QBE INSURANCE GROUP GREEN BOND

FRAMEWORK OVERVIEW AND SECOND OPINION BY SUSTAINALYTICS

March 20th, 2017



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1. INTRODUCTION

QBE Insurance Group (QBE), an Australian general insurance and reinsurance company, is planning to issue multiple green bonds (QBE Green Bonds) to finance / refinance its investment in a portfolio of green bonds. The company has engaged Sustainalytics to provide a second opinion on QBE's Green Bond Framework and on the bond's environmental credentials. As part of this engagement, Sustainalytics held conversations with relevant internal stakeholders to understand the use of proceeds, management of proceeds, and reporting aspects of QBE's Green Bond, as well as its sustainability strategy. Sustainalytics also reviewed relevant public and internal documents from the company. This document contains two sections: Framework Overview – a summary of QBE's Green Bond framework; and Sustainalytics' Opinion – an opinion on the framework.

2. OVERVIEW OF ISSUER

QBE Insurance Group Limited underwrites general insurance and reinsurance risks worldwide. It operates through North American Operations, European Operations, Australian & New Zealand Operations, Emerging Markets, and Equator Re segments. The company offers commercial and domestic property, motor and motor casualty, agriculture, public/product liability, workers' compensation, marine energy and aviation, professional indemnity, financial and credit, accident and health, and other insurance products. It also manages Lloyd's syndicates. The company was founded in 1886 and is headquartered in Sydney, Australia.

On its website, QBE states that it not only follows environmental, social and governance (ESG) standards across a range of jurisdictions, but also believe its responsibilities extend beyond compliance¹ As part of its commitment to sustainability, in 2015, QBE became a signatory to the United Nations Environment Programme Finance Initiative: Principles for Sustainable Insurance (UNEP: PSI). QBE discloses how its overall strategies and ESG initiatives are designed to adhere to the 4 principles set by the PSI².

In 2016, QBE launched its Premiums4Good program, which offers customers a choice to direct a proportion of their premium to investment in securities that have an additional social or environmental objective. Examples of these investments include Social Impact Bonds, green bonds and investments into infrastructure projects with environmental benefits³.

³ Corporate Website, https://www.qbe.com.au/campaigns/premiums4good



¹ Corporate Website, https://www.group.qbe.com/corporate-governance/sustainability-report

² QBE Insurance Group Limited, Sustainability Review, 2016, accessed from

https://www.group.qbe.com/sites/default/files/Default%20 Media/QBE%202015%20 Sustainability%20 Report.pdf and the sum of the sum o

3 FRAMEWORK OVERVIEW

For this green bond issued by QBE a framework has been created that follows the four key pillars of the Green Bond Principles ("GBP"):

- Use of Proceeds
- Selection Process
- Management of Proceeds
- Reporting

3.1 Use of Proceeds

The proceeds of the QBE Green Bond(s) will be allocated towards financing / refinancing investment in its green bond portfolio. The portfolio may invest in labelled green bonds that are eligible as per the criteria defined below. In addition to defining eligibility criteria for the framework, QBE has committed that where green bond review and evaluation has been completed and the allocation of proceeds has been determined at time of issuance, it will disclose the specific projects funded through bond proceeds, and the relevant eligibility criteria the funded projects will fall under, on issuance of each QBE Green Bond.

Eligibility Criteria

1. The green bond is certified under the Climate Bonds Standard OR has been assessed to be in compliance with the Green Bond Principles through a second-party opinion.

AND

2. The green bond finances/refinances projects or activities that meet one or a combination of the following thematic eligibility criteria.

Thematic Eligibility Criteria

1. RENEWABLE ENERGY

- i. Development, construction, or operation of wind farms, solar farms, or hydropower projects.
- ii. Development, construction or operation of manufacturing facilities dedicated to production of renewable energy technologies and equipment, or components of equipment, including solar panels, wind turbines, storage technology, or other equipment produced specifically for generating renewable energy.
- iii. Transmission systems or other infrastructure (including information, communication and technology infrastructure, storage facilities, etc.) that facilitates the integration of renewable electricity into the grid.



2. ENERGY EFFICIENCY

- Installation of products or services that increase the energy efficiency of industrial processes
- ii. Industrial/utility energy-efficiency improvements involving changes in processes, reduction of heat losses and/or increased waste heat recovery. This includes the installation of cogeneration plants.
- iii. Development or manufacture of energy efficiency technologies and products such as efficient appliances, lighting, etc.

3. GREEN BUILDINGS

- i. Development or construction of buildings that meet sustainability standards (equivalent to LEED Gold or higher).
- ii. Retrofits of existing buildings such as architectural changes that enable a reduction in energy consumption.
- iii. Energy-efficiency improvements through the installation of more efficient insulation, lighting, appliances, waste heat recovery systems and/or other equipment.
- iv. Development and manufacture of products and services that increase energy efficiency in residential, commercial and other buildings, including energy efficient lighting, insulation, efficient heating, ventilation and air conditioning equipment, and integrated buildings control systems.

4. LOW CARBON TRANSPORTATION

- i. Development, manufacture and/or distribution of technologies and equipment to increase the sustainability (through improved energy/fuel efficiency or switching to electricity) of auto, truck, train, marine and aerospace transportation.
- Development and operation of sustainable public/mass transportation systems and/or of equipment for such systems (including most rail and Bus Rapid Transit that meets the BRT standard).

5. SUSTAINABLE FORESTRY

- Forest management activities that comply with international standards for sustainable forestry such as those of the Forest Stewardship Council (FSC).
- ii. Reforestation of previously forested land.
- iii. Afforestation (plantations) of non-forested land.



6. WATER EFFICIENCY

- Development/construction of infrastructure designed to conserve water resources and/or increase the efficiency of water use.
- ii. Development, manufacture and/or installation of technologies designed to increase reuse and to improve the efficiency of water use by end users.

7. WASTE MANAGEMENT

- i. Development, manufacture and/or installation of technology and/or equipment that make waste management more sustainable (e.g. waste-to-energy systems, composters, and anaerobic digesters.
- ii. Development and/or installation of technology or equipment that increases a company's resource efficiency and/or reduces its waste production.

8. POLLUTION CONTROL

- Development, manufacture, and/or installation of products and services that prevent or reduce the pollution of air, water or land caused by pollutants such as sulphur dioxide, nitrous oxide, fluorocarbons, mercury, particulates, and carbon monoxide.
- ii. Projects or equipment that reduce non-energy-related GHG emissions that result from industrial processes (e.g. cement, chemical industries).

Exclusionary Criteria

QBE has developed a list of exclusionary criteria for the proceeds of the QBE Green Bond. QBE commits itself to not knowingly be involved in financing any of the following projects/activities through the proceeds of the QBE Green Bond(s):

- 1. Manufacture or wholesale retail of alcoholic beverages
- 2. Manufacture or wholesale retail of tobacco products
- 3. Ownership or operation of gambling enterprises
- 4. Production or distribution of adult entertainment materials
- 5. Manufacture or retail sale and distribution of weapons and small arms
- 6. Transportation of live cattle
- 7. Whaling
- 8. Predatory lending activities
- 9. Production or refining of palm oil
- 10. Extraction or refining of fossil fuels
- 11. Large scale hydro projects (i.e. projects that generate greater than 20 MW of electricity)
- 12. Technology and equipment for large scale hydro projects
- 13. Transmission infrastructure and systems where 25% or more of electricity transmitted to the grid is fossil-fuel-generated



- 14. Technologies that increase the energy efficiency of fossil fuel production and/or distribution
- 15. Systems and infrastructure used primarily for the transportation of fossil fuels
- 16. Agricultural or afforestation operations located on land designated as primary forest, high conservation value areas, or legally preserved areas
- 17. Green bond issuers that are involved in major environmental, social or governance controversies (Category 5 controversies), as assessed by Sustainalytics. See Annex 1 for details on Sustainalytics' controversy assessment methodology.

3.2 Project Evaluation and Selection Process

QBE's Investment Team identifies bonds that meet the company's investment risk/return criteria, and makes the investment in the bond. If the investment is a green bond, the Manager, Responsible Investments (MRI) is notified. The MRI then assesses if the green bond meets the eligibility criteria defined in the framework, and if proceeds from the QBE Green Bond(s) can be allocated to refinancing the green bond investment(s).

In addition to assessing each green bond investment's compliance with the framework eligibility criteria, QBE also:

- (i) assesses each green bond investment's eligibility,
- (ii) classifies each green bond investment as "High" or "Moderate" impact.

Every labelled green bond is presented by the MRI to QBE's Classification of Social Investments Committee (COSI Co.) The committee reviews and classifies these green bond investments as meeting the "additional social or environmental objective,". COSI Co. also classifies these green bond investments as "High" or "Moderate" impact. The COSI Co. is also responsible for annually monitoring its green bond investment to review its classification and monitor its continued suitability.

3.3 Management of Proceeds

QBE will track the Use of Proceeds of its Green Bond(s) via its internal information systems. Each QBE Green Bond will be booked under an earmarked position which is set up for each Green Bond specifically in the appropriate internal system. QBE will establish a register, recording each specific acquired green bond ID allocated as Use of Proceeds for each Green Bond by a unique position identifier.

⁵ Moderate impact investments are those which partially or wholly provide, support, or fund socially and/or environmentally beneficial activities.



⁴ High Impact investments are those with an explicit dual purpose of delivering a financial return, and a measurable or verifiable social and/or environmental return.

3.4 Reporting

Allocation and Impact Reporting

The QBE Green Bond issuing entity will provide a Green Progress Report on an annual basis including:

- (i) Aggregate amounts of funds allocated to each of the Thematic Eligibility Criteria (Section 3.1) together with a description of the types of projects being financed / refinanced;
- (ii) The remaining balance of unallocated Green Bond proceeds at the reporting period end; and,
- (iii) Confirmation that the Use of Proceeds of the Green Bond (s) issued conforms with the QBE Green Bond Framework.

QBE recognises investors' preference for enhanced information on Use of Proceeds. Where possible QBE will provide further information and examples of green bonds financed / refinanced by a QBE Green Bond.

The QBE issuing entity will prepare the report and the ESG Committee will review and approve each Green Progress Report. Each Green Progress Report will be produced to a 31 December reporting date and will be published by the 31 March of the following year on the QBE Investor Relations webpage, found through www.qbe.com

QBE has also committed that where possible, it will use the impact metrics described in Table 1 as guidance for its impact reporting. Given that QBE is dependent on regular impact reporting from invested green bonds, QBE will include impact reporting as a part of its annual Green Bond report when the data from investees is available in a timely manner.

Table 1: Suggested KPIs for QBE impact reporting

Eligible Sector	Example Impact Metric
Renewable energy	kWh of power generated from renewable energyTonnes of CO2 equivalent avoided
Energy efficiency	Energy saved per year (kWh/year)Percentage energy efficiency achieved
Green buildings	 Energy consumption reduced per square foot List of eligible buildings that received third party verified green building certification
Low carbon transportation	 GHG emissions savings/tonnes of CO2 equivalent avoided
Sustainable forestry	CO2 emissions avoided through planted forestsTotal land area under sustainably certified forests
Water efficiency	Amount of water saved
Waste Management	 Annual amount of hazardous waste reduced/avoided Estimate of annual GHG emissions reduced/avoided (tCO2e) [for waste-energy technologies]
Pollution control	 Estimate of equipment's annual potential to reduce/avoid the emission or release of a given pollutant



Compliance Review

In addition, QBE has committed to undertaking an annual compliance review of funded companies with Sustainalytics. Sustainalytics will review all companies/borrowers to which proceeds have been allocated, in order to determine whether they meet the eligibility criteria in the framework. As a part of the annual compliance review, Sustainalytics will also undertake a review and analysis of companies' involvement in controversies. Sustainalytics will provide a letter stating the results of the compliance review, which QBE may disclose publicly on its website. The compliance review will take place annually throughout the term of the bond.



4 SUSTAINALYTICS' OPINION

Well positioned to issue a Green Bond

In its 2015 sustainability report, QBE states a commitment to managing Environmental, Social, or Governance (ESG) risks in an integrated manner, across its underwriting and investment management business activities. QBE states a recognition of how environmental risks can affect claim activity, and also has a responsible investment team that considers ESG issues in its investment decisions. Moreover, QBE is signatory to industry initiatives that promote responsible finance such as the UN PRI and UNEP FI.

One way in which QBE acts on its stated commitment to responsible finance is through its Premiums4Good program, which allows policyholders (at no cost or risk to them) to direct a proportion of their premiums to be invested directly into projects that create environmental or social impacts. This initiative is linked to QBE's core business products and activities. Proceeds from the QBE Green Bond Framework will directly support and further develop QBE's overall commitment to responsible investment.

Given QBE's commitment to responsible finance, as signalled by its participation in industry initiatives, and the contribution of its Green Bond Framework, Sustainalytics is of the opinion that QBE is well positioned to issue its Green Bond(s). Sustainalytics is also of the opinion that QBE's Green Bond Framework aligns with the company's strategic priorities in the area of responsible finance.

Impact of Use of Proceeds

The Green Bond Principles (GBP) focus on direct investment in projects that provide environmental benefits. Proceeds from the QBE Green Bond(s) will not be used to finance green projects directly but will instead be used to finance/refinance investment in securities (other green bonds) that have positive environmental impacts. Nonetheless, Sustainalytics believes that QBE's green bonds will have a positive impact in that it will channel capital indirectly toward projects and activities that have environmental benefits. In this sense, the QBE Green Bond(s) are aligned with the Green Bond Principles.

Sustainalytics is of the opinion that QBE's Green Bond Framework provides assurance that proceeds will be invested only in green bonds that have been certified under the Climate Bonds Standard or that have received a positive second-party opinion. Such reviews provide due diligence on the environmental integrity of projects and assurance that a green bond is credible. Additionally, QBE's thematic eligibility criteria align with widely accepted definitions of what qualifies as a green bond; the criteria are recognized by the GBP and Climate Bonds Initiative as eligible green project categories. This ensures that the green bonds selected for investment in QBE's green bond portfolio are deploying additional capital towards projects that benefit the environment.

Sustainalytics also believes that QBE's Green Bond Framework may provide indirect positive outcome within the green bond market by encouraging issuers to report thoroughly and regularly on impacts resulting from their investments in green bond projects. Given that QBE intends to report on impacts of

⁶ QBE Sustainability Report: https://qbe2015.qreports.com.au/xresources/downloads/2015/QBE_AR15_sustainability.pdf



its green bond portfolio, this approach may help signal to green bond issuers the importance of impact reporting.

Alignment with the Green Bond Principles 2016

Sustainalytics has determined that the QBE Green Bond Framework aligns to the four pillars of the International Capital Markets Association (ICMA) Green Bond Principles 2016. For detailed information please refer to Annex 2: Green Bond/Green Bond Programme External Review Form.

Conclusion

Sustainalytics is of the opinion that QBE's Green Bond Framework is transparent, robust, and aligns with the GBP 2016. Proceeds from this green bond will contribute to several global sustainability priorities, as outlined in the SDGs, and will contribute to mitigating climate change.



ANNEXES

Annex 1: Sustainalytics' Controversy Assessment Methodology

Controversies are an assessment of a company's past involvement in incidents that had a negative impact on stakeholders, and that pose outstanding risks to the company. Sustainalytics analyses companies' involvement in controversies based on several factors, including impact of the incident, recurrence and pattern of incidence, company response, and managerial responsibility. After analysis, companies' involvement in controversies is classified on a hurricane scale of 1 to 5. Controversies are assessed as Category 1 if they have a low impact on the environment and society, and pose negligible risks to the company. Controversies are assessed as Category 5 if they have a severe impact on the environment and society, and pose a serious risk to the company. Category 5 represents the most severe corporate conduct.



Annex 2: Green Bond/Green Bond Programme External Review Form

Green Bond / Green Bond Programme External Review Form

Section	on 1.	Basic Information		
Issuer	name: C	QBE Insurance Group		
Green	Bond IS	IN or Issuer Green Bond Framewor	k Name, if app	licable:
Reviev	provid	er's name: Sustainalytics		
Compl	etion da	te of this form: March 20 th , 2017		
Publica	ation da	te of review publication:		
Section	on 2.	Review overview		
SCOPE	OF RE	VIEW		
The fol	lowing ı	nay be used or adapted, where app	ropriate, to sui	mmarise the scope of the review.
The rev	view ass	essed the following elements and c	onfirmed their	alignment with the GBPs:
\boxtimes	Use o	f Proceeds	\boxtimes	Process for Project Evaluation and Selection
\boxtimes	Mana	gement of Proceeds	×	Reporting
ROLE(-	EVIEW PROVIDER		
	Consu	Iltancy (incl. 2 nd opinion)		Certification
	Verific	cation		Rating
	Other	(please specify):		
FXFCL	ITIVE SI	UMMARY OF REVIEW and/or LIN	NK TO FULL R	EVIEW (if applicable)

Please refer to Green Bond Framework and Second Opinion Document above.



Section 3. Detailed review

1. USE OF PROCEEDS

Overall comment on section (if applicable):

Proceeds may be directed to a wide range of eligibility criteria, including renewable energy, energy efficiency, sustainable management of living resources, clean transportation, etc. For a full list of eligibility criteria, please refer to the QBE Green Bond Framework document. Sustainalytics is of the opinion that the proceeds will contribute to several global sustainability priorities, as outlined in the SDGs, and especially to mitigating climate change. Additionally, Sustainalytics is of the opinion that the exclusions outlined in the QBE Green Bond act as a way to mitigate any environmental or social risk associated with the eligibility criteria, ensuring that the bond proceeds will have a net positive impact.

Use of proceeds categories as per GBP:

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

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



2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall	comment	on	section	(if	app	olicab	le)):

QBE's Investment Team identifies bonds that meet the company's investment risk/return criteria, and makes the investment in the bond. If the investment is a green bond, the Manager, Responsible Investments (MRI) is notified. The MRI then assesses if the green bond meets the eligibility criteria defined in the framework, and if proceeds from the QBE Green Bond(s) can be allocated to finance / refinancing the green bond investment(s). This is in line with industry norms.

In addition to assessing each green bond investment's compliance with the framework eligibility criteria, QBE also:

- (i) assesses each green bond investment's eligibility,
- (ii) classifies each green bond investment as "High" or "Moderate" impact.

Evaluation and selection

\times	Defined and transparent criteria for	\boxtimes	Documented process to determine that
	projects eligible for Green Bond		projects fit within defined categories
	proceeds		
\boxtimes	Summary criteria for project evaluation		Other (please specify):
	and selection publicly available		

Information on Responsibilities and Accountability

\boxtimes	Evaluation / Selection criteria subject to	\boxtimes	In-house assessment
	external advice or verification		
П	Other (please specify):		



3. MANAGEMENT OF PROCEEDS

Overall comment on section (if applicable):

QBE will track the Use of Proceeds of its Green Bond(s) via its internal information systems. Each QBE Green Bond will be booked under an earmarked position which is set up for each Green Bond specifically in the appropriate internal system. QBE will establish a register, recording each specific acquired green bond ID allocated as Use of Proceeds for each Green Bond by a unique position identifier. This is in line with industry best practice.

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\boxtimes	Green Bond proceeds segregated or tracked by the issuer in a systematic manner						
\boxtimes	Disclosure of intended types of temporary investment instruments for unallocated proceeds						
	Other (please specify):						
Additio	Additional disclosure:						
	Allocations to future investments only	\boxtimes	Allocations to both existing and future investments				
	Allocation to individual disbursements	\boxtimes	Allocation to a portfolio of disbursements				
\boxtimes	Disclosure of portfolio balance of unallocated proceeds		Other (please specify):				

4. REPORTING

Overall comment on section (if applicable):

The QBE Green Bond issuing entity will provide a Green Progress Report on an annual basis including:

- (i) Aggregate amounts of funds allocated to each of the Thematic Eligibility Criteria (Section 3.1) together with a description of the types of projects being financed / refinanced;
- (ii) The remaining balance of unallocated Green Bond proceeds at the reporting period end; and, (iii) Confirmation that the Use of Proceeds of the Green Bond (s) issued conforms with the QBE Green Bond Framework.

In addition, QBE has committed to providing reporting on impact metrics, and further information and examples of green bonds financed / refinanced by a QBE Green Bond.



Use of	f proceeds reporting:					
	Project-by-project	\boxtimes	On a project portfolio basis			
	Linkage to individual bond(s)		Other (please specify):			
Info	ormation reported:					
	☑ Allocated amounts		GB financed share of total investment			
	☐ Other (please specify):					
Fre	equency:					
	☑ Annual		Semi-annual			
	☐ Other (please specify):					
Impac	ct reporting:					
	Project-by-project	\boxtimes	On a project portfolio basis			
	Linkage to individual bond(s)		Other (please specify):			
Fre	equency:					
	☑ Annual		Semi-annual			
	☐ Other (please specify):					
Info	ormation reported (expected or ex-post):					
	☐ GHG Emissions / Savings		Energy Savings			
	☑ Other ESG indicators (please specify): Refer to QBE Framework document for a full list of suggested KPIs.					
Mean	s of Disclosure					
	Information published in financial report		Information published in sustainability report			
	Information published in ad hoc documents	\boxtimes	Other (please specify): QBE website (www.qbe.com)			
	Reporting reviewed (if yes, please specify which	h parts	of the reporting are subject to external review):			
Where	e appropriate, please specify name and date of	public	ation in the useful links section.			
USEFL	JL LINKS (e.g. to review provider methodology	or cre	dentials, to issuer's documentation, etc.)			
	qbe.com					
nttps:/	ttps://www.qbe.com.au/campaigns/premiums4good					



SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE Type(s) of Review provided:						
	Consultancy (incl. 2 nd opinion)		Certification			
	Verification / Audit		Rating			
	Other (please specify):					
Reviev	Review provider(s): Date of publication:					

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

- (i) Consultant Review: An issuer can seek advice from consultants and/or institutions with recognized expertise in environmental sustainability or other aspects of the issuance of a Green Bond, such as the establishment/review of an issuer's Green Bond framework. "Second opinions" may fall into this category.
- (ii) Verification: An issuer can have its Green Bond, associated Green Bond framework, or underlying assets independently verified by qualified parties, such as auditors. In contrast to certification, verification may focus on alignment with internal standards or claims made by the issuer. Evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria.
- (iii) Certification: An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against an external green assessment standard. An assessment standard defines criteria, and alignment with such criteria is tested by qualified third parties / certifiers.
- (iv) Rating: An issuer can have its Green Bond or associated Green Bond framework rated by qualified third parties, such as specialised research providers or rating agencies. Green Bond ratings are separate from an issuer's ESG rating as they typically apply to individual securities or Green Bond frameworks / programmes.

Disclaimer

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The Opinion was drawn up with the aim to explain why the analyzed bond is considered sustainable and responsible. 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.



SUSTAINALYTICS

Sustainalytics is an independent ESG and corporate governance research, ratings and analysis firm supporting investors around the world with the development and implementation of responsible investment strategies. With 13 offices globally, Sustainalytics partners with institutional investors who integrate environmental, social and governance information and assessments into their investment processes. Today, the firm has more than 300 staff members, including 170 analysts with varied multidisciplinary expertise of more than 40 sectors. Through the IRRI survey, investors selected Sustainalytics as the best independent responsible investment research firm for three consecutive years, 2012 through 2014 and in 2015, Sustainalytics was named among the top three firms for both ESG and Corporate Governance research. The firm was also named the Best SRI or Green Bond Research Firm by Global Capital in 2015. For more information, visit www.sustainalytics.com

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