

Second-Party Opinion

JSC Russian Railways Green Bond

Evaluation Summary

Sustainalytics is of the opinion that the JSC Russian Railway 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 category for the use of proceeds is aligned with those recognized as impactful by the Green Bond Principles. Sustainalytics considers that investments in electric locomotives or trains for passenger transportation will lead to positive environmental impacts and advance the UN Sustainable Development Goal (11) Sustainable cities and communities.



PROJECT EVALUATION / SELECTION JSC Russian Railway’s internal process in evaluating and selecting projects is in line with market practice. The corporate finance department, accounting, investments, passenger transportation and environment and sustainable development departments are responsible for project evaluation and selection in alignment with the Use of Proceeds outlined in the Framework.



MANAGEMENT OF PROCEEDS JSC Russian Railway’s processes for management of proceeds is aligned with market practice. Investments in eligible projects will be tracked through a Green Financing Register. Pending full allocation, proceeds may be invested in cash, cash equivalents or for repayment of short-term indebtedness where holdings do not conflict with the environmental objectives of the bond.



REPORTING JSC Russian Railways intends to report annually on allocation of proceeds and relevant impact metrics. The Green Bond Reports will be made available on the Company’s website. Sustainalytics views Russian Railway’s allocation and impact reporting as aligned with market practice.

Evaluation date	May 2019
Issuer Location	Dublin, Ireland

Report Sections

Introduction.....	
Sustainalytics’ Opinion	
Appendices	

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Introduction

Joint Stock Company Russian Railways (“JSC” or “Russian Railways” or “RZD” or the “Company”) is a fully state-owned commercial and passenger railways company. Russian Railways is one of the largest transportation companies in the world, with railway infrastructure spanning 85,500 kilometres – the third-longest rail network in existence. Russian Railways provides a full range of services in areas including freight transportation; passenger transportation; container shipping, logistics, engineering services and research and development activities, amongst others.

Russian Railways has developed the JSC Russian Railways Green Bond Framework (the “Framework”) under which it intends to issue multiple green bonds and use the proceeds to finance/refinance, in whole or in part, existing and future projects to expand the capacity for electrified rail transport in Russia. The issuing entity of green bonds will be RZD Capital PLC, an Irish financing SPV, which will subsequently on-lend proceeds to JSC Russian Railways. The Framework defines eligibility criteria in the following area:

1. Electric locomotives or trains for passenger transportation

Russian Railways engaged Sustainalytics to review the JSC Russian Railways Green Bond Framework, dated April 2019, 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 has been published in a separate document.²

As part of this engagement, Sustainalytics held conversations with various members of Russian Railways 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 Russian Railways’ green bond. Sustainalytics also reviewed relevant public documents and non-public information.

This document contains Sustainalytics’ opinion of the JSC Russian Railways 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 JSC Russian Railways Green Bond Framework is available on RZD’s website at: http://eng.rzd.ru/stactice/public/en?STRUCTURE_ID=20

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the JSC Russian Railways Green Bond Framework

Summary

Sustainalytics is of the opinion that the JSC Russian Railways Green Bond Framework is credible and impactful and aligns with the four core components of the Green Bond Principles 2018. Sustainalytics highlights the following elements of Russian Railway's green bond framework:

- Use of Proceeds:
 - Proceeds from Russian Railways' green bond will be used for financing and/or refinancing of the expansion of clean transportation in Russia through the acquisition of electric locomotives or trains for passenger transportation. The use of proceeds category, clean transportation, is recognized as credible and impactful by the GBP. Sustainalytics further highlights that the eligibility criteria is in alignment with the Low Carbon Transportation Sector Criteria of the Climate Bonds Standard. For more information on impact please see section 3. Russian Railways has confirmed to Sustainalytics that it intends to have bonds issued under the Framework certified by the Climate Bonds Initiative (CBI). Sustainalytics views this as a best-practice approach that will facilitate alignment with a 2-degree global warming scenario, consistent with the commitments established in the Paris Agreement.
 - RZD has specified a lookback period of three years from the date of issuance for refinancing activities.
- Project Evaluation and Selection:
 - Russian Railway's Corporate Finance Department, in coordination with the Accounting, the Investments, the Passenger Transportation and the Environmental and Sustainable Development Departments, will conduct a project evaluation and selection process, subject to the relevance of the outstanding or new green bond issuances. Projects that are aligned with the clean transportation use of proceeds will be considered eligible for green bond proceeds allocation. Sustainalytics notes this process is aligned with current market practice.
- Management of Proceeds:
 - To ensure proceeds are allocated in accordance with the Framework, Russian Railways Corporate Finance Department, in coordination with the Accounting, the Investments, the Passenger Transportation and the Environmental and Sustainable Development Departments will track investments in selected projects recorded in the Green Financing Register. The Company will strive to ensure that expenditures for eligible projects match or exceed the total proceeds raised over the lifetime of the bond. Pending full allocation, unallocated proceeds will be invested in temporary cash, cash equivalents and/or repayment of short-term indebtedness where such holdings, investments and/or repayments are not directly linked to the financing of activities which may conflict with the environmental objectives of the Framework. Sustainalytics considers this process to be aligned with market practice.
- Reporting:
 - Russian Railways will report annually on allocation and impact metrics. Reports will be produced as long as the green bond remains outstanding and will be located on the Company website. The Company will report on allocation to eligible projects, the amount of refinancing vs. financing and the remaining unallocated amounts, if any. Allocation will be internally verified by the management team. Regarding impact metrics, pending data availability, the Company will report on passenger-kms and CO² emissions avoided. Sustainalytics views this reporting approach as aligned with market practice.

JSC Russian Railways Green Bond Framework

Sustainalytics has determined that the Russian Railways' green bond aligns to the four core components of the Green Bond Principles 2018. For detailed information please refer to Appendix 1: Green Bond/Green Bond Programme External Review Form.

Section 2: Sustainability Strategy of JSC Russian Railways

Contribution of framework to issuer's sustainability targets

Russian Railways sustainability strategy is driven by the Company's interest in environmental protection and ensuring public health, safety and security. Russian Railways acknowledges that social responsibility must be considered throughout the entire decision-making process and is important for sustainable growth.³ Russian Railways has developed an ecological strategy, which defines goals, objectives, guidelines and tools for implementing the Company's policy in the field of environmental management and environmental protection. The target indicators for ensuring environmental safety until 2025 are set in the Long-Term Development Program of Russian Railways and are as follows:⁴

- A decrease in emission of pollutants into atmospheric air from stationary and mobile sources by 18% by 2025 against a 2018 baseline
- A decrease in greenhouse gas emissions into atmospheric air by 4.5% by 2025 against 2018
- A decrease in utilization of water resources by 20% by 2025 against a 2018 baseline
- A decrease in discharge of wastewater into surface water-bodies and on the land surface by 18% by 2025 against a 2018 baseline

Sustainalytics positively notes the application of time-bound quantifiable targets for its environmental objectives. According to the International Energy Agency and International Union of Railways, Russian Railways is one of the most energy efficient railway companies across the globe.⁷ Russia ranks first in energy efficiency of freight rail traffic compared with other European rail administrations, the railways of China, Japan, India and the USA, and ranks fourth place in passenger rail traffic after India, China and Japan.⁷ As of 2018, the Company transports more than 86.5% of passengers using electric power and has been able to decrease its annual greenhouse gas emissions by 45.7%, corresponding to 1990 levels.³ Based on the targets mentioned above and Russian Railway's success to date in electrifying its passenger transportation rolling stock and reducing its carbon intensity, Sustainalytics considers that the Company is well positioned to issue green bonds, and that proceeds will support the ongoing decarbonization of its operations.

Well positioned to address common environmental and social risks associated with the installation, operation and maintenance of electric locomotives or trains.

Sustainalytics acknowledges that increasing the capacity of electric passenger trains will have an overall positive impact. However, as with any project involving the installation, operation and maintenance of heavy equipment and machinery, the associated risks related to worker health and safety must be mitigated. Russian Railways' Policy in the Field of Occupational health and Safety, Environmental Protection and Industrial Safety is the master document that guides the Company's position, goals and objectives in relation to the safety of work and production processes.⁵ From 2010 to 2017 Russian Railways has demonstrated that its safety management has improved significantly – the number of injured was reduced by 2.9 times (from 534 in 2010 to 182 in 2017), fatal accidents fell 2.8 times from 72 to 26 and the number of serious injuries has been reduced 2.7 times from 137 to 51.5. In 2017, the Company directed RUB 20.1 bn towards the improvement of occupational health and safety measures, with the majority of funds being spent on certified individual protective equipment for workers, periodic medical examinations and health resort treatment for workers whose work involves potentially harmful conditions.⁶ Approximately 349,000 employees are exposed to harmful working conditions. Sustainalytics positively notes that the Company provides extensive public reporting on worker health and safety conditions. Based on the procedures, policies and progress that the Company has made in relation to worker health and safety, Sustainalytics

³ Russian Railways, "Corporate Citizenship", (2019), at: http://eng.rzd.ru/stalice/public/en?STRUCTURE_ID=75

⁴ Government of the Russian Federation, "Russian Railways Long-Term Development Programme", (2019), at: <http://static.government.ru/media/files/zcAMxApAgyO7PnJ42aXtXAgA2RXSVoKu.pdf>

⁵ Russian Railways, "Social responsibility report 2017", (2017), at:

http://eng.rzd.ru/stalice/public/en?STRUCTURE_ID=75&layer_id=4516&refererLayerId=4518&id=2668

⁶ According to Federal Law 426-FZ dated 28/12/2013 - Harmful working conditions (3 classes) are working conditions under which harmful factors and (or) influence factors exceed the norms, requirements of the standards (hygienic standards) of the working conditions.

JSC Russian Railways Green Bond Framework

views Russian Railways as well positioned to mitigate worker health and safety risks associated with the installation, operation and maintenance of electrified locomotives and trains for passenger transportation.

Section 3: Impact of Use of Proceeds

The use of proceeds category, clean transportation, is recognized as impactful by the GBP. Sustainalytics discusses below where the impact is specifically relevant in the local context.

Importance of clean transportation in Russia

Russia hosts several of the busiest metro systems in the world and has a share of urban rail that is higher than the world average.⁷ Much of the population relies on railways for transportation due to limited road networks, large distances and the remoteness of large parts of the country. With just over 85% of total passenger-km travelled being powered by electric trains, Russian Railways' has the third-most electrified passenger railway system in the world – surpassing both North America and Europe.⁷ Shifting long-distance trips from aviation and automobile transport to passenger trains is considered a critical part of reducing global carbon emissions.⁵ Russian Railways has reported consistent increases in the usage of its passenger railway systems over the past year.⁸ In March 2019, Russian Railways carried 93 million passengers, representing a 5% increase from the same period in 2018. As passenger transport increases and creates demand for more capacity, Russian Railways will need to accommodate those needs. By investing in electric locomotives and trains for passenger transportation, Russian Railways can continue to increase the overall portion of electrified passenger-km travel and reduce the country's dependence on diesel-based locomotives. Based on this context, Sustainalytics finds Russian Railways to be well-positioned to deliver increased capacity for clean transportation in Russia through its green bond issuance.

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 Transportation	11. Sustainable Cities and Communities	11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons

Conclusion

The Russian Railways Green Bond Framework will contribute to the Company's sustainability strategy which is underpinned by its commitment to environmental protection. The proceeds of the bond will be used to refinance and/or finance the purchase and implementation of electric trains and locomotives, expanding the electrified capacity for passenger rail transit in Russia. In addition to contributing to the Company's sustainability strategy, adding additional electric rail capacity will further advance the UN SDGs related to clean transportation. The Company's processes and procedures outlined in the Framework for project evaluation and selection, management of proceeds and reporting are all aligned with market practice. Based on this, Sustainalytics finds Russian Railways to be well-positioned to issue a green bond and the JSC Russian Railways Green Bond Framework is credible, impactful and aligned with the GBP.

⁷ International Energy Agency, "The Future of Rail", (2019), at: https://webstore.iea.org/download/direct/2434?fileName=The_Future_of_Rail.pdf

⁸ Russian Railways, "Passenger turnover on network owned by Russian Railways increased by 3.5% in IQ 2019", (2019), at: http://eng.rzd.ru/newse/public/en?STRUCTURE_ID=15&layer_id=4839&refererLayerId=3920&refererPageId=4223&id=107472

Appendices

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

Issuer name:	JSC Russian Railways
Green Bond ISIN or Issuer Green Bond Framework Name, if applicable: <i>[specify as appropriate]</i>	JSC Russian Railways Green Bond Framework
Review provider's name:	Sustainalytics
Completion date of this form:	29/04/2019
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 summarize 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.

JSC Russian Railways Green Bond Framework

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*):

Proceeds from Russian Railways' green bond will be used for financing and/or refinancing of the expansion of clean transportation in Russia through the acquisition of electric locomotives or trains for passenger transportation. The use of proceeds category, clean transportation, is recognized as credible and impactful by the GBP. Sustainalytics further highlights that eligibility criteria is in alignment with the Low Carbon Transportation Sector Criteria of the Climate Bonds Standard. For more information on impact please see section 3. Russian Railways has confirmed to Sustainalytics that it intends to have bonds issued under the Framework certified by the Climate Bonds Initiative (CBI). Sustainalytics views this as a best-practice approach that will facilitate alignment with a 2-degree global warming scenario, consistent with the commitments established in the Paris Agreement.

RZD has specified a lookback period of three years from the date of issuance for refinancing activities.

Use of proceeds categories as per GBP:

- | | |
|--|--|
| <input type="checkbox"/> Renewable energy | <input type="checkbox"/> Energy efficiency |
| <input 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):

Russian Railway's Corporate Finance Department, in coordination with the Accounting, the Investments, the Passenger Transportation and the Environmental and Sustainable Development Departments, will conduct a project evaluation and selection process, subject to the relevance of the outstanding or new green bond issuances. Projects are evaluated and selected based on the eligibility criteria. Projects that are aligned with the clean transportation use of proceeds will be considered eligible for green bond proceeds allocation. Sustainalytics notes this process is aligned with current market practice.

JSC Russian Railways Green Bond Framework

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

3. MANAGEMENT OF PROCEEDS

Overall comment on section (*if applicable*):

To ensure proceeds are allocated in accordance with the Green Bond Framework, Russian Railways Corporate Finance Department, in coordination with the Accounting, the Investments, the Passenger Transportation and the Environmental and Sustainable Development Departments will track investments in selected projects recorded in the Green Financing Register. The Company will strive to ensure that expenditures for eligible projects match or exceed the total proceeds raised over the lifetime of the bond. Pending full allocation, unallocated proceeds will be invested in temporary cash, cash equivalents and/or repayment of short-term indebtedness where such holdings, investments and/or repayments are not directly linked to the financing of activities which may conflict with the environmental objectives of the JSC Russian Railways Green Bond Framework. Sustainalytics considers this process to be aligned with market practice.

Tracking of proceeds:

- Green Bond proceeds segregated or tracked by the issuer in an appropriate manner
- Disclosure of intended types of temporary investment instruments for unallocated proceeds
- Other (*please specify*):

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 type="checkbox"/> Disclosure of portfolio balance of unallocated proceeds | <input type="checkbox"/> Other (<i>please specify</i>): |

JSC Russian Railways Green Bond Framework

4. REPORTING

Overall comment on section (if applicable):

Russian Railways will report annually on allocation and impact metrics. Reports will be produced as long as the green bond remains outstanding and will be located on the Company website. The Company will report on allocation to eligible projects, the amount of refinancing vs. financing and the remaining unallocated amounts, if any. Allocation will be internally verified by the management team. Regarding impact metrics, pending data availability, the Company will report on passenger-kms and CO2 emissions avoided. Sustainalytics views this reporting approach 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 checked="" 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 (<i>please specify</i>): | |

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 (<i>please specify</i>): |

Frequency:

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

Information reported (expected or ex-post):

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

Means of Disclosure

- | | |
|---|---|
| <input type="checkbox"/> Information published in financial report | <input type="checkbox"/> Information published in sustainability report |
| <input type="checkbox"/> Information published in ad hoc documents | <input checked="" type="checkbox"/> Other (<i>please specify</i>): Available on company website |
| <input type="checkbox"/> Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review): | |

JSC Russian Railways Green Bond Framework

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.)

http://eng.rzd.ru/stalice/public/en?STRUCTURE_ID=75&layer_id=4516&refererLayerId=4516&id=2669

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

Type(s) of Review provided:

- | | |
|---|--|
| <input checked="" type="checkbox"/> Consultancy (incl. 2 nd opinion) | <input type="checkbox"/> Certification |
| <input checked="" 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 recognized 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 specialized 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 Opinion was drawn up with the aim to provide objective information on why the analyzed bond is considered sustainable and responsible, and is intended for investors in general, and not for a specific investor in particular. Consequently, this Opinion is for information purposes only and Sustainalytics will not accept any form of liability for the substance of the opinion and/or any liability for damage arising from the use of this Opinion and/or the information provided in it.

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The client is fully responsible for certifying and ensuring its commitments’ compliance, implementation and monitoring.

In case of discrepancies between the English language and translated versions, the English language version shall prevail.

Sustainalytics

Sustainalytics is a leading independent ESG and corporate governance research, ratings and analytics firm that support 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.

For more information, visit www.sustainalytics.com

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