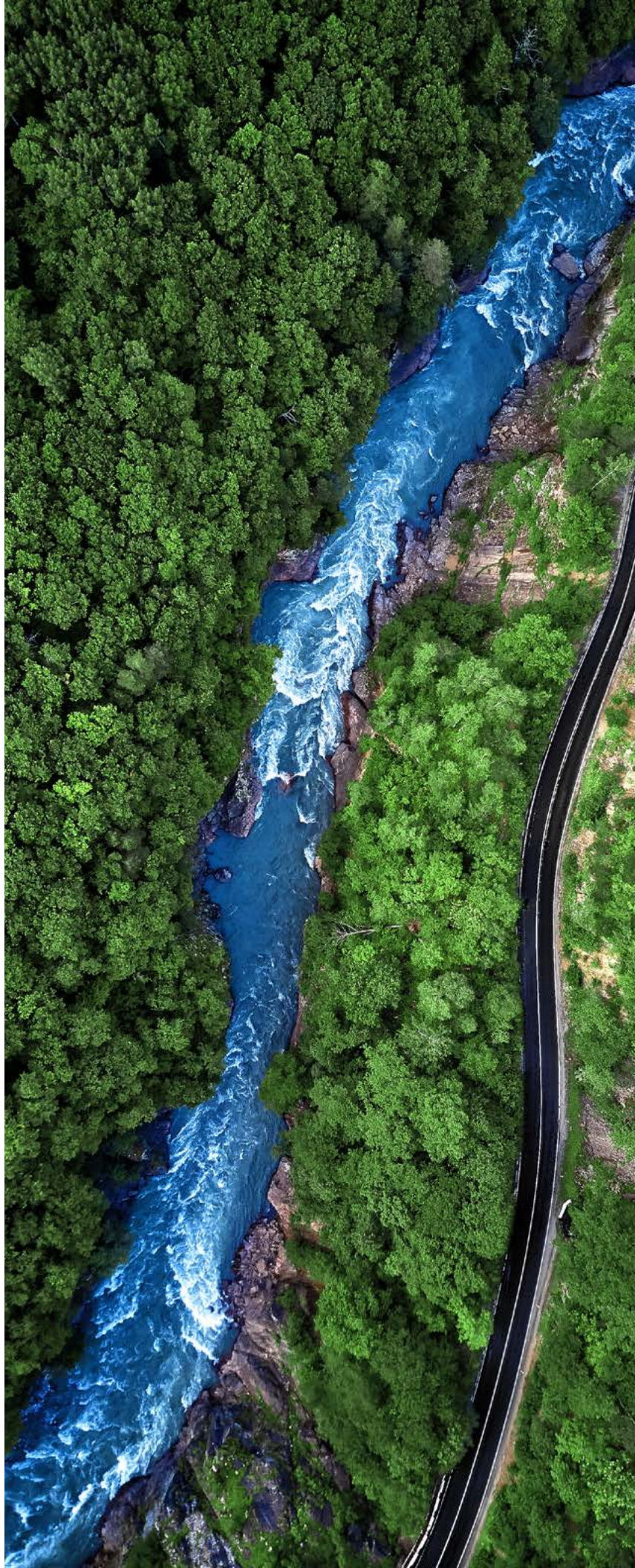


# Manulife Sustainable Bond Framework

**February 2022**





# Contents

Investment philosophy in support of sustainability	3
Use of proceeds	5
Eligibility criteria	6
Process for project evaluation and selection	8
Management of proceeds	9
Reporting	10
Contact	10

# Investment Philosophy in support of Sustainability

Manulife is a long-term investor that deploys capital to support the transition to the low carbon economy. As of 2020, C\$39.8 billion<sup>1</sup> or 9.7% of the total C\$411 billion General Account was invested in long-duration, carbon emission-efficient assets<sup>2</sup>.

<b>Manulife Green Investments</b>	<b>Holdings at 31/12/2020 [Canadian dollar billion]</b>	<b>Description</b>
Green Buildings	\$16.9	Direct equity investments and commercial mortgages backed by green building certifications Leadership in Energy and Environmental Design (LEED), Buildings Owners and Managers Association (BOMA Best), and Energy Star
Renewable Energy	\$9.8	Private debt and equity financing of solar/wind/geothermal/waste biomass/hydro energy
Sustainably-managed Timberland	\$4.0	Assets operated by Manulife subsidiary Hancock Timber Resource Group and private placements certified to Forest Stewardship Council (FSC) and Programme for the Endorsement of Forest Certification (PEFC) standards
Energy Efficiency	\$3.9	Private debt financing of energy efficiency upgrades at US government sites
Clean Transportation	\$2.7	Private debt financing of electrified transport and mass public transit
Sustainably-managed Agriculture	\$1.3	Investments operated by Manulife subsidiary Hancock Agricultural Investment Group and certified to the Leading Harvest Standard
Sustainable Management of Water Resources	\$0.6	Private debt financing of water recycling and purification businesses
Green Bond Investments	\$0.7	Public and private green bond investments in renewable energy, energy efficiency, clean transport, sustainably-managed forests
<b>Total</b>	<b>\$39.8</b>	<b>General Account investments only, no third-party funds Private debt and equity investments, no public securities, except for several green bond investments</b>
<b>Percent of total General Account</b>	<b>9.7%</b>	<b>Total General Account assets: \$411 billion</b>

<sup>1</sup> All amounts in Canadian dollars, unless otherwise stated, and for the year ending 31 December 2020

<sup>2</sup> Per definitions established by the International Capital Market Association: "Green Bond Principles", June 2021, [Green-Bond-Principles-June-2021-140621.pdf](#)

<sup>3</sup> For more information on the Climate Action Plan and overall sustainability performance, please see [Annual Sustainability Report](#)



Manulife is *committed* to setting the interim *emission reduction* targets on a path to net zero.

This is aligned with the recommendations of the Science Based Targets initiative (SBTi). Manulife began this *process* with the release of the *interim target* for the carbon-intensive portion of the investment portfolio in 2022.

Further, Manulife's Climate Action Plan<sup>3</sup> established in May 2021 commits to steering the investment portfolio to net zero by 2050:

- Manulife is committed to setting the interim emission reduction targets on a path to net zero. This is aligned with the recommendations of the [Science Based Targets initiative \(SBTi\)](#). [Manulife began this process with the release of the interim target for the carbon-intensive portion of the investment portfolio in 2022](#)
- Manulife's net zero transition is driven by the Executive Sustainability Council, which includes the Chief Sustainability Officer and nine members of the Executive Leadership Team, including the Chief Executive Officer. The Council is overseen by the Board's Corporate Governance and Nominating Committee.
- The transition plan is managed by the General Account's climate team, which reports to the Chief Investment Officer. The climate team consists of members of the credit and portfolio management teams, and senior investment officers, who lead this climate team and head ESG (environmental, social, governance) integration.

Manulife is a member of global collaborations that advance the integration of sustainability in financial decisions:

- [Accounting for Sustainability](#) is a network of financial leaders that inspire action to shift towards resilient business models and a sustainable economy. In 2017, the Manulife Chief Financial Officer became the founding Co-Chair of the A4S's Canadian Chapter of the CFO Leadership Network.
- [United Nations Environment Programme Finance Initiative \(UNEPFI\)](#) is a partnership between United Nations Environment and the global financial sector that promotes sustainable finance.
- [Equator Principles](#) are a set of voluntary guidelines that help financial institutions identify and manage environmental and social risks in project finance. Manulife committed to the principles in 2005.

This Sustainable Bond Framework (the "Framework") is a component of Manulife's sustainability objectives. It aligns the financing and investment activities to continue funding sustainable economic development.

From a timing perspective, the Framework applies to Sustainable Bonds issued by Manulife on or after February 2022. The Manulife's Green Bond Framework published in 2017 continues to govern the two historical green bond issuances. This new Framework sets out the guidelines for Manulife's issuances in accordance with the four core components of the International Capital Market Association's 2021 Green Bond Principles, Social Bond Principles, and Sustainability Bond Guidelines<sup>4</sup>: (i) use of proceeds; (ii) process for project evaluation and selection; (iii) management of proceeds; and (iv) reporting.



## Use of proceeds

Manulife's "Sustainable Bonds" - such as Green Bonds, Social Bonds, and Sustainability Bonds are fixed income instruments, where the net proceeds or amount equivalent to the net new proceeds are allocated towards General Account assets that support environmentally-/ and socially-sustainable economy:

- Green Bonds' proceeds are allocated to environmentally-sustainable assets
- Social Bonds' proceeds are allocated to socially-sustainable assets
- Sustainability Bonds' proceeds are allocated to the combination of environmentally-/ and socially-sustainable assets

An amount equal to the net proceeds from a Sustainable Bond issuance will be:

- used to finance or re-finance, in part or in full, new and/or existing green and/or social assets (known) as Eligible Assets that meet the Eligibility Criteria outlined on pages 5-6 (the "Eligible Assets") Manulife's Sustainable bonds may be senior or subordinated green/social and/or sustainable bonds



### Look-Back and Look-Forward Dates

- proceeds will be allocated to the existing Eligible Assets that have been funded by us within the 24 months preceding the date of the Sustainable Bond issuance and/or new Eligible Assets acquired post issuance
- proceeds will be fully allocated within 18 months of issuance.



### Exclusionary Criteria

- Manulife Sustainable Bonds will not knowingly be allocated in support of the following excluded activities: petroleum, tobacco, alcohol, weapons, gambling, adult entertainment

<sup>4</sup>International Capital Market Association: "Green Bond Principles", June 2021, [Green-Bond-Principles-June-2021-140621.pdf](#); "Social Bond Principles", June 2021, [Social-Bond-Principles-June-2021-140621.pdf](#); "Sustainability Bond Guidelines", June 2021, [Sustainability-Bond-Guidelines-June-2021-140621.pdf](#)

# Eligibility Criteria

Category as per Green Bond Principles	Eligible Asset
Renewable Energy	<p>Development, construction, operation, maintenance, and upgrades of:</p> <ul style="list-style-type: none"><li>• facilities and equipment wholly dedicated to the generation of renewable energy as defined by the International Renewable Energy Agency (IRENA) Statute<sup>5</sup>, including:<ul style="list-style-type: none"><li>• wind energy</li><li>• solar energy</li><li>• small-scale run-of-river hydro (under 25 Mega Watts)<sup>6</sup></li><li>• bio-energy from waste biomass</li><li>• tidal energy</li><li>• geothermal energy (direct emissions of under 100 Grams CO<sub>2</sub>/kilowatt)</li></ul></li><li>• transmission infrastructure and other supporting infrastructure wholly dedicated to renewable energy generation facilities including inverters, transformers, energy storage systems and control systems</li><li>• production or manufacturing facilities wholly dedicated to equipment, feedstock, or components for renewable energy generation facilities</li></ul>
Green buildings	<p>Purchase, construction, operation, and maintenance of new or existing commercial or residential buildings that:</p> <ul style="list-style-type: none"><li>• have achieved, based on third-party assessment, greenhouse gas emission performance in the top 15% of their city, or</li><li>• 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:<ul style="list-style-type: none"><li>• LEED Gold or Platinum standard</li><li>• BOMA BEST/360 Gold or Platinum</li><li>• Energy Star score of 85+</li></ul></li></ul>
Environmentally sustainable management of natural resources and land use	<p>Purchase and operation of sustainably - managed timberland holdings certified by credible third-party forest certification systems, such as:</p> <ul style="list-style-type: none"><li>• Forest Stewardship Council (FSC)</li><li>• Programme for the Endorsement of Forest Certification (PEFC)</li></ul> <p>Purchase and operation of sustainably - managed farmland holdings certified by credible third-party forest certification systems, such as:</p> <ul style="list-style-type: none"><li>• Leading Harvest Standard</li></ul>

<sup>5</sup> IRENA Statute, 2009. [IRENA\\_FC\\_Statute\\_signed\\_in\\_Bonn\\_26\\_01\\_2009](#)

<sup>6</sup> Selection criteria of hydropower plants includes an environmental and social impact assessment undertaken by a credible third party to demonstrate no significant risks or controversy surrounding the respective project.

**Category as per  
Green Bond Principles**

**Eligible Asset**

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Energy Efficiency	Development, construction, acquisition, installation, operation, and upgrades of projects that reduce energy consumption by at least 20%, including: <ul style="list-style-type: none"><li>• projects involving the installation, maintenance or replacement of efficient heating, ventilation, air conditioning, refrigeration, lighting, and electrical equipment</li><li>• projects that allow the monitoring and modeling of energy performance such as the design and installation of digital controls, sensors or building information systems</li><li>• 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</li></ul>
Clean Transportation	Development, construction, acquisition, operation, maintenance, and upgrades of low-energy and low-carbon transport assets, including: <ul style="list-style-type: none"><li>• electric, fuel cell, as well as hybrid electric light duty and heavy goods vehicles at or below the emission threshold of 75 Grams CO<sub>2</sub>/tonne-kilometer, including road transport trucks with emissions of under 25 grams CO<sub>2</sub>/tonne-kilometer, per standard lab tests NEDC (New European Driving Cycle) or WLTP (Worldwide harmonized Light-duty vehicles Test Procedure).</li><li>• rolling stock and vehicles for electrified public transport such as rail, trams, trolleybuses, cable cars, taxis, and buses</li><li>• infrastructure dedicated to mass public transportation infrastructure dedicated to electrified freight rail, excluding railway lines whose primary purpose is fossil fuel transport</li></ul>
Sustainable Water and Wastewater Management	Development, construction, acquisition, installation, operation, and upgrades of projects that reduce water consumption or improve the efficiency of resources, including: <ul style="list-style-type: none"><li>• new or existing facilities used for the collection, treatment, recycling or reuse of water, rainwater, or wastewater</li><li>• new or existing infrastructure for water distribution including aqueducts, pumps, drainage and sewage systems, tunnels, and canals</li><li>• 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<sup>7</sup></li></ul>
Pollution Prevention and Control	Development, construction, acquisition, installation, operation, and upgrades of projects that reduce and manage emissions and waste generated, including: <ul style="list-style-type: none"><li>• 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</li><li>• new or existing facilities, systems and equipment that are used to divert waste from landfills or reduce emissions</li></ul>

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<sup>7</sup> Subject to vulnerability assessment and adaptation plans in place prior to investment.

**Category as per  
Social Bond Principles**

**Eligible Assets**

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Access to Essential Services	Development, construction, operation, renovation and/ or maintenance of existing or new facilities, services, systems, or equipment for public, free or substantially subsidized, and/or non-profit facilities that provide accessible and affordable services regardless of ability to pay to underserved populations <sup>8</sup> , including: <ul style="list-style-type: none"><li>• Healthcare: hospitals, clinics, laboratories, elder care centers,</li><li>• Education: child, youth, adults and vocational training</li></ul>
Affordable Housing	Development, construction, purchase, operation, and maintenance of new or existing residential buildings that provide housing at or below 80 percent of average market rent, or equivalent threshold, and /or meet national / regional affordable housing definitions in the applicable jurisdiction, for example: <ul style="list-style-type: none"><li>• housing for households whose income is below 80% of the area median income (AMI)</li><li>• social housing at below-market rents to low-income earners, including teachers, nurses, the elderly and infirmed.</li></ul>

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## Process for project evaluation and selection

- Sustainability Accounting maintains an annual inventory of General Account assets that meet the Eligibility Criteria of the Framework, and structures the allocation of the Sustainability/Green/Social Bond proceeds
- Senior officer(s) on the General Account investment team review the proposed allocation before it is presented for approval to the Manulife Sustainable Bonds Council, consisting of the Chief Financial Officer, the Chief Investment Officer, and the Global Treasurer. For Social Assets, the Council will also consider social asset's potential social outcomes for underserved populations and target populations mentioned in this framework.

In accordance with the General Account's Environmental, Social, Governance (ESG) Guidelines, all Manulife's General Account investments, including those that meet the Eligibility Criteria, are subject to identification, assessment, and management of ESG risks in the regular course of evaluating and monitoring investments. Our investment belief is that focus on ESG risk management in the investment process can help reduce risks and improve financial performance over the long-term.

Additionally, Manulife's [Environmental Risk Policy](#), [Sustainable Real Estate Policy](#), and [Code of Business Conduct and Ethics](#) set forth further compliance requirements relating to ESG risks.

<sup>8</sup> Sis Consistent with the ICMA's Social Bond Principles 'target population': , minorities, vulnerable youth, people living below the poverty line or households with income below 80% of the area median income (AMI), etc.





## Management of proceeds

We have established a Sustainable Bonds Register (the “Register”) to record on an ongoing basis the allocation of the net proceeds from the Sustainable Bond issuances to Eligible Assets.

The Register will:

- contain relevant information to identify each Sustainable Bond and the Eligible Assets relating to it, including the asset’s location, financed amount, and the applicable category in the Eligibility Criteria
- form the basis for the environmental and social impact reporting

The net proceeds from each Sustainable Bond issuance will be deposited in the General Accounts and an amount equal to the net proceeds will be earmarked for allocation to Eligible Assets in accordance with this Framework.

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

Payment of principal and interest on any Sustainable Bond issuance will be made from the General Account and will not be directly linked to the performance of any Eligible Asset.



The Report will appear on the Investor Relations section of the Manulife website and be externally reviewed.

**Contact**

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[investor\\_relations@manulife.com](mailto:investor_relations@manulife.com)

## Reporting

If there are outstanding Sustainable Bonds issued under this Framework, we will publish an annual report (the “Report”) on the environmental and social performance of Eligible Assets.

The Report will contain:

- 1** Bond details (issuance date, size, currency, maturity date),
- 2** The allocation of proceeds by category per the Eligibility Criteria,
- 3** The percentage of Financing and re-financing for sustainable assets,
- 4** Examples of projects where feasible,
- 5** The remaining balance of any unallocated proceeds, and
- 6** Impact Reporting – Where feasible, the Report will include qualitative and (if reasonably practicable) quantitative environmental and social indicators. Indicators may change from year to year. For example, the Report may include some of the following indicators:

<b>Project Category</b>	<b>Potential Impact Indicators</b>
Renewable Energy	<ul style="list-style-type: none"> <li>• Renewable energy capacity installed (MWh)</li> <li>• Avoided / reduced carbon emissions (metric tons CO2)</li> </ul>
Green Buildings	<ul style="list-style-type: none"> <li>• Green building certifications and certified area (square footage)</li> <li>• Avoided / reduced carbon emissions (metric tons CO2)</li> </ul>
Environmentally sustainable management of natural resources and land use	<ul style="list-style-type: none"> <li>• Sustainable forestry certification and certified area (square footage)</li> <li>• Removed / sequestered carbon emission (metric tons CO2)</li> </ul>
Energy Efficiency	<ul style="list-style-type: none"> <li>• Annual energy savings (MWh)</li> <li>• Avoided / reduced carbon emissions (metric tons CO2)</li> </ul>
Clean Transportation	<ul style="list-style-type: none"> <li>• Fuel emission efficiency (grams CO2/tonne-kilometer)</li> <li>• Avoided / reduced emissions (including metric tons CO2)</li> </ul>
Sustainable Water and Wastewater Management	<ul style="list-style-type: none"> <li>• Volume of water treated/saved/reused (cubic meters)</li> </ul>
Pollution Prevention and Control	<ul style="list-style-type: none"> <li>• Avoided / reduced emissions (including metrics tons CO2)</li> <li>• Waste Reduced (tonnes)</li> </ul>
Access to Essential Services	<ul style="list-style-type: none"> <li>• Healthcare: <ul style="list-style-type: none"> <li>• Number of hospitals and other healthcare facilities built or refurbished</li> <li>• New or improved health service provided by number of beds</li> <li>• Number of patients served</li> </ul> </li> <li>• Education: <ul style="list-style-type: none"> <li>• Number and type of education facilities built or refurbished</li> <li>• Number of children, youth, adult students served</li> </ul> </li> </ul>
Affordable Housing	<ul style="list-style-type: none"> <li>• Number of affordable/community housing units built or refurbished</li> <li>• Number of people with enabled access to safe, affordable, and sustainable housing</li> <li>• Rental costs compared to the national/regional rent index</li> </ul>

This Sustainable Bond Framework is provided for informational purposes only and is subject to change without notice. Manulife Financial Corporation (the “Manulife”) may update or amend this Sustainable Bond Framework periodically. Any updated or amended Sustainable Bond Framework will be applied to Sustainable Bonds issued by Manulife following such updates or amendments.

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