JSC Russian Railways

Green Bond Framework

May 2019

Introduction

Joint Stock Company Russian Railways (the "Company", "Russian Railways" or "RZD"), and its subsidiaries (the "Group") is Russia's largest railway transportation services provider, and one of the largest transportation companies in the world. It is the owner and operator of Russia's approximately 85,500 kilometre-long rail system and related infrastructure. As at 31 December 2018, Russia's rail system was the world's third longest railway network, the world's second largest railway in terms of freight turnover (measured in tonne-kilometres) and the world's fourth largest railway in terms of passenger turnover (measured in passenger-kilometres).[1] Russian Railways has been state-owned since its creation in 2003. In addition to the rail system, the Group owns and operates nearly all of the locomotives in Russia, is one of the largest Russian owners and operators of freight rolling stock and carries virtually all long-haul (to destinations over 200 kilometres) railway passengers. Suburban railway passenger operations (to destinations under 200 kilometres) are mainly carried out by suburban rail passenger companies, which are either the Company's subsidiaries or entities in which the Company holds a minority stake.

The Group provides freight and passenger transportation, railway infrastructure construction, rolling stock repair and maintenance services, engages in research and operates entities serving various social purposes.

Further information relating to the Company is available on its website.[2]

Sustainable Development

Russian Railways has been an active participant in the UN Global Compact since December 2007[3]. The Company complies with the principles of socially responsible business practices set out in the Social Charter of the Russian Business adopted by the Russian Union of Industrialists and Entrepreneurs[4].

Russian Railways developed and approved the Concept of Environmental Protection and Environmental Protection Policy, and set guidelines for reducing pollution and energy consumption in providing its services. Russian Railways' conservation activities are focused on developing the 'green' economy which is based on: (i) employing energy savings measures, (ii) introducing of clean technologies, (iii) utilising renewable and alternative energy sources, and (iv) implementing comprehensive solutions for the re-use of waste in production processes.

Additional information is available on the Company website[5].

[1] Based on information supplied by Rosstat, CIA World Factbook, Indian Railways, U.S. Department of Transportation - Bureau of Transportation Statistics, Eurostat, National Bureau of Statistics of China
[2] http://eng.rzd.ru/
[3] https://www.unglobalcompact.org/what-is-gc/participants/5702-JSC-Russian-Railways
[4] http://eng.rspp.ru/simplepage/860
[5] http://eng.rzd.ru/statice/public/en?STRUCTURE_ID=75

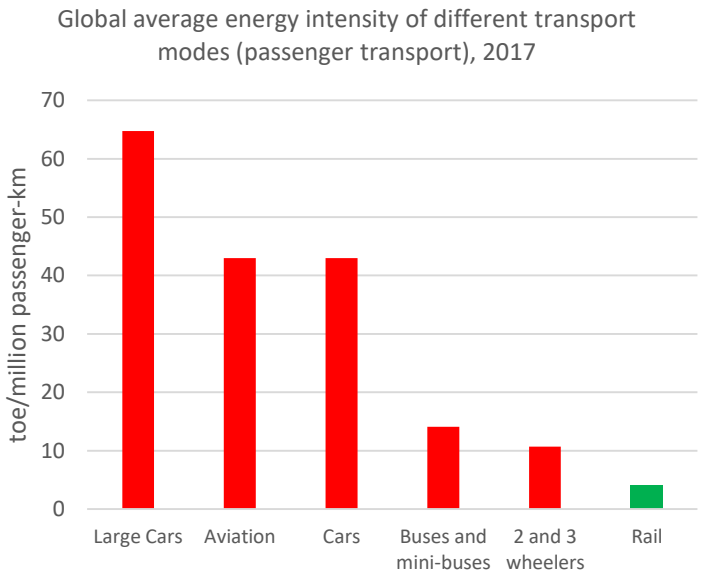
Environmental Objectives and Rationale for Green Bond Issuance

The Environmental Objective of the Russian Railways Green Bond is to support the realisation of the environmental benefits of passenger transportation through the utilisation of electric trains with the intention of (i) reducing energy consumption per passenger-kilometre travelled and (ii) minimising greenhouse gas and other harmful emissions with the use of electric locomotives (while also recognising that the overall benefits are dependent on the carbon intensity of the electric power supplied for the operation of its electric locomotives). These objectives are clearly aligned with the Company's current strategy as published,[6] which explicitly reflects the intention to pursue further electrification of the rail system.

Passenger rail is the most efficient mode of transport (accounting for 9% of activity but only 1% of energy demand globally) both in terms of energy use and CO_2 emissions per passenger-kilometre and the reduced reliance on diesel fuel by way of continued electrification of the rail lines.[7]

Furthermore, rail transportation offers well-recognised environmental benefits, including reduced emissions per passenger transported compared to other modes of transport, as well as an opportunity to further reduce direct greenhouse gas and other emissions through electrification. The indirect emissions associated with electrified rail transportation may be reduced further still by increasing the proportion of renewable energy supplied to the grid through which electricity to power the locomotives is sourced.

The chart set out below illustrates the differences in the average energy intensity of different transportation modes for passenger transportation, thereby highlighting the comparative attractiveness of rail transportation.



Source: The Future of Rail – Opportunities for energy and the environment, International Energy Agency 2019. toe – tonne of oil equivalent.

[6] http://eng.rzd.ru/statice/public/en?STRUCTURE_ID=7
[7] https://www.iea.org/tcep/transport/rail/

Therefore, RZD believes its business model, as it relates to the continued expansion of passenger mass transit capacity and increasing the availability of electric trains, has the potential to make an important contribution toward the decarbonisation of the economy, and wishes to offer prospective green bond investors an opportunity to support the financing of low-carbon transportation assets and infrastructure in the Russian Federation.

Application of the Green Bond Principles

This Framework has been established to deliver transparency on the proposed Russian Railways Green Bond. The Framework is designed to demonstrate alignment with the Green Bond Principles 2018[8], and the Climate Bonds Initiative (CBI) Low Carbon Transportation Standard[9].

The Framework is also intended to align (to the extent currently possible) with the Proposal for the EU Green Bond Standard, and the proposals to develop an EU classification of environmentally sustainable economic activities (the 'Taxonomy'). [10,11] It is Russian Railways' intention to review and potentially update the Framework as and when any EU Green Bond Standard and/or classification system (Taxonomy) enters into force.

Use of Proceeds

The Green Bond's net proceeds (or an amount equal to the Green Bond's net proceeds) will be used to finance and/or refinance, in whole or in part, Russian Railways' expenditures relating to the Eligible Green Project Categories as detailed below.
Eligible projects include existing, ongoing, and/or future projects as categorised below. Eligible projects are mapped to the relevant Sustainable Development Goals[12] where applicable.

[8] https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/
[9] https://www.climatebonds.net/standard/transport
[10] https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/190306-sustainable-finance-teg-interim-report-green-bond-standard-annex_en.pdf
[11] https://ec.europa.eu/info/sites/info/files/business_economy_euro/banking_and_finance/documents/sustainable-finance-taxonomy-feedback-and-workshops_en.pdf. Note: at the time of writing, the European Commission Technical Expert Group on Sustainable Finance had included the following sectors relevant to Russian Railways in the 'EU Taxonomy pack for feedback and workshops invitations', dated 2019: NACE code 49.10 (Passenger rail transport (Interurban)); NACE code 49.20 (Freight rail transport); NACE code 49.31 (Urban and suburban passenger land transport services (public transport)); NACE codes 42.11, 42.12, 42.13 (Infrastructure for low carbon transport).
[12] http://www.undp.org/content/undp/en/home/sustainable-development-goals.html

Green Bond Principles - Eligible Green Project Categories[13]	Use of Proceeds	Example Eligible Green Projects	Example Impact Metrics	Relevant SDGs
Clean Transportation (such as electric, hybrid, public, rail, non-motorised, multi-modal transportation, infrastructure for clean energy vehicles and reduction of harmful emissions);	Financing and/or re-financing of loans relating to acquisition of electric locomotives or trains for passenger transportation.	Acquisition of electric locomotives or trains for passenger transportation	Passenger-kilometres (i.e. the transportation of one passenger over one kilometre) and/or passengers; GHG\CO2 emissions reduced/avoided	 SDG Targets: 11.2 By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all […] 9.1: Develop quality, reliable, sustainable and resilient infrastructure […] 9.4: By 2030, upgrade infrastructure and retrofit industries to make them sustainable […]

Process for Project Evaluation and Selection

Russian Railways' Corporate Finance Department, in coordination with the Accounting, the Investments, the Passenger Transportation and the Environment and Sustainable Development Departments, will evaluate and select Projects for eligibility, subject to the relevance of the outstanding or new green bond issuances. Projects that are aligned with the Use of Proceeds (as described above) will be considered eligible for a green bond proceeds allocation. Eligible Projects will be recorded in a Green Financing Register and tracked for the purposes of allocation of proceeds from the Green Bond. For the purposes of the Russian Railways Green Bond, 'Project' refers solely to the acquisition of electric locomotives and trains, therefore, no additional process is anticipated to be required for the purposes of Project Evaluation and Selection. The aforementioned departments will prepare an annual report, which will be published on the Company's website (http://eng.rzd.ru).

Management of Proceeds

To ensure proceeds are allocated in accordance with this Green Bond Framework, the 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. An amount equal to the

[13] https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/

net proceeds will be used to finance and refinance Eligible Green Projects (where expenditures relating to the Projects have been incurred during a three year period prior to the date of issuance of a relevant Green Bond). Expenditures on Eligible Green Projects over the period will match or exceed the total proceeds raised by the issuance of the Green Bond.

Pending allocation or reallocation to Eligible Projects, an amount equal to the net proceeds of the bond will be held in bank deposits in cash or invested in liquid securities, and/or used for the 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 Russian Railways Green Bond.

Both, principal and accrued interest under the Green Bonds will be paid from Russian Railways' general funds and will not be directly linked to the performance of the Eligible Green Projects.

Reporting

As long as the Green Bonds are outstanding, and in accordance with Climate Bonds Initiative (CBI) Certification requirements, Russian Railways will publish annual Green Bond Reports on the Company's website[14][15]. These reports will include (subject to availability of suitable information and data):

1. Allocations by Eligible Project category, including example case studies, and details of Eligible Green Projects;
2. Relevant outcomes/impacts (e.g. passenger-kilometres, CO_2 emissions reduced);
3. Amount of cash or cash equivalents remaining to be allocated;
4. Share of new financing compared to refinancing;
5. Confirmation by the Company management that an amount equal to the net proceeds was allocated to Eligible Projects;
6. Details of Post-Issuance Certification procedures performed by an accredited External Reviewer in accordance with the CBI Certification requirements.

External Review

Sustainalytics was engaged[16] to provide a Second Party Opinion together with Verifier Reports for the purposes of CBI Certification[17] of Russian Railways' Green Bonds.

The Second Party Opinion, Verifier's Report, and CBI Certificate will be published on Russian Railways' website.

Russian Railways intends to retain Sustainalytics to also perform a Post-Issuance Verification in accordance with the CBI Certification requirements.

[14] Note – Green Bond Reports may also be prepared to reflect the Reporting requirements of the EU Green Bond Standard as and when any such Standard may enter into force.
[15] Recognised guidance may also be taken into account as appropriate in the compilation of the Green Bond Reports (for example the Suggested Impact Reporting Metrics for Clean Transportation Projects published in June 2018 by the Green Bond Principles Impact Reporting Working Group).
[16] A suitably-accredited External Reviewer may be retained in future upon any entry into force of an EU Green Bond Standard in order to verify the alignment of the bonds with the Standard.
[17] https://www.climatebonds.net/certification