2. SUSTAINALYTICS' OPINION

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

Summary
Overall, Sustainalytics is of the opinion that the Manulife Green Bond Framework is transparent, creates meaningful environmental impacts, and aligns with the Green Bond Principles 2017. Some specific elements of the Framework that Sustainalytics' views favourably include:

- All eligibility criteria for the Use of Proceeds are recognized by the Green Bond Principles 2017 as project categories with clear environmental impacts. Where relevant, some of the eligibility criteria make reference to credible third-party standards, such as LEED, the Forest Stewardship Council (FSC), the Programme for the Endorsement of Forest Certification (PEFC).
- Manulife will establish a Green Bond Register to record the ongoing allocation of net proceeds from the bond. All Green Bond funds will be earmarked within the Register for allocation to the Eligible Assets. Manulife's disclosure and processes with respect to management of proceeds is in line with market practices.
- Regarding the process for project selection, Manulife has a dedicated Sustainability Accounting team and a Green Bond Council, composed of executive management. The Council includes the Chief Financial Officer, the Chief Investment Officer, and Group Treasurer. All potential assets are reviewed by the Sustainability Accounting team to ensure they meet the criteria for Eligible Assets and then approved by the Green Bond Council. This is in line with recommended market best practice.
- On an annual basis and until full allocation of proceeds, Manulife will publish a "Green Bond Report" disclosing the allocation of proceeds per criteria category together with examples of projects being financed. Where feasible, the report will include qualitative and possibly quantitative environmental performance indicators. This information will be externally reviewed, which is in line with market practices.
- Sustainalytics encourages Manulife where possible to report on further quantitative KPIs relevant to project criteria categories.

Alignment with Green Bond Principles 2017: Sustainalytics has determined that the Manulife Green Bond Framework aligns to the four pillars of the Green Bond Principles 2017. For detailed information please refer to Appendix 4: Green Bond/Green Bond Programme External Review Form.

Section 2: Sustainability Performance of the Issuer

Contribution of Framework to Manulife's sustainability strategy

In the company's 2016 Public Accountability Statement, Manulife's recognizes that the effects of climate change and dwindling natural resources may have an impact on the long-term well-being of its business. Furthermore, Manulife states that, as a large, long-term investor, the company is in a unique position to help facilitate the transition to a more sustainable economy.[4]

Manulife has identified key areas where the company can have the greatest positive environmental impact. These areas include the company's investment and lending activities, own operations, and its real estate portfolio. More specifically, the company's environmental initiatives are focused within three key areas:

Responsible Financing and Investing: Manulife is a founding Canadian member of the Accounting for Sustainability CFO Leadership Network, and the signatory to the Equator Principles. Manulife Asset Management is a signatory to the Principles of Responsible Investment. It has dedicated in-house renewable energy investment expertise. The company's investments in renewable energy and energy efficiency projects during 2016 totaled CAN$ 1.5 billion[5] and, as of year-end 2016, its cumulative investments totaled CAN$ 10.9 billion.

Sustainable Real Estate: The company introduced a new Sustainable Real Estate Policy in 2016 and established a Real Estate Executive Sustainability Steering Committee to guide sustainability efforts. Manulife reported that, as of year-end 2016, 28.7 million square feet of its real estate office space (42% of its overall real estate portfolio) received a sustainable building certification such as LEED, Energy Star, or BOMA Best.[6] The company reports that it continues to strive for an annual 2 per cent energy use reduction target across its real estate portfolio.[7]

Managing Operational Footprint: Manulife uses a proprietary utility consumption reporting system to collect information on energy use, greenhouse gas emissions, water, waste, paper, and business travel.

Sustainalytics is of the opinion that Manulife's sustainability efforts and demonstrated positive environmental performance are in line with the objectives of the Green Bond Framework to contribute to the transition to a low-carbon economy.

[4] Manulife Public Accountability Statement 2016
http://www.manulife.com/Public-Accountability-Statement?ocmsLang=en_US

[5] Manulife Public Accountability Statement 2016
http://www.manulife.com/Public-Accountability-Statement?ocmsLang=en_US

[6] Manulife Real Estate Sustainability Report 2017
https://manuliferealestate.com/sites/default/files/downloads/manulife-real-estate-and-john-hancock-real-estate-2017-sustainability-report.pdf

[7] Manulife Public Accountability Statement 2016
http://www.manulife.com/Public-Accountability-Statement?ocmsLang=en_US

Well positioned to address common environmental and social risks associated with the projects
The company is well positioned to manage key environmental and social risks associated with the Green Bond projects. Some key environmental and social risks associated with the Eligible Assets are worker safety, biodiversity loss, and pollution control in the construction and development of projects.

Manulife's Green Bond Framework outlines that the company assesses ESG issues in the course of evaluating and monitoring all investments, including investments in Eligible Assets for each Green Bond. This decision-making process is governed by the company's investment guidelines, which incorporate the management of ESG risks. Furthermore, a Green Bond Council, comprised of executive management, oversees the selection process of potential investments for the proceeds of the Green Bond. This is in line with recommended market best practice.

Moreover, as a signatory to the Equator Principles, the company identifies and manages environmental and social risks in all project finance transactions. In 2016, Manulife reported that no projects were identified as having potential significant adverse social or environmental impacts that are diverse, irreversible, or unprecedented.[8]

Given the activities described above, Sustainalytics is of the opinion that Manulife's general process to consider environmental and social factors in its financing process is in line with market norms.

Section 3: Impact of Use of Proceeds

The proceeds of the bond will be used for projects in the following seven categories:

1. Renewable Energy
2. Green Buildings
3. Environmentally Sustainable Management of Natural Resources and Land Use
4. Energy Efficiency
5. Clean Transportation
6. Sustainable Water Management
7. Pollution Prevention and Control

All of the above-mentioned green categories defined in Manulife's Green Bond Framework are recognized as having beneficial environmental impacts by the Green Bond Principles, 2017.

Alignment with/contribution to Sustainable Development Goals (SDG)
The Sustainable Development Goals (SDGs) were set in September 2015 by the United Nations and form an agenda for achieving sustainable development by the year 2030. The Manulife Green Bond Framework advances the following SDG goals and targets:

[8] Manulife Public Accountability Statement 2016
http://www.manulife.com/Public-Accountability-Statement?ocmsLang=en_US

Use of Proceeds Category	SDG	SDG target
Renewable Energy	7. Affordable and Clean Energy	7.2 - By 2030, increase substantially the share of renewable energy in the global energy mix.
Green Buildings	11. Sustainable Cities/Communities	11.B - By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, mitigation and adaptation to climate change, resilience to disasters, and develop and implement, in line with the Sendai Framework for Disaster Risk Reduction 2015-2030, holistic disaster risk management at all levels.
Environmentally Sustainable Management of Natural Resources and Land Use	15. Life on Land 12. Responsible Consumption and Production	15.2 - By 2020, promote the implementation of sustainable management of all types of forests, halt deforestation, restore degraded forests and substantially increase afforestation and reforestation globally 12.2 - By 2030, achieve the sustainable management and efficient use of natural resources.
Energy Efficiency	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.
Clean Transportation	11. Sustainable Cities/Communities	11.2 - By 2030, provide access to safe, affordable, accessible and sustainable transport systems for all, improving road safety, notably by expanding public transport, with special attention to the needs of those in vulnerable situations, women, children, persons with disabilities and older persons.
Sustainable Water Management	6. Water Efficiency and Wastewater Management	6.1 - By 2030, achieve universal and equitable access to safe and affordable drinking water for all. 6.3 - By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater and substantially increasing recycling and safe reuse globally.
Pollution Prevention and Control	12. Responsible Consumption and Production	12.5 - By 2030, substantially reduce waste generation through prevention, reduction, recycling and reuse.

Conclusion

Through its Green Bond Framework, Manulife aims to invest in projects that advance the transition to a low-carbon economy and offer environments benefits more generally. In alignment with Manulife's sustainability focus, proceeds of the bonds may be directed towards the following eligible categories: 1) renewable energy, 2) green buildings, 3) environmentally sustainable management of natural resources and land use, 4) energy efficiency, 5) clean transportation, 6) sustainable water management, and 7) pollution prevention and control. Sustainalytics is of the opinion that Eligible Assets will have clear benefits for climate change mitigation and adaptation, will contribute to achieving Manulife's sustainability goals and long-term vision, and will help advance six of the SDGs.

All potential green investments are vetted by the Sustainability Accounting team to ensure that they meet the criteria for Eligible Assets. Manulife's Eligible Assets are approved by a dedicated Green Bond Council, composed of senior management. This is in line with recommended market best practice.

The company will publish an annual "Green Bond Report" that will provide the amounts allocated by criteria category, together with examples of projects that are being financed. Additionally, the company aspires to impact reporting, where feasible, on qualitative and quantitative environmental performance indicators. This information will be externally verified, which is in line with market practices.

Based on the above, Sustainalytics is confident that Manulife is well positioned to issue a Green Bond, and that the Manulife Green Bond Framework is robust, transparent, and in alignment with the four pillars of the Green Bond Principles 2017.

APPENDICES

Appendix 1: Manulife Green Bond Use of Proceeds Eligibility Criteria

Category	Eligible Projects
Renewable Energy	Development, construction, operation, maintenance and upgrades of: i. facilities and equipment wholly dedicated to the generation of renewable energy as defined by the International Renewable Energy Agency (IRENA) Statute[9] including: ▪ wind energy ▪ solar energy ▪ small-scale (under 25 Mega Watts) and run-of-river hydro ▪ bio-energy from waste biomass ▪ tidal energy ▪ geothermal energy ii. transmission infrastructure and other supporting infrastructure wholly dedicated to renewable energy generation facilities including inverters, transformers, energy storage systems and control system iii. production or manufacturing facilities wholly dedicated to equipment, feedstock or components for renewable energy generation facilities
Green buildings	Purchase, construction, operation and maintenance of new or existing commercial or residential buildings that: i. have achieved, based on third-party assessment greenhouse gas emission performance in the top 15% of their city, or ii. have received, or expect to receive based on its design, construction and operational plans, certification according to third party verified green building standards, such as: ▪ LEED Gold or Platinum standard ▪ other equivalent certification schemes, such as BOMA Best/360, Energy Star

[9] IRENA Statute, 2009.
http://uat.irena.org/-/media/Files/IRENA/Agency/About-IRENA/Statute/IRENA_FC_Statute_signed_in_Bonn_26_01_2009_incl_declaration_on_further_authentic_versions.ashx?la=en&hash=FAB3B5AE51B8082B04A7BBB5BDE978065EF67D96&hash=FAB3B5AE51B8082B04A7BBB5BDE978065EF67D96

Environmentally sustainable management of natural resources and land use	Purchase and operation of sustainably-managed forest holdings certified to credible third-party forest certification systems, such as: i. Forest Stewardship Council (FSC) ii. Programme for the Endorsement of Forest Certification (PEFC)
Energy Efficiency	Development, construction, acquisition, installation, operation, and upgrades of projects that reduce energy consumption or improve the efficiency of resources, including: i. projects involving the installation, maintenance or replacement of efficient heating, ventilation, air conditioning, refrigeration, lighting and electrical equipment ii. projects that allow the monitoring and modeling of energy performance such as the design and installation of digital controls, sensors or building information systems iii. projects that optimize the amount and time of energy consumption by minimizing peak loads, such as design and installation of metering systems, smart grids, load control systems
Clean Transportation	Development, construction, acquisition, operation, maintenance, and upgrades of low-energy and low-carbon transport assets, including: i. electric, fuel cell and hybrid electric light duty and heavy goods vehicles ii. rolling stock and vehicles for electrified public transport such as rail, trams, trolleybuses, cable cars, taxis, buses iii. infrastructure dedicated to mass public transportation iv. infrastructure dedicated to electrified freight rail, excluding railway lines whose primary purpose is fossil fuel transport
Sustainable Water Management	Development, construction, acquisition, installation, operation, and upgrades of projects that reduce water consumption or improve the efficiency of resources, including: i. new or existing facilities used for the collection, treatment, recycling or reuse of water, rainwater or waste water ii. new or existing infrastructure for water distribution including aqueducts, pumps, drainage and sewage systems, tunnels and canals iii. infrastructure for flood prevention, flood defense or storm-water management such as green roofs, wetlands, retention berms, reservoirs, lagoons, sluice gates, drainage systems, tunnels and channels
Pollution Prevention and Control	Development, construction, acquisition, installation, operation and upgrades of any projects that reduce and manage emissions and waste generated, including: i. new or existing facilities, systems and equipment that are used for the collection, treatment, recycling or re-use of emissions, waste, hazardous waste or contaminated soil ii. new or existing facilities, systems and equipment that are used to divert waste from landfills or reduce emissions

Appendix 2: Comparison of Real Estate Certification Schemes

	LEED	Energy Star	BOMA Best
Background	Leadership in Energy and Environmental Design (LEED) is a US Certification System for residential and commercial buildings used worldwide. LEED was developed by the non-profit U.S. Green Building Council (USGBC) and covers the design, construction, maintenance and operation of buildings.	ENERGY STAR is a U.S Environmental Protection Agency voluntary program that helps businesses and individuals save money and protect our climate through superior energy efficiency. Every ENERGY STAR label is independently certified, whether on a product, a home, a building, or a manufacturing plant. Certification is given on an annual basis, so a building must maintain its high performance to be certified year to year. And the information submitted in the certification application must be verified by a licensed Professional Engineer (PE) or Registered Architect (RA) to be eligible for approval.	The BOMA 360 Performance Program sets the standard worldwide for operational best practices in the commercial real estate industry. Earning the BOMA 360 label demonstrates that a building is outperforming the competition across all areas of operations and management.
Certification levels	Certified Silver Gold Platinum	1-100 ENERGY STAR score	Certified Bronze Silver Gold Platinum
Areas of assessment: environmental	• Energy and atmosphere • Sustainable Sites	• Energy efficient products	• Operations and management • Security and safety

performance of the building	• Location and Transportation • Materials and resources • Water efficiency • Indoor environmental quality • Innovation in Design • Regional Priority	• Energy savings at home • Energy efficient new homes and apartments • Energy strategies for buildings and plants	• Training and education • Energy • Environment and sustainability • Tenant relations
Requirements	(Independent of level of certification) + Credits with associated points These points are then added together to obtain the LEED level of certification There are several different rating systems within LEED. Each rating system is designed to apply to a specific sector (e.g. New Construction, Major Renovation, Core and Shell Development, Schools-/Retail-/Healthcare New Construction and Major Renovations, Existing Buildings: Operation and Maintenance).	To be eligible for ENERGY STAR certification, a building must earn an ENERGY STAR score of 75 or higher, indicating that it performs better than at least 75 percent of similar buildings nationwide. Through Portfolio Manager, EPA delivers 1 – 100 ENERGY STAR scores for many types of buildings. The ENERGY STAR score accounts for differences in operating conditions, regional weather data, and other important considerations.	To be eligible for BOMA Best a series of questions must be answered about the building. Each question describes an environmental measure that impacts building management or performance, some being more important than others. Points are attributed to each question, except for BEST Practices which are minimum requirements. The number of points available per question is calculated as a factor of the impact and importance of the measure/initiative. The outcome is a points system that awards more points for taking action where it matters, actions that lead to better understanding of building systems and improved operational performance.
Performance display			

Sources:
http://bomanl.com/boma-best/four-certification-levels/
http://www.boma.org/Pages/default.aspx
https://www.energystar.gov/
http://bomacanada.ca/wp-content/uploads/2016/09/BOMA-BEST-3.0-Application-Guide.pdf

Appendix 3: Analysis of Sustainably-Managed Forestry Certification Schemes

Sustainalytics recognizes that the financing of sustainable forestry projects exposes Manulife to risks such as negative impact on water resources and biodiversity. By allocating proceeds of the bond to sustainably-managed timber holdings either certified to the Forest Stewardship Council (FSC) and/or the Programme for the Endorsement of Forest Certification (PEFC), Manulife is able to mitigate these risks. Sustainalytics' is of the opinion that while FSC certification is recognized as the industry best practice, both FSC and PEFC are credible certification schemes. An assessment of the relative strengths and weaknesses of the FSC and PEFC certification schemes follows below.

Forest Stewardship Council (FSC) and Programme for the Endorsement of Forest Certification (PEFC), including PEFC's American certification programme Sustainable Forestry Initiative (SFI), are based on rigorous standards and on a multi-stakeholder structure. Both organizations are in line with international norms such as the International Labor Organization (ILO) conventions, the Convention on Biological Diversity (CBD), and the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES). In addition to compliance with laws in the country of certification, both schemes have a set of minimum requirements that companies are required to meet to obtain and maintain certifications. These requirements include compliance with standards around sustainable management of forests, management of environmental impact of operations, preservation of biodiversity, management of socio-economic and community relations, and sourcing of sustainable wood (chain of custody). Furthermore, both FSC and PEFC require external annual audits to ensure compliance, and achieve and maintain certification.

Despite these similarities, PEFC has faced certain criticisms from civil society actors (e.g. NGOs). These are highlighted below:

i. *Type of organization:* Since the FSC is an international labeling and certification system, it sets its own global standards. The PEFC, in contrast, is not a standard setter, but a mutual recognition scheme. The PEFC sets sustainability benchmarks according to international norms, and endorses national certification schemes that comply with these benchmarks. A common criticism of this model is that it allows for more flexibility in the interpretation of international PEFC benchmarks as per regional, cultural, and socio-economic context, and results in the endorsement of potentially less rigorous national certification schemes. However, the process for being endorsed by the PEFC is thorough; any national certification system seeking to obtain PEFC endorsement must submit to a comprehensive assessment process, including independent evaluation and public consultation. This evaluation of compliance with international PEFC benchmarks is carried out by independent, accredited certification organizations.

ii. *Indigenous People's Rights:* FSC and PEFC both identify respect for indigenous peoples' rights as an important standard in forest management. Both certification schemes require that forest management activities consider and do not infringe on indigenous peoples' rights, and the activities are carried out using frameworks and processes that obtain their free and informed consent. A criticism of PEFC is that it requires only engagement with indigenous people in forest management decisions, while the FSC provides performance-oriented targets, and requires forest

managers operating on indigenous lands to obtain indigenous people's consent through binding agreements.

iii. *Sourcing wood from non-certified sources:* Both FSC and the PEFC have established standards around sourcing wood from non-certified and controversial sources. FSC's standards direct forest managers to avoid wood harvested in violation of traditional and civil rights. A criticism of the comparable PEFC certification is that it limits identification of controversially sourced wood to situations where the local legislation is violated. However, PEFC standards explicitly reference the violation of local, national, and international legislation with regards to worker's and indigenous people's rights as being a controversial source of wood.

Appendix 4: Green Bond/Green Bond Programme External Review Form

Green Bond / Green Bond Programme External Review Form

Section 1. Basic Information

Issuer name: Manulife

Green Bond ISIN or Issuer Green Bond Framework Name, if applicable*:*

Review provider's name: Sustainalytics

Completion date of this form: October 27th, 2017

Publication date of review publication: October 27th, 2017

Section 2. Review overview

SCOPE OF REVIEW

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

- ☒ Use of Proceeds
- ☒ Management of Proceeds
- ☒ Process for Project Evaluation and Selection
- ☒ Reporting

ROLE(S) OF REVIEW PROVIDER

- ☒ Consultancy (incl. 2nd opinion)
- ☐ Verification
- ☐ Other *(please specify)*:
- ☐ Certification
- ☐ Rating

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

Please refer to Green Bond Framework, available at **http://www.manulife.com/Green-Bonds** and Second Opinion Document above.

Section 3. Detailed review

1. USE OF PROCEEDS

Overall comment on section:
Sustainalytics is confident that the issuance of Manulife's Green Bond aligns with the company's sustainability objectives and will advance the company's long-term goals. Proceeds of Manulife's Green Bond will be used to finance and refinance existing and future projects that support the low carbon transition. The Green Bond eligible categories include: 1) renewable energy, 2) green buildings, 3) environmentally sustainable management of natural resources and land use, 4) energy efficiency, 5) clean transportation, 6) sustainable water management, and 7) pollution prevention and control. The eligible green categories are aligned with those recognized by the Green Bond Principles 2017. Furthermore, Sustainalytics is of the opinion that the planned use of proceeds from the Green Bond will have clear environmental benefits and contribute to advancing the United Nation's Sustainable Development Goals 6,7,9,11,12, and 15.

Use of proceeds categories as per GBP:

- ☒ Renewable energy
- ☒ Energy efficiency
- ☒ Pollution prevention and control
- ☒ Sustainable management of living natural resources
- ☐ Terrestrial and aquatic biodiversity conservation
- ☒ Clean transportation
- ☒ Sustainable water management
- ☐ Climate change adaptation
- ☐ Eco-efficient products, production technologies and processes
- ☒ Other *(please specify)*:
  Green buildings *(GBP 2017 recognizes Green Buildings as an eligible green category)*
- ☐ Unknown at issuance but currently expected to conform with GBP categories, or other eligible areas not yet stated in GBPs

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

2. PROCESS FOR PROJECT EVALUATION AND SELECTION

Overall comment on section:

Manulife has established the following process for project evaluation and selection:

1. Senior officer(s) on the investment team will identify and propose potential green assets to Sustainability Accounting for review
2. Sustainability Accounting reviews the identified green assets to ensure they comply with Eligibility Criteria and the overall Manulife Green Bond Framework. If Sustainability Accounting concurs that the potential green assets comply with the Framework, then the recommendation is made to the Manulife Green Bond Council
3. The Manulife Green Bond Council, which is made up of members of senior management of Manulife, including the Chief Financial Officer, the Chief Investment Officer and the Group Treasurer, is responsible for the ultimate review and selection of the green assets that will qualify as Eligible Assets, to which the net proceeds of a Green Bond issuance will be allocated.

Sustainalytics considers this to be in line with recommended market best practice.

Sustainalytics recognizes that some projects, such as those to be financed and refinanced by the Green Bonds proceeds, come with environmental risks, mainly related to the environmental impact of the construction and operation of renewable energy projects. However, given the level of social and environmental due diligence performed and the regulatory framework of the countries in which Manulife makes its investments, Sustainalytics is of the opinion that Manulife is well positioned to address environmental and social risks with the projects financed by the proceeds of the Green Bond.

Evaluation and selection

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

Information on Responsibilities and Accountability

- ☒ Evaluation / Selection criteria subject to external advice or verification *(CBI verification achieved for inaugural bond)*
- ☐ Other *(please specify)*:
- ☐ In-house assessment

3. MANAGEMENT OF PROCEEDS

Overall comment on section:

Manulife will establish a Green Bond Register to record on an ongoing basis the allocation of the net proceeds from the Green Bond issuance to Eligible Assets. The net proceeds from each Green Bond issuance will be deposited in the General Fund accounts and an amount equal to the net proceeds will be earmarked for allocation to Eligible Assets in accordance with the Manulife Green Bond Framework.

Manulife aims for Green Bond proceeds to be fully allocated within 18 months of the Green Bond issuance. Any portion of the net proceeds of Green Bonds that have not been allocated to Eligible Assets in the Green Bond Register will be invested in cash or liquid securities in accordance with Manulife's normal liquidity management policy.

The Green Bond Register will contain relevant information to identify each Green Bond and the Eligible Assets relating to it, including the asset's location, financed amount, and the applicable eligibility category. The Green Bond Register will form the basis for the impact reporting.

Payment of principal and interest on any Green Bond issuance will be made from the general funds and will not be directly linked to the performance of any Eligible Assets.

Tracking of proceeds:

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

Additional disclosure:

- ☐ Allocations to future investments only
- ☒ Allocations to both existing and future investments
- ☒ Allocation to individual disbursements
- ☒ Allocation to a portfolio of disbursements
- ☒ Disclosure of portfolio balance of unallocated proceeds
- ☐ Other *(please specify)*:

4. REPORTING

Overall comment on section:

Manulife commits to annually publish a Green Bond Report on progress with the green investments on the Investor Relations section of the company's website.
The report will be externally-reviewed and incorporate the allocation of proceeds by criteria category, together with the description of the select projects that are being financed, and the remaining balance of unallocated proceeds. Where feasible, and subject to confidentiality restrictions, the Green Bond Report will include qualitative and quantitative environmental performance indicators.

Use of proceeds reporting:

☐ Project-by-project

☒ On a project portfolio basis

☐ Linkage to individual bond(s)

☐ Other *(please specify):*

Information reported:

☒Allocated amount

☐ GB 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):*

Frequency:

☒Annual

☐ Semi-annual

☐ Other *(please specify):*

Information reported (expected or ex-post):

☐ GHG Emissions / Savings

☐ Energy Savings

☒Other ESG indicators *(please specify):*

- Megawatts of renewable energy financed
- Environmental impact metrics where feasible, subject to confidentiality

Means of Disclosure

☐ Information published in financial report

☐ Information published in sustainability report

☐ Information published in ad hoc documents

☒ Other *(please specify): Will be published in the Investor Relations section of the company's 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:

- ☐ Consultancy (incl. 2nd opinion)
- ☐ Verification / Audit
- ☐ Other *(please specify):*
- ☒ Certification
- ☐ Rating

Review provider(s): **Date of publication:**

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

(i) Consultant Review: An issuer can seek advice from consultants and/or institutions with recognized expertise in environmental sustainability or other aspects of the issuance of a Green Bond, such as the establishment/review of an issuer's Green Bond framework. "Second opinions" may fall into this category.

(ii) Verification: An issuer can have its Green Bond, associated Green Bond framework, or underlying assets independently verified by qualified parties, such as auditors. In contrast to certification, verification may focus on alignment with internal standards or claims made by the issuer. Evaluation of the environmentally sustainable features of underlying assets may be termed verification and may reference external criteria.

(iii) Certification: An issuer can have its Green Bond or associated Green Bond framework or Use of Proceeds certified against an external green assessment standard. An assessment standard defines criteria, and alignment with such criteria is tested by qualified third parties / certifiers.

(iv) Rating: An issuer can have its Green Bond or associated Green Bond framework rated by qualified third parties, such as specialised research providers or rating agencies. Green Bond ratings are separate from an issuer's ESG rating as they typically apply to individual securities or Green Bond frameworks / programmes.

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As the Opinion is based on information made available by the client, Sustainalytics does not warrant that the information presented in this Opinion is complete, accurate or up to date.

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

SUSTAINALYTICS

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

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