

# Second-Party Opinion

## Liberty Power Green Bond

### Evaluation Summary

Sustainalytics is of the opinion that the Liberty Power 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 two green categories for Eligible Use of Proceeds – (i) Renewable Energy Generation, and (ii) Energy Management – are aligned with those recognized by the Green Bond Principles 2018. Sustainalytics considers the Eligible Green Project Categories to have positive environmental impact and to advance the UN Sustainable Development Goals, specifically Goal 7.



**PROJECT EVALUATION / SELECTION** Liberty Power's Treasury team, along with its project development and construction teams, APUC's Enterprise Risk management Team, and select members of APUC's executive team, will conduct the project selection process. Sustainalytics considers this to be in line with market practice.



**MANAGEMENT OF PROCEEDS** Liberty Power will track the net use of proceeds through a Green Bond Register. The proceeds of transaction will be deposited in the general account and earmarked for allocation to Eligible Investments. Pending allocation, proceeds will be invested in short-term investment instruments. This is in line with market practice.



**REPORTING** Liberty Power intends to publish annual information on its website or in its financial statements. The allocation reporting will include the amounts allocated to Eligible Investments and the use of short-term investment instruments for any balance of unallocated proceeds. The reporting may also include the amount allocated by Eligible Investment, the examples of Eligible Investments being financed, as well as impact reporting on relevant metrics, where feasible. Sustainalytics views Liberty Power's allocation and impact reporting as aligned with market practice.

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<b>Evaluation date</b>	10 January, 2019
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<b>Issuer Location</b>	Oakville, Canada
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## Introduction

Liberty Power (formerly known as Algonquin Power Co.) is a wholly-owned subsidiary of Algonquin Power & Utilities Corp. (“APUC”, or “the Group”) that develops and operates non-regulated renewable and clean energy generation facilities, including wind, solar, hydroelectric, and natural gas,<sup>1</sup> and delivers most of the electricity from its renewable energy facilities under long-term off-take agreements. APUC is a diversified generation, transmission and distribution utility, headquartered in Oakville, Canada, which was incorporated in 1988.<sup>2</sup> APUC owns and operates rate-regulated natural gas, water, and electricity generation, transmission and distribution utility systems through its Liberty Utilities business group.<sup>3</sup>

APUC has developed the Liberty Power Green Bond Framework (the “Framework”) under which it will issue green bonds and use the proceeds to refinance or finance Eligible Investments made in renewable power generation assets or businesses and to support the development of clean energy technologies that provide clear environmental benefits. The Framework defines eligibility criteria in the following two areas:

1. Renewable Energy Generation
2. Energy Management

Liberty Power engaged Sustainalytics to review the Green Bond Framework and provide a second-party opinion on the Framework’s environmental credentials, as well as the alignment of the Framework with the Green Bond Principles 2018 (the “GBP 2018”), as administered by the International Capital Market Association (the “ICMA”). This Framework has been published in a separate document.<sup>4</sup>

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

This document contains Sustainalytics’ opinion of Liberty Power Green Bond Framework and should be read in conjunction with that Framework.

<sup>1</sup> Liberty Power (formerly Algonquin Power Co.), Overview: <http://www.algonquinpowercompany.com/overview>

<sup>2</sup> Bloomberg, Company Overview of APUC: <https://www.bloomberg.com/research/stocks/private/snapshot.asp?privcapId=882318>

<sup>3</sup> APUC, Our Business: [http://algonquinpower.com/our\\_business/](http://algonquinpower.com/our_business/)

<sup>4</sup> APUC Green Bond Framework: [http://algonquinpower.com/wp-content/uploads/2019/01/Liberty\\_Power\\_Green\\_Bond\\_Framework\\_Jan\\_2019.pdf](http://algonquinpower.com/wp-content/uploads/2019/01/Liberty_Power_Green_Bond_Framework_Jan_2019.pdf)

## Sustainalytics' Opinion

### Section 1: Sustainalytics' Opinion on the APUC Green Bond Framework

#### Summary

Sustainalytics is of the opinion that the Liberty Power 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 two use of proceeds categories are recognized as impactful by the GBP 2018. The eligible projects in these categories will provide meaningful environmental contributions.
  - The Eligible Investments for hydroelectric generation will be limited to the maintenance, refurbishment or repowering of existing hydro facilities. Sustainalytics considers these investments to provide greater environmental benefits as they support increased lifespan and/or improved performance for existing generation projects.
  - The exclusionary criteria consider the following: fossil fuel energy efficiency, and the development of new hydroelectric facilities with a capacity exceeding 25 MW. Sustainalytics is of the opinion that these exclusions strengthen the Framework.
- Project Evaluation and Selection:
  - Liberty Power's Treasury team, along with its project development and construction teams, APUC's Enterprise Risk Management Team, and select members of APUC's executive team, will conduct the project selection process. The eligibility of investments will be evaluated based on several criteria such as financial, technical/operating, market, legal and environmental, and social and governance ("ESG") risks. Sustainalytics considers this to be in line with market practice.
- Management of Proceeds:
  - Liberty Power will track the net use of proceeds through a Green Bond Register. The proceeds of transaction will be deposited in the general accounts and earmarked for allocation to eligible investments. The unallocated proceeds will be invested in short-term investment instruments. This is in line with market practice.
- Reporting:
  - Liberty Power intends to publish annual information on its website or in its financial statements, providing allocation and impact reporting in line with market practice.
  - The allocation reporting will include the amounts allocated to Eligible Investments and the use of short-term investment instruments for any balance of unallocated proceeds. The reporting may also include the amount allocated by Eligible Investment, and examples of Eligible Investments being financed.
  - The impact reporting may include environmental indicators such as installed capacity, renewable energy production, and greenhouse gas emissions reduced and/or avoided.

#### Alignment with Green Bond Principles 2018

Sustainalytics has determined that the Liberty Power Green Bond Framework aligns with the four core components of the GBP 2018. For detailed information please refer to Appendix 2: Green Bond/Green Bond Programme External Review Form.

## Section 2: Sustainability Performance of the Issuer

### Contribution of the Framework to APUC's sustainability strategy

Sustainalytics is of the opinion that APUC has demonstrated a commitment to enhance access to renewable energy and mitigate climate change in its Corporate Responsibility (CR) Report 2013<sup>5</sup> and its Annual Report 2017<sup>6</sup> through the following efforts:

- APUC's Sustainability Policy<sup>7</sup> mentions supporting the "global goal of limiting planetary temperature rise to less than 2 degrees Celsius" and the "delivery of clean, efficient and reliable energy at a fair price" as some of its principles.
- APUC's CR Reporting Team is led by the CFO with senior management across generation, transmission and distribution teams.
- APUC created a list of 30 aspects and 56 indicators to conduct materiality assessment with relevant internal and external stakeholders to build the CR report based on GRI G4 guidelines.
- The Group has a "Drive to Zero" program with a goal of no recordable or lost time injuries. In Sep 2013, APUC's generation business achieved zero lost time injury for two years in a row. APUC also uses the DuPont™ Bradley Curve™, a proprietary system for safety developed by DuPont Sustainable Solutions, as a benchmarking tool for safety performance.
- APUC is committed to respect all relevant environmental and regulatory requirements, including environmental impact assessment, in the jurisdictions in which projects are located, and to protect animal and plant biodiversity through such mandatory as well as voluntary assessments.
- APUC has voluntarily reported to the CDP since 2008, and has aligned with the greenhouse gas (GHG) reporting best practices outlined by the ISO 14064-1 standard as well as the GHG Protocol Corporate Accounting and Reporting Standard (developed by the World Resources Institute and the World Business Council for Sustainable Development).

Additionally, APUC has informed Sustainalytics that it anticipates the formation of an Office of Sustainability that will lead the development, communication and execution of a broad-based, APUC-wide sustainability strategy, integrating sustainability throughout the company and its planning processes.

Considering the above, Sustainalytics is of the opinion that APUC's sustainability strategy and actions demonstrate the importance it places on achieving positive environmental and social impacts. Sustainalytics also believes that the Liberty Power Green Bond Framework is aligned with the Group's overall sustainability efforts and supports its commitment to advance a sustainable energy future.

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

While Sustainalytics recognizes that the use of proceeds from Liberty Power Green Bond Framework will be directed towards eligible investments 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. Some key environmental and social risks associated with the eligible investments include a lack of pollution control in construction and development projects, an increased exposure of local communities to adverse effects, and biodiversity loss.

Sustainalytics is of the opinion that Liberty Power can mitigate such risks through the following policies, systems and processes:

- APUC's Code of Business Conduct and Ethics,<sup>8</sup> as approved by the Board of Directors, stipulates that APUC and its subsidiaries comply with all applicable laws, including health, safety, and environmental laws.
- APUC's Supplier Code of Conduct<sup>9</sup> sets out the core values and corporate practices for all of its suppliers and stipulates that they comply with all applicable laws, codes, rules and regulations within their designated areas of operations. It also states the APUC's expectation for suppliers to "look for more sustainable ways to operate" and "to decrease their impact on the environment where possible."

<sup>5</sup> APUC, Corporate Responsibility Report 2013: [http://algonquinpowercr.com/wp-content/uploads/APUC\\_CR\\_Report\\_2013.pdf](http://algonquinpowercr.com/wp-content/uploads/APUC_CR_Report_2013.pdf)

<sup>6</sup> APUC, Annual Report 2017: <http://investors.algonquinpower.com/Cache/1500109471.PDF?Y=&O=PDF&D=&FID=1500109471&T=&IID=4142273>

<sup>7</sup> APUC, Sustainability Policy: <http://algonquinpower.com/wp-content/uploads/2018/09/Sustainability-Policy.pdf>

<sup>8</sup> APUC's Code of Business Conduct and Ethics:

<http://investors.algonquinpower.com/Cache/1500109318.PDF?Y=&O=PDF&D=&fid=1500109318&T=&iid=4142273>

<sup>9</sup> APUC's Supplier Code of Conduct:

<http://investors.algonquinpower.com/Cache/1001246512.PDF?Y=&O=PDF&D=&fid=1001246512&T=&iid=4142273>

- APUC's Corporate Risk Committee<sup>10</sup> oversees "the appropriateness and effectiveness of risk management policies and processes" to identify and manage non-financial risks and develop a risk governance framework, as delegated by the Board of Directors. It also reviews the Group's assessment of material risks & its mitigation actions consistent with the ISO 31000:2009 (Risk Management) as well as the COSO framework for Enterprise Risk Management<sup>11</sup>.

Due to the above-mentioned policies, systems and processes, Sustainalytics believes that Liberty Power, through its parent company APUC, 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

The two use of proceeds categories are recognized as impactful by the GBP 2018.

#### Contribution of renewable energy to a low-carbon future

In order to achieve the commitments of the Paris Agreement, to limit global average temperature increases to well below 2°C and aim to limit the increase to 1.5°C, drastic decreases to global emissions will be required.<sup>12</sup> Considering that greenhouse gas emissions from electricity and heat production made up approximately 49% of total fuel combustion in 2014,<sup>13</sup> increasing the share of renewable energy generation has the potential to have significant impact on meeting climate goals. According to the International Renewable Energy agency (IRENA), the total share of renewable energy must rise to approximately 66% of the total primary energy supply (TPES) by 2050 in order to meet the 2°C target.<sup>14</sup> Although renewable energy grew more rapidly than other forms of generation in 2017, meeting a quarter of the global demand growth,<sup>15</sup> this rate of deployment must be ramped up to meet international targets.

Sustainalytics believes that APUC, and its subsidiary Liberty Power, is well positioned to make an impact through the use of proceeds categories and that Liberty Power's green bonds will promote the adoption of renewable energy and support a shift towards a low-carbon economy.

#### Alignment with/contribution to SDGs

The UN Sustainable Development Goals (SDGs) were set in September 2015 and form an agenda for achieving sustainable development by the year 2030. Liberty Power's green bonds advance the following SDG goals and targets:

Use of Proceeds Category	SDG	SDG target
Renewable Energy Generation	7. Affordable and Clean Energy	7.1 By 2030, ensure universal access to affordable, reliable and modern energy services.
Energy Management		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.

<sup>10</sup> APUC's Mandate of the Risk Committee of the Board of Directors:

<http://investors.algonquinpower.com/Cache/1500110182.PDF?Y=&O=PDF&D=&fid=1500110182&T=&iid=4142273>

<sup>11</sup> APUC, Governance and Risk Management: <http://algonquinpowercr.com/business-responsibility/governance-risk-management/>

<sup>12</sup> European Commission, Paris Agreement: [https://ec.europa.eu/clima/policies/international/negotiations/paris\\_en](https://ec.europa.eu/clima/policies/international/negotiations/paris_en)

<sup>13</sup> World Bank Group, CO<sub>2</sub> emissions from electricity and heat production: <https://data.worldbank.org/indicator/EN.CO2.ETOT.ZS>

<sup>14</sup> IRENA, Global Energy Transformation: [https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2018/Apr/IRENA\\_Report\\_GET\\_2018.pdf](https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2018/Apr/IRENA_Report_GET_2018.pdf)

<sup>15</sup> IEA, Global Energy & CO<sub>2</sub> Status Report- 2017: <https://www.iea.org/publications/freepublications/publication/GECO2017.pdf>

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## Conclusion

Liberty Power has developed its Green Bond Framework to finance, or refinance, investments made in renewable power generation assets or businesses and to support the development of clean energy technologies that provide clear environmental benefits. Liberty Power has described a process by which proceeds will be tracked, allocated, and managed, and commitments have been made for the allocation and impact reporting.

Sustainalytics believes that the projects to be funded through green bonds are aligned with APUC's overall sustainability strategy and will also contribute to the advancement of the UN Sustainable Development Goals, specifically Goal 7. Additionally, Sustainalytics believes that Liberty Power, through its parent company APUC, has sufficient measures to identify, manage and mitigate environmental and social risks commonly associated with the eligible projects funded by the use of proceeds.

Based on the above, Sustainalytics is confident that Liberty Power is well-positioned to issue green bonds, and that the Liberty Power Green Bond Framework is robust, transparent, and in alignment with the GBP 2018.

## Appendices

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

<b>Issuer name:</b>	Algonquin Power Co., which conducts business as Liberty Power
<b>Green Bond ISIN or Issuer Green Bond Framework Name, if applicable: <i>[specify as appropriate]</i></b>	Liberty Power Green Bond Framework
<b>Review provider's name:</b>	Sustainalytics
<b>Completion date of this form:</b>	10 January, 2019
<b>Publication date of review publication: <i>[where appropriate, specify if it is an update and add reference to earlier relevant review]</i></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 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 <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 two green categories for Eligible Use of Proceeds – (i) Renewable Energy Generation, and (ii) Energy Management – are aligned with those recognized by the Green Bond Principles 2018. Sustainalytics considers the Eligible Green Project Categories to have positive environmental impact and to advance the UN Sustainable Development Goals, specifically Goal 7.

#### 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 type="checkbox"/> Sustainable water and wastewater management   | <input type="checkbox"/> Climate change adaptation   |
| <input 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):

Liberty Power's Treasury team, along with its project development and construction teams, APUC's Enterprise Risk Management Team, and select members of APUC's executive team, will conduct the project selection process. Sustainalytics considers this 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 |
|---|---|

- |  |  |
|--|--|
| <input checked="" type="checkbox"/> Defined and transparent criteria for projects eligible for Green Bond proceeds | <input 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*):

Liberty Power will track the net use of proceeds through a Green Bond Register. The proceeds of transaction will be deposited in the general account and earmarked for allocation to Eligible Investments. Pending allocation, proceeds will be invested in short-term investment instruments. 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 checked="" 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):

Liberty Power intends to publish annual information on its website or in its financial statements. The allocation reporting will include the amount allocated to Eligible Investments, and the use of short-term investment instruments for any balance of unallocated proceeds. The reporting may also include the amount allocated by Eligible Investment, the examples of Eligible Investments being financed, as well as impact reporting will include relevant metrics, where feasible. Sustainalytics views Liberty Power's allocation and impact reporting as aligned with market practice.

**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 checked="" type="checkbox"/> Other ( <i>please specify</i> ): Where feasible, the allocated amount by Eligible Investment, and the examples of investments being financed. |

**Information reported:**

- |   |  |
|---|--|
| <input checked="" type="checkbox"/> Allocated amounts     | <input type="checkbox"/> Green Bond financed share of total investment |
| <input type="checkbox"/> Other ( <i>please specify</i> ): |  |

**Frequency:**

- |  |                                      |
|--|--------------------------------------|
| <input checked="" type="checkbox"/> Annual       | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (please specify): |                                      |

**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 (please specify):                 |

**Frequency:**

- |  |                                      |
|--|--------------------------------------|
| <input checked="" type="checkbox"/> Annual       | <input type="checkbox"/> Semi-annual |
| <input type="checkbox"/> Other (please specify): |                                      |

**Information reported (expected or ex-post):**

- |   |   |
|---|---|
| <input checked="" type="checkbox"/> GHG Emissions / Savings | <input type="checkbox"/> Energy Savings   |
| <input type="checkbox"/> Decrease in water use              | <input checked="" type="checkbox"/> Other ESG indicators (please specify): Installed capacity, renewable energy production. |

**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 (please specify): website or financial statements |
| <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 <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.

## Disclaimer

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The Opinion was drawn up with the aim to provide objective information on why the analyzed bond is considered sustainable and responsible, and is intended for investors in general, and not for a specific investor in particular. Consequently, this Opinion is for information purposes only and Sustainalytics will not accept any form of liability for the substance of the opinion and/or any liability for damage arising from the use of this Opinion and/or the information provided in it.

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

## Sustainalytics

Sustainalytics is a leading independent ESG and corporate governance research, ratings and analytics firm that support investors around the world with the development and implementation of responsible investment strategies. With 13 offices globally, the firm partners with institutional investors who integrate ESG information and assessments into their investment processes. Spanning 30 countries, the world's leading issuers, from multinational corporations to financial institutions to governments, turn to Sustainalytics for second-party opinions on green and sustainable bond frameworks. Sustainalytics has been certified by the Climate Bonds Standard Board as a verifier organization, and supports various stakeholders in the development and verification of their frameworks. Global Capital named Sustainalytics the "Most Impressive Second Party Opinion Provider in 2017". In 2018, the firm was recognized as the "Largest External Reviewer" by the Climate Bonds Initiative as well as Environmental Finance. In addition, Sustainalytics received a Special Mention Sustainable Finance Award in 2018 from The Research Institute for Environmental Finance Japan for its contribution to the growth of the Japanese Green Bond Market.

For more information, visit [www.sustainalytics.com](http://www.sustainalytics.com)

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