

Second-Party Opinion

TransLink Green Bond

Evaluation Summary

Sustainalytics is of the opinion that the TransLink 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 six eligible categories for the use of proceeds are aligned with those recognized by the Green Bond Principles. Sustainalytics considers that projects related to clean transportation, renewable energy, energy efficiency, pollution prevention and control, green buildings, and climate change adaptation will lead to positive environmental impacts and advance UN Sustainable Development Goals 6, 7, 11, and 13.



PROJECT EVALUTION / SELECTION TransLink's Corporate Finance Department, with advice from internal stakeholders including the Corporate Sustainability, Treasury, and Capital Asset Management teams, will conduct the project selection process. All projects must comply with internal policies and guidelines and applicable laws and regulations. Sustainalytics considers this to be in line with market practice.



MANAGEMENT OF PROCEEDS TransLink will deposit and record funds in a separate designated TransLink Green Bond Proceeds account. The allocation of funds will be tracked internally by the Corporate Finance Department. This is in line with market practice.



REPORTING TransLink intends to report on the allocation of proceeds on an annual basis. In addition, key performance indicators such as GHG emissions reduced and kWh of power generated from renewable energy will be reported. In Sustainalytics' view, reporting on these metrics is in line with market practice.



Evaluation date

October 1, 2018

Issuer Location

New Westminster, Canada

Report Sections

Introduction	2
Sustainalytics' Opinion	3
Appendices	8

For inquires, contact the Sustainable Finance Solutions project team:

Marion Oliver (Toronto)

Project Manager marion.oliver@sustainalytics.com (+1) 647 317 3644

Zach Margolis (Toronto)

Project Support zach.margolis@sustainalytics.com (+1) 647 695 4341

Ian Howard (Toronto)

Client Relations Director susfinance.americas@sustainalytics.com (+1) 646 518 9623



Introduction

The South Coast British Columbia Transportation Authority (TransLink) is Metro Vancouver's public transportation authority. Metro Vancouver is home to over 2.5 million people, making it the third-largest metropolitan area in the country. TransLink covers a service area of more than 1,800 square kilometres with ridership in 2017 amounting to 408 million boardings.

TransLink has developed the TransLink Green Bond Framework (the "Framework") under which it intends to issue green bonds and use the proceeds to finance and refinance, in whole or in part, existing and future projects that provide environmental benefits to TransLink and the region, and support the achievement of environmental and climate goals. The Framework defines eligibility criteria in six areas:

- 1. Clean Transportation
- 2. Renewable Energy
- 3. Energy Efficiency
- 4. Pollution Prevention and Control
- Green Buildings
- 6. Climate Change Adaptation

TransLink engaged Sustainalytics to review the TransLink Green Bond Framework and provide a second-party opinion on the alignment of the green bond with the Green Bond Principles 2018 (the "GBP"), as administered by the International Capital Market Association (the "ICMA"),² and the Framework's environmental credentials. This framework has been published in a separate document.³

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

This document contains Sustainalytics' opinion of the TransLink Green Bond Framework and should be read in conjunction with that framework.

¹ Metro Vancouver is the region in which TransLink operates, in and around the City of Vancouver. Metro Vancouver consists of 21 municipalities, one unincorporated electoral area, and one treaty First Nation.

² ICMA's Green Bond Principles 2018 https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/

³ https://www.translink.ca/About-Us/Investor-Relations.aspx



Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the TransLink Green Bond Framework

Summary

Sustainalytics is of the opinion that the TransLink 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 TransLink's Framework:

- The eligible use of proceeds categories (i.e. clean transportation, renewable energy, energy efficiency
 pollution prevention and control, green buildings, and climate change adaptation) are all recognized by
 the Green Bond Principles as project categories with clear environmental benefits, and Sustainalytics
 views these projects as having a positive environmental impact (for additional information on impact see
 Section 3).
 - The Clean Transportation eligibility criterion includes both electrification and the use of renewable fuels, including renewable natural gas and renewable diesel (HDRD). The Framework clarifies that HDRD will be procured only from waste or local sources; Sustainalytics considers that this clarification strengthens the eligibility criteria by addressing risks around deforestation and/or palm oil.
 - The Green Buildings eligibility criterion for new buildings or retrofitted existing buildings is based on the third-party certification standard LEED (Gold or higher). Sustainalytics considers this to be in line with market practice.
 - TransLink has identified that climate change may pose risks to its assets and operations. In 2012 the organization conducted a Vulnerability Assessment and as part of its ongoing Asset Management Program is identifying critical assets and their conditions. Based on the findings of these investigation, improvements such as redesigning, retrofitting, and upgrading assets may be financed. Given the formalized process to determine expected climate impacts, Sustainalytics considers that this use of proceeds will have positive climate adaptation impacts.
- TransLink's Corporate Finance Department is responsible for project evaluation and selection, this department includes the Corporate Sustainability, Treasury and Capital Asset Management functions. Project selection and evaluation is completed in consultation with TransLink's bus and rail operating companies, and other relevant business units such as Policy and Planning, Infrastructure and Engineering, Enterprise Risk Management, Strategic Sourcing and Real Estate, and Emergency Management. Sustainalytics considers that the collaboration between relevant business units is likely to strengthen the implementation of the green bond framework and is in line with market practice,
- The proceeds of the green bond(s) will be deposited in a separate TransLink Green Bond Proceeds designated account, managed by the Corporate Finance Department. All green bond proceeds will be clearly recorded and tracked in TransLink's records and books of account.
 - For the majority of cases, where projects are underway or completed, proceeds will be allocated immediately.
 - Any proceeds that are not immediately allocated will be held in a temporary cash account or invested in liquid fixed income instruments in accordance with TransLink's Investment Policy.
 - Based on the commitment to tracking of funds, and the disclosure of intended temporary investments, Sustainalytics considers TransLink's management of proceeds process to be line with market practice.
- On an annual basis, until full allocation of the proceeds, TransLink will publish a green bond information report addressing both allocation and impact reporting.
 - Allocation reporting will include a summary of TransLink's green bond developments, including
 existing and future projects, allocation to green bond categories, and updates with respect to
 the distribution of unspent bond proceeds.
 - TransLink will also provide impact reporting, wherever possible, on such KPIs as GHG emissions reduced, kWh of power generated from renewable energy, amount of waste diverted from landfills, and/or eligible buildings that received third-party environmental certifications.
 - Reporting on these metrics is in line with market practice.



Alignment with Green Bond Principles 2018

Sustainalytics has determined that TransLink's Green Bond Framework 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 the Issuer

Contribution of framework to issuer's sustainability strategy

TransLink's overall mission statement includes the goal of "providing a sustainable transportation network";⁴ building on this philosophy, Translink has implemented a sustainability policy outlining its approach to sustainability issues. Overall, it states the organization's intention to make "sustainability a key factor in all our strategies, plans, business practices, decisions and operations."⁵ TransLink is a signatory to the American Public Transportation Association's (APTA) Sustainability Commitment,⁶ a series of four core principles to which agencies must subscribe and additional sustainability goals. TransLink is one of only five Platinum level signatories in North America, an award given based on achieving quantitative progress on various sustainability indicators such as resource use, emissions, and passenger trips per capita.⁷

Additionally, TransLink is committed to tracking its progress, and reports on sustainability metrics as part of its Annual Accountability Report,⁸ including:

- Greenhouse gas emissions, on an aggregate basis and per passenger. Emissions from the revenue fleet, making up 92% of the organization's total emissions, increased to 136,819 tonnes of carbon dioxide equivalent (CO₂e); however, this represented a decrease to the emissions per boarded passenger, which was 335 grams CO₂e, the lowest mark attained over the five-year tracking period.
- Air pollutants from vehicles and energy consumption at its facilities. TransLink notes that in 2017, the
 amount of criteria air pollutants emitted remained constant at 713 tonnes, while the amount of service
 provided increased. Meanwhile, energy consumption at transit facilities reached a five-year high; the
 organization notes that this increase has driven the opening of a new transit centre and seven new rapidtransit stations, and restates its commitment to energy retrofits to control consumption, including a
 recently completed upgrade which has reduced energy use by 17% at one facility.
- Corporate water use and waste diversion rates. TransLink notes that current water use statistics include
 only bus operations, and efforts to incorporate rail operations into these figures are currently underway.

TransLink has disclosed to Sustainalytics that, in October 2018, the organization will formally adopt two environmental targets:

- 80 per cent reduction of greenhouse gas emissions by 2050 and;
- Utilization of 100 per cent renewable energy in all operations by 2050.

To support these targets, TransLink is developing a Low Carbon Fleet Strategy which will provide the organization with a roadmap to transition to electric-battery buses, with the use of renewable fuels, such as renewable natural gas and renewable diesel in the interim. An enterprise-wide Facility Management Plan will also be developed to identify the pathway to 100 per cent renewable energy.

Based on the stated sustainability objectives, recognition from industry groups, the setting of quantitative targets and tracking of progress, Sustainalytics views positively TransLink's sustainability strategy, and believes that the organization is well-positioned to issue green bonds.

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

Projects in the eligibility categories specified by the Framework deliver environmental benefits. However, as with any large infrastructure project, adverse environmental or social risks may arise. In particular, for transit-

⁴ https://www.translink.ca/About-Us/Corporate-Overview/Vision-Mission-and-Values.aspx

⁵ https://www.translink.ca/-/media/Documents/about_translink/corporate_overview/policies/sustainability_policy.pdf

⁶ https://www.apta.com/resources/hottopics/sustainability/Pages/Commitment.aspx

⁷ https://www.apta.com/resources/hottopics/sustainability/Documents/APTA%20Sustainability%20Commitment%20%20Transit%20Agencies%20Overview.pdf

⁸ https://view.publitas.com/translink/translink_2017_accountability_report/page/26



related projects, these may include air, water, or soil pollution, noise impacts, worker health and safety, and community opinion.

TransLink has procedures and processes in place to help mitigate the aforementioned risks, including:

- An Environmental Management Program, which is sponsored by the CFO & Executive Vice President of Finance and Corporate Services, and led by the Director of Enterprise Risk & Sustainability with support from staff across the enterprise.⁹ Updates on the Environmental Management Program are provided to TransLink's Board of Directors, Finance and Audit Committee on a semi-annual basis.
- Coast Mountain Bus Company, the wholly-owned subsidiary responsible for bus services, utilizes an Environmental Management System which aligns with ISO 14001:2015 in order to manage its environmental risk.¹⁰
- TransLink has developed and implemented Principles for Public Consultation and Engagement, in order to ensure that public and stakeholder concerns and inputs are addressed.¹¹

Based on the policies and procedures in place, Sustainalytics is of the opinion that TransLink is well-positioned to manage the environmental and social risks associated with the projects funded by its green bond(s).

Section 3: Impact of Use of Proceeds

All six use of proceeds categories are recognized as impactful by the Green Bond Principles. Sustainalytics has focused below on those where the impact is specifically relevant in the local context and to TransLink's primary business.

The importance of environmentally sustainable transportation

The public transit system operated by TransLink plays a crucial role in transportation in the Metro Vancouver region. In 2017, ridership in Metro Vancouver reached a record-breaking 408 million boardings, a 5.7 per cent increase over 2016,¹² exceeding the transit growth of any other major city in North America.¹³ Nevertheless, 69% of individuals commuted by private vehicle, 59% in single-occupancy vehicles,¹⁴ a slight decrease from the 72% of such trips in 2011.¹⁵ According to Metro Vancouver, light duty vehicles are the largest source of greenhouse gas emissions, making up 31% of such emissions in the region.¹⁶

In 2011, Metro Vancouver published a Regional Growth Strategy known as Metro 2040, describing how the region would grow to accommodate 1 million new residents within a 30-year period. Metro 2040 developed strategies to meet five goals, one of which is to support sustainable transportation choices.¹⁷ The Regional Transportation Strategy (RTS), outlines TransLink's role in achieving regional transportation goals, and has as its two headline targets to make it possible for half of all trips to be made by walking, cycling and transit and reduce people's driving distances by one-third.¹⁸

The Mayor's 10-Year Vision for Metro Vancouver Transportation, a transit and transportation plan that reflects agreement by 23 local governments across Metro Vancouver, outlines prioritized investments to advance the goals of the RTS, including new services and infrastructure. The Vision is being carried out through a series of investment plans, which include capital and operational expenditures over the ten-year period. ¹⁹ The Phase 1 Investment Plan, which began in 2017, consisted of investments in service improvements across the transit network, as well as funding for new walking, cycling, and road infrastructure. ²⁰ The Phase 2 Investment Plan,

⁹ https://view.publitas.com/translink/translink_2017_accountability_report/page/10

¹⁰https://www.translink.ca//media/Documents/about_translink/corporate_overview/corporate_reports/quarterly_reports/2017/2017_Year_End_Financial_and_Performance_Report.pdf

https://www.translink.ca/About-Us/Corporate-Overview/Principles-for-Public-Consultation.aspx

¹² https://www.translink.ca/About-Us/Media/2018/June/Highlights-from-2017-ridership-data.aspx

¹³ https://www.translink.ca/About-Us/Media/2018/February/2017-Ridership-Backgrounder.aspx

 $^{^{14}} https://www12.statcan.gc.ca/censusrecensement/2016/dppd/prof/details/page.cfm?Lang=E\&Geo1=CMACA\&Code1=933\&Geo2=PR\&Code2=59\&Datalenerses. A count&SearchText=Vancouver&SearchType=Begins&SearchPR=01\&B1=Journey%20to%20work&TABID=1$

¹⁵ http://www.metrovancouver.org/metro2040/sustainable-transportation/vehicle-use/mode-share/Pages/default.aspx

 $^{^{16} \, \}underline{\text{http://www.metrovancouver.org/services/air-quality/emissions-monitoring/emissions/emission-inventories/Pages/default.aspx}$

¹⁷ http://www.metrovancouver.org/services/regional-planning/PlanningPublications/RGSAdoptedbyGVRDBoard.pdf

¹⁸ https://www.translink.ca/Plans-and-Projects/Regional-Transportation-Strategy.aspx

¹⁹ https://tenyearvision.translink.ca/

²⁰ https://www.translink.ca/-/media/Documents/about_translink/governance_and_board/council_minutes_and_reports/2017/July/Item-31–Appendices-A-B-and-C-Mayors-Council-PUBLIC-MTG-Update-to-Phase-One-Plan.pdf



which started in 2018, includes major projects such as the Millennium Line Broadway extension, involving tunneling the SkyTrain westward and building six new stations, and new Light Rail infrastructure in Surrey, as well as other improvements to transit and mobility infrastructure.²¹

In this context, Sustainalytics is of the opinion that the use of proceeds from the green bond(s) will advance TransLink's overall strategic goals and provide environmental benefits to the Metro Vancouver region.

The impact of transitioning to renewable fuels for public transportation

The TransLink Green Bond Framework includes as an eligible project, within the category of clean transportation, electrification and the use of renewable fuels. TransLink's current fleet of vehicles operates on a variety of fuels. The Skytrain and the Canada Line are electrically powered, while the West Coast Express passenger train and SeaBus passenger ferries are powered by diesel engines. The bus services, which account for 81% of TransLink's greenhouse gas emissions,²² operates on a variety of fuels; as of year-end 2017 the main bus fleet (excluding contracted services and community shuttles) was 19% electric trolley buses, 10% compressed natural gas buses, 18% diesel-hybrid buses, and 52% diesel buses.²³

According to a report from MJ Bradley & Associates,²⁴ there are "realistically, only two broad options for significant GHG reduction (>60%) from transit buses:" decarbonized existing fuel sources, such as renewable natural gas (RNG) or hydrogenation-derived renewable diesel fuel (HDRD), or electrification through battery, trolley, or fuel cell. RNG is generally sourced from landfills or anaerobic digestion of wastes, providing very low life-cycle carbon emissions, and is functionally identical to conventional natural gas.²⁵ HDRD is produced by the chemical transformation of plant and vegetable oils, and provides reductions in greenhouse gas emissions compared to fossil fuels, without the "blend wall" limitations of biodiesel.²⁶ Both RNG and HDRD have the benefit of being capable of being used as a "drop in" substitute fuel, without necessitating any changes to existing fleet engine types.²⁷ The report from MJB&A projects GHG savings of 92-97% by 2050 if TransLink transitions its fleet fully to RNG and HDRD as a bridge during a long-term transition to electrification.

Sustainalytics is of the opinion that these transitions will have significant benefits in reducing greenhouse gas emissions. Sustainalytics also notes that while biofuels sourced from potential food crops, such as vegetable or palm oils, may have environmental or social risks and by specifying that HDRD come from "local and/or waste" sources, TransLink has addressed many of the concerns around deforestation and the competition with food crops in emerging markets.

Alignment with and contribution to the UN Sustainable Development Goals

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	11.2 By 2030, provide access to safe, affordable, accessible and sustainable
Green Buildings	Communities	transport systems for all, improving road safety, notably by expanding public transport.
		11.3 By 2030, enhance inclusive and sustainable urbanization and capacity for participatory, integrated and sustainable human settlement planning and management in all countries.
Renewable Energy	7. Affordable and Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix
Energy Efficiency		

²¹ https://tenyearvision.translink.ca/planned-projects

²² https://view.publitas.com/translink/translink_2017_accountability_report/page/26

²³ https://www.translink.ca/About-Us/Corporate-Overview/Operating-Companies/CMBC/Fleet-and-Technologies.aspx

 $^{^{\}rm 24}$ TransLink has provided Sustainalytics with an excerpt of this report.

²⁵ https://www.mjbradley.com/sites/default/files/MJB%26A_RNG_Final.pdf

²⁶ https://www.sciencedirect.com/science/article/pii/S0960148114001657?via%3Dihub

https://www.nrcan.gc.ca/sites/www.nrcan.gc.ca/files/oee/files/pdf/transportation/alternative-fuels/resources/pdf/HDRD_Final_Report_eng.pdf



		7.3 By 2030, double the global rate of improvement in energy efficiency.
Pollution Prevention and Control	6. Clean Water and Sanitation	6.3 By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
Climate Change Adaptation	13. Climate Action	13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries.

Conclusion

TransLink has developed a Green Bond Framework under which it intends to issue green bonds. Proceeds of the bonds will be used to finance or refinance expenditures in the areas that promote a transition to low-carbon and climate-resilient public transport including: (i) Clean Transportation. (ii) Renewable Energy, (iii) Energy Efficiency, (iv) Pollution Prevention and Control, (v) Green Buildings, and (vi) Climate Change Adaptation. Sustainalytics considers that the project funded by the green bond proceeds will provide positive environmental impacts, and support TransLink's sustainability objectives.

The use of proceeds specified in the Framework is aligned with the categories listed by the Green Bond Principles 2018; there is a transparent process for project selection and the management and tracking of funds; and commitments have been made to report on allocation and impacts. Furthermore, Sustainalytics views the projects as advancing UN Sustainable Development Goals 6, 7, 11, and 13.

Based on the above, Sustainalytics considers that the TransLink Green Bond Framework is credible, robust and aligns with the four core components of the Green Bond Principles 2018.



Appendices

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

Issuer name:	TransLink
reen Bond ISIN or Issuer Green Bond Framework Name, if applicable: [specify as appropriate]	TransLink Green Bond Framework
Review provider's name:	Sustainalytics
Completion date of this form:	October 1, 2018
Publication date of review publication: [where appropriate, specify if it is an update and add reference to earlier relevant review]	

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:

\boxtimes	Use of Proceeds	\boxtimes	Process for Project Evaluation and Selection
\boxtimes	Management of Proceeds	\boxtimes	Reporting
ROLE(S	S) OF REVIEW PROVIDER		
	Consultancy (incl. 2 nd opinion)		Certification
	Verification		Rating
	Other (please specify):		
	Note: In case of multiple reviews / different pro review.	viders	s, please provide separate forms for each

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



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 six eligible categories for the use of proceeds are aligned with those recognized by the Green Bond Principles. Sustainalytics considers that projects related to clean transportation, renewable energy, energy efficiency, pollution prevention and control, green buildings, and climate change adaptation will lead to positive environmental impacts and advance UN Sustainable Development Goals 6, 7, 11, and 13.

Use of proceeds categories as per GBP:

\boxtimes	Renewable energy	\boxtimes	Energy efficiency
\boxtimes	Pollution prevention and control		Environmentally sustainable management of living natural resources and land use
	Terrestrial and aquatic biodiversity conservation	\boxtimes	Clean transportation
	Sustainable water and wastewater management	\boxtimes	Climate change adaptation
	Eco-efficient and/or circular economy adapted products, production technologies and processes	\boxtimes	Green buildings
	Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBPs		Other (please specify):

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

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

TransLink's Corporate Finance Department, with advice from internal stakeholders including the Corporate Sustainability, Treasury, and Capital Asset teams, will conduct the project selection process. All projects must comply with internal policies and guidelines and applicable laws and regulations. Sustainalytics considers this to be in line with market practice.



Eval	uation and selection				
	Credentials on the issuer's environmental sustainability objectives		Documented process to determine that projects fit within defined categories		
	Defined and transparent criteria for projects eligible for Green Bond proceeds		Documented process to identify and manage potential ESG risks associated with the project		
	Summary criteria for project evaluation and selection publicly available		Other (please specify):		
Info	rmation on Responsibilities and Accountability				
\boxtimes	Evaluation / Selection criteria subject to external advice or verification		In-house assessment		
	Other (please specify):				
3. M	ANAGEMENT OF PROCEEDS				
Ove	rall comment on section (if applicable):				
TransLink will deposit and record funds in a separate designated TransLink Green Bond Proceeds account. The allocation of funds will be tracked internally by the Corporate Finance Department. This is in line with market practice.					
Trac	king of proceeds:				
\boxtimes	⊠ Green Bond proceeds segregated or tracked by the issuer in an appropriate manner				
\boxtimes	 Disclosure of intended types of temporary investment instruments for unallocated proceeds 				
	Other (please specify).				
Addi	itional disclosure:				
	Allocations to future investments only		Allocations to both existing and future investments		
	Allocation to individual disbursements		Allocation to a portfolio of disbursements		

Other (please specify):

Disclosure of portfolio balance of unallocated proceeds



4. REPORTING

Overall comment on section (if applicable):

TransLink intends to report on the allocation of proceeds on an annual basis. In addition, key performance indicators such as GHG emissions reduced and kWh of power generated from renewable energy will be reported. In Sustainalytics' view, reporting on these metrics is in line with market practice.

Use	of proceeds repor	ting:			
	Project-by-proje	ect	\boxtimes	On a pro	ject portfolio basis
	Linkage to indiv	idual bond(s)		Other (p	lease specify):
	Information	reported:			
		Allocated amounts			Green Bond financed share of total investment
		Other (please specify):			
	Fre	quency:			
	\boxtimes	Annual			Semi-annual
		Other (please specify):			
Imp	act reporting:				
	Project-by-proje	ct	\boxtimes	On a pro	oject portfolio basis
	Linkage to indiv	idual bond(s)		Other (p	olease specify):
	Fre	quency:			
		Annual			Semi-annual
		Other (please specify):			
	Info	ormation reported (expected o	or ex-	post):	
		GHG Emissions / Savings			Energy Savings (kWh)
		Decrease in water use			Other ESG indicators (please specify): Air pollutants reduced (Criteria Air Contaminants reduced) (tonnes)



			Cycling, walking and transit trips as percentage of mode share (percentage)
			Support for biking infrastructure (kms)
			kWh of power generated from renewable energy
			Building energy efficiency (kWh/m2 or GJ/m2)
			Amount of waste diverted from landfill (tonnes)
			Amount of contaminated soil removed (tonnes) or area remediated
			List of eligible buildings that received third-party environmental certifications
			Description of the investment, and where available, indicators that highlight the resilience created by the investment.
Mea	ns of Disclosure		
	Information published in financial report		Information published in sustainability
	Information published in ad hoc documents	\boxtimes	report Other (please specify):
			Annual Information Report
 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.			
USE	FUL LINKS (e.g. to review provider methodolog	y or c	eredentials, to issuer's documentation, etc.)
SPE	CIFY OTHER EXTERNAL REVIEWS AVAILABLE, I	IF AP	PROPRIATE
Тур	e(s) of Review provided:		
	Consultancy (incl. 2 nd 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.



Disclaimer

© Sustainalytics 2018. All rights reserved.

The intellectual property rights to this Second-Party Opinion (the "Opinion") are vested exclusively in Sustainalytics. Unless otherwise expressly agreed in writing by Sustainalytics, no part of this Opinion may be reproduced, disseminated, comingled, used to create derivative works, furnished in any manner, made available to third parties or published, parts hereof or the information contained herein in any form or in any manner, be it electronically, mechanically, through photocopies or recordings, nor publicly released without the "Green Bond Framework" in conjunction with which this Opinion has been developed.

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.

As the Opinion is based on information made available by the client, the information is provided "as is" and, therefore Sustainalytics does not warrant that the information presented in this Opinion is complete, accurate or up to date, nor assumes any responsibility for errors or omissions. Any reference to third party names is for appropriate acknowledgement of their ownership and does not constitute a sponsorship or endorsement by such owner.

Nothing contained in this Opinion shall be construed as to make a representation or warranty, express or implied, regarding the advisability to invest in or include companies in investable universes and/or portfolios. Furthermore, nothing contained in this Opinion shall be construed as an investment advice (as defined in the applicable jurisdiction), nor be interpreted and construed as an assessment of the economic performance and credit worthiness of the bond, nor to have focused on the effective allocation of the funds' use of proceeds.

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



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. Global Capital named Sustainalytics the "Most Impressive Second Party Opinion Provider in 2017. In 2018, the firm was recognized as the "Largest External Reviewer" by the Climate Bonds Initiative as well as Environmental Finance. In addition, Sustainalytics received a Special Mention Sustainable Finance Award in 2018 from The Research Institute for Environmental Finance Japan for its contribution to the growth of the Japanese Green Bond Market.

For more information, visit www.sustainalytics.com

Or contact us info@sustainalytics.com

