

# Second-Party Opinion

## Kirin Holdings Company, Limited.

### Green Bond Framework



#### Evaluation Summary

Sustainalytics is of the opinion that the Kirin Holdings Company, Limited. ("Kirin Holdings" or the "Company") Green Bond Framework ("Framework") is credible and impactful and aligns with the four core components of the Green Bond Principles 2018 (GBP). This assessment is based on the following:



**USE OF PROCEEDS** The eligible categories for the use of proceeds – 1) Eco-efficient and/or Circular Economy Adapted Products, Production Technologies and Processes, 2) Pollution Prevention and Control, 3) Energy Efficiency, and 4) Renewable Energy –, are aligned with those recognized by the GBP. Sustainalytics considers that the eligible categories will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDG 7, 9 and 12.



**PROJECT EVALUATION / SELECTION** Kirin Holdings' internal process in evaluating and selecting projects is managed by the Accounting Department and CSV Strategy Department. The final decision for the projects selected based on the use of proceeds defined in the Framework, will be made by the Executive Officer in charge of financial strategy. Kirin Holdings' process is in line with market practice.



**MANAGEMENT OF PROCEEDS** Kirin Holdings' Accounting Department will track the allocated and unallocated amounts of the proceeds on a semiannual basis, using the internal management system, until redemption of the bond. The proceeds will be allocated to eligible projects within one year, and the unallocated proceeds will be held in cash or cash equivalents. The Company's management of proceeds is in line with market practice.



**REPORTING** Kirin Holdings is committed to disclosing on its website annually allocation reporting and environmental impact reporting. Allocation reporting contains the name of projects, overview of projects with progress, and amounts allocated and unallocated, and will be disclosed on a timely basis, in the event of any significant changes. Impact reporting contains quantitative information including conversion rate of PET bottle resin to recycled resin and reduction in greenhouse gas emission (in tons). Moreover, Kirin Holdings commits to receive an annual review from an external reviewer. Sustainalytics views Kirin Holdings' commitments on reporting and annual review to be aligned with market practice.

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**Issuer Location** Tokyo, Japan

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#### Alignment with Japan's Green Bond Guidelines 2020

Sustainalytics is of the opinion that the Framework is in line with Japan's Green Bond Guidelines 2020 developed by the Ministry of the Environment of Japan. The guidelines communicate what an issuer is expected to do to issue a credible green bond. Sustainalytics assessed the alignment between the Framework and the 'should' items outlined in the Japan's Green Bond Guidelines 2020.

## Introduction

Kirin Holdings Company, Limited. ("Kirin Holdings" or the "Company") is the holding company of the Kirin Group including Kirin Brewery Company, Limited, Kirin Beverage Company, Limited, Mercian Corporation, Lion Pty Limited, Myanmar Brewery Limited, Kyowa Kirin Co., Ltd., and Kyowa Hakko Bio Co., Ltd. Headquartered in Tokyo, Japan, the Company operates alcoholic beverage, non-alcoholic beverage, health science, and pharmaceutical businesses mainly in Japan, Asia and Oceania.

Kirin Holdings has developed the Kirin Holdings Company, Limited. Green Bond Framework (the "Framework") under which it intends to issue green bonds and use the proceeds to finance and/or refinance, projects that will lead to the positive environmental impact. The Framework defines eligibility criteria in the following areas:

1. Eco-efficient and/or Circular Economy Adapted Products, Production Technologies and Processes
2. Pollution Prevention and Control
3. Energy Efficiency
4. Renewable Energy

Kirin Holdings engaged Sustainalytics to review the Framework, dated October 2020, and provide a Second-Party Opinion on the Framework's environmental credentials and its alignment with the GBP<sup>1</sup> and Japan's Green Bond Guidelines 2020.<sup>2</sup> A summary overview of the Framework has been provided in Appendix 1.

### Scope of work and limitations of Sustainalytics Second-Party Opinion

Sustainalytics' Second-Party Opinion reflects Sustainalytics independent<sup>3</sup> opinion on the alignment of the reviewed Framework with the current market standards and the extent to which the eligible categories are credible and impactful.

As part of the Second-Party Opinion, Sustainalytics assessed the following:

- The Framework's alignment with the GBP and Japan's Green Bond Guidelines 2020;
- The credibility and anticipated positive impacts of the use of proceeds;
- The alignment of the issuer's sustainability strategy and performance and sustainability risk management in relation to the use of proceeds.

For the use of proceeds assessment, Sustainalytics relied on its internal taxonomy, version 1.6.1, which is informed by market practice and Sustainalytics' expertise as an ESG research provider.

As part of this engagement, Sustainalytics held conversations with various members of Kirin Holdings's Accounting Department and CSV Strategy Department to understand the sustainability impact of their business processes and planned use of proceeds, as well as management of proceeds and reporting aspects of the Framework. Kirin Holdings representatives have confirmed (1) they understand it is the sole responsibility of Kirin Holdings to ensure that the information provided is complete, accurate or up to date; (2) that they have provided Sustainalytics with all relevant information and (3) that any provided material information has been duly disclosed in a timely manner. Sustainalytics also reviewed relevant public documents and non-public information.

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

Any update of the present Second-Party Opinion will be conducted according to the agreed engagement conditions between Sustainalytics and Kirin Holdings.

Sustainalytics' Second-Party Opinion, while reflecting on the alignment of the Framework with market standards, is no guarantee of alignment nor warrants any alignment with future versions of relevant market standards. Furthermore, Sustainalytics' Second-Party Opinion addresses the anticipated impacts of eligible projects expected to be financed with bond proceeds but does not measure the actual impact. The

<sup>1</sup> 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/>.

<sup>2</sup> Ministry of the Environment, Japan, "Green Bond Guidelines, 2020", at: [http://www.env.go.jp/policy/guidelines\\_set\\_version\\_with%20cover.pdf](http://www.env.go.jp/policy/guidelines_set_version_with%20cover.pdf)

<sup>3</sup> When operating multiple lines of business that serve a variety of client types, objective research is a cornerstone of Sustainalytics and ensuring analyst independence is paramount to producing objective, actionable research. Sustainalytics has therefore put in place a robust conflict management framework that specifically addresses the need for analyst independence, consistency of process, structural separation of commercial and research (and engagement) teams, data protection and systems separation. Last but not the least, analyst compensation is not directly tied to specific commercial outcomes. One of Sustainalytics' hallmarks is integrity, another is transparency.

measurement and reporting of the impact achieved through projects financed under the Framework is the responsibility of the Framework owner.

In addition, the Second-Party Opinion opines on the intended allocation of proceeds but does not guarantee the realised allocation of the bond proceeds towards eligible activities.

No information provided by Sustainalytics under the present Second-Party Opinion shall be considered as being a statement, representation, warrant or argument either in favour or against, the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that Kirin Holdings has made available to Sustainalytics for the purpose of this Second-Party Opinion.

## Sustainalytics' Opinion

### Section 1: Sustainalytics' Opinion on the Kirin Holdings Company, Limited. Green Bond Framework

Sustainalytics is of the opinion that the Framework is credible and impactful, and aligns with the four core components of the GBP. Sustainalytics highlights the following elements of the Framework:

- Use of Proceeds:
  - The four eligible categories for the use of proceeds defined by Kirin Holdings – 1) Eco-efficient and/or Circular Economy Adapted Products, Production Technologies and Processes; 2) Pollution Prevention and Control; 3) Energy Efficiency; and 4) Renewable Energy – are all recognized by the GBP as project categories with clear environmental impact. The Company's expenditures in those projects will further enhance the Company's efforts to promote sustainable containers and packaging and to eliminate greenhouse gas (GHG) emissions from the Company's value chains in line with the Company's long-term goals and also will contribute to resources recycling and decarbonization in the society as a whole. Please see Section 3 for Sustainalytics' assessment of the environment benefits in Japan expected from the use of proceeds.
  - Within the category of Eco-efficient and/or Circular Economy Adapted Products, Production Technologies and Processes, Kirin Holdings intends to allocate the proceeds to procure recycled PET (polyethylene terephthalate) resin.
  - Under the category of Pollution Prevention and Control outlined in the Framework, the Company intends to allocate proceeds to investment in recycling facilities that produce recycled PET resin. The recycling process of producing PET resin from collected PET bottles will contribute to reduce plastic wastes that are otherwise landfilled or combusted.
  - Sustainalytics notes that, with regard to recycling of plastics globally, while the vast majority, approximately 79%, of plastics manufactured between 1950 (when mass production started) and 2015 were landfilled, recycling of plastics is very low, with an estimated 9% of total global plastic waste having been recycled.<sup>4</sup> Sustainalytics also recognizes that improved recycling rates alone, even if attainable, will not fully address the holistic environmental issues associated with plastics,<sup>5</sup> and believes that the industry needs to take substantial measures, including an increased use of sustainably sourced alternative low-carbon materials, in order to achieve circularity. While the Company has been promoting resource-recycling of PET bottles and introducing PET bottles completely made of recycled PET resin for some products, it is committed to increasing the conversion rate of PET bottle resin to recycled resin in use in Japan to 50% by 2027, and to fully convert to sustainable containers and packaging with the use of recycled and biomass materials by 2050. Sustainalytics believes that the use of recycled PET resin by the Company will reduce the use of new petroleum-derived PET resin and improve resources efficiency, contributing to the transition to a circular economy.

<sup>4</sup> Science Advances, "Production, use, and fate of all plastics ever made", at: <https://advances.sciencemag.org/content/3/7/e1700782.full>

<sup>5</sup> Unlike steel, glass, and aluminum, plastics can only be recycled a finite number of times before being disposed of. In addition, recycled and bio-based plastics face end-of-life management issues similar to conventional (fossil-fuel) plastics.

- In the category of Energy Efficiency, the Company intends to allocate the proceeds to introduce heat pump systems at its factories, which include the expenditures related to purchase and installation. The Company intends to shift from boilers that use natural gas and other fossil fuels to heat pumps that supply heat efficiently in the heating process at factories. Moreover, the Company is committed to Sustainalytics that it will install heat pumps that run on electricity and not on fossil fuels including natural gas.
- In the Renewable Energy category, Kirin Holdings intends to allocate the proceeds to introduce solar power generation facilities at its factories and to procure renewable energy. In procuring renewable energy, the Company is committed to procure power directly from power companies or through Green Power Certificates on a medium- to long-term basis for at least five years, which Sustainalytics considers it to be in line with market practice.
- In the Framework, the Company has established exclusionary criteria, and is committed not to allocating the proceeds to unfair transactions that do not abide by the laws and regulations of the country of location, transactions involving improper relationship including bribery, corruption, blackmail and embezzlement, and transactions that may cause human rights, environmental and other social issues.
- Kirin Holdings intends to allocate the proceeds to new expenditures and to refinancing. The Framework restricts the look-back period to five years prior to issuance of the green bond. Sustainalytics acknowledges that the market expectation for look-back period is three years.
- Project Evaluation and Selection:
  - Kirin Holdings' project evaluation and selection will be managed by the Accounting Department and CSV Strategy Department in accordance with the use of the proceeds described in the Framework, developed based on the Environmental Vision 2050 of the Company. The final decision for the projects selected will be made by the Executive Officer in charge of financial strategy. Sustainalytics considers the Company's project evaluation and selection procedure to be in line with market practice.
- Management of Proceeds:
  - The management of proceeds will be handled by Kirin Holdings' Accounting Department. The Accounting Department will track the allocated and unallocated amounts of the proceeds of the green bond on a semiannual basis, using the internal management system, until redemption of the bond. While pending full allocation, Kirin Holdings will hold the unallocated proceeds in cash or cash equivalent, it intends to allocate the proceeds in eligible projects within one year. Sustainalytics considers that the Company's process for the management of proceeds to be in line with market practice.
- Reporting:
  - Kirin Holdings is committed to disclosing on its website annually allocation reporting and impact reporting. Allocation reporting includes the name of projects, overview of projects with progress, and amounts allocated and unallocated on a project basis, subject to confidentiality considerations, until full allocation. Additionally, the Company is committed to disclosing in the event of any significant changes, on a timely basis. Impact reporting includes quantitative information including conversion rate of PET bottle resin to recycled resin and reduction in greenhouse gas emission (in tons) on project basis until the green bond is redeemed. Moreover, Kirin Holdings' intends to receive an annual review from an external reviewer. Sustainalytics views Kirin Holdings' commitments on reporting and annual review as aligned with market practice.

#### **Alignment with Green Bond Principles 2018**

Sustainalytics has determined that the Kirin Holdings Company, Limited. Green Bond Framework aligns to the four core components of the GBP. For detailed information please refer to Appendix 2: Green Bond/Green Bond Programme External Review Form.

#### **Alignment with Japan's Green Bond Guidelines 2020**

Sustainalytics is of the opinion that the Framework is in line with Japan's Green Bond Guidelines 2020 developed by the Ministry of the Environment of Japan. The guidelines communicate what an issuer is expected to do to issue a credible green bond. Sustainalytics assessed the alignment between the Framework and the 'should' items outlined in the Japan's Green Bond Guidelines 2020.

<b>GBP and Japan's Green Bond Guidelines 2020</b>	<b>Alignment with GBP and with Japan's Green Bond Guidelines 2020</b>	<b>Sustainalytics' comments on alignment with Japan's Green Bond Guidelines 2020<sup>6</sup></b>
1. Use of Proceeds	Yes	Eligible projects for the use of proceeds defined by Kirin Holdings within the Framework, related to 1) Eco-efficient and/or Circular Economy Adapted Products, Production Technologies and Processes, 2) Pollution Prevention and Control, 3) Energy Efficiency, 4) Renewable Energy, are recognized as projects with clear environmental benefits in the Japan's Green Bond Guidelines 2020. The Company also describes measures to manage and reduce environmental risks associated with eligible projects in the Framework, which will be accessible to the investors in advance. In case the Company issues multiple green bonds for refinancing assets that requires long-term maintenance, the Company is also committed to disclose the age, remaining useful life and refinancing amount of such assets.
2. Process for Project Evaluation and Selection	Yes	The Company describes the "Kirin Group Environmental Vision 2050" in the Framework, which it seeks to achieve through the issuance of green bonds. The Framework also outlines the eligible criteria for the use of proceeds and states that, as the process for evaluating and selecting projects, the Accounting Department and CSV Strategy Department of the Company selects the projects, which are then finalized by the Executive Officer in charge of financial strategy.
3. Management of Proceeds	Yes	The Accounting Department of Kirin Holdings will track and manage the allocated and unallocated amounts of the proceeds of the green bond on a semiannual basis using the internal management system until redemption of the green bond. The Framework states that the Company intends to allocate the proceeds to eligible projects within a year, and that the unallocated proceeds will be held in cash or cash equivalents.
4. Reporting	Yes	Kirin Holdings is committed to disclosing, annually and on a timely basis in the event of significant changes after full allocation, information on the allocation of the proceeds and the environmental benefits. Regarding the allocation of the proceeds, the name of projects, overview of projects with progress, and amounts allocated and unallocated on a project basis, will be disclosed until the proceeds are fully allocated. As environmental benefits, conversion rate of PET bottle resin to recycled resin and reduction in GHG emission (t) will be disclosed as environmental improvement

<sup>6</sup> For detailed comments on alignment with ICMA GBP, please see Appendix 2.

indicators, depending on the project category, until the green bond is redeemed.

## Section 2: Sustainability Strategy of Kirin Holdings

### Contribution of framework to Kirin Holdings' sustainability strategy

Kirin Holdings positions CSV (Creating Shared Value: creating values that can be shared with customers and society) as one of the core policies of management<sup>7</sup> and, by formulating the "Kirin Group Environmental Vision 2050",<sup>8</sup> which is the Company's long-term environmental strategy, and the "Kirin Group Vision 2027",<sup>9</sup> which is a long-term management vision until 2027, the Company intends to deliver positive environmental impact, through its business, in four areas: 1) biological resources; 2) water resources; 3) containers and packaging; and 4) climate change, which are material environmental issues for the Company.

To address the issue of "containers and packaging" that is one of the material environmental issues, the Company intends to promote development and use of sustainable containers and packaging as well as to establish a resources recycling system. Having set the goal of completely converting to sustainable containers and packaging made of fully recycled and biomass-originated materials by 2050,<sup>10</sup> the Company intends to achieve the recycled resin utilization rate of 50% for materials for bottles produced in Japan by 2027.<sup>11</sup> At the same time, by formulating the "Kirin Group Plastic Policy,"<sup>12</sup> the Company is committed to building mechanisms to collect and recycle used PET bottles in the areas where the Company operates.

Regarding "climate change," through the "Kirin Group Environmental Vision 2050", the Company sets out a target of achieving net zero emission of GHG throughout its value chain as one of the material environmental issues, and is promoting energy saving and renewable energy utilization measures such as introduction of heat pump systems.<sup>13</sup> As a medium-term target, Kirin Brewery Company, Limited intends to convert at least 50% of its electricity purchased at the factories to power from renewable energy sources by 2030, and Lion Pty Limited intends to introduce solar power generation facilities for 10MW by 2026.<sup>14</sup> Kirin Holdings intends to achieve the RE100 target as early as possible.<sup>15</sup> In addition, the Company has received SBTi's approval for the 2.0 degree criteria for its reduction target to reduce GHG emission through its business activities and by its value chain (total of Scope 1 and Scope 2, as well as Scope 3) by 30% respectively from 2015. Furthermore, the Company intends to revise its targets to meet the 1.5 degree criteria by the end of 2020.<sup>16,17</sup>

Given the above, Sustainalytics views that the Framework is consistent with the overall strategies and initiatives of Kirin Holdings, and will further the Company's actions on its key environmental priorities.

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

While Sustainalytics recognizes that the projects, defined as eligible for the use of proceeds in the Framework, create environmental benefits, Sustainalytics is also aware that such projects pose potential environmental and social risks. Major environmental and social risks are, among others, risks associated with the supply

<sup>7</sup> Kirin Holdings, "KIRIN CSV REPORT2020", at: <https://www.kirinholdings.co.jp/english/ir/library/integrated/pdf/report2020/kirinreport2020e.pdf>

<sup>8</sup> Kirin Holdings, "Kirin Group Environmental Vision 2050" (Japanese only), at:

[https://www.kirin.co.jp/csv/eco/mission/#Main\\_inner&\\_ga=2.240601990.406456111.1600219800-1519271274.1595820383](https://www.kirin.co.jp/csv/eco/mission/#Main_inner&_ga=2.240601990.406456111.1600219800-1519271274.1595820383)

<sup>9</sup> Kirin Holdings, "Kirin Group Announces its Long-Term Management Vision for 2027 and Medium-Term Business Plan for FY2019-2021", at:

[https://www.kirinholdings.co.jp/english/news/2019/0214\\_01.html](https://www.kirinholdings.co.jp/english/news/2019/0214_01.html)

<sup>10</sup> Kirin Holdings, "Kirin Group Environmental Report 2020" (Japanese only), at:

<https://www.kirinholdings.co.jp/csv/report/env/pdf/environmental2020.pdf>

<sup>11</sup> Kirin Holdings, "Our CSV Commitment", at: <https://www.kirinholdings.co.jp/english/csv/commitment/>

<sup>12</sup> Kirin Holdings, "Kirin Group Establishes its Plastic Policy", at: [https://www.kirinholdings.co.jp/english/news/2019/0207\\_01.html](https://www.kirinholdings.co.jp/english/news/2019/0207_01.html)

<sup>13</sup> Kirin Holdings, "Kirin Group Environmental Vision 2050" (Japanese only), at:

[https://www.kirin.co.jp/csv/eco/mission/#Main\\_inner&\\_ga=2.240601990.406456111.1600219800-1519271274.1595820383](https://www.kirin.co.jp/csv/eco/mission/#Main_inner&_ga=2.240601990.406456111.1600219800-1519271274.1595820383)

<sup>14</sup> Kirin Holdings, "Our CSV Commitment", at: <https://www.kirinholdings.co.jp/english/csv/commitment/>

<sup>15</sup> Kirin Holdings, "Kirin Group Environmental Vision 2050" (Japanese only), at:

[https://www.kirin.co.jp/csv/eco/mission/#Main\\_inner&\\_ga=2.240601990.406456111.1600219800-1519271274.1595820383](https://www.kirin.co.jp/csv/eco/mission/#Main_inner&_ga=2.240601990.406456111.1600219800-1519271274.1595820383)

<sup>16</sup> Kirin Holdings, "Kirin Group becomes the first Japanese food company to receive approval for its mid-term greenhouse gas (GHG\*1) reduction targets under the Science Based Targets (SBT) Initiative." (Japanese only), at: [https://www.kirinholdings.co.jp/news/2017/0324\\_01.html](https://www.kirinholdings.co.jp/news/2017/0324_01.html)

<sup>17</sup> Kirin Holdings, "Kirin Group Environmental Report 2020" (Japanese only), at:

<https://www.kirinholdings.co.jp/csv/report/env/pdf/environmental2020.pdf>



chain of the Company including procurement, workers' health and safety at factories, outflow of muddy water and impacts on ecosystem of plants and animals due to the installation of solar power at factories. Considering the following measures, Sustainalytics believes that Kirin Holdings is well positioned to manage and address environmental and social risks accompanying the projects.

- Kirin Holdings is committed to management and prevention of risks in procurement, abiding by laws and regulations, adhering to the industry's voluntary standards and paying due attention to the environment and human rights, in cooperation with suppliers, as stated in the "Kirin Group Sustainable Procurement Policy" and "Kirin Group Basic Procurement Policy."<sup>18</sup> In addition, the Company measures to reduce environmental and social risks and alleviate negative impacts on the society in the supply chain, by establishing the code of conducts for suppliers to observe as "Kirin Group Supplier CSR Guideline",<sup>19</sup> which consists of the following six items: organizational system and compliance and risk management; paying due attention to human rights; paying due attention to environment; safety and security; programs to address alcohol-related issues; and social contribution.
- Kirin Holdings discloses its approach to Occupational Safety and Health,<sup>20</sup> and enhances the workplace environment through abidance by laws and regulations on safety, health and labor. At each office, the Company has established the labor, health and safety committee to formulate the workers' health and safety policy by each operating company, and at meetings that are held every month, dangerous spots and factors that could cause health problems are identified and improvement measures are implemented. Further, Kirin Brewery, one of the major group companies, establishes safety-related KPIs every year and the Company's management monitors the progresses on a quarterly basis. At factories, surveys on hazardous spots and toxicity are carried out based on the "risk assessment guideline," and measures are taken to prevent hazards and health problems based on the results.<sup>21</sup>
- Kirin Holdings implements measures to enhance the environmental management system by conducting internal audits in accordance with ISO14001 and other standards at each operating company. In addition to complying with laws, each business site strives to prevent environmental pollution by setting its own standards, which are stricter than the law, as well as managing water, soil and air pollution, chemical substances, and other environmental issues. The Company also implements monitoring on abidance by laws and regulations and progress of measures for environmental targets through internal audit.<sup>22</sup>

### Section 3: Impact of Use of Proceeds

All four use of proceeds categories are aligned with those recognized by the GBP and Japan's Green Bond Guidelines 2020. Sustainalytics explains why those project categories produces positive environmental impacts in Japan as follows:

#### Importance of cyclic use of plastics through procurement of recycled PET resin

Globally, over 90% of plastics are manufactured from virgin raw materials derived from fossil resources including petroleum, and plastics manufacturing accounts for about 6% of petroleum consumption worldwide (of which about a quarter is for containers and packaging).<sup>23</sup> The greenhouse gas emitted by the plastics industry accounts for about 1% of all the emissions worldwide,<sup>24</sup> and extraction, transportation and refining of oil for use as raw material of plastics are sources of GHG emission. As the volume of plastics packaging is expected to increase by about three times by 2050,<sup>25</sup> promoting the use of recycled materials instead of fossil resources in manufacturing PET bottles is important for effective use of natural resources and as measures against climate changes.

Kirin Holdings defines procurement of recycled PET resin as its use of proceeds, which is produced by mechanically recycling used PET bottles. By using recycled PET resin bottles as raw materials, PET bottles can be recycled into PET bottles. In addition to reducing the use of fossil resources, CO<sub>2</sub> emission in the manufacturing process is demonstrated to be reduced by 50% to 60% compared to the manufacture of

<sup>18</sup> Kirin Holdings, "Kirin Group Supplier CSR Guideline" (Japanese only), at: [https://www.kirinholdings.co.jp/csv/procurement/pdf/csr\\_guideline.pdf](https://www.kirinholdings.co.jp/csv/procurement/pdf/csr_guideline.pdf)

<sup>19</sup> Kirin Holdings, "Kirin Group CSR Guideline" (Japanese only), at: [https://www.kirinholdings.co.jp/csv/procurement/pdf/csr\\_guideline.pdf](https://www.kirinholdings.co.jp/csv/procurement/pdf/csr_guideline.pdf)

<sup>20</sup> Kirin Holdings, "Occupational Safety and Health", at: [https://www.kirinholdings.co.jp/english/csv/well-being/working\\_environment.html](https://www.kirinholdings.co.jp/english/csv/well-being/working_environment.html)

<sup>21</sup> Kirin Holdings, "Occupational Safety and Health", at: [https://www.kirinholdings.co.jp/english/csv/well-being/working\\_environment.html](https://www.kirinholdings.co.jp/english/csv/well-being/working_environment.html)

<sup>22</sup> Kirin Holdings, "Kirin Group Environmental Report 2020" (Japanese only), at: <https://www.kirinholdings.co.jp/csv/report/env/pdf/environmental2020.pdf>

<sup>23</sup> World Economic Forum, "The New Plastics Economy Rethinking the future of plastics", at: [http://www3.weforum.org/docs/WEF\\_The\\_New\\_Plastics\\_Economy.pdf](http://www3.weforum.org/docs/WEF_The_New_Plastics_Economy.pdf)

<sup>24</sup> World Economic Forum, "The New Plastics Economy Rethinking the future of plastics", at: [http://www3.weforum.org/docs/WEF\\_The\\_New\\_Plastics\\_Economy.pdf](http://www3.weforum.org/docs/WEF_The_New_Plastics_Economy.pdf)

<sup>25</sup> Center for International Environmental Law (CIEL), "Plastic & Climate", at: [http://www3.weforum.org/docs/WEF\\_The\\_New\\_Plastics\\_Economy.pdf](http://www3.weforum.org/docs/WEF_The_New_Plastics_Economy.pdf)

petroleum-derived PET bottles.<sup>26</sup> In Japan, while about 613,000 tons of PET bottles are produced annually,<sup>27</sup> only 72,700 tons of recycled PET resin are used as raw materials of PET bottles.<sup>28</sup> It is therefore important to increase use of recycled PET resin for manufacturing PET bottles.

Given the above, Sustainalytics views that Kirin Holdings' planned use of proceeds for procurement of recycled PET resin is expected to contribute to reduction of fossil resources-derived virgin resources used to manufacture PET bottles and to promotion of effective use of plastics resources.

### Importance of enhancing recycling system for PET bottles

Of the plastic wastes generated in Japan (of which about half are containers and packaging),<sup>29</sup> only 27% are recycled (23%: material recycled; and 4%: chemical recycled), 56% incinerated for power generation or heat utilization, and 16% simply burnt or landfilled and not used effectively.<sup>30</sup> Japan depends on foreign countries for recycling wastes, and in 2018, 910,000 tons, or 43% of material recycled plastics, were exported mainly to Southeast Asian nations such as Malaysia, Taiwan, Vietnam and Thailand.<sup>31,32</sup> In addition, the marine pollution caused by plastic waste leakage is now a major environmental issue globally. Based on this situation, in May 2019, the Japanese government released the "Resource Circulation Strategy for Plastics,"<sup>33</sup> with the target of reusing or recycling about 60% of containers and packaging by 2035, as well as improving the country's waste plastic recycling capacity.

Kirin Holdings defines investment in facilities for manufacturing recycled PET resin as its use of proceeds, and Sustainalytics views the use of proceeds positively as it is expected to promote recycling of waste plastics in Japan through enhanced recycling capacity of PET bottles and contribute to prevention of marine pollution.

### Importance of Promoting Energy Conservation in Manufacturing Processes by Introducing Heat Pump Systems

Kirin Holdings defines expenditures related to the installation of a heat pump system at its factories as its use of proceeds, a technology that recovers low-temperature heat sources from air and water and converts them into high-temperature energy by adding energy. Heat pump systems are applied in industry in production processes such as heating, thermal retention, sterilization, drying, cleaning and distillation, using unused heat sources such as waste air and waste heat to generate high temperature energy.<sup>34</sup> Kirin group intends to use heat pump systems to replace the burning of fossil fuels for the heating process, which accounts for the majority of GHG emissions from the manufacturing process, and is working to develop a manufacturing system with lower GHG emissions by procuring renewable energy for the electricity used as its energy source.

The Japanese government has committed to reducing GHG emissions by 26% by 2030 compared to 2013 levels as its climate goal, and has set a target of reducing final energy demand in the Industrial sector by 10.42 million kL of crude oil equivalent in order to achieve this goal.<sup>35</sup> It positions the introduction of industrial heat pumps as one of the sector's energy conservation measures and expect to achieve 879,000 kL, or 8.4% of the

<sup>26</sup> Kirin Holdings, "Recycling of plastic bottles" (Japanese only), at: <https://www.kirin.co.jp/csv/eco/special/recycle/pet02.html>

<sup>27</sup> The Council for PET Bottle Recycling, "Overview of Designated PET Bottle Recycling (Transition Table)" (Japanese only), at: [http://www.petbottle-rec.gr.jp/data/general\\_situation.html](http://www.petbottle-rec.gr.jp/data/general_situation.html)

<sup>28</sup> The Council for PET Bottle Recycling, "Survey of Recycled PET Resin Usage in Japan" (Japanese only), at: <http://www.petbottle-rec.gr.jp/nenji/2019/p10.html>

<sup>29</sup> Plastic Waste Management Institute, "Production, disposal, recycling, treatment and disposal of plastic products" (Japanese only), at: <https://www.pwmi.or.jp/pdf/panf2.pdf>

<sup>30</sup> Plastic Waste Management Institute, "Basic facts of plastic recycling 2020" (Japanese only), at: <https://www.pwmi.or.jp/pdf/panf1.pdf>

<sup>31</sup> Ministry of the Environment, "The status of recycling of waste plastics in Japan and overseas" (Japanese only), at: <https://www.env.go.jp/press/files/jp/114077.pdf>

<sup>32</sup> Japan External Trade Organization, "Japan to export 900,000 tons of waste plastic in 2019, the first time since 2004 that the volume has fallen below 1 million tons" (Japanese only), at: <https://www.jetro.go.jp/biznews/2020/02/5c7b57b5cc67b51c.html>

<sup>33</sup> Ministry of the Environment, "Resource Circulation Strategy for Plastics" (Japanese only), at: <https://www.env.go.jp/press/files/jp/111747.pdf>

<sup>34</sup> Japan Electro-Heat Center, "Industrial Heat Pump Application Guide" (Japanese only), at: [http://www.jeh-center.org/asset/00032/HeatPump\\_Guide/Heatpump%20Guide.pdf](http://www.jeh-center.org/asset/00032/HeatPump_Guide/Heatpump%20Guide.pdf)

<sup>35</sup> "Japan's NDC (Nationally Determined Contribution)" (Japanese only), at: <https://www.env.go.jp/press/files/jp/113664.pdf>



sector's reduction target through the introduction.<sup>36</sup> In order to achieve Japan's climate goals, strengthening energy-saving measures in factories through increased use of industrial heat pumps are essential.<sup>37</sup>

Based on the above, Sustainalytics is of opinion that Kirin Holdings' use of proceeds related to the installation of heat pump system at factories is expected to contribute to the Japanese government's efforts to combat climate change, through reducing GHG emissions from its manufacturing processes.

### Necessity to Promote the Introduction of Renewable Energy

Kirin Holdings has specified expenditures related to the introduction of solar power generation facilities at factories and procurement of electricity from renewable energy sources as its use of proceeds. In FY2018, renewable energies accounted for 16.9% of Japan's power source.<sup>38</sup> In the Nationally Determined Contribution (NDC),<sup>39</sup> the Japanese government is committed to reduce GHG emission to 26% by 2030 from the 2013 level based on the premise that the share of electricity from renewable energy sources is increased to 22-24%. Accordingly, promoting introduction of renewable energy is an integral policy for Japan to achieve its climate target. The Japanese government has established the goal of reducing GHG emission by 80% by 2050,<sup>40</sup> and to achieve the target, sets out the policy of making renewable energy the primary source of electricity that is free of emission.<sup>41</sup> By power source, progress against the government's 2030 introduction target as of end of FY2018 was steady at 78% for solar, 60% for biomass, and 86% for small- to medium-sized hydropower, while wind and geothermal power generation accounted for 37% each, and further expansion of their use is required.<sup>42</sup>

Given the above, Sustainalytics views positively that the use of proceeds determined by Kirin Holdings is expected to contribute to the achievement of the Japan's climate target through introduction and expanded use of renewable energy and decarbonization of energy sources.

### 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
Eco-efficient and/or Circular Economy Adapted Products, 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.
Pollution Prevention and Control	12. Responsible Consumption and Production	12.5 By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.
Energy Efficiency	7. Affordable and Clean Energy	7.3 By 2030, double the global rate of improvement in energy efficiency
Renewable Energy	7. Affordable and Clean Energy	7.2 By 2030, increase substantially the share of renewable energy in the global energy mix

<sup>36</sup> Ministry of Economy, Trade and Industry, "An Act to Amend the Act on the Rational Use of Energy, etc. (Energy Conservation Act)" (Japanese only), at: [https://www.enecho.meti.go.jp/category/saving\\_and\\_new/saving/h30law/sanko.pdf](https://www.enecho.meti.go.jp/category/saving_and_new/saving/h30law/sanko.pdf)

<sup>37</sup> Ministry of Economy, Trade and Industry, "An Act to Amend the Act on the Rational Use of Energy, etc. (Energy Conservation Act)" (Japanese only), at: [https://www.enecho.meti.go.jp/category/saving\\_and\\_new/saving/h30law/sanko.pdf](https://www.enecho.meti.go.jp/category/saving_and_new/saving/h30law/sanko.pdf)

<sup>38</sup> Agency for Natural Resources and Energy, "FY2018 Energy Supply and Demand Report (Final Figures) (Japanese only)", at: [https://www.enecho.meti.go.jp/statistics/total\\_energy/pdf/stte\\_029.pdf](https://www.enecho.meti.go.jp/statistics/total_energy/pdf/stte_029.pdf)

<sup>39</sup> "Japan's NDC (Nationally Determined Contribution)" (Japanese only), at: <https://www.env.go.jp/press/files/jp/113664.pdf>

<sup>40</sup> Ministry of the Environment, "The Long-term Strategy under the Paris Agreement", at: <https://unfccc.int/sites/default/files/resource/The%20Long-term%20Strategy%20under%20the%20Paris%20Agreement.pdf>

<sup>41</sup> Ministry of Economy, Trade and Industry, "Basic Energy Plan", at: [https://www.meti.go.jp/english/press/2018/pdf/0703\\_002c.pdf](https://www.meti.go.jp/english/press/2018/pdf/0703_002c.pdf)

<sup>42</sup> Agency for Natural Resources and Energy, "Current State of Renewable Energy in Japan and Overseas and Draft Issues Proposed for the Current Year by the Procurement Price Calculation Committee (Japanese only)", at: [https://www.meti.go.jp/shingikai/santeti/pdf/046\\_01\\_00.pdf](https://www.meti.go.jp/shingikai/santeti/pdf/046_01_00.pdf)

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## Conclusion

Kirin Holdings intends to issue green bonds under the Framework and allocate the proceeds to finance and/or refinance projects related to 1) Eco-efficient and/or Circular Economy Adapted Products, Production Technologies and Processes; 2) Pollution Prevention and Control; 3) Energy Efficiency; and 4) Renewable Energy. Sustainalytics considers that the use of proceeds defined by the Framework will contribute to the achievement of the Company's Kirin Group Environmental Vision 2050 and promote the recycling of plastic resources, prevent marine pollution, and counter climate changes as well as SDGs 7, 9 and 12.

The use of proceeds defined by Kirin Holdings Company, are aligned with project categories recognized as having clear environmental benefits by the GBP and Japan's Green Bond Guidelines 2020. The Framework also explains about the project evaluation and selection process by the Accounting Department and CSV Strategy Department, the semi-annual tracking of proceeds by the Accounting Department, and its planned annual reporting on the allocation and environmental benefits. Sustainalytics considers that the Company's commitment to each core component are aligned with market practices.

Based on the above, Sustainalytics is of the opinion that the Framework is credible, transparent, and in alignment with the four core components of the GBP and Japan's Green Bond Guidelines 2020.

## Appendices

### Appendix 1: Framework Overview

For the purpose of issuing green bonds, Kirin Holdings has developed the following Framework which addresses the four key core components of the GBP: use of proceeds, project evaluation and selection process, management of proceeds, and reporting, on October 2020. The Framework belongs to Kirin Holdings.

#### 1. Use of proceeds

The proceeds of the green bonds will be allocated to new expenditures or refinancing in relation to eligible projects that meet the following eligible criteria. For refinancing, the use of proceeds will be restricted to expenditures made within five years prior to the green bond issuance.

##### 1.1 Eligibility Criteria

Item	Business / Projects	GBP Project Category
Product Manufacturing and Sales	• Introduction of heat pump systems at factories	• Energy Efficiency
	• Procurement of and capital investment for recycled PET resin	• Pollution Prevention and Control • Circular Economy Adapted Products, Production Technologies and Processes
Renewable Energy	• Introduction of solar power generation facilities at factories • Procurement of renewable energy	• Renewable Energy

##### 1.2 Exclusionary criteria

The proceeds of the green bonds will not be allocated to projects related to the following:

- Unfair transactions not complying with the laws and regulations of the country of location or involving improper relationship including bribery, corruption, blackmail and embezzlement; and
- Transactions that may cause human rights, environmental and other social issues.

#### 2. Process for project evaluation and selection

##### 2.1 Application of Eligibility and Exclusionary Criteria in Project Selection

The eligible projects will be selected by the Accounting Department and CSV Strategy Department of Kirin Holdings in accordance with the eligible criteria in 1.1 above, and finalized by the Executive Officer in charge of financial strategy. In determining the eligibility of the businesses, Kirin Holdings comprehensively assesses the contribution to the achievement of the Kirin Group Environmental Vision 2050.

##### 2.2 Environmental Objectives

Under the vision of “Enrich the Earth with Positive Impact”, Kirin Group will work with its broad stakeholders to enrich society and the Earth for future generations through positive impact on people and the environment.

###### <Efforts for Realization>

###### Biological Resources

- Cultivate, expand and procure sustainable agricultural raw materials
- Stand by the side of farmers to make raw material production areas sustainable.

###### Water Resources

- Bring water, used as a raw material, to a sustainable state.
- Solve problems with water in a way that suits the characteristics of basin regions where our business bases are located.

###### Containers and Packaging

- Develop and disseminate sustainable containers and packaging.
- Build a resource-recycling system to make containers and packaging sustainable

**Climate Change**

- Realize Net-Zero GHG in the entire value chain
- Take the lead in building a decarbonized society

**2.3 Process to Mitigate Environmental and Social Risks**

In carrying out our operations, we will comply with environmental laws and regulations and agreements with the region throughout the execution and duration of the project and will follow the Kirin Group Compliance Guidelines to ensure that we act with integrity and conformity to social ethics.

**3. Management of Proceeds**

Kirin Holdings' Accounting Department will manage the allocation of the proceeds of the sustainability bonds on a semiannual basis using the internal management system until redemption of the green bond. The proceeds are planned to be allocated to eligible projects within one year from the issuance of the green bonds. Pending full allocation, the proceeds will be held in cash or cash equivalents.

**4. Reporting****4.1 Allocation reporting**

Kirin Holdings will report on status of the proceeds which includes the name of projects, overview of projects with progress, and amounts allocated and unallocated, on the Company's website, while taking into account the confidentiality of the projects, until the proceeds are fully allocated to projects meeting the eligible criteria.

Moreover, in case of refinancing an asset that require long-term maintenance through the issuance of multiple green bonds, the Company will disclose the assets age, remaining useful life and the amount to be refinanced at the time of the bond issuance.

In an event of a significant change that may cause major changes to the allocation plan of the proceeds, the Company will disclose in a timely manner.

**4.2 Impact reporting**

Kirin Holdings will report annually, on the following metrics on the Company's website to the extent practicable until the maturity of the green bond.

Item	Business / Projects	Reporting Items
Product Manufacturing and Sales	• Introduction of heat pump systems at factories	• GHG emissions reduction (t)
	• Procurement of and capital investment for recycled PET resin	• Conversion rate of PET bottle resin to recycled resin
Renewable Energy	• Introduction of solar power generation facilities at factories • Procurement of renewable energy	• GHG emissions reduction (t)

**5. Annual Review**

Before the first anniversary of the green bond issuance date, Kirin Holdings will obtain a review from Sustainalytics, an independent external review provider, to assess whether the reporting of the eligible projects aligns with the Company's Green Bond Framework. This review will be conducted annually until the full allocation of the net proceeds from Kirin Holdings' green bond.

## Appendix 2: Green Bond / Green Bond Programme - External Review Form

### Section 1. Basic Information

<b>Issuer name:</b>	Kirin Holdings Company, Limited.
<b>Green Bond ISIN or Issuer Green Bond Framework Name, if applicable:</b>	Kirin Holdings Company, Limited. Green Bond Framework
<b>Review provider's name:</b>	Sustainalytics
<b>Completion date of this form:</b>	November 6, 2020
<b>Publication date of review publication:</b>	

### 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 GBP:

- |  |  |
|--|--|
| <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 <sup>nd</sup> 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 eligible project categories for the use of proceeds - 1) Eco-efficient and/or Circular Economy Adapted Products, Production Technologies and Processes, 2) Pollution Prevention and Control, 3) Energy Efficiency, 4) Renewable Energy, are aligned with those recognized by the GBP. Sustainalytics considers that the eligible categories will lead to positive environmental impacts and advance the UN Sustainable Development Goals, specifically SDG 7, 9 and 12.

#### Use of proceeds categories as per GBP:

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Renewable energy  | <input checked="" type="checkbox"/> Energy efficiency  |
| <input checked="" 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 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 GBP | <input type="checkbox"/> Other ( <i>please specify</i> ):  |

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

## 2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section (if applicable):

Kirin Holdings' internal process in evaluating and selecting projects is managed by the Accounting Department and CSV Strategy Department. The projects selected based on the use of proceeds defined in the Framework, are finalized by the Executive Officer in charge of financial strategy. Kirin Holdings' process is 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               |
| <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 checked="" type="checkbox"/> Summary criteria for project evaluation and selection publicly available       | <input type="checkbox"/> Other ( <i>please specify</i> ):   |



**Information on Responsibilities and Accountability**

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

**3. MANAGEMENT OF PROCEEDS**

Overall comment on section (if applicable):

Kirin Holdings' Accounting Department will track the allocated and unallocated amounts of the proceeds of the green bond on a semiannual basis, using the internal management system until redemption of the bond. The proceeds will be allocated to eligible projects within one year, and the unallocated proceeds will be held in cash or cash equivalents. The Company's management of proceeds is in line with market practice.

**Tracking of proceeds:**

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

**Additional disclosure:**

- |  |   |
|--|---|
| <input type="checkbox"/> Allocations to future investments only                  | <input checked="" type="checkbox"/> Allocations to both existing and future investments |
| <input type="checkbox"/> Allocation to individual disbursements                  | <input type="checkbox"/> Allocation to a portfolio of disbursements                     |
| <input type="checkbox"/> Disclosure of portfolio balance of unallocated proceeds | <input type="checkbox"/> Other (please specify):  |

**4. REPORTING**

Overall comment on section (if applicable):

Kirin Holdings is committed to disclosing on its website annually allocation reporting and environmental impact reporting. Allocation reporting contains the name of projects, overview of projects with progress, and amounts allocated and unallocated, and will be disclosed on a timely basis, in the event of any significant changes. Impact reporting contains quantitative information including conversion rate of PET bottle resin to recycled resin and reduction in greenhouse gas emission (in tons). Moreover, Kirin Holdings commits to receive an annual review from an external reviewer. Sustainalytics views Kirin Holdings' commitments on reporting and annual review to be aligned with market practice.

**Use of proceeds reporting:**

- ☒ Project-by-project
 ☐ On a project portfolio basis

☐ Linkage to individual bond(s)

☐ Other (please specify):
**Information reported:**
☒ Allocated amounts

☐ Green Bond financed share of total investment

☒ Other (please specify):
**Frequency:**
☒ Annual

☐ Semi-annual

☐ Other (please specify):
**Impact reporting:**
☐ Project-by-project

☒ On a project portfolio basis

☐ Linkage to individual bond(s)

☒ Other (please specify): The Group's overall performance will be disclosed.
**Information reported (expected or ex-post):**
☒ GHG Emissions / Savings

☐ Energy Savings

☐ Decrease in water use

☒ Other ESG indicators (please specify): Conversion rate of PET bottle resin to recycled resin
**Frequency**
☒ Annual

☐ Semi-annual

☐ Other (please specify):
**Means of Disclosure**
☐ Information published in financial report

☐ Information published in sustainability report

☐ Information published in ad hoc documents

☒ Other (please specify): Kirin Holdings' website

☐ 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 <sup>nd</sup> opinion) | <input type="checkbox"/> Certification |
| <input type="checkbox"/> Verification / Audit                        | <input type="checkbox"/> Rating        |
| <input type="checkbox"/> Other ( <i>please specify</i> ):            |  |

**Review provider(s):****Date of publication:****ABOUT ROLE(S) OF INDEPENDENT REVIEW PROVIDERS AS DEFINED BY THE GBP**

- i. Second-Party Opinion: An institution with environmental expertise, that is independent from the issuer may issue a Second-Party Opinion. The institution should be independent from the issuer's adviser for its Green Bond framework, or appropriate procedures, such as information barriers, will have been implemented within the institution to ensure the independence of the Second-Party Opinion. It normally entails an assessment of the alignment with the Green Bond Principles. In particular, it can include an assessment of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability, and an evaluation of the environmental features of the type of projects intended for the Use of Proceeds.
- ii. Verification: An issuer can obtain independent verification against a designated set of criteria, typically pertaining to business processes and/or environmental criteria. Verification may focus on alignment with internal or external standards or claims made by the issuer. Also, evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria. Assurance or attestation regarding an issuer's internal tracking method for use of proceeds, allocation of funds from Green Bond proceeds, statement of environmental impact or alignment of reporting with the GBP, may also be termed verification.
- iii. Certification: An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against a 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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Sustainalytics, a Morningstar Company, is a leading ESG research, ratings and data firm that supports investors around the world with the development and implementation of responsible investment strategies. The firm works with hundreds of the world's leading asset managers and pension funds who incorporate ESG and corporate governance information and assessments into their investment processes. The world's foremost issuers, from multinational corporations to financial institutions to governments, also rely on Sustainalytics for credible second-party opinions on green, social and sustainable bond frameworks. In 2020, Climate Bonds Initiative named Sustainalytics the "Largest Approved Verifier for Certified Climate Bonds" for the third consecutive year. The firm was also recognized by Environmental Finance as the "Largest External Reviewer" in 2020 for the second consecutive year. For more information, visit [www.sustainalytics.com](http://www.sustainalytics.com).

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**GlobalCapital**  
**SRI Awards**

**Named**

**2015:** Best SRI or Green Bond Research or Rating Firm  
**2017, 2018, 2019:** Most Impressive Second Opinion Provider



**The**  
**Green Bond**  
**Principles**