

Second-Party Opinion

Rumo S.A. Green Bond Framework



Evaluation Summary

Sustainalytics is of the opinion that the Rumo S.A Green Bond Framework is credible and impactful and aligns with the four core components of the Green Bond Principles 2018. This assessment is based on the following:



USE OF PROCEEDS The eligible categories for the use of proceeds are aligned with those recognized by the Green Bond Principles 2018, namely Clean transport and Pollution prevention and control. Sustainalytics considers that investments in the acquisition, replacement and upgrade of rolling stock and modernization of physical infrastructure for a freight rail network which is compliant with emissions thresholds will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically Goal 9 pertaining to Industry, innovation and infrastructure.



PROJECT EVALUATION / SELECTION The Strategic and Sustainability Committee of Rumo S.A, in coordination with their Treasury and Investor Relations, will be responsible for evaluating and selecting eligible projects. The Treasury and Investor Relation team will also ensure that the funded projects comply to the criteria established under the Rumo S.A. Green Bond Framework. Sustainalytics considers the project selection process in line with market practice.



MANAGEMENT OF PROCEEDS Rumo S.A.'s Treasury department will be responsible for managing the proceeds raised under the Green Bond Framework. Rumo S.A. plans to fully allocate proceeds within 8 years after bond issuance. Until proceeds are fully allocated to eligible projects, funds will be temporarily held in liquid instruments such as cash and/or cash equivalents and/or bank deposits. This is in line with market practice.



REPORTING Rumo commits to providing an annual report for its green bond investors, disclosing allocations at the category level as well as some impact indicators; further impact indicators will be provided in its annual sustainability report, including the fleetwide GHG emissions intensity. Both these reports will be made publicly available on its website. Sustainalytics views Rumo S.A.'s allocation and impact reporting as aligned with market practice.

Evaluation date	March 03, 2020
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Issuer Location	Curitiba, Brazil
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Introduction

Rumo S.A. (“Rumo”, or the “Company”) is a Brazilian logistic company, offering services for rail transport, port operations and storage. It is the largest railway operator in Brazil, operating 12 transshipment terminals, six port terminals and managing approximately 14,000 kilometres of railways in the states of Paraná, Santa Catarina, Rio Grande do Sul, São Paulo, Mato Grosso do Sul, Mato Grosso, Minas Gerais, Goiás and Tocantins. Headquartered in Curitiba, Brazil, Rumo employs approximately 8,500 people and organizes its business units into the North Operation, the Central Operation, the South Operation and the Container Operation.

Rumo has developed the Rumo S.A Green Bond Framework (the “Framework”) under which it intends to issue green bonds and use the proceeds to finance, in whole or in part, ongoing as well as future projects that promote a low-carbon and resource-efficient transport sector in Brazil. The Framework defines eligibility criteria under the following GBP categories - clean transport and pollution prevention and control, with specific activities in the following areas:

1. Acquisition, replacement and upgrade of rolling stock
2. Infrastructure to double lines, new yards and yards’ extension
3. Railway modernization

Rumo engaged Sustainalytics to review the Rumo S.A Green Bond Framework, dated March 2020, and provide a second-party opinion on the Framework’s environmental credentials and its alignment with the Green Bond Principles 2018 (GBP).¹ This Framework will be published in a separate document.²

As part of this engagement, Sustainalytics held conversations with various members of Rumo’s management team to understand the sustainability impact of their business processes and planned use of proceeds, as well as management of proceeds and reporting aspects of Rumo’s Green Bond Framework. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion of the Rumo S.A. Green Bond Framework and should be read in conjunction with that Framework.

¹ 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/green-bond-principles-gbp/>

² The Rumo S.A. Green Bond Framework is available on Rumo S.A.’s website at: <http://ir.rumolog.com/enu/green-bonds> (English) | <http://ri.rumolog.com/ptb/green-bonds> (Portuguese)

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the Rumo S.A. Green Bond Framework

Sustainalytics is of the opinion that the Rumo S.A. Green Bond Framework is credible and impactful and aligns with the four core components of the GBP 2018. Sustainalytics highlights the following elements of Rumo's Green Bond Framework:

- Use of Proceeds:
 - The eligible project areas – acquisition, replacement and upgrade of rolling stock, infrastructure to double lines, new yards and yards' extension, and railway modernization – are aligned with categories recognized by the GBP 2018, namely clean transportation and pollution prevention and control.
 - All investments under Rumo's Framework will be directed towards projects related to its freight rail system. As per information provided by Rumo the Company's current average direct scope 1 emissions for their freight operations are 17.1gCO₂ per net ton-kilometer (gCO₂/TKU). This value is below the 2030 emission threshold for freight activity (21 gCO₂/TKU) which the IEA Mobility Model suggests is compliant with a decarbonization trajectory.³ Due to this overall emissions intensity, expenditures on the system are considered by Sustainalytics to be aligned with green bond market practice.
 - Rumo has defined exclusionary criteria which state that infrastructure and rolling stock for railway lines that are built with the overriding objective of transporting fossil fuels will not qualify under its Green Bond Framework, which Sustainalytics considers to be in line with market practice.
 - The Framework specifies three project areas to which investments may be directed. In addition to supporting the overall operation of low-carbon freight transport system, each area provides supplementary environmental benefits:
 - A portion of green bond proceeds raised will be used to purchase new locomotives as well as replacement and upgrade of existing rolling stock. Sustainalytics notes that new locomotives purchased, which Rumo discloses will be GE AC4400CW or similar, will provide improved fuel efficiency and reduced emissions as compared to the existing fleet average, and that the upgrades are intended to install fuel-optimization technology into existing locomotives.
 - A portion of green bond proceeds raised will finance improvements to track infrastructure to support more efficient operations. In particular, these upgrades include the extension of sidings beyond their current length, as well as the construction of new sidings and the doubling of sections on some lines. This is expected to result in improved traffic conditions by reducing time spent on crossovers as well as the ability to increase the length of trains,⁴ thereby saving fuel which will ultimately result in a reduction of GHG emissions.
 - A portion of green bond proceeds raised will finance the replacement of raw materials applied to existing infrastructure in order to increase durability and improve performance. Benefits of these projects include increased durability, decreased maintenance, and the ability to support more heavily loaded trains.⁵
- Project Evaluation and Selection:
 - Rumo's Strategic and Sustainability Committee, in coordination with Treasury and Investor Relations, will be responsible for evaluating and selecting eligible projects.
 - Once projects have been approved, the Treasury and Investor Relation team will, on an ongoing basis, ensure that the funded projects comply to the criteria established in the Green Bond

³ Emission threshold based on International Energy Agency's 2 Degree Scenario, referenced by the Climate Bond Initiative, at:

<https://www.climatebonds.net/files/files/Low%20Carbon%20Transport%20Background%20Paper%20Feb%202017.pdf>

⁴ Rumo has stated that its programme of improvement is intended to increase maximum train length from 80 railcars to 120 railcars, which allow more efficient application of motive power.

⁵ Rumo specifies that the new capacity of 32.5 tonnes/axle will promote more efficient operations by allowing for heavier loads.

- Framework. In addition, the Strategic and Sustainability Committee will also evaluate project eligibility on a quarterly basis to ensure ongoing compliance.
- Based on clear delegation of responsibility for project evaluation and selection as well as continuous monitoring to confirm eligibility of funded projects, Sustainalytics considers this process to be in line with market practice.
 - Management of Proceeds:
 - Rumo's Treasury department will be responsible for managing the proceeds from the Green Bond, and will ensure that expenditures on Eligible Green Projects will match or exceed the total proceeds raised by the issuance of the Green Bonds.
 - The Framework allows for full allocation to be achieved over the next 8 years; Sustainalytics highlights that this period is longer than the 2-year market norm. Rumo's intention is to finance a long-term capital plan which includes a pipeline of approximately BRL 4,108 mn (USD 920 mn) in eligible projects.
 - Pending full allocation, proceeds will be temporarily placed in liquid instruments such as cash and/or cash equivalents and/or bank deposits, in accordance with the company's ongoing treasury policy.
 - Overall, with the exception of the allocation period, Sustainalytics considers Rumo's process to manage proceeds to be in line with market practice based on its definition of allocation responsibilities, the identification of a project pipeline, and the types of temporary investments.
 - Reporting:
 - Until proceeds have been fully allocated, Rumo commits to providing a report for its green bond investors which will contain information such as a description of the projects the Company invests in and the amount invested in each project. Rumo will also provide a sustainability report which will track information such as energy efficiency of their operation as well as GHG emission per year.
 - Both the reports will be made available publicly on its website.
 - Based on Rumo's commitment to publicly report on allocation and impact metrics, annually until full allocation, Sustainalytics considers this process to be in line with market practice.

Alignment with Green Bond Principles 2018

Sustainalytics has determined that the Rumo S.A. Green Bond Framework aligns to the four core components of the GBP 2018. For detailed information please refer to Appendix 1: Green Bond/Green Bond Programme External Review Form.

Section 2: Sustainability Performance of Rumo

Contribution of framework to Rumo S.A.'s sustainability strategy

Sustainalytics is of the opinion that Rumo's core business objective, which is to increase the market share of freight transported by railroads, in particular between agricultural and industrial production hubs which have been traditionally connected by trucks, is in line with the transition to a low carbon economy.⁶ Rumo has demonstrated a strong commitment to sustainability and had stated that reducing atmospheric emissions from its operations as well as enhancing the quality of raw materials it uses in order to improve durability of its infrastructure and assets, are its prime focus areas for reducing its operational footprint. Sustainalytics notes the following key aspects of the Company's sustainability performance, as they relate to the impacts and objectives of the Green Bond Framework:

In 2014, Rumo developed an Emission Management Improvement Plan in order to manage its carbon footprint.⁷ This plan identifies areas in which the Company intends to reduce its direct emission such as monitoring and modernizing its railway fleet, increasing the use of biodiesel, improving logistics and investing in research and development.⁸ Between 2015 to 2018 Rumo invested R\$8.1 billion (USD 2.2 billion) in logistics renovation and expansion, network recovery, expansion and construction of new yards, as well as improvements in technology and safety. A portion of this investment was to acquire locomotives with lower diesel consumption and lower air emissions. As a result of investing in modernizing its fleet, in 2018 Rumo's overall fuel efficiency increased by 15% as compared to 2015 and its emissions decreased by 24% as

⁶ Rumo S.A., The Company Business Model (accessed on February 2020), at: <http://ir.rumolog.com/enu/business-model>

⁷ Rumo S.A., Environment, (accessed on February 2020), at: http://pt.rumolog.com/conteudo_pti.asp?idioma=0&conta=45&tipo=27040#

⁸ Idem

compared to 2014.⁹ Rumo's Framework commits explicitly to reducing GHG emissions by 10% per net ton-kilometer in the next 10 years.

Sustainalytics is of the opinion that the Rumo S.A. Green Bond Framework is aligned with the company's overall sustainability strategy and initiatives and will further the Company's action on its key environmental priorities.

Well positioned to address common environmental and social risks associated with the projects

While Sustainalytics recognizes that the use of proceeds from the Framework will be directed towards eligible projects that are anticipated to have positive environmental impacts, Sustainalytics is aware that any projects, particularly ones that involve construction, installation, operation and maintenance of heavy equipment and machinery over large geographical areas may have associated negative environmental and social outcomes. Some key environmental and social risks related to the eligible projects, could include air, land and water pollution, impact on biodiversity, worker health and safety, and community relations issues.

Sustainalytics notes that Rumo undertakes risk management to identify risks inherent to the Company's activities as well as has policies and programs that outline its environmental, social and governance conduct:

- **Overall risk management:** Rumo's has a dedicated Risk Management department which reports to the Chief Financial Officer as well as the Statutory Audit Committee. This department identifies, assesses and manages the companies operating as well as strategic risks such as Internal Controls, Health and Safety, as well as risks related to resource availability. The Risk Management team ensures that the company is compliant with local, national and international legislation such as the Brazilian Anti-corruption Law, the Sarbanes-Oxley Act (SOX), the Foreign Corrupt Practices Act (FCPA), as well as the UK Bribery Act.¹⁰
- **Environmental risk management:** Rumo developed an Environmental Management Manual that outlines the required environmental practices and compliance with legislation to be followed during construction of projects.¹¹ The Company also confirms that it undertakes Environmental Impact Assessment on new construction projects, when necessary. Rumo's terminal in Santos has had ISO14001 environmental certification since 2009. The company also carries several programs in order to protect biodiversity in the areas it operates. In order to minimize and prevent wildlife accidents along its railway networks, the Company runs a Fauna Run Over Monitoring and Mitigation Program.
- **Worker health and safety management:** Rumo has an occupational health and safety program under which it seeks to continuously improve its performance in terms of employee health and safety. The company runs a Rumo Zero Accidents (RZA) program to ensure that it operates according to the highest safety standards. In 2018 the Company had over 65,000 training hours for its employees focusing on accident prevention and improving the safety of railway operations. Rumo's accident rates have dropped by 46% from 2018 as compared to 2015, which the Company credits to its initiatives.¹²
- **Managing community relations:** Rumo acknowledges that it needs to have constant dialogue with communities in its areas of operation in order to exist and grow as a company. Between 2015 and 2018 Rumo implemented over 200 socio-environmental, sports and cultural projects with its partner communities and according to Rumo over 5.1 million people benefited from the health, education, and community-building program initiatives it offered.¹³

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

Section 3: Impact of Use of Proceeds

Sustainalytics is of the opinion that all three use of proceeds categories are aligned with those recognized by the GBP and is impactful specifically in the local context.

⁹ Rumo S.A., Sustainability Report 2018, at: http://pt.rumolog.com/conteudo_pti.asp?idioma=0&conta=45&tipo=66666

¹⁰ Rumo S.A., Sustainability Report 2018, at: http://pt.rumolog.com/conteudo_pti.asp?idioma=0&conta=45&tipo=66666

¹¹ Rumo S.A., Environment, (accessed on February 2020), at: http://pt.rumolog.com/conteudo_pti.asp?idioma=0&conta=45&tipo=27040#

¹² Rumo S.A., Sustainability Report 2018, at: http://pt.rumolog.com/conteudo_pti.asp?idioma=0&conta=45&tipo=66666

¹³ Idem

Importance of low carbon transport in Brazil

In 2016, the transportation sector contributed to approximately 48 percent of Brazil's energy-related emissions.¹⁴ Within the transport sector, freight transport by road accounted for about 65% of emissions, with trucks being the largest emitting source.¹⁵ On average freight transport by rail can be upwards of 3-4 times more efficient than trucks which means that moving freight by rail instead of truck lowers greenhouse gas emissions by up to 75 percent.¹⁶ This creates a clear case for Brazil to switch to low carbon alternatives such as railways for freight transport, especially with exports of certain agricultural products such as soybean, sugar and wheat estimated to grow between 20% to 50% by 2026 compared to 2014-16.¹⁸

Therefore, promoting the use of railway networks for freight transport will help Brazil transition to a low carbon economy and aid in working towards its climate goal of 37% reduction in GHG emissions from 2005 levels by 2025.¹⁹

Alignment with/contribution to SDGs

The Sustainable Development Goals (SDGs) were set in September 2015 and form an agenda for achieving sustainable development by the year 2030. This green bond advances the following SDG goals and targets:

Use of Proceeds Category	SDG	SDG target
Clean transport	9 Industry, innovation and infrastructure	9.1 Develop quality, reliable, sustainable and resilient infrastructure, including regional and transborder infrastructure, to support economic development and human well-being, with a focus on affordable and equitable access for all.
Pollution prevention and control		

Conclusion

Rumo has developed the Rumo S.A. Green Bond Framework under which it will issue green bonds and use the proceeds to finance the acquisition, replacement and upgrade of its rolling stock, as well as modernization of its rail infrastructure. Sustainalytics considers that the projects funded by green bond proceeds will have environmental impacts by both promoting a modal shift to rail, as well as improving the efficiency of Rumo's operations, thereby supporting the decarbonization Brazil's freight transportation sector.

The Rumo S.A. Green Bond Framework outlines a process by which proceeds will be tracked, allocated, and managed, and commitments have been made for reporting on the allocation and impact of the use of proceeds. Sustainalytics believes that the Rumo S.A. Green Bond Framework is aligned with the overall sustainability strategy of the company and that the green use of proceeds categories will contribute to the advancement of UN Sustainable Development Goal 9 - Industry, innovation and infrastructure. Sustainalytics is of the opinion that Rumo has sufficient measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects funded by the use of proceeds.

Based on the above, Sustainalytics is confident that Rumo S.A. is well-positioned to issue green bonds and that the Rumo S.A. Green Bond Framework is robust, transparent, and in alignment with the four core components of the Green Bond Principles 2018.

¹⁴ Observatório do Clima, Emissões De GEE No Brasil, 2018, at: <https://diariodotransporte.com.br/wp-content/uploads/2018/08/Relatorios-SEEG-2018-Sintese-FINAL-v1.pdf>

¹⁵ Observatório do Clima, Emissões De GEE No Brasil, 2018, at: <https://diariodotransporte.com.br/wp-content/uploads/2018/08/Relatorios-SEEG-2018-Sintese-FINAL-v1.pdf>

¹⁶ International Union of Railways, Rail Transport and Environment, June 2008, at: <http://siteresources.worldbank.org/EXTRAILWAYS/Resources/515244-1268663980770/environment.pdf>

¹⁷ Association of American Railroads, The Environmental Benefits of Moving Freight by Rail, July 2019, at: <https://www.aar.org/wp-content/uploads/2018/07/AAR-Environmental-Benefits-Moving-Freight-by-Rail.pdf>

¹⁸ Organisation for Economic Co-operation and Development, Medium-Term Prospects for Major Agricultural Commodities 2017-2026 Brazil, at: <https://www.oecd.org/brazil/Brazil-AGR-Outlook-country-note.pdf>

¹⁹ United Nations Framework Convention on Climate Change, Federative Republic of Brazil, Intended Nationally Determined Contribution, at: <https://www4.unfccc.int/sites/ndcstaging/PublishedDocuments/Brazil%20First/BRAZIL%20INDC%20english%20FINAL.pdf>

Appendices

Appendix 1: Green Bond / Green Bond Programme - External Review Form Section 1. Basic Information

Issuer name:	Rumo S.A
Green Bond ISIN or Issuer Green Bond Framework Name, if applicable: <i>[specify as appropriate]</i>	Rumo S.A. Green Bond Framework
Review provider's name:	Sustainalytics
Completion date of this form:	March 03, 2020
Publication date of review publication: <i>[where appropriate, specify if it is an update and add reference to earlier relevant review]</i>	

Section 2. Review overview

SCOPE OF REVIEW

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

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

- | | |
|--|--|
| <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 |
| <input type="checkbox"/> Other <i>(please specify)</i> : | |

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)*:

The eligible categories for the use of proceeds are aligned with those recognized by the Green Bond Principles 2018, namely Clean transport and Pollution prevention and control. Sustainalytics considers that investments in acquisition, replacement and upgrade of rolling stock and modernization of physical infrastructure for a freight rail network which is compliant with emissions thresholds will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically Goal 9 pertaining to Industry, innovation and infrastructure.

Use of proceeds categories as per GBP:

- | | |
|--|--|
| <input 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 checked="" 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 GBPs | <input type="checkbox"/> Other <i>(please specify)</i> : |

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

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section *(if applicable)*:

The Strategic and Sustainability Committee of Rumo S.A in coordination with their Treasury and Investor Relations will be responsible for evaluating and selecting eligible projects. The Treasury and Investor Relation team will also ensure that the funded projects comply to the criteria established under the Rumo S.A. Green Bond Framework. Sustainalytics considers the project selection process in line with market practice.

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 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)*:

Rumo S.A.'s Treasury department will be responsible for managing the proceeds raised under the Green Bond Framework. Rumo S.A. plans to fully allocate proceeds within 8 years after bond issuance. Until proceeds are fully allocated to eligible projects, funds will be temporarily held in liquid instruments such as cash and/or cash equivalents and/or bank deposits. This is in line with market practice.

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:

- | | |
|---|---|
| <input type="checkbox"/> Allocations to future investments only | <input checked="" type="checkbox"/> Allocations to both existing and future investments |
| <input type="checkbox"/> Allocation to individual disbursements | <input checked="" type="checkbox"/> Allocation to a portfolio of disbursements |
| <input checked="" type="checkbox"/> Disclosure of portfolio balance of unallocated proceeds | <input type="checkbox"/> Other <i>(please specify)</i> : |

4. REPORTING

Overall comment on section *(if applicable)*:

Rumo commits to providing an annual report for its green bond investors, disclosing allocations at the category level as well as some impact indicators; further impact indicators will be provided in its annual sustainability report, including the fleetwide GHG emissions intensity. Both these reports will be made publicly available on its website. Sustainalytics views Rumo S.A.'s allocation and impact reporting as aligned with market practice.

Use of proceeds reporting:

- | | |
|--|--|
| <input type="checkbox"/> Project-by-project | <input checked="" type="checkbox"/> On a project portfolio basis |
| <input type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other (<i>please specify</i>): |

Information reported:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Allocated amounts | <input type="checkbox"/> Green Bond financed share of total investment |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

Frequency:

- | | |
|--|--------------------------------------|
| <input checked="" type="checkbox"/> Annual | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (please specify): | |

Impact reporting:

- | | |
|--|--|
| <input type="checkbox"/> Project-by-project | <input checked="" type="checkbox"/> On a project portfolio basis |
| <input type="checkbox"/> Linkage to individual bond(s) | <input type="checkbox"/> Other (please specify): |

Frequency:

- | | |
|--|--------------------------------------|
| <input checked="" type="checkbox"/> Annual | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (please specify): | |

Information reported (expected or ex-post):

- | | |
|---|---|
| <input checked="" type="checkbox"/> GHG Emissions / Savings | <input checked="" type="checkbox"/> Energy Savings |
| <input type="checkbox"/> Decrease in water use | <input type="checkbox"/> Other ESG indicators (please specify): |

Means of Disclosure

- | | |
|---|--|
| <input type="checkbox"/> Information published in financial report | <input checked="" type="checkbox"/> Information published in sustainability report |
| <input type="checkbox"/> Information published in ad hoc documents | <input type="checkbox"/> Other (please specify): Company website |
| <input type="checkbox"/> 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.)

Link to framework: <http://ir.rumolog.com/enu/green-bonds> (English) | <http://ri.rumolog.com/ptb/green-bonds> (Portuguese)
 Link to Sustainability report: http://pt.rumolog.com/conteudo_pti.asp?idioma=0&conta=45&tipo=66666

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

Type(s) of Review provided:

- | | |
|--|---|
| <input type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input checked="" type="checkbox"/> Certification |
| <input type="checkbox"/> Verification / Audit | <input type="checkbox"/> Rating |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

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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The issuer is fully responsible for certifying and ensuring the compliance with its commitments, for their implementation and monitoring.

Sustainalytics

Sustainalytics is a leading independent ESG and corporate governance research, ratings and analytics firm that supports investors around the world with the development and implementation of responsible investment strategies. With 13 offices globally, the firm partners with institutional investors who integrate ESG information and assessments into their investment processes. Spanning 30 countries, the world's leading issuers, from multinational corporations to financial institutions to governments, turn to Sustainalytics for second-party opinions on green and sustainable bond frameworks. Sustainalytics has been certified by the Climate Bonds Standard Board as a verifier organization, and supports various stakeholders in the development and verification of their frameworks. In 2015, Global Capital awarded Sustainalytics "Best SRI or Green Bond Research or Ratings Firm" and in 2018 and 2019, named Sustainalytics the "Most Impressive Second Party Opinion Provider". The firm was recognized as the "Largest External Reviewer" by the Climate Bonds Initiative as well as Environmental Finance in 2018, and in 2019 was named the "Largest Approved Verifier for Certified Climate Bonds" by the Climate Bonds Initiative. In addition, Sustainalytics received a Special Mention Sustainable Finance Award in 2018 from The Research Institute for Environmental Finance Japan and the Minister of the Environment Award in the Japan Green Contributor category of the Japan Green Bond Awards in 2019.

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