-energy-green-hydrogen/>

⁵² Union of Concerned Scientists, “How Clean Are Hydrogen Fuel Cell Electric Vehicles”, at:

<https://www.ucsusa.org/sites/default/files/attach/2014/10/How-Clean-Are-Hydrogen-Fuel-Cells-Fact-Sheet.pdf>

⁵³ IEA, “Global hydrogen review 2022”, (2022), at: <https://iea.blob.core.windows.net/assets/c5bc75b1-9e4d-460d-9056-6e8e626a11c4/GlobalHydrogenReview2022.pdf>

⁵⁴ Royal Society of Chemistry, “On the climate impacts of blue hydrogen production”, (2022), at: <https://pubs.rsc.org/en/content/articlehtml/2022/se/d1se01508g>

⁵⁵ IEA, “Global hydrogen review 2022”, (2022), at: <https://iea.blob.core.windows.net/assets/c5bc75b1-9e4d-460d-9056-6e8e626a11c4/GlobalHydrogenReview2022.pdf>

⁵⁶ IEA, “Global hydrogen review 2022”, (2022), at: <https://iea.blob.core.windows.net/assets/c5bc75b1-9e4d-460d-9056-6e8e626a11c4/GlobalHydrogenReview2022.pdf>

towards sustainable fuels and diversify the energy mix for greater energy security are providing further impetus with many countries enforcing their low-emission hydrogen production strategies.⁵⁷ While the demand for hydrogen is high, the global production of low-emission hydrogen remains low, with green hydrogen accounting for less than 1 Mt of the total 94 Mt global demand in 2021 and most of the demand being met through plants using fossil fuels with CCUS.⁵⁸ Given this increasing demand for low-emission hydrogen, the ensuing growth in hydrogen production could reach 16-24 Mt per year by 2030, with 9-14 Mt expected from electrolysis and 7-10 Mt from fossil fuels by CCUS, based on current estimations.⁵⁹

In the US, the Department of Energy has announced a USD 7 billion investment programme to create clean hydrogen hubs across the country under the Bipartisan Infrastructure Law. These hubs are part of the US government’s roadmap to lay the foundation for clean hydrogen and contribute to the national clean energy plan.⁶⁰

Considering this industry-wide trend towards environmentally responsible hydrogen sourcing and Air Products’ commitment to promoting the use of green and blue hydrogen, Sustainalytics expects Air Products’ financing of hydrogen production and CCUS infrastructure and technologies under the Framework to contribute positively to the energy transition in regions where the financed projects are expected to be based, including the US, Canada and the Kingdom of Saudi Arabia, and more broadly global environmental objectives.

Contribution to SDGs

The Sustainable Development Goals were adopted by the United Nations General Assembly in September 2015 and form part of an agenda for achieving sustainable development by the year 2030. The financial instruments issued under the Framework are expected to advance the following SDGs and targets:

Use of Proceed	SDG	SDG Target
Pollution Prevention and Control – Green and Blue Hydrogen and Green and Blue Ammonia	9. Industry, Innovation and Infrastructure	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities
Renewable Energy	7. Affordable and Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
Sustainable Aviation Fuel		

Conclusion

Air Products has developed the Air Products Green Finance Framework under which it may issue secured and unsecured bonds, promissory notes, commercial papers and other securities, and obtain loans, revolving and term credit facilities, and use the proceeds to finance projects aimed at facilitating the transition towards a low-carbon hydrogen economy. Sustainalytics expects the projects funded by the proceeds to provide positive environmental impacts.

The Air Products Green Finance Framework outlines a process for allocating, tracking and managing proceeds and makes commitments for Air Products to report on the allocation and impact of the use of proceeds. Furthermore, Sustainalytics believes that the Framework is aligned with the overall transition strategy of the Company and that the use of proceeds categories are expected to contribute to the advancement of the UN Sustainable Development Goals 7 and 9. Additionally, Sustainalytics is of the opinion that Air Products has adequate measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects.

Sustainalytics is of the opinion that the Air Products Green Finance Framework is robust, transparent, and aligns with the four core components of the Green Bond Principles (2021) and Green Loan Principles (2021). Sustainalytics has also assessed Air Products’ alignment with the recommendations of the Climate Transition Finance Handbook and considers the Company’s

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ Ibid.

⁶⁰ US Department of Energy, “Biden-Harris Administration Announced Historic \$7 Billion Funding Opportunity to Jump-Start America’s Clean Hydrogen Economy”, (2022) at: <https://www.energy.gov/articles/biden-harris-administration-announces-historic-7-billion-funding-opportunity-jump-start>

transition strategy to be aligned overall. Based on the above, Sustainalytics is confident that Air Products is well positioned to issue the aforementioned financial instruments under the Air Products Green Finance Framework.

Appendix 1 Green Bond / Green Bond Programme - External Review Form

Section 1. Indicative Impact Metrics

Project Category	Indicative Green Impact Metrics
Pollution Prevention and Control - Green and Blue Hydrogen and Green and Blue Ammonia	<ul style="list-style-type: none"> Hydrogen capacity (tH₂) CO₂ avoided from green and blue hydrogen (tons of CO₂e)
Renewable Energy	<ul style="list-style-type: none"> CO₂ or other GHG emissions avoided/reduced (tons of CO₂e) Electricity consumption from renewable sources (GWh and/or consumption share in % terms)
Sustainable Aviation Fuel	<ul style="list-style-type: none"> CO₂ or other GHG emissions avoided/reduced (tons of CO₂e)

Section 2. Basic Information

Issuer name: Air Products and Chemicals, Inc.

Green Bond ISIN or Issuer Green Bond Framework Name, if applicable: Air Products Green Finance Framework

Review provider's name: Sustainalytics

Completion date of this form: February 1, 2023

Publication date of review publication:

Section 2. Review overview

SCOPE OF REVIEW

The following may be used or adapted, where appropriate, to summarize the scope of the review.

The review assessed the following elements and confirmed their alignment with the GBP:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting |

ROLE(S) OF REVIEW PROVIDER

- | | |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification | <input type="checkbox"/> Rating |

- Other (please specify):

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

EXECUTIVE SUMMARY OF REVIEW and/or LINK TO FULL REVIEW (if applicable)

Please refer to Evaluation Summary above.

Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

1. USE OF PROCEEDS

Overall comment on section (if applicable):

Sustainalytics is of the opinion that the Air Products Green Finance Framework is credible and impactful and aligns with the four core components of the Green Bond Principles 2021 and Green Loan Principles 2021 (the "Use of Proceeds Principles"). The eligible categories for the use of proceeds (Pollution Prevention and Control – Green and Blue Hydrogen and Green and Blue Ammonia; Renewable Energy; and Sustainable Aviation Fuel) are aligned with those recognized by the Use of Proceeds Principles. Sustainalytics considers that investments in the project categories are expected to deliver positive environmental impacts and considers them to be credible from a transition perspective.

Use of proceeds categories as per GBP:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Renewable energy | <input type="checkbox"/> Energy efficiency |
| <input checked="" type="checkbox"/> Pollution prevention and control | <input type="checkbox"/> Environmentally sustainable management of living natural resources and land use |
| <input type="checkbox"/> Terrestrial and aquatic biodiversity conservation | <input type="checkbox"/> Clean transportation |
| <input type="checkbox"/> Sustainable water and wastewater management | <input type="checkbox"/> Climate change adaptation |
| <input type="checkbox"/> Eco-efficient and/or circular economy adapted products, production technologies and processes | <input type="checkbox"/> Green buildings |
| <input type="checkbox"/> Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBP | <input checked="" type="checkbox"/> Other (please specify): Production of green and blue hydrogen, and green and blue ammonia; sustainable aviation fuel |

If applicable please specify the environmental taxonomy, if other than GBP:

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

Air Products will set up a committee (the "Committee") comprising representatives from its Treasury and Sustainability teams, which will be responsible for the evaluation and selection of projects in line with the Framework's eligibility criteria. The Committee will also be responsible for ensuring compliance with the Company's existing policies and procedures and addressing environmental and social risks associated with the financed projects. Based on the presence of cross-functional oversight for project selection and the presence of risk management systems, Sustainalytics considers this process to be in line with the Principles.

Evaluation and selection

- | | |
|--|---|
| <input checked="" type="checkbox"/> Credentials on the issuer's environmental sustainability objectives | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories |
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Green Bond proceeds | <input checked="" type="checkbox"/> Documented process to identify and manage potential ESG risks associated with the project |
| <input checked="" type="checkbox"/> Summary criteria for project evaluation and selection publicly available | <input type="checkbox"/> Other (<i>please specify</i>): |

Information on Responsibilities and Accountability

- | | |
|--|--|
| <input checked="" type="checkbox"/> Evaluation / Selection criteria subject to external advice or verification | <input type="checkbox"/> In-house assessment |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

3. MANAGEMENT OF PROCEEDS

Overall comment on section (*if applicable*):

Air Products has communicated that its Treasury team will be responsible for the allocation and tracking of proceeds to eligible projects. The Company intends to achieve full allocation of proceeds within three years of each issuance. Pending full allocation, the proceeds may be temporarily held or invested in the Company's Treasury liquidity portfolio (including cash, cash equivalents or money market funds) in line with its Treasury management policies or used to repay a portion of existing debt. Air Products has communicated to Sustainalytics that the existing debt will have no association with carbon-intensive activities. Based on the delineation of responsibility and disclosure on the temporary allocation of proceeds, Sustainalytics considers this process to be in line with the Principles.

Tracking of proceeds:

- | |
|---|
| <input checked="" type="checkbox"/> Green Bond proceeds segregated or tracked by the issuer in an appropriate manner |
| <input checked="" type="checkbox"/> Disclosure of intended types of temporary investment instruments for unallocated proceeds |
| <input type="checkbox"/> Other (<i>please specify</i>): |

Additional disclosure:

- Allocations to future investments only
- Allocations to both existing and future investments
- Allocation to individual disbursements
- Allocation to a portfolio of disbursements
- Disclosure of portfolio balance of unallocated proceeds
- Other (*please specify*):

4. REPORTING

Overall comment on section (if applicable):

Air Products intends to report on the allocation of proceeds and its corresponding impacts through a Green Finance Report, which will be published on its website on an annual basis until full allocation. Allocation reporting will include information on the net proceeds of outstanding issuances, category-level disclosure on the amount of net proceeds allocated to eligible projects, approximate amount of net proceeds allocated to projects that are not yet operational versus operational projects, and the remaining balance of unallocated proceeds. The Company will report on qualitative and, where feasible, quantitative relevant impact indicators, including hydrogen capacity, CO₂ emissions avoided from green and blue hydrogen, annual energy savings, and electricity consumption from renewable sources. For projects that are not operational at the time of reporting, Air Products may provide estimates of future performance or impact. Where relevant, information may be provided on data reporting and impact assessment methodologies. Based on the commitment to both allocation and impact reporting, Sustainalytics considers this process to be in line with market practice.

Use of proceeds reporting:

- Project-by-project
- On a project portfolio basis
- Linkage to individual bond(s)
- Other (*please specify*):

Information reported:

- Allocated amounts
- Green Bond financed share of total investment
- Other (*please specify*): allocation to refinancing versus new financing; allocation to projects that are operational versus not yet operational; any allocation to operating expenses; balance of unallocated amount

Frequency:

- Annual
- Semi-annual
- Other (*please specify*):

Impact reporting:

- Project-by-project On a project portfolio basis
- Linkage to individual bond(s) Other (please specify):

Information reported (expected or ex-post):

- GHG Emissions / Savings Energy Savings
- Decrease in water use Other ESG indicators (please specify): hydrogen capacity, electricity consumption from renewable sources

Frequency

- Annual Semi-annual
- Other (please specify):

Means of Disclosure

- Information published in financial report Information published in sustainability report
- Information published in ad hoc documents Other (please specify): Information published in an annual Green Finance Report, which will be made available on the Company’s website
- Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review):

Where appropriate, please specify name and date of publication in the useful links section.

USEFUL LINKS (e.g. to review provider methodology or credentials, to issuer’s documentation, etc.)

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

Type(s) of Review provided:

- Consultancy (incl. 2nd opinion) Certification
- Verification / Audit Rating
- Other (please specify):

Review provider(s):

Date of publication:

ABOUT ROLE(S) OF INDEPENDENT REVIEW PROVIDERS AS DEFINED BY THE GBP

- i. Second-Party Opinion: An institution with environmental expertise, that is independent from the issuer may issue a Second-Party Opinion. The institution should be independent from the issuer’s adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the

Second-Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.

- ii. **Verification:** An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.
- iii. **Certification:** An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.
- iv. **Green Bond Scoring/Rating:** An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.

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