

**Independent Opinion
on the Statements of
Manufacturers Life Insurance
Company**

Relative to Its

**MIMRE tenant-controlled GHG emissions and
water withdrawal data for 2023**

Opinion Date: 2024-06-25

To the Management of:	Manufacturers Life Insurance Company 200 Bloor Street East Toronto ON M4W 1E5
Independent Verification Opinion of:	Futurepast: Inc. 4250 Fairfax Drive, Suite 600 Arlington, Virginia 22203 USA
Subject Matter:	MIMRE tenant-controlled GHG emissions and water withdrawal data for 2023
For the Period:	January 1, 2023 – December 31, 2023

Details Pertaining to the Statements

Statement of Responsibility: It was the responsibility of Manufacturers Life Insurance Company (“Manulife”) to prepare its greenhouse gas (GHG) inventory statement for tenant-controlled GHG emissions in accordance with the WRI/WBCSD GHG Protocol Corporate Accounting and Reporting Standard (including the Scope 3 updates issued in 2013). It was the responsibility of Manulife to prepare its water withdrawal data (including tenant-controlled water withdrawals) in accordance with its own internal data management and reporting criteria. This responsibility includes designing, implementing and maintaining a data management system adequate for the preparation and fair presentation of the statements. Manulife was responsible for the fair presentation of its data and information and ensuring that these are free from material misstatements.

Based on the work we performed, it was the responsibility of Futurepast to express an opinion as to whether the GHG emissions and water withdrawal data as stated by Manulife were presented fairly in accordance with the agreed criteria.

Intended User and Limitation of Liability

Intended User: This report has been prepared for the management of Manulife for internal management purposes and for public disclosure.

Limitation of Liability:

Manulife is solely responsible for the preparation and presentation of the information it has submitted to Futurepast for verification. Our role is limited to expressing a conclusion as to whether the disclosures as stated by Manulife are presented fairly in accordance with the agreed-upon criteria. In doing so, we do not assume any duty, liability, or responsibility of Manulife or of any third party. Our duties in relation to the opinions expressed are owed solely to Manulife. As such, we do not accept any responsibility for any loss allegedly occasioned by any third party acting or refraining from action because of our expressed opinions.

Details Pertaining to the Validation/Verification Body

Futurepast's Role: Futurepast is an impartial third-party validation/verification body.

Declaration of Impartiality

Evaluation of Actual or Potential Conflicts-of-Interest Futurepast, and the verification team members and independent reviewer, have evaluated their potential for compromised impartiality and found no actual or potential threats to impartiality with respect to the performance of this engagement.

Details Pertaining to the Verification Team and Independent Reviewer

Verification Team Leader: The verification was led by Stephen Boles.

Independent Reviewer: This verification was independently reviewed by John Shideler.

Details Pertaining to the [Verification/Validation]

Type(s) of Engagement: This engagement included the following types of activities:

- Verification
- Validation
- Agreed-upon procedures

Objectives of the Verification:

To provide limited assurance to Manulife that there is no evidence that the GHG Statement and water withdrawal disclosures made by Manulife are not materially correct and are not in conformance with the stated criteria.

Scope of the Verification:

This opinion pertains to the verification of tenant-controlled GHG emissions and water withdrawal disclosures (including tenant-controlled) from the following Manulife business units:

- Manulife Investment Management Real Estate

<p>Facilities, physical infrastructure, activities, technologies, and processes</p>	<p>Manulife Investment Management’s real estate platform develops and asset manages commercial real estate for thousands of customers around the globe. MIMRE’s platform offers strategies spanning over 74 million square feet of office, industrial, retail, and multifamily assets strategically located in Canada, the U.S., and Asia Pacific.</p>				
<p>Types of greenhouse gases</p>	<p>As per The GHG Protocol, Scope 3 emissions are only required to be reported as totals of carbon-dioxide equivalent (CO₂e).</p>				
<p>Time period</p>	<p>January 1, 2023 – December 31, 2023</p>				
<p>GHG sources, sinks, and reservoirs</p>	<p>The GHG emissions included in this verification opinion are presented in the table below:</p> <table border="1"> <thead> <tr> <th>GHG Scope</th> <th>GHG Source</th> </tr> </thead> <tbody> <tr> <td>3 (Category 13 – Downstream Leased Assets)</td> <td> <ul style="list-style-type: none"> • Tenant natural gas combustion • Tenant electricity consumption • Tenant landfill waste disposal • Tenant recycled material disposal </td> </tr> </tbody> </table>	GHG Scope	GHG Source	3 (Category 13 – Downstream Leased Assets)	<ul style="list-style-type: none"> • Tenant natural gas combustion • Tenant electricity consumption • Tenant landfill waste disposal • Tenant recycled material disposal
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3 (Category 13 – Downstream Leased Assets)	<ul style="list-style-type: none"> • Tenant natural gas combustion • Tenant electricity consumption • Tenant landfill waste disposal • Tenant recycled material disposal 				

Other disclosures included in scope of verification	<p>The following disclosures have been prepared for MIMRE’s operations and are included in the scope of this verification:</p> <ul style="list-style-type: none"> • Total water withdrawals • Tenant-controlled water withdrawals
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Level of Assurance: Limited.

Threshold of Materiality: 5%

Verification Criteria: Futurepast conducted its verification activities based on the requirements of ISO 14064-3:2019, *Specification with guidance for the verification and validation of greenhouse gas statements*.

Description of Work Performed

Description of the Basis for Our Conclusions and Opinion

Futurepast designed and executed analytical procedures and controls testing on a risk-based approach after reviewing Manulife’s reported disclosures. Futurepast performed the following assessments of information and data during the verification:

1. Confirmed all GHG emission factors used against cited sources. Confirmed accuracy of all unit conversion equations applied.
2. Tracing of GHG calculations to confirm the accuracy of reported values.
3. Reviewed the raw data documentation provided by Manulife and confirmed the accurate transfer to the Manulife inventory spreadsheet.
4. Comparison to the prior year results of GHG emissions and water withdrawal and key input data values (e.g. fuel consumption).
5. Assessment of missing data procedures utilized in Manulife inventory spreadsheet.

The data reviewed were historical in nature.

Summary of the Responsible Party's Statements

Manulife's 2023 tenant-controlled GHG totals are presented in the table below:

GHG Scope and Source	GHG (tonnes CO _{2e})
Scope 3 Category 13 (Downstream Leased Assets)	
Tenant natural gas combustion	15,040
Tenant electricity consumption	16,101
Tenant landfill waste disposal	5,404
Tenant recycled material disposal	252
Total Scope 3 Category 13	36,797

Manulife's 2023 water withdrawal disclosures are presented in the table below:

Disclosure Item	Cubic meters
Total water withdrawals	2,278,728
Tenant water withdrawals	114,648

Limitations, If Any

None

Modifications, If Any

Manulife's tenant-controlled GHG inventory and water withdrawal data did not fulfil all requirements of the GHG Protocol's 'completeness' principle, including:

- Natural gas combustion data for 8 facilities were not included in the GHG emission calculations due to lack of availability of measured consumption data
- Water withdrawal data for 36 facilities occupied by Manulife (as the lessor) were not included in the reported total due to lack of availability of measured consumption data
- Water withdrawal data for 67 facilities occupied by tenants were not included in the reported total due to lack of availability of measured consumption data

Conclusions

Except for instances of incomplete reporting described in the modification section above, based on our evaluation of the evidence, nothing comes to our attention which causes us to believe:

- That Manulife’s disclosures of tenant-controlled GHG emissions and water withdrawal data (including tenant-controlled) for the period from 01/01/2023 to 31/12/2023 is not materially correct and is not a fair representation of its data and information, and
- That Manulife’s tenant-controlled GHG inventory report for the period from 01/01/2023 to 31/12/2023 has not been prepared in accordance with the World Resources Institute/World Business Council for Sustainable Development’s “The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard – Revised Edition” and the Corporate Value Chain (Scope 3 Accounting and Reporting Standard (2011)).

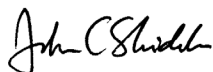
Approvals

Verification Team Leader



Stephen Boles, 20 June 2024

Independent Reviewer:



John C. Shideler, 24 June 2024

Signature

Verification/Validation Body: Futurepast: Inc., Arlington, Virginia USA

Opinion Issued:

2024-06-25

