

Second-Party Opinion

Owens-Illinois, Inc. (O-I) Green Bond Framework



Evaluation Summary

Sustainalytics is of the opinion that the Owens-Illinois, Inc. (“O-I”) 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 green categories for eligible use of proceeds – (i) Renewable Energy, (ii) Energy Efficiency, (iii) Sustainable Water and Wastewater Management, (iv) Environmentally Friendly Production Technologies and Processes, (v) Circular Economy, and (vi) Environmentally Friendly Adapted Products – are aligned with those recognized by the Green Bond Principles 2018. Overall, the use of proceeds will, in Sustainalytics’ opinion, have positive environmental impacts and advance the UN Sustainable Development Goals, specifically 6, 7, 9, and 12.



PROJECT EVALUATION / SELECTION O-I’s VP in charge of Sustainability, VP of Global Technology and R&D, and the Corporate Treasurer will oversee the project selection process. O-I identifies and assesses environmental, health and safety risks and opportunities associated with projects along with an internal audit process. O-I will also seek to include questionnaires and scoring related to project qualification under the Framework in the long-term. Sustainalytics considers O-I’s project selection process to be in line with market practice.



MANAGEMENT OF PROCEEDS O-I’s Treasury team, in conjunction with the Sustainability team, will track the allocation of net proceeds through a Green Bond Register. Pending allocation, net proceeds will be invested, at the company’s own discretion, in cash or cash equivalents and/or short-term liquid marketable instruments, or to repay existing debt, as per the company’s liquidity management policy. This is in line with market practice.



REPORTING O-I intends to publish annual information as part of its Corporate Social Responsibility Report or in a separate press release on its website, until full allocation. The reporting will include the aggregated amount allocated on a category level, the proportion of net proceeds used for financing and refinancing, confirmation that the net proceeds were allocated (in part or in full) to Eligible Green Projects, as well as relevant impact metrics. Sustainalytics views O-I’s annual allocation and impact reporting, along with review by an independent auditor, as aligned with market best practice.

Evaluation date	November 2019
Issuer Location	Ohio, USA

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Introduction

Owens-Illinois, Inc. (“O-I”, the “Issuer”, or the “company”) manufactures glass containers for beverages, food and pharmaceuticals. The company has facilities in more than 20 countries around the world. The company was founded in 1903, as Owens Bottle Company, and is headquartered in Perrysburg, Ohio, USA.¹

O-I has developed the O-I Green Bond Framework (the “Framework”) under which it intends to issue a green bond and use the proceeds to finance or refinance, in whole or in part, existing or future projects that improve the environmental performance of its production facilities, processes and products. The Framework defines eligibility criteria in six areas:

1. Renewable Energy
2. Energy Efficiency
3. Sustainable Water and Wastewater Management
4. Environmentally Friendly Production Technologies and Processes
5. Circular Economy
6. Environmentally Friendly Adapted Products

O-I engaged Sustainalytics to review the O-I Green Bond Framework, dated November 2019, and provide a second-party opinion on the Framework’s environmental credentials and its alignment with the Green Bond Principles 2018 (GBP).² This Framework will be published on O-I’s corporate website.³

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

This document contains Sustainalytics’ opinion of the O-I Green Bond Framework and should be read in conjunction with that Framework.

¹ O-I, Our Story: <https://www.o-i.com/#our-story>

² 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/>

³ O-I Green Bond Framework will be available on O-I’s website in Investors section at <https://www.o-i.com/investors/>

Sustainalytics' Opinion

Section 1: Sustainalytics' Opinion on the O-I Green Bond Framework

Summary

Sustainalytics is of the opinion that the O-I Green Bond Framework is credible and impactful, and aligns with the four core components of the GBP 2018. Sustainalytics highlights the following elements of the Framework:

- Use of Proceeds:
 - The eligible categories include investments in manufacturing processes/technologies and products that promote the following: (i) low-carbon fuel sources, (ii) automated systems and waste-reduction technologies, and (iii) R&D, monitoring/testing and optimization related to emissions abatement, and/or glass chemistry and product design.⁴ O-I also intends to invest in projects that promote circular economy, including through glass recycling and cullet (crushed glass) processing facilities, and through increased use of recycled content and/or packaging. Sustainalytics recognizes that such investments will enhance O-I's capacity to innovate through processes and to design products that will generate significant environmental benefits.
 - Sustainalytics believes that investments in O-I's eligible categories complement its long-term strategy that intends to reduce emissions from its operations, increase post-consumer recycled content, and address climate change.
- Project Evaluation and Selection:
 - O-I's VP in charge of Sustainability, VP of Global Technology and R&D, and the Corporate Treasurer will oversee the project selection process. Overall, O-I identifies and assesses environmental, health and safety risks and opportunities associated with projects, including monitoring, maintaining or upgrading existing assets and processes, in accordance with internal guidelines and policies. Additionally, O-I has an internal audit process with at minimum a 3-year cycle, to comply with internal policies as well as applicable rules and regulations. In the long-term, O-I will seek to adapt its capital allocation process to include a questionnaire and scoring related to project qualification under the Framework. Sustainalytics considers O-I's project selection process to be in line with market practice.
- Management of Proceeds:
 - O-I will deposit the net proceeds in a general bank account and an amount equal to the net proceeds will be earmarked for allocation to the Eligible Green Projects. O-I's Treasury team, in conjunction with the Sustainability team, will track the allocation of net proceeds through a Green Bond Register. Pending allocation, net proceeds will be invested, at the company's own discretion, in cash or cash equivalents and/or short-term liquid marketable instruments, or to repay existing debt, as per the company's liquidity management policy. This is in line with market practice.
- Reporting:
 - O-I intends to publish annual information as part of its Corporate Social Responsibility Report or in a separate press release on its website, until full allocation. Sustainalytics views O-I's annual allocation and impact reporting, along with review by an independent auditor, as aligned with market best practice.
 - The allocation reporting will include the aggregated amount allocated on a category level, including brief proportion of representative projects within each category, the proportion of net proceeds used for financing and refinancing, and confirmation that the net proceeds were allocated (in full or in part) to Eligible Green Projects.
 - The impact reporting may include, where feasible, quantitative or qualitative indicators, such as renewable energy installed capacity, GHG emissions reduced/avoided, energy and/or water

⁴ Sustainalytics notes that glass manufacturing may have exposure to fossil fuel usage, such as during the melting stage; nevertheless, O-I's Eligible Green Projects create significant opportunities to reduce such exposure with the company's overall investments in emission abatement processes and technologies, such as the utilization of low-carbon fuels and waste heat, oxyfuel combustion, and monitoring and control, as aligned with the company's sustainability strategy.

savings, waste collected/recycled, volume of crushed glass used, and reduction of raw material use achieved.

Alignment with Green Bond Principles 2018

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

Section 2: Sustainability Performance of the Issuer

Contribution of the Framework to O-I's sustainability strategy

Sustainalytics is of the opinion that O-I has demonstrated a commitment to integrate sustainable practices into its business strategy and operations, and to mitigate climate change through the following efforts as mentioned in its 2018 Corporate Social Responsibility Update.⁵

- O-I disclosed its historical, quantitative performance related to sustainability for the period of 2007-2017, including its achievement of: (i) 23% energy use reduction, (ii) 24% emissions reduction, (iii) 38% global average for post-consumer recycled glass (cullet) use, and (iv) 38% improvement in Total Recordable Incident Rate (TRIR) between 2013-2017.
- O-I, as a part of 460 global companies, committed to set and implement science-based targets for emissions reduction with short- and long-term targets to be achieved by 2030 and by 2050, respectively. To complement such commitments, O-I aimed to achieve the following: (i) to increase renewable energy and energy efficiency at its facilities, (ii) to increase the use of recycled content in products, thus, encouraging post-consumer glass recycling, and (iii) transition to circular economy while constantly seeking innovation and market-based solutions.
- O-I sets out ambitious sustainability targets based on its commitment to address climate change, including (from 2017 baseline): (i) 25% emissions reduction by 2030 (with interim target of 10% reduction by 2025), (ii) 50% global average for post-consumer recycled content use for products by 2025, (iii) 35% improvement in 3-year rolling average Total Recordable Incident Rate (TRIR) by 2025, and (iv) implementing glass container collection programs in at least 75% of the communities of its operations by 2025.
- In 2017, O-I updated its Life Cycle Assessment (LCA), in compliance with ISO 14044 standard, to measure environmental impacts of glass from cradle-to-gate plus end-of-life and invested approximately USD 6 million in glass recycling processing facilities, globally, in last few years.
- O-I facilities in Colombia also procured renewable energy through International REC (I-REC) standard to offset its emissions. In 2017, the company's facilities offset approximately 7,450 tonnes of CO₂ emissions.
- O-I and the Oregon Beverage Recycling Cooperative (OBRC) teamed up to develop Refillable Glass Bottles (RGBs) that can be refilled 25 times before recycling while emitting 66 times less CO₂ emissions, per container, than aluminum cans.
- O-I committed to provide leadership and advocacy to several industry associations, including the U.S. Glass Recycling Coalition, Container Recycling Institute and FEVE. O-I, through such organizations, the company supports the use of recyclables/reusables packaging, as well as educates consumers regarding the sustainability aspects of glass packaging.

Considering the above, Sustainalytics is of the opinion that O-I's sustainability strategy and actions demonstrate the importance it places on achieving positive environmental and social impacts. Sustainalytics also believes that O-I's Framework is aligned with the company's overall sustainability efforts and can support its commitment to address climate change.

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

While Sustainalytics recognizes that the use of proceeds from O-I's Framework will be directed towards Eligible Green Projects that are recognized by the GBP 2018 to have positive environmental impact, Sustainalytics is aware that such projects could also lead to negative environmental and social outcomes.

⁵ O-I, 2018 Corporate Social Responsibility Update: <https://www.o-i.com/wp-content/uploads/2019/04/2018csrreportupdate.pdf>

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Some key environmental and social risks associated with the Eligible Green Projects include an increased exposure of local communities to adverse effects, occupational health and safety, and biodiversity loss.

Sustainalytics is of the opinion that O-I can mitigate such risks through the following policies, systems and processes:

- O-I's Advanced Asset Protection Capital Money Allocation process utilizes a risk-based system to monitor/mitigate operational risks and EHS compliance in line with the applicable laws and regulations. At the project level, O-I has confirmed that the project has obtained all applicable and necessary environmental permits, approvals and authorization from the regulatory authorities.
- O-I employs environmental site assessment (ESA) with external consultants to assess Environmental, Health and Safety (EHS) considerations involved for existing and/or new operations. O-I also has robust EHS audit reporting procedures in place for all facilities to be evaluated on a 3-year cycle, including tracking the undertaken corrective action, if any.
- O-I also works with recognized third-party consultants to conduct organizational health and safety inspections, audit, and certification with ISO 14001 (Environmental Management Systems).

Due to the above-mentioned policies, systems and processes, Sustainalytics believes that O-I has sufficient measures to identify, manage and mitigate environmental and social risks commonly associated with the use of proceeds.

Section 3: Impact of Use of Proceeds

All six use of proceeds categories are recognized as impactful by the GBP 2018.

Importance of the circular economy in the glass manufacturing industry

Glass is regarded as one of the most preferred and sustainable packaging materials because of the following characteristics: (i) inert, i.e., non-reactive to most chemicals and food, and (ii) permanent, i.e., which can be 100% recycled without loss of mass or quality, and/or re-melted without downsizing.⁶ Every tonne of recycled glass (cullet) saves more than 500 kg of CO₂ emissions with a saving of 1.2 tonnes of virgin materials. Additionally, in several parts of the world, such as in the EU, more than 50% of glass bottles are delivered to customers within a 300 km range, while recycled glass originates from local collection areas close to factories which further decreases the carbon footprint related to its logistics.^{7,8}

According to the UN-aligned group International Resource Panel,⁹ 62% of global GHG emissions, excluding emissions from land use and forestry, are released during the "extraction, processing and manufacturing of goods." Furthermore, it is reported that the global use of materials could double from 2019 to 2050, which implies the significance of the circular economy to the manufacturing sector. O-I, through its circular economy projects, will reduce consumption and enhance the recycling/reuse of materials used for glass manufacturing. Therefore, Sustainalytics believes that the company will reinforce its industry's efforts, through its bond's use of proceeds, and minimize "resource input and waste, emission, and energy leakage" by "slowing, closing, and narrowing energy and material loops."⁹

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
Renewable Energy Energy Efficiency	7. Affordable and Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix. 7.3 By 2030, double the global rate of improvement in energy efficiency.
Sustainable Water and Wastewater Management	6. Clean Water and Sanitation	6.4 By 2030, substantially increase water-use efficiency across all sectors and ensure sustainable

⁶ BV Glas, Circular Economy: https://www.glasstec.de/cgi-bin/md_glasstec/lib/all/lob/return_download.cgi/Best_Practice_Circular_Economy_de_Hesselle.pdf?ticket=g_u_e_s_t&bid=4242&no_mime_type=0

⁷ Friends of Glass, 8 Facts About Glass & Circular Economy Worth Knowing: <https://www.friendsofglass.com/ecology/8-facts-about-glass-circular-economy-worth-knowing/>

⁸ French Packaging Council, Packaging & Circular Economy: <https://circulareconomy.europa.eu/platform/sites/default/files/packaging-and-circular-economy-final-report-en-september-2014.pdf>

⁹ UNFCCC, Circular Economy Is Crucial for Climate Protection: <https://unfccc.int/news/circular-economy-is-crucial-for-climate-protection-patricia-espinosa>

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		withdrawals and supply of freshwater to address water scarcity and substantially reduce the number of people suffering from water scarcity.
Environmentally Friendly Production Technologies and Processes	9. Industry, Innovation and Infrastructure	9.4 By 2030, upgrade infrastructure and retrofit industries to make them sustainable, with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes, with all countries taking action in accordance with their respective capabilities.
Circular Economy		
Environmentally Friendly Adapted Products	12. Responsible Consumption and Production	12.4 By 2020, achieve the environmentally sound management of chemicals and all wastes throughout their life cycle, in accordance with agreed international frameworks, and significantly reduce their release to air, water and soil in order to minimize their adverse impacts on human health and the environment. 12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

Conclusion

Owens-Illinois, Inc. (“O-I”) has developed the O-I Green Bond Framework under which it intends to issue green bonds to finance or refinance, in whole or in part, existing or future projects that deliver positive environmental outcomes. Sustainalytics believes that O-I’s Framework is aligned with its overall sustainability strategy and efforts, and that the eligible categories contribute to the advancement of UN Sustainable Development Goals 6, 7, 9, and 12. Additionally, Sustainalytics believes that O-I has sufficient measures to identify, manage and mitigate environmental and social risks commonly associated with the Eligible Green Projects to be funded by the use of proceeds.

Based on the above, Sustainalytics is confident that Owens-Illinois, Inc. (O-I) is well-positioned to issue green bonds, and that the O-I Green Bond Framework is robust, transparent, and in alignment with the Green Bond Principles 2018.

Appendices

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

Issuer name:	Owens-Illinois, Inc. (O-I)
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Green Bond ISIN or Issuer Green Bond Framework Name, if applicable: <i>[specify as appropriate]</i>	O-I Green Bond Framework
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Review provider's name:	Sustainalytics
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Completion date of this form:	November 2019
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Publication date of review publication: <i>[where appropriate, specify if it is an update and add reference to earlier relevant review]</i>	
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Section 2. Review overview

SCOPE OF REVIEW

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

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

- | | |
|--|--|
| <input checked="" type="checkbox"/> Use of Proceeds | <input checked="" type="checkbox"/> Process for Project Evaluation and Selection |
| <input checked="" type="checkbox"/> Management of Proceeds | <input checked="" type="checkbox"/> Reporting |

ROLE(S) OF REVIEW PROVIDER

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

Note: In case of multiple reviews / different providers, please provide separate forms for each review.

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

Please refer to Evaluation Summary above.

Section 3. Detailed review

Reviewers are encouraged to provide the information below to the extent possible and use the comment section to explain the scope of their review.

1. USE OF PROCEEDS

Overall comment on section (*if applicable*):

The six green categories for eligible use of proceeds – (i) Renewable Energy, (ii) Energy Efficiency, (iii) Sustainable Water and Wastewater Management, (iv) Environmentally Friendly Production Technologies and Processes, (v) Circular Economy, (vi) Environmentally Friendly Adapted Products – are aligned with those recognized by the Green Bond Principles 2018. Overall, the use of proceeds will, in Sustainalytics' opinion, have positive environmental impacts and advance the UN Sustainable Development Goals, specifically 6, 7, 9, and 12.

Use of proceeds categories as per GBP:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Renewable energy | <input checked="" 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 type="checkbox"/> Clean transportation |
| <input checked="" type="checkbox"/> Sustainable water and wastewater management | <input type="checkbox"/> Climate change adaptation |
| <input checked="" 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):

O-I's VP in charge of Sustainability, VP of Global Technology and R&D, and the Corporate Treasurer will oversee the project selection process. Overall, O-I identifies and assesses environmental, health and safety risks and opportunities associated with projects along with an internal audit process, and will seek to include questionnaire and scoring related to project qualification under the Framework in the long term. Sustainalytics considers O-I's project selection process to be in line with market practice.

Evaluation and selection

- | | |
|---|---|
| <input checked="" type="checkbox"/> Credentials on the issuer's environmental sustainability objectives | <input checked="" type="checkbox"/> Documented process to determine that projects fit within defined categories |
|---|---|

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- | | |
|--|---|
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Green Bond proceeds | <input checked="" 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 type="checkbox"/> In-house assessment |
| <input type="checkbox"/> Other (<i>please specify</i>): | |

3. MANAGEMENT OF PROCEEDS

Overall comment on section (*if applicable*):

O-I's Treasury team, in conjunction with the Sustainability team, will track the allocation of net proceeds through a Green Bond Register. Pending allocation, net proceeds will be invested, at the company's own discretion, in cash or cash equivalents and/or short-term liquid marketable instruments, or to repay existing debt, as per the company's liquidity management policy. This is in line with market practice.

Tracking of proceeds:

- | |
|---|
| <input checked="" type="checkbox"/> Green Bond proceeds segregated or tracked by the issuer in an appropriate manner |
| <input checked="" type="checkbox"/> Disclosure of intended types of temporary investment instruments for unallocated proceeds |
| <input type="checkbox"/> Other (<i>please specify</i>): |

Additional disclosure:

- | | |
|--|---|
| <input type="checkbox"/> Allocations to future investments only | <input checked="" type="checkbox"/> Allocations to both existing and future investments |
| <input type="checkbox"/> Allocation to individual disbursements | <input 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>): |

4. REPORTING

Overall comment on section (if applicable):

O-I intends to publish annual information as part of its Corporate Social Responsibility Report or in a separate press release on its website, until full allocation. The reporting will include the aggregated amount allocated on a category level, the proportion of net proceeds used for financing and refinancing, confirmation that the net proceeds were allocated (in part or in full) to Eligible Green Projects, as well as relevant impact metrics. Sustainalytics views O-I's annual allocation and impact reporting, along with review by an independent auditor, as aligned with market best practice.

Owens-Illinois, Inc. (O-I) Green Bond Framework

Use of proceeds reporting:

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

Information reported:

- | | |
|--|--|
| <input checked="" type="checkbox"/> Allocated amounts | <input type="checkbox"/> Green Bond financed share of total investment |
| <input checked="" type="checkbox"/> Other (<i>please specify</i>):
Proportion of the net proceeds used for financing and refinancing, and confirmation that the net proceeds were allocated | |

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 checked="" type="checkbox"/> Energy Savings |
| <input checked="" type="checkbox"/> Decrease in water use | <input checked="" type="checkbox"/> Other ESG indicators (<i>please specify</i>): Renewable energy installed capacity, waste collected/recycled, volume of crushed glass used, and reduction of raw material use achieved. |

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>): As a part of its Corporate Social Responsibility Report or in a separate press release. |
| <input type="checkbox"/> Reporting reviewed (if yes, please specify which parts of the reporting are subject to external review): | |

Where appropriate, please specify name and date of publication in the useful links section.

USEFUL LINKS (e.g. to review provider methodology or credentials, to issuer's documentation, etc.)

SPECIFY OTHER EXTERNAL REVIEWS AVAILABLE, IF APPROPRIATE

Type(s) of Review provided:

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

Review provider(s):

Date of publication:

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

- i. **Second Party Opinion:** An institution with environmental expertise, that is independent from the issuer may issue a Second Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.
- ii. **Verification:** An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.
- iii. **Certification:** An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a recognised external green standard or label. A standard or label defines specific criteria, and alignment with such criteria is normally tested by qualified, accredited third parties, which may verify consistency with the certification criteria.
- iv. **Green Bond Scoring/Rating:** An issuer can have its Green Bond, associated Green Bond framework or a key feature such as Use of Proceeds evaluated or assessed by qualified third parties, such as specialised research providers or rating agencies, according to an established scoring/rating methodology. The output may include a focus on environmental performance data, the process relative to the GBP, or another benchmark, such as a 2-degree climate change scenario. Such scoring/rating is distinct from credit ratings, which may nonetheless reflect material environmental risks.

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

Sustainalytics

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

For more information, visit www.sustainalytics.com

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