

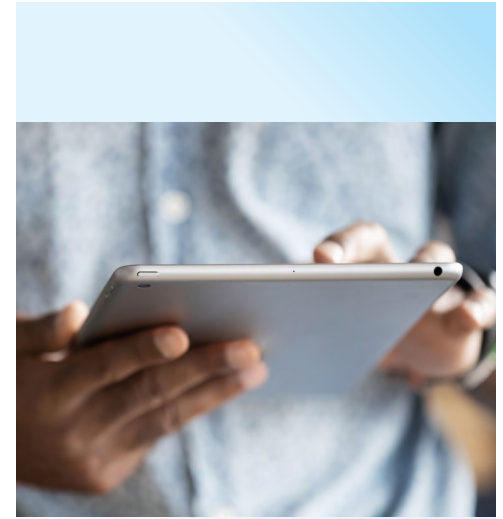
BMO Financial Group

# 2023 Climate Report



# BMO's Climate Ambition: To be our clients' lead partner in the transition to a net-zero world.

Our 2023 Climate Report outlines how we plan to achieve this ambition in support of our sustainable growth. It follows the guidelines of the Task Force on Climate-related Financial Disclosures (TCFD).<sup>1</sup> Information about our efforts to help build a more sustainable world can be found in our 2023 Sustainability Report.



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BMO is focused on developing a climate strategy that supports the transition to a net-zero world by 2050.

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## In this report

*We, us, our, bank* and *BMO* mean Bank of Montreal and its subsidiaries.

### Reporting period

Covers the fiscal year ended October 31, 2023.

We published our last report in March 2023. Past reports are available on our [website](#).

### Reporting framework

Except as otherwise noted, the disclosure in this report aligns with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

### Data

Unless otherwise noted:

- as of October 31, 2023
- enterprise-wide, including Bank of the West
- may be rounded
- dollar amounts are in Canadian dollars<sup>2</sup>

◆ KPMG has provided limited assurance of this figure. KPMG's Independent Limited Assurance Report is on page 57.

BMO's approach to sustainability is integrated into our business strategy and corporate governance.

### Sustainability reporting suite

- Sustainability Report and Public Accountability Statement
- GRI Content Index
- SASB Disclosure
- Data Pack and Glossary
- Sustainable Bonds Impact Report
- Principles for Responsible Banking Reporting and Self-Assessment

### Learn more here

- Annual Report to Shareholders
- Management Proxy Circular

<sup>1</sup> This report includes voluntary disclosures on climate-related opportunities and risks, governance, strategy, risk management and metrics and targets that may not be, and are not required to be, incorporated into our mandatory disclosures, for which we use a definition of materiality established under applicable securities laws for the purpose of complying with the disclosure rules and regulations promulgated by applicable securities regulators and applicable stock exchange listing standards.

<sup>2</sup> Financial information is presented as of October 31, 2023 and does not reflect reclassifications to certain financial results and measures that were effective November 1, 2023, including those related to the adoption of IFRS 17, Insurance Contracts.

# Message from the Chief Sustainability Officer



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This report is the product of dedicated efforts of the BMO Sustainability Office and its partners throughout the bank and I want to start by thanking them for their contributions of talent, skill and time.

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At BMO, we consider climate to be increasingly integral to the conduct of our business. In our risk management, our regulatory compliance measures and our client-focused commercial strategy, climate-related concerns engage our people and drive innovation and thought leadership. The BMO Climate Report offers a snapshot of these efforts, complementing the discussion of our sustainability program (discussed in the BMO Sustainability Report) and our overall strategy and Purpose (discussed in the BMO Annual Report and Proxy Circular).

Since announcing our Climate Ambition – to be our clients’ lead partner in the transition to a net-zero world – we have made real progress. We have and continue to implement processes within the bank to quantify climate impacts and risks (see the Metrics & Targets section), understand how climate scenarios affect the bank from a risk perspective, understand our clients’ approach to transition, build commercial strategy tied to the transition to a lower carbon economy and enhance our understanding of physical climate risk and resilience opportunities. The BMO Climate Institute also offers sophisticated, intersectional thinking about climate change and its social impacts. By leveraging these insights, we can better manage climate-related risks more effectively – and align our objectives for community giving with the need for climate action.

Our efforts increasingly rely on data, which can serve as both a barrier and a pathway to understanding climate-related risks and opportunities. We are focused on building a data infrastructure that supports climate-related analysis. This includes developing client-facing tools and leveraging our acquisition of BMO Radicle, to realize our Climate Ambition as one of BMO’s strategic priorities.

In 2023, we could all see the potential consequences of a warming planet: wildfires, flooding, extreme weather and more. We could also see the enormous challenges involved in achieving goals related to decarbonization, particularly when those goals appeared to collide with other economic challenges, including inflation and slower economic growth. These challenges are inevitable, but they won’t affect BMO’s overall approach. As we pursue commercial opportunities, manage exposures to risk and build enduring relationships with our employees, communities and stakeholders, our approach to climate becomes even more integral, across the enterprise. For this reason, our commitments will endure, despite any new circumstances we may face.

In keeping with our NZBA and PCAF commitments, we continue to advance our financed emissions and target-setting analysis. In 2023, we quantified financed emissions and evaluated decarbonization pathways for our commercial real estate portfolio and updated analyses of oil and gas, power generation, personal automobile lending and residential real estate portfolios – a majority of our overall lending portfolio’s financed emissions.

I am excited to see the way we are combining our approach to climate and commercial innovation. In 2023, we introduced the BMO Retrofits program, a unique offering that can help commercial real estate owners decarbonize their portfolios by improving existing building systems and fixtures, reducing both their spending on utilities and the carbon emissions from their buildings.

Following our acquisition of Radicle, we are well positioned to support our clients as they minimize costs, optimize value and implement innovative emission reduction plans. We also helped our clients develop and originate 1.2 million carbon credits.

The BMO Climate Institute continues to advance thought leadership on the relationship between climate, the economy and society. For example, in its recent survey, nearly half of business leaders in the United States and Canada reported that climate change has already affected their business, but few have a strategy to manage it. This highlights the importance of our Climate Ambition and our commitment to help clients address their ongoing climate and sustainability challenges – and where possible, to help provide solutions.

This has been a year of opportunities for building momentum in our climate strategy. Looking ahead, I am confident that our pragmatic and business-centred approach to climate is positioning us for success in addressing new challenges and risks, enhancing our employees’ engagement, and supporting our clients and customers.



# About BMO

Established in 1817, BMO Financial Group is a highly diversified financial services provider based in North America.

We provide a broad range of personal and commercial banking, wealth management, global markets and investment banking products and services. We serve 13 million customers across Canada and the United States, and in select markets globally, through three integrated operating groups.

13 million  
customers globally

\$1.29 trillion  
in total assets

8<sup>th</sup> largest  
bank in North America by assets

206 years  
serving customers since 1817

## Personal and Commercial (P&C) Banking

Provides financial products and services to customers across North America. Personal and Business Banking helps customers make real financial progress through an extensive network of branches, contact centres, digital banking platforms and automated teller machines. Commercial Banking offers valuable industry expertise, local presence and a comprehensive range of commercial products and services.

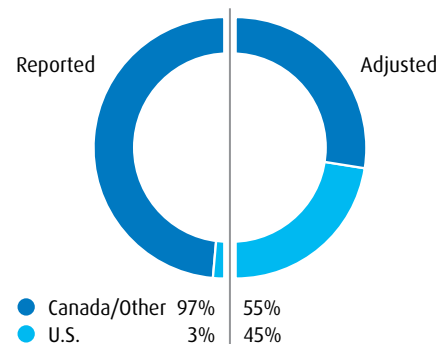
## BMO Wealth Management (BMO WM)

Serves a full range of clients, from individuals and families to business owners and institutions, offering a wide spectrum of wealth, asset management and insurance products and services aimed at helping clients make real financial progress through planning, growing, protecting and transitioning their wealth. Our asset management business is focused on making a positive impact and delivering innovative financial solutions and strategies for our clients.

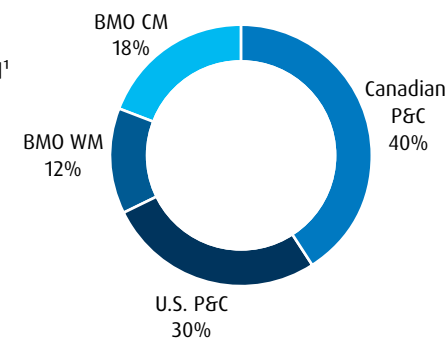
## BMO Capital Markets (BMO CM)

Offers a comprehensive range of products and services to corporate, institutional and government clients. BMO Capital Markets has thousands of professionals around the world enabling the growth aspirations of our clients across the bank.

### Net Income by Geography



### Reported Net Income by Operating Group<sup>2</sup>



Financial information is presented as of October 31, 2023 and does not reflect reclassifications to certain financial results and measures that were effective November 1, 2023, including those related to the adoption of IFRS 17, Insurance Contracts.

<sup>1</sup> Adjusted net income by geography is a non-GAAP ratio. For further information, see the Non-GAAP and Other Financial Measures section on page 59.

<sup>2</sup> Percentages determined excluding results in Corporate Services.

# How our response to climate change aligns with our Purpose

BMO's Purpose to **Boldly Grow the Good in business and life** inspires us to aim higher and have a meaningful impact on our customers, employees and communities, because we believe that success can and must be mutual. Our commitments for a thriving economy, a sustainable future and an inclusive society are measurable business-led goals to grow the good and support BMO's long-term success. They evolve as community needs, BMO priorities, and market realities change.

We're committed to making real progress in addressing climate change. Our **Climate Ambition is to be our clients' lead partner in the transition to a net-zero world**. We seek to enable innovative climate-change solutions, to manage risks, and to foster sustainable outcomes. You can find more details on how we are integrating this ambition into our business starting on page 16.

## BOLDLY GROW THE GOOD

IN BUSINESS AND LIFE



### BMO's Bold Commitments for a sustainable future

Progress on actions we've taken to support our Climate Ambition and a sustainable future.

#### Sustainable financing



Target: \$300 billion

Mobilize \$300 billion in capital to clients pursuing sustainable outcomes by 2025 (through green, social and sustainable lending, underwriting, advisory services, and investment)\*

#### Impact investing



Target: \$350 million

Deploy our Impact Investment Fund, seeded with \$350 million in capital by 2025

#### Climate Ambition

Target  
Net zero  
by 2050

Be our clients' lead partner in the transition to a net-zero world – targeting net-zero financed emissions in our lending by 2050.

\*This includes sustainable bond underwriting, sustainable equity and debt financing, sustainable finance advisory services, loans for clients and projects pursuing sustainable outcomes, and sustainable investments. For more information on our accounting methodology, see individual definitions for each transaction type in the [glossary](#).

# Our history of climate action

2007

First purchase of renewable energy

2009

Became lead investor in the Greening Canada Fund for carbon offset projects  
Named to the CDP Global 500 Carbon Disclosure Leadership Index for the first time

2018

Began reporting in line with TCFD  
Delivered Board of Directors climate change risk and disclosure training

2020

Achieved 100% renewable electricity across our global operations  
Included climate change in our Enterprise Risk Appetite Statement and introduced climate-related key risk metric  
Developed digital climate risk analytics platform

2022

Rolled out enterprise-wide “Climate Change Essentials” training for all BMO employees and Board of Directors  
Introduced our Environmental and Social (E&S) Risk Corporate Policy  
Established and chaired the Government of Canada’s Sustainable Finance Action Council (SFAC), and its Net-Zero Capital Allocation Working Group

2008

Established operational GHG footprint and first emissions reduction target  
Became the first Canadian financial institution to achieve ISO 14001:2004 certification for a large office building

2010

Achieved carbon neutrality in operations  
Named to the CDP Global 500 Carbon Performance Leadership Index for the first time

2019

Established Sustainable Finance team and our first sustainable finance target  
Issued first sustainability bond  
Incorporated climate change into our enterprise-wide Risk Taxonomy

2021

Joined the Partnership for Carbon Accounting Financials (PCAF) and began quantifying our financed emissions  
Signed the United Nations (UN) Principles for Responsible Banking  
Launched BMO’s Climate Ambition  
Established the BMO Climate Institute  
Established the Energy Transition Group within BMO Capital Markets  
Joined the Net-Zero Banking Alliance (NZBA)

2023

Advanced our climate commercialization strategy, focused on integrating BMO Radicle’s capabilities, mobilizing the Commercial Bank strategy and implementing cross-bank enablers  
Established dedicated E&S Risk Management team within Enterprise Risk and Portfolio Management  
Completed climate scenario analyses covering physical and transition risk on climate-sensitive wholesale lending portfolios, transition risk on the trading book, physical risk on real estate lending, and physical risk on BMO’s own operations  
Chaired the Canadian Bankers Association’s Environmental Specialists Group and Climate Scenario Analysis Working Group  
Launched an internal Climate Products and Services page to support lines of business  
Launched our Greener Future Financing program  
Joined the UN Principles for Responsible Banking Nature Target Setting Working Group to innovate nature target-setting for banks  
Joined the Net Zero Engagement Initiative to expand BMO GAM’s Paris-aligned engagements to European-domiciled companies

# 2023 Task Force on Climate-related Financial Disclosures summary

The table below summarizes our approach to capturing climate-related opportunities and managing risks, using the Task Force on Climate-related Financial Disclosures (TCFD) framework. In 2023, we continued to make significant progress on our approach to climate-related governance, strategy, risk management, and metrics and targets.

## 2023 Task Force on Climate-related Financial Disclosures (TCFD) summary

### Governance

We have embedded climate risks and opportunities into our governance structure

#### Supporting responsible business behaviour, performance and long-term sustainability

#### Board

The full Board of Directors is actively engaged in overseeing BMO's climate strategy.

Board members received a training module on Climate Change Essentials for BMO in addition to quarterly sustainability newsletters and updates which include climate-related topics.

Each standing committee of the Board has a role to play in overseeing aspects of BMO's sustainability program that fall within their purview. The Board and/or its committees were engaged on climate-related topics that included:

- sustainability-related governance
- climate-related targets and transition action plans
- climate risk program
- sustainability-related disclosure, including the Climate Report
- sustainability and climate regulatory developments
- aligning executive compensation with performance on sustainability objectives
- BMO's Climate Ambition and climate strategy

See page 11 for more details on board oversight of climate change related topics.

#### Management

Management of BMO's approach to climate change is conducted by the following Executive Committee members and groups:

- Chief Executive Officer
- General Counsel & Executive Committee Sponsor for Sustainability and Chair, BMO Climate Institute
- Chief Risk Officer
- Chief Financial Officer
- Chief Human Resources Officer and Head of People, Culture and Brand
- Heads of Operating Groups
- Legal and Regulatory Compliance, including Chief Sustainability Officer, Sustainability Office and the BMO Climate Institute
- Enterprise Risk and Portfolio Management, including Environmental & Social Risk Management
- Office of the Chief Accountant
- Corporate Real Estate; Communications and Social Impact; Diversity, Equity and Inclusion
- Operating Groups

#### Management committees and forums

Management engages in several committees and forums, including:

- ESG Executive Committee
- Sustainability Council
- Disclosure Committee
- Risk Management Committee
- Risk Executive Committee
- Reputation Risk Management Committee
- Enterprise Regulatory Committee
- Impact Investment Fund Investment Committee
- BMO Global Asset Management (GAM) Investment Committee
- Climate Commercialization Working Group
- North American Commercial Banking Climate Steering Committee
- Personal and Business Banking Climate Council
- Sustainable Bonds Working Group
- Sustainable Finance and Climate Directive Working Group
- Sustainability- and Climate-related Financial Disclosure Working Group
- Climate and Sustainability Thought Leadership Forum
- Climate CoLab
- Climate Scenario Analysis Working Group

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## Strategy

We integrate climate-related opportunities into our business, building on our existing strengths and capabilities

### Net-zero outcomes as a key organizing principle for our business

- Continued to implement the PCAF and NZBA frameworks.
- Developed decarbonization roadmaps for commercial real estate lending portfolio and identified opportunities for carbon emission reductions by our clients.

### Expanding climate-related capabilities across our operations

- Continued to advance the work of the BMO Climate Institute focused on three key pillars – thought leadership and engagement, tools and capabilities and capacity building in four themes: decarbonization, resilience, climate and social impact, and biodiversity.
- Established our Climate Commercialization Working Group, a sub-committee of the ESG Executive Committee, to coordinate climate finance matters related to our Climate Ambition.
- Advanced our climate-related data and analytics program focused on building technology solutions to optimize the acquisition, identification and utilization of climate and sustainability data throughout the bank. Developed a multi-year roadmap to build our data and analytics capabilities to enable risk reporting, inform decisions, and track our progress on internal climate commercialization goals and other climate-related metrics.
- Conducted analysis to increase our understanding of climate impacts on low- to moderate-income communities and connect this information into our *Community Reinvestment Act*, philanthropic, and partnership-building programs to expand our support of the communities where we operate.
- Developed an enterprise-wide training roadmap to equip our employees with the knowledge and expertise to effectively engage clients on their net-zero journeys.

### Supporting clients on their carbon transition journey

- Continued to execute a coordinated enterprise climate commercialization strategy, championed by the ESG Executive Committee, with support from the BMO Climate Institute, and operationalization through the Climate Commercialization Working Group.
- Offered a range of carbon-related products, services and capabilities to clients across our businesses.
- Launched an internal Climate Products and Services intranet page to support lines of business.
- Completed the acquisition of Radicle Group Inc., a leader in GHG measurement, advisory, carbon credit origination and environmental commodity trading, advancing the bank's commercial strategy regarding climate change.

### Advancing our climate strategy

- Continued to improve our environmental management system, which covers Scope 1, 2, and 3 upstream emissions and BMO's Carbon Neutrality Program.
- Advanced our carbon offset diversification strategy with the purchase of 16,000 tonnes of voluntary offsets from The Great Bear (Haida Gwaii) Forest Carbon Project.

### Convening for climate action

- Collaborated with numerous associations, initiatives, working groups, multi-stakeholder partnerships and universities to advance climate action.

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## Risk management

We consider climate change to be a transverse risk driver that manifests through our identified material risks

### Incorporating climate change considerations into our enterprise risk management framework

- Embedded environmental and social risk considerations, including on climate risk, into enterprise policy documentation as appropriate in partnership with policy owners.
- Continued to develop heatmaps to aid in identifying physical and transition risk across our lending portfolio, trading book and physical operations, which help us prioritize our risk assessment efforts, including scenario analysis exercises.
- Risk tolerance thresholds remain in effect for climate-related key risk metric, lending to carbon-related assets, determined using 2017 guidance from the TCFD (see page 51), and informed by financed emissions and decarbonization pathway modelling.
- Advanced the identification of the transverse impacts of climate risk across each risk type in the Risk Taxonomy.

### Expanding climate-related scenario analysis and capabilities

- Onboarded third-party data and tools to continue the build-out of capacity to conduct climate scenario analysis.
- Conducted several scenario analysis exercises to evaluate the transition and physical risks on our portfolio of wholesale loans to several climate-sensitive sectors, physical risks on our portfolio of Canadian and U.S. residential mortgages, market risk to our trading and underwriting portfolio under a delayed transition, and physical risk on the operations of the bank and significant suppliers.

### Engaging with stakeholders on climate change

- Doubled the number of strategic suppliers engaged through the CDP Supply Chain program, accounting for 75% of our supplier spend.
- Monitored and responded to evolving international standards and regulations by conducting independent research, participating in global forums, and engaging in dialogue with our internal and external stakeholders.

## Metrics and targets

We track and report on opportunities and risks associated with climate change

### Measuring progress towards net zero through robust and transparent reporting

- Quantified and disclosed our Scope 1 and 2 emissions, and specific categories of Scope 3 emissions (categories 1, 5, 6, and 15 – purchased goods and services, waste generation, business travel and financed emissions of our investments).
- Pursued a 30% emissions reduction target within our operations by 2030 – a target determined using science-based approaches.
- Continued to achieve carbon neutrality for our own operations each year since 2010 and achieved 100% renewable electricity supply each year since 2020.
- Continued to track lending to carbon-related assets using the TCFD 2017 and 2021 guidance definitions. In 2023, the Board began to monitor our exposure to carbon-related assets under the 2021 TCFD definition. Our exposures to carbon-related assets have declined since 2019.
- Targeting net-zero financed emissions in our lending by 2050 and continued to track our financed emissions performance (BMO's Scope 3 emissions, category 15 – investments) for the following sectors: lending related to upstream oil and gas, power generation in Canada, the purchase of personal automobiles in Canada, residential mortgages in Canada, and agriculture.
- Expanded our sector coverage to include commercial real estate in our quantification and disclosure of financed emissions.

# Governance

We have embedded climate-related risks and opportunities into our governance structure.

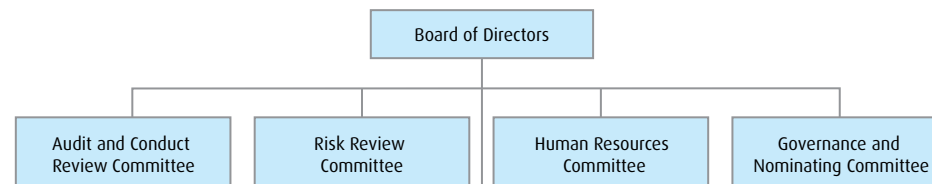
## Executive compensation

Embedded in our strategy, and fundamental to the bank's Purpose, sustainability is integrated into BMO's executive compensation design. 25% of executive variable pay funding is tied to the achievement of our Purpose and strategic objectives, which are non-financial goals. Each year, we include sustainability in our Purpose and strategic objectives, as well as in the individual goals for our executives, to capture opportunities and manage risks in areas such as sustainable finance, climate change, and diversity, equity and inclusion. This approach is central to delivering on our strategy, Purpose and commitments for a thriving economy, a sustainable future and an inclusive society. See page 42 of our [2024 Management Proxy Circular](#) to read about our strategic results for 2023 and their link to sustainability.

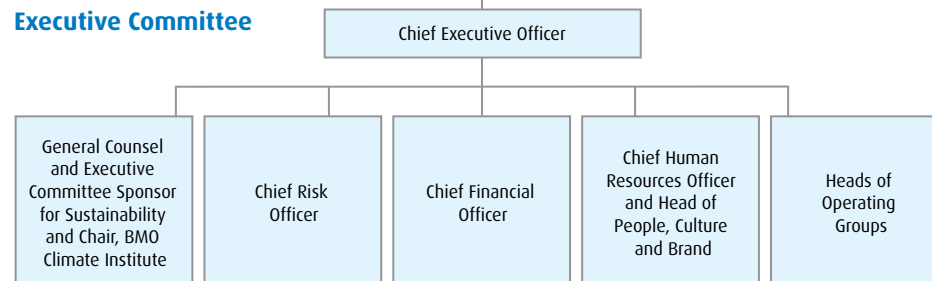
We continued to strengthen our governance of climate risk and opportunity management, in order to improve performance and accountability at all levels of the bank. The chart below details climate-related governance and oversight roles at the Board, executive and management levels. Our governance structure is described in more detail in the [2024 Management Proxy Circular](#).

**Figure 1: Climate-related governance structure**

### Board and Board committees



### Executive Committee



### Management



### Management committees and forums

ESG Executive Committee	Impact Investment Fund	Sustainable Bonds Working Group
Sustainability Council	Investment Committee	Sustainable Finance and Climate
Disclosure Committee	BMO Global Asset Management	Directive Working Group
Risk Management Committee	(GAM) Investment Committee	Sustainability- and Climate-related
Risk Executive Committee	Climate Commercialization	Financial Disclosure Working Group
Reputation Risk Management	Working Group	Climate and Sustainability Thought
Committee	North American Commercial Banking	Leadership Forum
Enterprise Regulatory Committee	Climate Steering Committee	Climate CoLab
	Personal and Business Banking	Climate Scenario Analysis
	Climate Council	Working Group

# Board oversight

The standing committees of BMO's Board have responsibility for the oversight of climate change risks and opportunities that fall within their purview.

When recruiting and evaluating BMO's directors, we consider their skills and experience in corporate responsibility and sustainable development practices. Nine of our twelve current independent directors have such experience. Our Board includes directors who have demonstrated experience in climate change issues and they are represented on each standing committee. We provide ongoing training to directors on sustainability topics, including climate risk and disclosure, which is also available to members of subsidiary boards. More information about our directors' skills and experience and ongoing education can be found in our [2024 Management Proxy Circular](#).

Responsibility for the oversight of sustainability is included in the mandates of our board of directors and each standing committee has responsibility for the oversight of sustainability, including climate change risks and opportunities, that fall within its purview. The full board meets with BMO's Executive Committee (which includes all of BMO's executive officers) during the annual board strategy session to discuss sustainability and climate strategy. The Board also reviews BMO's sustainability and climate-related disclosures, including the Sustainability Report and Climate Report. Climate-related matters and climate considerations are integrated into quarterly operating group reporting to the Board.

**Figure 2: Board oversight of climate-related topics**

Governance body	Climate-related agenda frequency	Role in climate governance	Climate-related topics discussed in 2023 and related training
Board of Directors	At least annually Two times in 2023	Oversees BMO's strategic planning process and annually approves a strategic plan that includes climate-related considerations.	<p>The following climate-related matters were discussed at Board meetings:</p> <ul style="list-style-type: none"> <li>• 2022 Climate Report</li> <li>• Shareholder proposals related to climate change</li> <li>• Enterprise strategic priority updates on climate, finance, and opportunities for growth</li> <li>• BMO's Transition Action Plan</li> </ul> <p>The following training opportunities were provided to the Board:</p> <ul style="list-style-type: none"> <li>• Sustainability Leaders podcasts</li> </ul>
Audit and Conduct Review Committee (ACRC)	At least twice annually Three times in 2023	<p>Approves BMO's Sustainability Report and Public Accountability Statement, as well as this Climate Report.</p> <p>Assesses the effectiveness of the bank's governance of sustainability matters, including on climate change.</p> <p>Reviews, together with management and the shareholders' auditors, enterprise sustainability disclosures included in financial reporting.</p> <p>Oversees internal controls on sustainability reporting and any external assurances and attestations regarding reported sustainability metrics.</p> <p>Jointly with the RRC, reviews BMO's climate-related targets and Transition Action Plan.</p>	<p>The following climate-related matters were discussed at meetings of the ACRC:</p> <ul style="list-style-type: none"> <li>• Approval of Climate Report and Sustainability Reporting suite</li> <li>• Environmental and social risk, including climate change</li> <li>• Corporate Audit's strategy and coverage</li> <li>• Regulatory developments, including the Office of the Superintendent of Financial Institutions' B-15 Guideline on Climate Risk Management</li> </ul> <p>The following training opportunities were provided to members of the ACRC:</p> <ul style="list-style-type: none"> <li>• BMO webinars on accelerating an Indigenous-led clean energy future; an Indigenous-led paradigm shift for economic reconciliation; and reaching the electric vehicle tipping point.</li> <li>• EY webinars on what the audit committee needs to know: financial reporting and SEC developments including climate change</li> </ul>

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Governance body	Climate-related agenda frequency	Role in climate governance	Climate-related topics discussed in 2023 and related training
Risk Review Committee (RRC)	Ad hoc Two times in 2023	<p>Oversees the identification, assessment and management of the bank’s exposure to environmental and social risks, including risks due to climate change, for adherence to risk management corporate policies, and compliance with risk-related regulatory requirements.</p> <p>Approves the Environmental and Social Risk Corporate Policy.</p> <p>Reviews and recommends to the Board for approval the Enterprise Risk Appetite Statement, which includes the Environmental and Social Risk Appetite Statement.</p> <p>Reviews revisions to the Risk Appetite Framework, including the addition of a qualitative statement and key risk metric (KRM) referencing climate change beginning in 2020 and reviewed annually thereafter.</p> <p>Jointly with the ACRC, reviews BMO’s climate-related targets and Transition Action Plan.</p> <p>Collaborates as needed with the chairs of other committees of the Board on subjects that span committee responsibilities, such as climate change and strategic risks.</p>	<p>The following climate-related matters were discussed at meetings of the RRC:</p> <ul style="list-style-type: none"> <li>• Review of the enterprise risk report on emerging events and scenarios, including short-term risks due to climate change</li> <li>• Updates on Environmental and Social risk, including climate risk</li> <li>• Annual approval of Risk Appetite Framework and quarterly update on the Risk Appetite Key Risk Metric Dashboard, both of which include Climate Risk information</li> </ul>
Human Resources Committee (HRC)	At least once annually Four times in 2023	Aligns executive compensation with performance, including performance on our Purpose and strategic objectives, which includes sustainability.	<p>The following climate-related matters were discussed at meetings of the HRC:</p> <ul style="list-style-type: none"> <li>• Review of executive incentive funding, which is impacted by our Purpose and strategic objectives, including sustainability</li> <li>• Review of the 2023 Proxy Circular Compensation Discussion &amp; Analysis section, which includes a narrative on sustainability considerations and their impact on executive pay outcomes</li> </ul>
Governance and Nominating Committee (GNC)	Ad hoc Five times in 2023	<p>Reviews the Board and committee charters regularly to assess the alignment of their responsibilities for overseeing ESG issues with their respective mandates.</p> <p>Reviews and recommends to the Board for approval the Statement of Corporate Governance Practices, which sets out the roles of the Board and committees related to strategy and climate change, among other matters.</p>	<p>The following climate-related matters were discussed at meetings of the GNC:</p> <ul style="list-style-type: none"> <li>• Shareholder proposals related to climate change</li> <li>• Shareholder engagement discussions on climate change</li> <li>• Significant changes in governance rules and regulations related to climate disclosures, proposals and litigation</li> </ul>

# Management's role

Led by BMO's Chief Executive Officer (CEO), our Executive Committee members and their respective teams are responsible for strategically integrating climate change considerations into their lines of business, corporate functions and geographic segments in order to achieve our Climate Ambition. BMO's General Counsel is the Executive Committee Sponsor for Sustainability and Chair, BMO Climate Institute and has accountability for the bank's sustainability and climate change programs.

The Environmental, Social and Governance (ESG) Executive Committee, composed of Executive Committee members and chaired by the General Counsel, provides oversight and leadership for our sustainability strategy, including our Climate Ambition. This provides enterprise coordination that links our climate expertise, risk evaluations and commercialization strategy, enabling our agile and market-responsive approach to risks and opportunities. BMO's Chief Sustainability Officer (CSO) serves as the Secretary of the ESG Executive Committee, and the BMO Climate Institute is a key internal resource for our climate initiatives.

**Figure 3: Management oversight of climate-related risks and opportunities**

Function	Executive Committee member and team	Role in climate governance
Enterprise	Chief Executive Officer (CEO)	Chairs the bank's Executive Committee and is a director of BMO Financial Group, including its U.S. subsidiary, BMO Financial Corp. The CEO reviews and approves climate-related targets.
Sustainability	General Counsel and Executive Committee Sponsor for Sustainability and Chair, BMO Climate Institute	Appointed by the CEO to be Executive Committee Sponsor for Sustainability and Chair, BMO Climate Institute. BMO's General Counsel reports directly to the CEO and is accountable for BMO's exposure to legal and regulatory risk and reputation risk, as well as our business conduct and ethics, procurement, and sustainability, including climate change. Chairs the ESG Executive Committee.  Co-sponsors the E&S Risk Policy. Acts as the second line of defence on the transverse impact of E&S Risk, including climate risk, on legal and regulatory risk and reputation risk, and oversees risk appetite in the context of these risk types.
	Sustainability Office and BMO Climate Institute	The Sustainability Office, which includes the BMO Climate Institute, is led by the CSO, and collaborates with partners across the bank to capitalize on climate-related opportunities and manage risks. The Sustainability Office supports the mandate of the General Counsel and leads sustainability and climate-related strategy development, bank-wide initiatives on environmental and social (E&S) risk in partnership with Enterprise Risk and Portfolio Management (ERPM) and other stakeholders, and the climate change commercialization strategy jointly with Corporate Strategy-Enterprise Transformation. In addition, the Sustainability Office leads sustainability-related disclosure, operational sustainability strategy and supports Finance with its ESG-focused investor relations, and Treasury and our Sustainable Finance teams with our approach to sustainable finance.  The BMO Climate Institute was established in 2021, as a key part of our Climate Ambition. It serves as a centre of expertise that convenes climate knowledge, data, and resources in order to be our clients' lead partner in the transition to a net-zero world. See page 19 for more information about the BMO Climate Institute.

(continued on next page)

Function	Executive Committee member and team	Role in climate governance
Risk	Chief Risk Officer (CRO)	<p>Provides leadership, independent review and oversight of enterprise-wide risks, develops and maintains the Enterprise Risk Management Framework (ERMF) and fosters a strong risk culture across the organization. Reports directly to the CEO, chairs the Risk Management Committee, is a member of the ESG Executive Committee and reports to the Board's Risk Review Committee on E&amp;S risk matters, including climate change.</p> <p>Co-sponsors the E&amp;S Risk Policy. Acts as the second line of defence on the transverse impact of E&amp;S risk, including climate risk on credit and counterparty risk, market risk, liquidity and funding risk, insurance risk and operational non-financial risk, and oversees risk appetite in the context of these risk types.</p>
	Head of Environmental and Social Risk Management	<p>Leads a dedicated second-line function accountable for embedding E&amp;S Risk considerations (including the physical and transition risks arising from climate change) into the Enterprise Risk Management Framework, in accordance with the E&amp;S Risk Corporate Policy and in close partnership with the Sustainability Office and the Risk Executive Committee. Responsible for developing and deploying an end-to-end climate risk management capability that meets regulatory expectations and strategic commitments.</p>
Finance	Chief Financial Officer (CFO)	<p>Jointly responsible for the enterprise's disclosure controls and procedures and chairs the Disclosure Committee. Reports directly to the CEO, provides the Board's Audit and Conduct Review Committee with fiscal year-end evaluation of the disclosure controls and procedures for financial reporting. As chair of the Disclosure Committee, the CFO also reviews the Sustainability Reporting suite. The CFO is a member of the ESG Executive Committee.</p>
People, Culture and Brand	Chief Human Resources Officer and Head of People, Culture and Brand (CHRO)	<p>Leads enterprise transformation and drives strategic direction, brand, and our Purpose and impact commitments, including climate strategy and is a member of the ESG Executive Committee.</p>
Business	Heads of Operating Groups	<p>Heads of BMO Capital Markets, BMO Wealth Management and Personal and Commercial Banking lead strategies to capture business growth opportunities, including climate finance. Each operating group organizes itself differently to capture climate-related opportunities and manage climate-related risks. The CEO and Group Head of BMO Capital Markets and the Group Head of BMO Commercial Bank, North America are members of the ESG Executive Committee.</p>

Management committees and forums oversee and support an enterprise-wide approach to climate-related governance.

**Figure 4: Management committees with a role in climate governance**

Forums and committees	Chair	Composition	Climate-related agenda frequency	Role in climate governance
ESG Executive Committee	General Counsel	CRO, CFO, CEO and Group Head of BMO Capital Markets, Group Head of Commercial Bank North America, CSO	At least quarterly	Oversees ESG matters regarding sustainability and climate change, including BMO's climate strategy, Climate Ambition and related net-zero commitments. Provides enterprise coordination that links our climate expertise, risk evaluations and commercialization strategy as we strive to have an agile and market-responsive approach.  The Climate Commercialization Working Group is a sub-committee that coordinates climate finance matters related to our Climate Ambition.
Sustainability Council	CSO	Senior leaders from BMO's lines of business and Corporate Services	Quarterly	A forum for dialogue on BMO's sustainability efforts, including our Climate Ambition.
Disclosure Committee	CFO	Senior management	Annually	Supports the accuracy and timeliness of the enterprise's public disclosures. Annually reviews BMO's sustainability disclosures, including this Climate Report.
Risk Management Committee	CRO	CEO, CFO, General Counsel, CHRO, Chief Technology & Operations Officer, Head of Enterprise Risk, operating group CROs, and operating group heads	At least quarterly	Reviews the Enterprise Risk Appetite Statement on E&S risk, including climate change, along with key risk metrics related to lending to carbon-related assets on which it receives quarterly reports. Receives updates on E&S risk, including climate risk.
Reputation Risk Management Committee	General Counsel	CFO, CRO and operating group heads	As needed	Reviews instances of significant or heightened risk to our reputation, including climate risk.
Enterprise Regulatory Committee	General Counsel and CRO	Senior management	Quarterly, or as needed	Supports the effective management of regulatory matters that affect BMO and is a forum for keeping senior leaders informed of key regulatory matters, including those related to climate change.
Impact Investment Fund Investment Committee	Head of Sustainable Finance and Head of U.S. Commercial Banking	Management with expertise relevant to the Impact Investment Fund's activities	As needed	Reviews and approves all investment decisions of the Impact Investment Fund by applying economic and impact metrics.
BMO GAM Investment Committee	Chief Investment Officer	Head of BMO GAM and heads of each investment desk, alternative investments, and product management	Quarterly, or as needed	Supports, approves, and oversees the adoption and application of BMO GAM's responsible investment activities, including its policies and approaches, for alignment with the best interests of BMO GAM's clients, through its Responsible Investing Working Group.

Additional committees, forums and working groups are established as needed to improve our management of climate-related risks and opportunities and to align our approach across the enterprise. In 2023, these groups focused on topics such as climate-related financial disclosure, climate and social impact, climate scenario analysis, data and analytics technology infrastructure, climate thought leadership and climate finance.

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# Strategy

We integrate climate opportunities into our business, building on our existing strengths and capabilities in order to be our clients' lead partner in the transition to a net-zero world.

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Achieving net-zero emissions by 2050 requires transformation in every sector of the economy. As a global bank, we aim to support our clients in the transformation by providing financial products and services that further net-zero objectives responsibly. Our clients will play a critical role in the transition to a net-zero carbon economy and we believe this transition presents opportunities – that range from gains in efficiency to increased customer demand for sustainability and climate transition financing.

In 2023, we integrated our Climate Ambition into BMO's strategic priorities. We continue to execute on our four-part enterprise-wide strategy to deliver on our climate commitments, manage risks, and to capture business opportunities while supporting our clients in the transition to net zero. Our enterprise-wide operating group and line of business initiatives are described in this section. In the Appendix, we describe transition planning for the sectors of our portfolio for which we have set decarbonization targets, and detail the actions we are taking to achieve these targets



# BMO's Climate Ambition

To be our clients' lead partner in the transition to a net-zero world

## Commitment

Acting on our commitment to a sustainable future, we're advancing the transformation to a net-zero world.

- Maintain carbon neutrality and 100% renewable electricity purchases for our operations and pursue a 30% emissions reduction by 2030.
- Target net-zero financed emissions in our lending by 2050 with intermediate targets for financed emissions reductions to be achieved in partnership with clients.
- Commit to transparency in emissions measurement and performance.

## Capabilities

BMO's Energy Transition and Sustainable Finance groups, supported by the BMO Climate Institute, provide thought leadership on climate change and finance, enabling us to be a premier advisor to clients and partner on climate risk and opportunity.

- Leverage BMO's sophisticated analytical capabilities to understand the impacts of climate change.
- Generate insights that enable our business, clients, and partners to flourish in the evolving climate landscape.
- Provide thought leadership informed by data-driven research and expertise.

## Client Partnership and Commercialization

We are committed to helping our clients adapt to climate change, offering products and services that support their transition to a net-zero economy.

- Engage with customers to advance climate adaptation strategies.
- Enable our clients' net-zero transitions with a tailored suite of green advisory, investment, lending and deposit products.
- Be a "one-stop-shop" for clients to meet their climate finance needs.

## Convening for Climate Action

The BMO Climate Institute is driving insights and bringing together industry, government, researchers and investors to catalyze the climate conversation, collaborate on solutions and accelerate a socially and economically just net-zero transition.

- Unite BMO employees and equip them with knowledge to inform meaningful climate policy and business activities.
- Develop solutions for climate-sensitive sectors in North America.
- Explore the synergies between climate and social impact goals.



# Commitment

We recognize that to achieve our Climate Ambition and be our clients' lead partner in the climate change transition, we cannot act alone. We participate in industry groups and initiatives to address universal challenges and facilitate economy-wide greenhouse gas emissions reductions. We are implementing approaches developed by these initiatives to help us address the climate-related risks and opportunities of our business operations and financing activities.

## Net-Zero Banking Alliance (NZBA)

Industry-led and convened by the United Nations, the NZBA brings together leading banks that are committed to working with their clients to align their lending and investment activities with pathways to net-zero emissions by 2050. We joined the NZBA in October 2021 and are setting intermediate and longer-term targets for reduced financed emissions that we will seek to achieve by working with our clients.

## Partnership for Carbon Accounting Financials (PCAF)

PCAF is a global partnership of financial institutions that work together to develop and implement a harmonized approach to assessing and disclosing the greenhouse gas (GHG) emissions associated with their loans and investments. We joined PCAF in January 2021, and have begun to quantify and report our financed emissions using PCAF's Global GHG Accounting and Reporting Standard for the Financial Industry (the PCAF Standard) as an important step toward setting net-zero-aligned targets for our portfolio.

## Principles for Responsible Banking (PRB)

The PRB provide a framework for a sustainable banking system. We joined PRB in February 2021, committing to align our business strategy with the United Nations Sustainable Development Goals (UN SDGs), the Paris Climate Agreement and relevant national and regional frameworks. Using PRB methodologies, we have identified climate change as one of the most significant impacts associated with our portfolio and have set targets to reduce those impacts as described in our [2023 Reporting and Self-Assessment](#).

## Net Zero Asset Managers initiative (NZAM)

NZAM is an international group of asset managers committed to achieving net-zero greenhouse gas emissions by 2050 or sooner, in line with global efforts to limit warming to 1.5°C, and supporting investing aligned with net-zero emissions by 2050 or sooner. BMO GAM was a founding signatory of NZAM in December 2020 and has set interim targets toward a goal of 100% net-zero assets under management by 2050. BMO GAM has adopted the Paris Aligned Investment Initiative's Net Zero Investment Framework to measure and manage our progress toward these commitments.

## International Sustainability Standards Board (ISSB)

BMO supports the ISSB in its aim to develop consistent, comparable, and reliable global sustainability standards to meet the needs of interested parties. The ISSB published its first two standards in June 2023: IFRS S1, a framework for companies to report on the sustainability-related risks and opportunities they face over the short, medium and long term, and IFRS S2, climate-related disclosures that are designed to be used with IFRS S1. BMO supported Canada's successful bid to host an office of the ISSB in Montreal, Quebec and remains engaged with the ISSB process.

## Commitment to carbon neutrality and 100% renewable energy purchases

BMO first achieved carbon neutral status in our operations in 2010 and has maintained carbon neutrality every year since. Our carbon neutral strategy aims for net-zero emissions in our operations to stimulate the market for emissions management technologies. Our strategy's three-pronged approach<sup>1</sup> is:

- **Reducing operational emissions:** We monitor and analyze our Scope 1 and 2 GHG emissions using an operational control approach aligned with the GHG Protocol. We also track our operational Scope 3 GHG emissions associated with purchased goods and services, waste generation and business travel. BMO has set and achieved four consecutive multi-year enterprise-wide emissions reduction targets since 2008. In 2019, we set a new target to reduce operational GHG emissions by 30% by 2030, using science-based methods from a 2019 baseline. We are making progress on this target by investing in energy-saving initiatives such as lighting retrofits, heating and cooling infrastructure upgrades, and improving our building envelope and operational efficiency. See page 43 for the metrics and targets we use to track our operational GHG emissions.
- **Matching electricity with renewable energy sources:** In 2019, we set a goal to match 100% of our global electricity use with electricity procured from renewable sources. We purchase Renewable Energy Certificates (RECs), which helps clean the electrical grids where we operate while investing in the renewable energy market and creating demand to stimulate its growth.
- **Investing in high-quality carbon offsets:** We purchase high-quality, independently verified carbon offsets that match our remaining Scope 1, Scope 2 and Scope 3 category 5 and category 6 emissions. We have diversified our approach to carbon neutrality by integrating carbon removal offsets such as those purchased from CarbonCure Technologies, a Canadian climate technology company that supports the decarbonization of the global concrete industry, and by pre-purchasing offsets from Direct Air Capture, in partnership with Carbon Engineering.

<sup>1</sup> Information on BMO's carbon neutral strategy is available on our [website](#).

# Capabilities

We are investing in infrastructure and cross-bank capabilities to achieve our Climate Ambition and commercialization goals. We are making progress on our four key strategic enablers: enterprise-wide coordination and tracking, the BMO Climate Institute, climate data and analytics, and training and education.

## Enabling horizontal coordination and tracking

We have established horizontal coordination to improve transparency across the bank and eliminate roadblocks. We formalized our climate finance strategy by establishing our Climate Commercialization Working Group, a sub-committee of the ESG Executive Committee that meet monthly to coordinate climate finance matters related to our Climate Ambition. This group discusses cross-bank climate-related commercialization matters related to strategy, data and analytics, climate risk, cross-bank innovation, thought leadership, government engagement, internal training, and performance tracking. More information about our climate commercialization strategy can be found on page 21.

## BMO Climate Institute

The BMO Climate Institute, established in 2021, is an enterprise resource that coordinates climate action across the bank and externally. It is a centre of expertise that convenes climate knowledge, data and resources in order to be our clients' lead partner in the transition to a net-zero world. The BMO Climate Institute bridges science, policy, finance, and economics to help accelerate climate change solutions. It supports our clients by engaging with industry, the public sector, academia and investors, and serves as a resource on decarbonization, resilience, social impact, and biodiversity.

In 2023, we refreshed the BMO Climate Institute's strategy and operating model to maximize engagement with interested parties. The BMO Climate Institute now focuses on three key strategic pillars:

- **Thought Leadership and Engagement:** driving industry insights and facilitating partnerships to advance climate change solutions.
- **Tools and Capabilities:** leveraging and accelerating tools to scale climate change goals and support BMO with sector and technology expertise.
- **Capacity Building:** building enterprise-wide knowledge of climate change topics.

Within these pillars, the BMO Climate Institute focuses on four key themes:

- Decarbonization
- Resilience
- Social Impact
- Biodiversity



> BMO Chicago Tower  
Nick Olivieri Photography

The BMO Climate Institute Fellowship Program was launched in 2022 to enable select BMO employees to work with the BMO Climate Institute on a part-time basis. The program draws on interdisciplinary expertise from across the enterprise to advance the bank's Climate Ambition. It engages employees from across the bank to develop partnerships that enable us to be our clients' lead partner in the transition to a net-zero world. The program helps the enterprise achieve its objectives to unlock and advance climate change solutions and enables employees to incorporate climate change knowledge into their day-to-day business activities. The BMO Climate Institute has completed two successful six-month rotations with eight Fellows who supported initiatives, such as decarbonization and social impact research that informs internal decision-making.

## Enhancing climate data and analytics

As part of our strategy, we are actively working on building enterprise data and analytics capabilities to enable risk reporting, inform decisions, and track our progress on internal climate commercialization goals and other climate-related metrics. We have established a climate-related data and analytics initiative focused on building technology solutions that will optimize the acquisition, identification and utilization of climate and sustainability data throughout the bank. This work supports BMO's strategy to continue building a high-performing, digitally enabled and future-ready bank, by enabling us to address our rapidly expanding data needs to drive actionable insights and analysis.

In 2023, we developed a multi-year roadmap to deliver technology solutions to improve upon data limitations and challenges referenced throughout this report. We are working on establishing program governance to coordinate the climate data needs from Finance, Risk, Sustainability, and the Operating Groups and to establish a cloud-based data infrastructure and environment to be leveraged by multiple programs to create efficient and effective solutions. In 2024, the program will be focused on expanding the cloud-based data infrastructure and starting to deliver digital solutions to address high priority use cases.

### Climate Analytics Spotlight:

#### Climate resilience and social inclusion

The social and economic impacts of climate change are not experienced equally by our clients or by the communities in which we operate. That's why we are combining leading climate science with high-resolution geospatial mapping and demographic data from across the U.S. and Canada (74,000 and 58,000 census tracts, respectively) to better understand the intersection of climate change and community vulnerability, and how climate impacts are projected to change over time. The BMO Climate Institute and the Fair and Responsible Banking team are leading this analysis to provide insight into how socio-economic vulnerability can be impacted by extreme heat, flood risk, and access to natural spaces.

This work will help answer questions such as: which communities are experiencing the most severe climate impacts today and which communities are expected to become more impacted under future warming scenarios; what actions can be taken in these communities to build resilience and promote an inclusive and sustainable future for all, and what key partnerships should we develop to advance this work?

This analysis will support our proactive response to climate-related updates to the U.S. *Community Reinvestment Act* and drive our philanthropic initiatives by identifying communities that are at higher risk from compounding climate impacts, both now and in the future. It will inform our decisions regarding building community partnerships and donating to academic and non-profit organizations who drive innovation in sustainability and initiatives that build climate resilience, promote energy efficiency and security, and increase community-scale renewable energy projects, and more.

## Training and educating our employees

Training and education are critical to delivering our Climate Ambition. We have developed an enterprise-wide training roadmap to equip our employees with the knowledge and expertise to effectively engage clients on their net-zero journeys. In addition to our foundational *Climate Change Essentials* module, we also have more than 1,000 climate and sustainability training resources available to all employees through our subscriptions to learning and development software.

In 2023, we developed an internal Climate Products and Services page to help our business units better understand and navigate opportunities to support our clients' needs by providing innovative and complementary products. The intranet page is updated quarterly to keep employees informed of the many ways we can help advance our clients' net-zero transitions.

### Employee Engagement on Climate at BMO

In 2023, we developed a framework to educate and engage our employees on the importance of climate change and the opportunity that exists when we align our collective efforts with our Climate Ambition.

**Leadership Alignment:** Starting at the top with our senior leaders understanding and aligning objectives with our Climate Ambition.

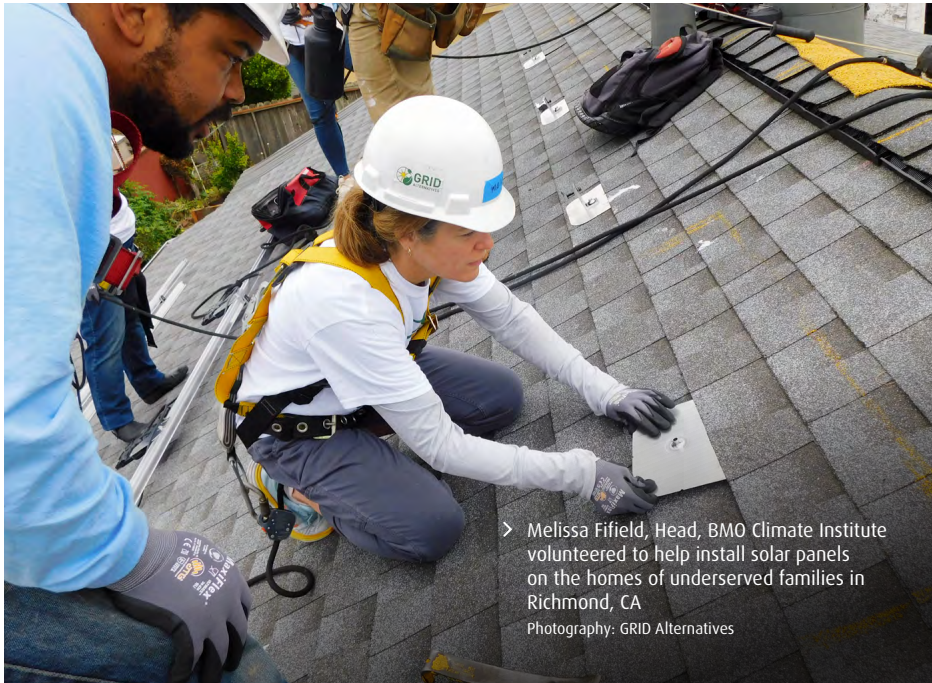
**Training and Resources:** We have made our Climate Ambition accessible to employees through our foundational *Climate Change Essentials* training, launching it bank-wide and creating resources such as stories, podcasts and our internal Climate Products and Services page.

**Measure and Assess:** We measure and assess employee engagement on climate topics, then tailor action plans to connect our Climate Ambition with employees' values and their day-to-day work.

**Continue Momentum:** We sustain employee engagement by providing thought leadership education and opportunities for employees to participate in climate and sustainability initiatives, emphasizing that sustainability is integral to our Purpose and business strategy.

At BMO, we are educating, engaging and equipping our employees to capitalize on the opportunities presented by the transition to net zero. We are committed to making a positive impact for a more sustainable future for our clients, colleagues and communities.

# Client partnership and commercialization



> Melissa Fifield, Head, BMO Climate Institute  
 volunteered to help install solar panels  
 on the homes of underserved families in  
 Richmond, CA  
 Photography: GRID Alternatives

Our clients play a critical role in the transition to a net-zero carbon economy. The climate finance opportunity is substantial, with hundreds of billions of dollars of investment required to achieve net-zero goals globally. These opportunities are increasing as policy, regulation and technology converge to accelerate carbon transition and climate adaptation.

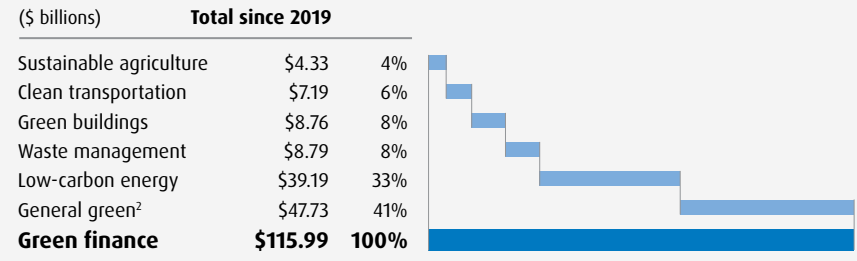
We are executing our strategy through a coordinated approach, with oversight by the ESG Executive Committee, support from the BMO Climate Institute, and operationalization through the Climate Commercialization Working Group. Each of our lines of business and operating groups are working to capture this opportunity by partnering with our clients. We offer a wide range of innovative and complementary climate-related products and services to help clients decarbonize and adapt to the impacts of climate change. We will remain focused on innovation and execution to support our clients in reaching net-zero emissions.

## BMO's Sustainable Finance Commitment

Since 2019, BMO has mobilized \$330 billion<sup>1</sup> in capital to support companies pursuing sustainable outcomes, exceeding our enterprise-wide commitment to mobilize \$300 billion by 2025. Of this amount, \$116 billion supported positive climate-related outcomes in areas such as clean transportation, low-carbon energy, green buildings, waste management and sustainable agriculture.

More information on our sustainable finance activity and tracking methodology can be found in our [2023 Sustainability Report](#).

**Figure 5: Sustainable financing by green outcome**



<sup>1</sup> This excludes Bank of the West and BMO Radicle activities. This includes sustainable bond underwriting, sustainable equity and debt financing, sustainable finance advisory services, loans for clients and projects pursuing sustainable outcomes, and sustainable investments. For more information on our accounting methodology, see individual definitions for each transaction type in the [glossary](#).

<sup>2</sup> Includes green labelled transactions or transactions that involve multiple green outcomes such as those listed here.

## BMO Capital Markets

Our Capital Markets operating group has established a strong foundation of energy transition and climate-related products and services, including those delivered through the Energy Transition Group, Sustainable Finance team and BMO Radicle.

**Figure 6: Examples of BMO Capital Markets' climate-related product offerings and service capabilities**

<b>Product offerings</b>	<ul style="list-style-type: none"> <li>• Green, social and sustainability-labelled bonds for sustainability and climate transition projects (global)</li> <li>• Sustainability-linked bonds that have linked financial terms with sustainability performance targets (global)</li> <li>• Loans with dedicated green and/or social use of proceeds or sustainability-linked loans that link pricing incentives to sustainability performance targets (global)</li> <li>• Sustainability-linked derivatives that reward ESG performance (global)</li> <li>• Sustainability-linked deposits with interest benefits tied to the achievement of sustainability performance targets (global)</li> <li>• Sustainable finance loan guarantee program in partnership with Export Development Canada, helping Canadian exporting companies finance decarbonization projects (Canada)</li> <li>• Sustainable trade and supply chain finance that incentivizes sustainability, transparency and traceability of supply chains (global)</li> <li>• Financing partnership with the Canada Infrastructure Bank to incentivize and fund building energy retrofits (Canada)</li> <li>• Compliance and voluntary carbon offsets (global)</li> </ul>
<b>Service capabilities</b>	<ul style="list-style-type: none"> <li>• ESG advisory services to help clients navigate pressing questions about ESG, and climate and energy transition, in the context of shifting regulatory and market expectations</li> <li>• Carbon market expertise, through BMO Radicle, in carbon credit development, trading in environmental commodities (including compliance and voluntary carbon markets), climate advisory solutions, and technology-driven emissions quantification and management</li> </ul>

## Sustainable Finance

The Sustainable Finance team is comprised of experts who bring a sustainability lens to client financing, by helping originate, structure and execute transactions and projects that support clients' sustainability and climate objectives.

The Sustainable Finance team helped mobilize capital in a number of industry firsts for sustainable financing in 2023:

- Sustainability advisor to Bell on their Sustainability-linked Derivative (SLD), one of the first SLDs executed for a Canadian corporation.
- First Canadian bank to structure a Sustainability-Linked Deposit, acting as a sustainability structuring agent for Zurn Elkay Water Solutions.
- Entered a unique arrangement with Banco do Brasil to provide trade loans linked to sustainability, with an emphasis on exporting Brazilian agricultural products supporting sustainable and low-carbon agriculture.

## Energy Transition Group

The Energy Transition Group (ETG) supports clients with investment and corporate banking products and services, as they decarbonize their businesses and pursue energy transition opportunities. The ETG was established in 2021 to provide knowledge, tools, and support to BMO's industry groups as they engage with clients on their energy transition initiatives. The group draws on industry sector specialists from BMO's energy, power utilities and infrastructure, metals and mining, industrials, food consumer and retail and sustainable finance groups. They provide a broad range of expertise in energy transition developments and opportunities, including:

- Hydrogen and fuel cells
- Energy transition finance
- Electricity storage
- Low-carbon fuels and renewable natural gas
- Carbon capture, use and sequestration
- Energy transition minerals
- Renewable and nuclear power
- Electric mobility and zero-emission vehicles
- Nature-based solutions
- Energy demand-side management
- Circular economy solutions, including waste-to-value processes.

In 2024, we will continue to expand our product suite and increase the ETG's sector coverage to encompass a broader scope of transition opportunities.

## BMO Radicle

BMO acquired Radicle Group Inc. (now called BMO Radicle) in December 2022. BMO Radicle’s team of over 100 carbon professionals brings deep technical expertise that enables us to provide sustainability solutions for our clients across Canada, the U.S. and Australia. BMO Radicle’s key service areas include:

Service		Impact
<b>Carbon credit development and advisory</b>	<ul style="list-style-type: none"> <li>• BMO Radicle is the largest developer of compliance-grade credits in Canada with capabilities spanning across the U.S. and Australia</li> <li>• Help companies identify and assess opportunities to develop carbon credits and monetize emissions reductions across a broad spectrum of emissions-reducing activities for clients in the oil and gas, solar, transportation and fleet management, forestry and agriculture industries</li> <li>• Our proprietary software simplifies and accelerates the credit development process and maximizes the integrity and market price of carbon credits by performing emission reduction calculations and completing submissions to registries to validate, verify and serialize credits</li> <li>• Help companies unlock value by aggregating emission reduction activities across multiple companies to generate sufficient volumes to make credit generation economical, and apportion credits back to the clients</li> <li>• Support clients on their sustainability journeys with advisory services, including life-cycle analysis and carbon intensity benchmarks, landscape assessments, credit generation feasibility assessments and more.</li> </ul>	<ul style="list-style-type: none"> <li>• In fiscal year 2023, we helped our clients develop and originate 1.2 million carbon credits.</li> <li>• Since 2008, we developed more than 10 million tonnes CO<sub>2</sub>e of carbon credits.</li> <li>• In calendar year 2023, we had over 30 advisory engagements.</li> </ul>
<b>Carbon credit sales and trading</b>	<ul style="list-style-type: none"> <li>• Help companies of all sizes, and institutional investors, navigate carbon market complexities and optimize their offsetting strategies</li> <li>• Provide customized guidance on compliance markets, and international voluntary markets, across a broad suite of project types that avoid, remove or reduce GHG emissions</li> <li>• Secure a strong supply of high-quality carbon credits through over-the-counter and long-term offtake agreements with reputable credit developers</li> <li>• Our due diligence helps to de-risk clients’ carbon markets activities by focusing on the highest quality credits that are additional, permanent, avoid carbon leakage and meet a verified standard.</li> </ul>	<ul style="list-style-type: none"> <li>• In 2023, traded environmental commodities valued at US\$100 million across compliance and voluntary markets.</li> <li>• In 2023, purchased 1.0 million tonnes of CO<sub>2</sub>e for resale, helping stimulate demand for solutions that reduce emissions and generate credits.</li> </ul>
<b>Carbon accounting software and training</b>	<ul style="list-style-type: none"> <li>• Climate Smart is a software, training and sustainability advisor-supported program that enables organizations to get started on their transition to net zero by measuring and reducing their Scope 1, 2, and 3 emissions in line with the GHG Protocol</li> <li>• Clients receive training on GHG emissions basics, use Climate Smart to collect data to create a GHG inventory, and work with our sustainability advisors to develop an emissions reduction plan and set reduction targets</li> <li>• Climate Smart helps clients identify emissions reduction opportunities; reduce energy costs; track the benefit of retrofits, operational improvements and equipment upgrades; gain quantified data for reporting and setting goals.</li> </ul>	<ul style="list-style-type: none"> <li>• In 2023, we helped clients quantify 3.3 million tonnes of CO<sub>2</sub>e.</li> </ul>

### Client spotlight:

## Business growth without emissions growth: Global Container Terminals

Global Container Terminals (GCT) is the largest tenant in the Port of Vancouver, operating since 1907. Its terminals, GCT Deltaport and GCT Vanterm, are major gateways for container trade from the Asia Pacific to Canada.

GCT has calculated its carbon footprint using Climate Smart since 2014. With the guidance of BMO Radicle, GCT has implemented numerous emission reduction strategies, including lighting upgrades at terminals, and improving its container-handling equipment fleet. GCT has a 10-year Fuel Efficiency and Emissions Reduction Plan from 2020 to 2030 and has set a target to achieve a 45% absolute reduction in emissions by 2030.

GCT’s dedication to climate action has realized a 9% reduction in Scope 1 emissions and a 46% reduction in Scope 2 emissions compared to its 2014 baseline year.



In 2023, GCT collaborated with BMO Radicle to develop its first low-carbon fuel credits under the British Columbia Low-Carbon Fuel Standard. These credits are a result of GCT’s early investments in electric vehicle charging infrastructure and will be instrumental in creating a revenue stream to support GCT’s continuous upgrades of its infrastructure, and to reduce its GHG emissions from transportation.

### Impact investing

Following its launch in 2019, BMO has increased the size of its Impact Investment Fund to \$350 million in order to drive sustainable outcomes. The fund invests in companies with technologies, products and solutions that enable BMO and its clients to create positive environmental impact.

The fund leverages BMO’s broad network of clients, partners and experts. Its objective is to find and scale impactful solutions that facilitate the achievement of our corporate clients’ sustainability goals across three themes and eight areas of focus.

**Figure 7: BMO Impact Investment Fund themes and areas of focus**

Decarbonization	Circular economy	Sustainable food and agriculture
Electrification, energy efficiency, energy storage, GHG emission sequestration and other solutions	Waste management, recycling, sustainable products, packaging and materials and other solutions	Production efficiency improvements, product innovations and other solutions
 Renewable energy and storage  Carbon capture, utilization and storage  Reforestation  Risk software	 Waste management and circularity  Sustainable materials  Industrial supply chain efficiency	 Food/Agtech

The fund backs scalable technologies that address these sustainability goals. It invests in companies with proven technology and commercial revenue, as well as the capacity to leverage additional capital to scale their business. Proof of impact is a key investment criterion. Our procedures for assessing impacts are outlined in our [Operating Principles for Impact Management Disclosure Statement](#).



> Sound Senior Agronomist, Jessica Pupo examines silage corn plants in southern Washington  
Photography: Lucas Oliver Oswald



## Commercial Banking

To date, investment has been concentrated in green projects funded through the capital markets. Going forward, it is anticipated that commercial clients will increase their transition-related capital investment. To meet this growing demand, we have developed innovative product offerings, such as sustainability-linked deposits and a one-of-a-kind retrofit financing product for real estate owners. We will continue to develop innovative climate offerings and expand our sector coverage. We have established a North American Commercial Bank Climate Steering Committee with representation from across the bank, including our Capital Markets, Risk, Sustainability and Corporate Strategy groups, to track our progress and eliminate roadblocks.

**Figure 8: Examples of Commercial Banking’s climate-related product offerings and service capabilities**

<b>Product offerings</b>	<ul style="list-style-type: none"> <li>• Sustainability-linked loans aligned with the client’s sustainability goals (North America)</li> <li>• Sustainability-linked deposits based on meeting ESG-related performance objectives (North America)</li> <li>• Retrofit construction financing with reduced lending rates linked to projects with GHG reductions for commercial building owners and operators in collaboration with the Canada Infrastructure Bank (Canada)</li> <li>• Leasing solutions for commercial and industrial solar projects that qualify for federal tax credits (North America)</li> <li>• Equipment loans and capital lease structures for various commercial zero or low-carbon technologies, including solar power, battery/hydrogen fuel cell mobility vehicles and electric vehicles (EV) charging (North America)</li> <li>• Bespoke offerings for agriculture clients in collaboration with BMO’s Energy Transition Group (e.g., funding for green initiatives, renewable natural gas transaction expertise) (North America)</li> </ul>
<b>Service capabilities</b>	<ul style="list-style-type: none"> <li>• Leveraging BMO Radicle’s capabilities to assist clients with carbon accounting and disclosure, planning and achieving GHG reductions with BMO financing, credit generation and trading</li> <li>• Utilizing the BMO Climate Institute’s research on market and policy signals and macro trends to inform client prioritization of decarbonization activities</li> </ul>

## Financing opportunity with building retrofits

Buildings and construction account for nearly 40% of carbon emissions.<sup>1</sup> In Canada, there are approximately 10 million buildings that would benefit from energy efficiency retrofits,<sup>2</sup> such as improving the building envelope, and mechanical, electrical and plumbing systems in order to save on utility bills and reduce GHG emissions.

In partnership with the Canada Infrastructure Bank, BMO is the first bank in Canada to offer a financial ecosystem that supports building owners and operators by financing energy efficiency retrofits projects at deeply discounted interest rates that decrease as GHG emission reductions are achieved.

### Client spotlight:

#### Making historic buildings sustainable: Sidewalk Real Estate Development

BMO proudly partnered with Sidewalk RED to fund its ambitious conversion of the 1970s Centennial Building in Halifax, Nova Scotia. This high-rise office building is being transformed into 141 new residential units and a combined 50,000 square feet of retail and office space, while reducing the building’s operational emissions by 67%. This project is not just about reducing emissions, it’s about creating a vibrant community. By repurposing rather than demolishing the building, Sidewalk RED is avoiding more than 5,000 tonnes of embodied carbon emissions that would result from a rebuild.

## Empowering sustainability through deposits

BMO has launched an innovative Sustainability-Linked Deposit (SLD) product that helps our clients achieve their sustainability goals. BMO’s SLD offering enables businesses to optimize working capital based on their sustainability efforts and accomplishments.

### Client spotlight:

#### BMO’s innovative deposit for Zurn Elkay Water Solutions

Zurn Elkay Water Solutions, a leader in water solutions, is an early beneficiary of BMO’s SLD product. The company has made significant progress on its ESG objectives, and in 2023 set new time-bound goals covering a range of ESG topics. In partnership with BMO, Zurn Elkay plans to substantially reduce its Scope 1 and 2 emissions by 50% by 2030 compared to 2021 levels.

<sup>1</sup> Source: [UN Environment Programme](#)

<sup>2</sup> Source: [Efficiency Canada](#)

## Personal and Business Banking

Research has shown that there is strong and broad consumer demand for climate-linked financial products and that consumers are willing to pay more for climate-linked savings and investment products and advisory services in exchange for demonstrable impact.<sup>1</sup> BMO's Personal and Business Banking group is expanding its offerings to clients and working with the BMO Climate Institute to promote its products and services with its retail customers. We have established a Personal and Business Banking Climate Council to share progress and discuss opportunities for collaboration.

**Figure 9: Examples of Personal and Business Banking's climate-related product offerings and service capabilities**

<b>Product offerings</b>	<ul style="list-style-type: none"><li>• Eco Friendly Home Guide and financing and insurance rebate program (Canada)</li><li>• Greener Future Financing – discounted loans for agriculture clients that are attempting to reduce emissions and/or build climate resilience in their operations (Canada) and discounted loans for business banking clients' projects that promote climate resiliency (U.S.)</li><li>• ESG-linked GIC, a progressive GIC linked to an ESG index to support sustainability and deliver a high rate of return over the medium term (Canada)</li><li>• Robust line up of Sustainable Mutual Funds offered to retail investors as managed solutions or standalone funds (Canada)</li></ul>
<b>Service capabilities</b>	<ul style="list-style-type: none"><li>• Support clients in understanding their climate transition risks and opportunities by producing climate and ESG surveys and providing consumer insights</li></ul>

## Supporting climate-resilient agriculture

In 2023, BMO launched the Greener Future Financing program, Personal and Business Banking's first climate financing initiative. It helps agriculture businesses build future-ready, climate-resilient operations. We have earmarked \$30 million to enable farmers and business owners access the capital they need to reduce carbon emissions and adapt to climate change. This program provides guidance and advice to clients to help them understand the impacts of climate change and the value of implementing climate-related protection measures.

In addition to generating value for our clients, this program helps accelerate decarbonization efforts across the agricultural sector and supports our Climate Ambition, which is a key area of focus for BMO, as the largest commercial agricultural bank in North America. The program will also enhance BMO's One Client approach by creating collaboration opportunities for BMO's Energy Transition Group, Business Banking and Investment Banking teams.



<sup>1</sup> Source: [McKinsey](#)

## BMO Wealth Management

Our Wealth Management operating group executes our climate strategy by developing meaningful investment solutions and helping sales channels sell them to suitable clients. Wealth Management provides transparent client reporting, external thought leadership, and internal product-specific training.

**Figure 10: BMO Wealth Management's climate-related product offerings and service capabilities**

<b>Product offerings</b>	<ul style="list-style-type: none"><li>• <b>BMO GAM product suite:</b> ESG-focused investment products available to clients include ETFs, thematic mutual funds, including the new BMO Global Climate Transition Fund, and multi-asset portfolios with asset allocation oversight and monitoring</li><li>• <b>External mandates:</b> We partner with global investment managers to offer Private Wealth clients industry-leading ESG-thematic strategies that provide exposure to energy transition efforts</li></ul>
<b>Service capabilities</b>	<ul style="list-style-type: none"><li>• <b>Client reporting:</b> BMO InvestorLine provides ESG Insights that help investors identify industry leaders considering long-term categories such as climate change risk, human capital, corporate governance, board diversity and more; allows investors to stay informed on industry-specific business issues that may create risks and opportunities; and provides a basis to analyze the performance of companies relative to international standards and principles</li><li>• <b>Thought leadership:</b> Thought leadership is delivered by teams such as BMO GAM's Responsible Investment team through marketing materials, media appearances and internal webinars, ensuring our sales force has access to reliable educational resources regarding the energy transition and is equipped to help our clients achieve their climate objectives</li><li>• <b>Training:</b> Hosted an annual Responsible Investment due diligence conference for all BMO Private Wealth advisors and counsellors that featured investment strategies with climate objectives and themes</li></ul>

## BMO InvestorLine: Helping clients build ESG solutions and value-aligned portfolios

A BMO InvestorLine poll<sup>1</sup> found that 65% of Canadians want to invest in companies that are aligned with their values on climate change, human rights, responsible governance, and ethical practices. 45% of Canadian investors want to learn about a company's ESG practices before investing, and 75% believe they can make profitable investments while adhering to their values.

To help self-directed and adviceDirect investors assess the ESG impact of their investments and construct value-aligned portfolios, BMO InvestorLine launched its ESG Insights feature in January 2023, which gives investors ratings on ESG aspects of individual stocks and exchange-traded funds, and is integrated into BMO InvestorLine's web and mobile platforms. It enables investors to evaluate a company's performance on ESG, and compare it to stock prices and industry peers.

<sup>1</sup> The BMO ESG Investing Survey was conducted by Pollara Strategic Insights via an online survey conducted with 1,538 adult Canadians from January 13th to 15th, 2023. Results from a random sample of this size can be considered accurate to within ±2.4%, 19 times out of 20.

# Convening for climate action

We collaborate with many associations, initiatives, working groups, partnerships, and universities to advance climate action. These alliances increase our knowledge and expertise regarding climate change, and our understanding of the risks and opportunities of transitioning to a net-zero carbon economy.

**Industry associations:** BMO and BMO GAM participate in numerous global industry associations dedicated to tackling climate action, including:

- UNEP FI Net-Zero Banking Alliance (NZBA)
- UNEP FI Principles for Responsible Banking
- Ceres
- Climate Action 100+
- Institutional Investors Group on Climate Change (IIGCC)
- Net Zero Engagement Initiative (NZEI)
- Net Zero Asset Managers initiative (NZAM)
- Climate Engagement Canada (CEC)

**Partnerships:** In 2023, the BMO Climate Institute partnered with the following institutions that focus on achieving net-zero emissions by 2050:

- Sustainable Finance Action Council (SFAC) Net-Zero Capital Allocation Working Group (NZ CAWG): This group was established by the federal government to make recommendations for a net-zero investment strategy. BMO had leadership responsibilities on the Working Group's Steering Committee and Secretariat, with the mandate of making recommendations on:
  - Transition finance – develop strategies to drive private capital for the transition to a net-zero world
  - Carbon pricing and credits – design carbon pricing guarantees and carbon credit generation protocols
  - Resilience finance – identify and evaluate financing needed for adaptation and resilience to physical climate risk
- GRID Alternatives: Established a partnership to provide low-to-no-cost solar energy systems and storage, clean mobility, and job training programs to underserved families in California, Colorado, and Native communities in western U.S. The installations will reduce greenhouse gas emissions by 145,000 metric tons per year and reduce the cost of household energy consumption for families in vulnerable communities.
- Concordia University: Established a research partnership to accelerate the decarbonization of real estate.
- University of California: Established a research partnership with the Berkeley Center for Responsible Business focused on the impacts of climate change on agriculture.
- University of Illinois-Chicago: Hosted its first Climate Action and Financing workshop focused on equipping municipal leaders with knowledge and tools for effective climate action in their communities. BMO participated as a speaker and will continue ongoing discussions after the workshop.
- Circular Economy Leadership Canada (CELC): BMO is a strategic partner that supports CELC's efforts to connect Canada's circular economy community through thought leadership, technical expertise and collaborative platforms, in order to drive Canada's transition to a low-carbon, circular economy.

## Driving the climate conversation

Climate concerns are a priority for governments, business leaders and investors. Last year, BMO hosted and participated in various forums discussing climate risks, opportunities and the energy transition. We will keep leading these important conversations in support of our ambition to be our clients' lead partner in the transition to a net-zero world.

At the **IBM Think Tank Conference** in Orlando, Florida, our Chief Sustainability Officer participated in a panel discussing the role that financial institutions and big data play in creating a sustainable future.

At the **Sibos 2023 Conference** in Toronto, Ontario, the Head of BMO Climate Institute led a panel discussion called *The 2+2=5 effect* on the power of ESG partnerships to foster sustainable investing and social action.

The Head of BMO Climate Institute led panel discussions during **Climate Week NYC**, on *Driving real progress toward sustainable economies* and *Where are we on the path to net zero?*

At the **International Economic Forum of the Americas Conference** in Montreal, Quebec, our President of BMO Financial Group, participated in the *Green and Clean: Redefining Finance for a Sustainable Future* panel on funding the energy transition and the need for stronger collaboration across industries to build momentum toward a net-zero economy.

BMO hosted our 32nd **Global Metals, Mining & Critical Minerals Conference** in Hollywood, Florida, which focused on the increasing importance of critical minerals in fuelling the energy transition.

At our 18th annual **Farm to Market/Chemicals Conference** in New York, we brought agri-food industry leaders together to discuss the future of the industry, including food inflation and security, the impact of renewable diesel and green energy, the reduction of food waste and the growth of the carbon market.

BMO also participated in other key industry gatherings, including the **Reuters Global Energy Transition Summit**, **Cleantech Forum North America**, **Retrofits Canada Conference**, the **EV & Charging Expo** and **The Conservation Alliance Summit**.

**Tune in to BMO's popular, award-winning Sustainability Leaders** podcast (4,100+ subscribers, 120+ episodes). Our podcast won Gold in the Best Business Podcast category at the 20th Annual International Business Awards; Platinum in the Podcast series category at the Annual Hermes Creative Awards; and won in the B2B External Communications Audio category at the 29th Annual FSC Portfolio Awards.

**Collaborating with universities:** BMO has made charitable grants to academic institutions to support the following climate-related initiatives:

- University of Saskatchewan – established the BMO chair in Regenerative Agriculture and BMO Soil Analytical Laboratory (2024-2033)
- University of Calgary – supported the Renewable Fuel Initiative to find innovative and cost-effective solutions to produce renewable fuels (2023)
- Queen’s University – supported the establishment of Canada’s first Institute of Sustainable Finance (2022-2026)
- Haskayne School of Business, University of Calgary – established the BMO Sustainable and Transition Finance Professorship (2021-2025)
- Permafrost Institute, Yukon University Research Centre – supported the establishment of the Permafrost Institute and permafrost research and solutions to address the challenges of permafrost thaw for Canada’s North (2021-2024)
- Dalhousie University – created the BMO Financial Group Graduate Scholarship in Agriculture (2017-2026)
- University of Guelph – supported the Bioproducts Discovery and Development Centre, which develops greener alternatives to non-renewable materials in manufacturing sectors and consumer goods and services (2014-2023)

**Thought Leadership:** BMO promotes climate solutions and shares important industry insights. The BMO Climate Institute commissioned its second annual survey of North American businesses to uncover attitudes, challenges and trends around climate change and sustainability. The survey was expanded in 2023 to include more companies of all sizes in both Canada and the U.S. Results and insights from the survey are available [online](#).

### **BMO Global Asset Management (BMO GAM)**

BMO GAM regularly engages with policy-makers to encourage action on climate change. In 2023, BMO GAM submitted comment letters on various environmental disclosure standards, such as draft guidance from the Taskforce for Nature-related Financial Disclosures (TNFD), the U.S. Environmental Protection Agency’s methane standards for the oil and gas industry, and the International Sustainability Standards Board Consultation on Agenda Priorities.

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See BMO GAM’s Responsible Investment Annual Report [here](#).

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### **American Bankers Association (ABA) – ESG Working Group**

BMO participates in the ESG Working Group of the ABA, a group representing banks of all sizes in the United States.

### **Bank Policy Institute (BPI) – Climate Working Group**

BMO is participating in the Climate Working Group of BPI, a non-partisan public policy, research and advocacy group, representing leading banks in the United States.

### **Canadian Bankers Association (CBA) – Environmental Specialists Group, Climate Scenario Analysis Working Group, OSFI B-15 Implementation Working Group and NZBA Working Group**

BMO participates in the CBA’s Environmental Specialists Group – an industry forum that monitors regulatory developments and drafts submissions to domestic and international regulators on consultations related to climate risk management and sustainability- and climate-related financial disclosures. E&S Risk Management and the Sustainability Office co-chaired this group from January to June 2023.

Co-Chaired by BMO’s Climate Risk Analytics, the CBA’s CSA Working Group engages in discussions on climate scenario analysis matters in particular as it pertains to OSFI’s planned Standardized Climate Scenario Exercise, whereas the OSFI B-15 Implementation Working Group shares best practices for preparing to meet OSFI’s regulatory expectations under Guideline B-15: Climate Risk Management.

BMO also participates in the NZBA Working Group, which is a forum for NZBA members to discuss guidance and initiatives related to the NZBA.

### **Canadian Fixed Income Forum – Sustainable Finance Virtual Network**

BMO and the Bank of Canada co-chair this network of financial market participants with the goal of further integrating sustainability features into fixed income products and supporting the transition to a more sustainable economy. BMO also chairs the Sustainable Finance Virtual Network’s Natural Capital Working Group, composed of sustainability professionals who meet regularly to discuss key developments that impact biodiversity and nature-based solutions.

### **Ceres – Company Network and Investor Network**

BMO is a member of Ceres, a non-profit organization whose mission is to transform the economy in order to build a just and sustainable future. BMO participates in the Company Network, which collaborates with Ceres on engagement with interested parties, sustainability goals and resiliency in operations and supply chains. BMO GAM also participates in the Investor Network, which focuses on advancing sustainable investment practices, engagement with corporate leaders, and advocating for key policy and regulatory solutions to accelerate the transition to a just, sustainable, net-zero economy.

### **Climate Risk Consortium, Risk Management Association**

BMO joined this consortium in 2022. It is the first industry consortium with the sole purpose of advancing best practices in climate risk management in the financial services industry, and creating thought leadership across all three lines of defence.

### **Climate risk industry forums and working groups**

BMO participates in other climate risk industry forums and working groups, including those organized by the Institute of International Finance (IIF), Institute of International Bankers (IIB), Global Risk Institute (GRI), Global Association of Risk Professionals (GARP), and the International Association of Credit Portfolio Managers (IACPM). These forums provide updates on industry and regulatory developments, enable the sharing of best practices, and provide industry feedback on government and regulatory discussion papers and consultations.

### **Climate Action 100+ (BMO GAM)**

BMO GAM is a founding participant of this collaborative US\$65+ trillion global investor engagement initiative that is working to ensure the world's largest corporate GHG emitters take action on climate change.

### **Climate Engagement Canada (BMO GAM)**

BMO GAM is a founding member of this collaborative investor initiative that engages with Canadian corporations to promote a just transition to a net-zero economy. BMO GAM serves on its steering committee, leads five of its collaborative investor engagements and supports an additional seven as an active participant with large Canadian investee companies.

### **Equator Principles (EP)**

BMO has been a signatory since 2005. We participated in the EP4 update, which encompassed climate change, Indigenous rights, and environmental and social risk management. We are a member of the Biodiversity Working Group and the Grievance/Remedy Working Group.

### **Institutional Investors Group on Climate Change (IIGCC) (BMO GAM)**

IIGCC members are investors who collaborate on climate change, and work to make real progress toward a resilient net-zero future by 2030. BMO GAM is aiming to achieve IIGCC targets by successfully engaging with companies, policy-makers and other investors. In 2023, BMO GAM joined the IIGCC's Net Zero Engagement Initiative to further our efforts to align relevant portfolios with the goals of the Paris Agreement.

### **IIGCC Net Zero Engagement Initiative (NZEI) (BMO GAM)**

NZEI is a collaborative investor-led initiative, which seeks the adoption of credible Paris-aligned net-zero transition plans by 107 focus companies across Europe. BMO GAM participates in four collaborative engagements through NZEI, supporting our progress as committed members of the Net Zero Asset Managers Initiative.

### **International Capital Market Association (ICMA) – Green and Social Bonds Advisory Council, and ICMA Working Groups**

BMO is the only Canadian bank on ICMA's Green and Social Bonds Advisory Council, which provides the ICMA Green, Social and Sustainability-Linked Bond Principles Executive Committee with broad market perspective and knowledge of the sustainability bond markets. BMO also served on the Impact Reporting, Climate Transition Finance, Sustainability-Linked Bonds, and Social Bonds Working Groups during the 2022-2023 term.

### **ISO Technical Committee 207 on Standardization in the Field of Environmental Management**

BMO chairs the group of Canadian committees that mirror ISO's Technical Committee 207. This group creates tools to address environmental and climate impacts, including social and economic aspects, in support of sustainable development. The scope of work includes environmental management systems, auditing, verification/validation and related investigations, environmental labelling, environmental performance evaluation, life cycle assessment, climate change and its mitigation and adaptation, eco-design, material efficiency, environmental economics and environmental and climate finance.

### **ISO Technical Committee 322 on Standardization in the Field of Sustainable Finance**

BMO chairs the Canadian committee that mirrors ISO's Technical Committee 322 on Standardization in the Field of Sustainable Finance. The committee works to promote the integration of sustainability considerations in the financing of economic activities, including environmental, social and governance practices.

### **Partnership for Carbon Accounting Financials (PCAF) Working Groups**

BMO participates in working groups that develop and implement harmonized approaches to assessing and reporting GHG emissions associated with loans and investments.

### **Sustainable Finance Action Council (SFAC)**

BMO participates in this council and in two of its Technical Expert Groups (TEGs). The council seeks to increase the mobilization of private capital to support Canada's climate ambition. BMO served as co-chair of the SFAC Net-Zero Capital Allocation Working Group, with the mandate to develop and align practical recommendations for mobilizing capital flows to support the transition to net zero. BMO was also a member of the Data TEG, which provides advice to the government of Canada on strategies to improve the availability and reliability of climate data.

### **UNEP Principles for Responsible Banking (PRB) – Core Group**

BMO joined the Core Group of 30 banks in 2023 to help it develop the 2030 Vision for the PRB, enhance the PRB framework based on evolving context and expectations, and guide members in delivering on their commitments and targets after year four of their PRB journey.

### **UNEP Principles for Responsible Banking – Nature Target Setting Working Group**

BMO joined this UN-convened group that provides guidance to global banks on nature target-setting in 2023. It is working to align targets with the Kunming-Montreal Global Biodiversity Framework, which aims to reverse nature loss by 2030. BMO was the only Canadian bank participating in this pioneering global working group composed of 34 banks from 24 countries.

### **United Nations Principles for Responsible Investment (UN PRI) (BMO GAM)**

As a signatory to the UN PRI, BMO GAM adheres to responsible investment practices in order to manage sustainability-related risks for relevant mandates. BMO GAM participates in collaborative engagement efforts led by UN PRI and plans to implement its six principles for responsible investment. These principles encourage ESG integration and stewardship throughout the investment process. UN PRI works with investors to protect portfolios from risks in the transition to a low-carbon global economy.

### **Valuing Water Finance Initiative (BMO GAM)**

BMO GAM participates in the Valuing Water Finance Initiative, a global investor-led effort that encourages companies with a high water footprint to identify and address water risks to their organization while protecting water systems on which they rely.

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# Risk Management

We consider climate change to be a transverse risk driver that manifests through our identified material risks.

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At BMO, we consider the physical risk and transition risk arising from climate change to be transverse risk drivers that could have an impact on the material risk exposures identified in our Risk Taxonomy over the short (less than 1 year), medium (1 to 3 years) and long term (3 to 30 years or more). Physical risks are those associated with a changing climate, which could have both acute and chronic physical effects. Transition risks are risks associated with the shift to a net-zero carbon economy. For a discussion of BMO's material risks and their definitions, please see the Enterprise-wide Risk Management section of our 2023 Annual Report.

# Enterprise Risk Management Framework

Overseen by the CRO, the Enterprise Risk Management Framework (ERMF) guides our risk-taking activities in order to align them with our customers' needs, our shareholders' expectations and our regulators' requirements. The ERMF defines our approach to risk management, including risk governance and the risk management life cycle. Underpinned by our risk culture, it is enabled by our people, processes and technology, and leverages tools such as modelling and analytics, scenario analysis and stress testing, as well as our Risk Taxonomy that catalogues the definitions of our material risks. You can find more information about our ERMF in the 2023 Annual Report.

The Environmental & Social Risk Management (E&S Risk Management) team and the Sustainability Office monitor and respond to evolving international standards and regulations on climate risk management. We are embedding climate risk considerations into our ERMF in a manner that aligns with the expectations of regulators in the jurisdictions where we operate.

Our approach to embedding climate risk considerations into our ERMF efficiently leverages existing risk governance mechanisms, enablers and tools, while building new teams and capabilities to identify, assess, manage, monitor and report on potential impacts of climate risk on our clients, portfolios and operations.

## Risk governance

### Board and Senior Management Oversight

A discussion of board and senior management oversight, as well as the key roles and responsibilities across the three-lines-of-defence is found in the Governance section of this report.

### Risk Appetite

Since 2019, we have had a Board-approved Enterprise Risk Appetite Statement on E&S Risk, which includes climate change, and have refined the wording of this statement over time. In addition, we have been tracking an enterprise-level climate-related Risk Appetite Key Risk Metric (RA KRM) on our Board-reported Risk Appetite Dashboard. The metric tracks our lending tied to carbon-related assets (following the 2017 TCFD definition and connected to the utilities and oil and gas sectors, with some noted exclusions) as a percentage of total net loans and acceptances, net of allowance for credit losses for impaired loans. In fiscal 2023, we added a new complementary metric to the Risk Appetite Dashboard that tracks our lending tied to the 2021 TCFD definition of carbon-related assets.

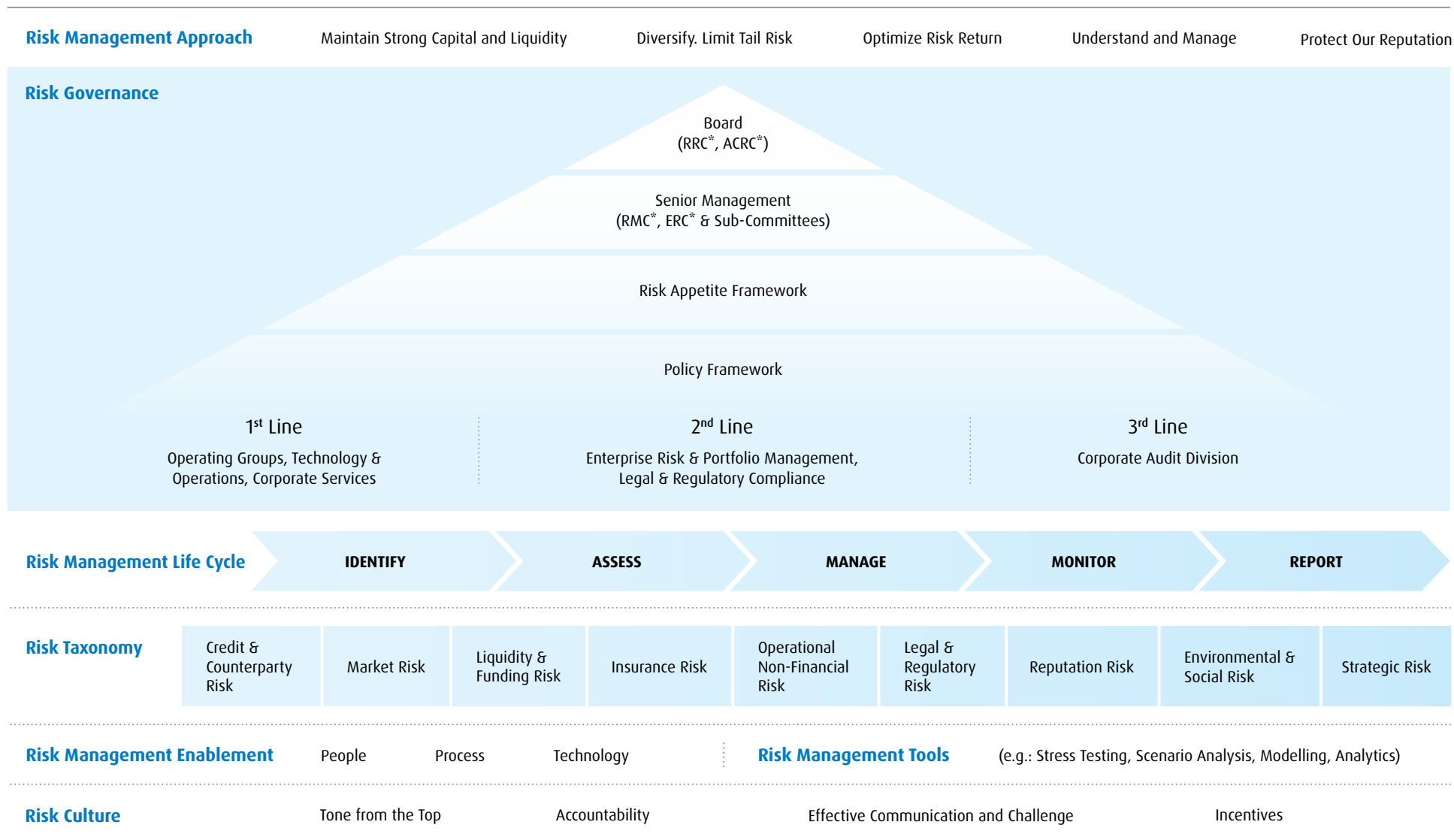
In addition to energy and utilities, the expanded definition includes transportation, materials and buildings, agriculture, food and forest products. See the carbon-related assets section on page 51 in this report for more information. As part of our multi-year program to build an end-to-end climate risk management framework, we continue to work toward incorporating the implications of climate risk into the bank's business model and strategy, including its short- and long-term strategic, capital, and financial plans, which are managed in accordance with our risk appetite.

### Policy Framework

In 2022, we put in place a Board-approved, enterprise-wide E&S Risk Corporate Policy, which is our governing document defining E&S risk and providing the foundation for embedding E&S risk considerations into and across our ERMF, including by setting out the roles and responsibilities of senior leadership in this context. In addition, we continue to update our enterprise corporate policies and corporate standards as they come up for review over our regular two-year review cycle, to ensure consistency with the E&S Risk Corporate Policy and applicable regulatory expectations. Notably, certain key policies and standards that apply to areas such as credit risk, market risk and reputation risk have been updated recently.



Figure 11: Enterprise Risk Management Framework



\*RRC: Risk Review Committee, ACRC: Audit and Conduct Review Committee, RMC: Risk Management Committee, ERC: Enterprise Regulatory Committee

## Risk management life cycle

We manage climate risks throughout the five stages of the risk management life cycle:

### 1 Risk identification:

We are making strides in advancing our understanding and articulation of the transverse impacts of climate risk across the material risks in our Risk Taxonomy. We will leverage scenario analysis to inform the risk identification process and advance our understanding of the short- and long-term risks to BMO's business model.

### 2 Risk assessment:

Our approach to risk assessment leverages tools such as climate scenario analysis and climate heatmaps as we continue to consider climate risk across the various material risks in our Risk Taxonomy. See "Climate-related scenario analysis" section, on page 39.

### 3 Management and decision-making:

As part of our multi-year journey, we will update policies and procedures to manage and mitigate material concentrations and exposures to climate risks.

### 4 Risk monitoring:

Building on our RA KRMs, we plan to develop additional metrics, indicators, and limits to monitor the climate risk exposure of our clients, portfolios, and operations, in addition to our progress toward internal targets.

### 5 Risk reporting:

We have a plan to develop capabilities to aggregate climate risk data across the enterprise and be able to report on aggregate climate-related exposures and concentrations. Our enterprise data and analytics solution seeks to produce reliable, timely, and accurate reporting to support strategic planning and risk management.

## Risk taxonomy

Set out below is a discussion of the transverse impact that physical risk and transition risk could have on our material risks.

### Credit and counterparty risk

Climate-related risks could affect our exposure to credit and counterparty risk by impacting our customers', issuers', or counterparties' revenues, operating costs, or access to capital such that they may become unable to meet their financial commitments to BMO. Borrowers may experience losses or increases in their operating costs as a result of acute or chronic changes in climate conditions and/or climate-related policies, such as carbon emissions pricing, sector-based targets or emissions caps. Revenues may be affected by new and emerging technologies, which could disrupt the current economic landscape and dampen demand for certain commodities, products and services.

As part of our larger journey to embed E&S risk considerations into our Policy Framework we updated several credit risk policies in 2023. We also refined our heatmap that identifies physical and transition risk exposure across our lending portfolio. It provides a preliminary qualitative assessment of high, medium and low risk, based on external sensitivities to climate risk sourced from BMO case studies, industry reports and regulatory exercises, including the Bank of Canada/OSFI climate scenario analysis. Future improvements in quantification capabilities and climate scenario analysis will enhance the heatmap over time.

The heatmap helps us prioritize our risk assessment efforts, including scenario analysis exercises. Sensitivity to climate-related risks can vary among clients within each industry sector and subsector, and the degree of impact will depend on factors such as the location of physical assets, business activities and actions taken by clients to mitigate the risks.

Figure 12: Sensitivity to climate risk of BMO lending exposures, as at October 31, 2023

	Net loans and acceptances (as at 2023 Q4)		Transition risk drivers		Physical risk drivers		
	Mix	CAD\$ (millions)	Carbon intensity	Elasticity to local economy	Physical footprint	Revenue disruption	Direct links to nature
Residential mortgages	26.7%	177,245			●		
Consumer instalment and other personal	15.7%	103,888					
Financial	10.7%	71,179					
<b>Commercial real estate</b>	10.5%	69,726	●		●		
Service industries	9.9%	65,593					
<b>Manufacturing</b>	6.1%	40,547	●				
Retail trade	4.6%	30,374					
Wholesale trade	3.6%	23,643					
<b>Agriculture</b>	2.8%	18,400	●		●		
<b>Transportation</b>	2.4%	15,656					
Credit cards	1.8%	12,294					
<b>Utilities<sup>1</sup></b>	1.8%	12,247	●		●		
Construction (non-real estate)	1.1%	7,531					
Financing products	0.7%	4,710					
<b>Oil and Gas</b>	0.6%	3,711	●		●		
<b>Mining</b>	0.5%	3,268	●				
Governments	0.3%	2,746					
Communications	0.3%	1,917					
<b>Forest products</b>	0.2%	1,302					

### Examples of economic drivers of transition and physical risks

- **Carbon intensity:** High carbon emitters will be affected by climate policy, including carbon prices and shifts in consumer demand.
- **Elasticity to local economy:** Obligors with revenues derived from geographic regions highly dependent on carbon-intensive industries.
- **Physical footprint:** Operations with infrastructure spread across a wide geographic area.
- **Revenue disruption:** Companies exposed to adverse revenue impacts through channels such as supply chains and customer demand.
- **Direct links to nature:** Economic activities vulnerable to variability in natural systems in which they operate, such as impacts on agriculture and water transport from water scarcity.

### Risk assessment

- Low
- Moderate
- High
- Past/current CSA project

<sup>1</sup> BoC-OSFI Pilot suggests Canadian utilities could benefit from the transition to a net-zero GHG economy due to high proportion of nuclear and renewable power.

**Bolded segments** include industries that TCFD identified as having the highest likelihood of climate-related financial impacts.

### Market risk

Trading, underwriting and banking book positions may be exposed to adverse movements in equity, interest rate, foreign exchange, commodity and credit markets caused by physical climate events or due to changes in market sentiments on climate-related policy, technological breakthroughs and/or shifts in consumer preferences. Over the last two years we have updated market risk policies to incorporate reference to environmental and social risk management. We have also conducted climate scenario analysis on the trading book.

### Liquidity risk

BMO's ability to meet expected or unexpected current and future cash flow and collateral needs without adversely affecting daily operations or financial conditions could be impacted by climate-related risks, specifically by acute or chronic physical climate events. Transition risk can also apply to liquidity risk as it may impact client liquidity needs in response to climate-related regulatory changes, technological breakthroughs or limitations, and/or shifts in consumer preferences.

### Operational non-financial risk

BMO's exposure to operational risks could be heightened by climate-related physical and transition risks. Exposure to physical risks from environmental events, such as droughts, floods, wildfires, earthquakes, and hurricanes and other storms could also potentially lead to disruptions in our operations and result in lower earnings and higher losses. Climate risk assessment is included in BMO's Property Risk Management Framework. Our business continuity management preparations, including our Emergency Response and Preparedness Plans, provide us with the capability to restore, maintain and manage critical operations and processes in the event of a business disruption.

In addition, we understand that our exposure to operational risks related to our use of resources could be heightened by climate-related transition risks. Changes in climate patterns and climate-related policies may result in increases in the operating and capital costs associated with the energy and equipment used to heat, cool and power our facilities. We manage energy consumption through energy savings projects such as lighting, HVAC and controls upgrades. If the lifespan of assets (e.g., HVAC equipment) is negatively impacted, we modify our capital forecasting. We monitor the regulatory landscape for indications of new fuel or energy taxes and carbon pricing regulations that could affect our operating costs on an ongoing basis through our internal risk management group, feedback from third-party facilities management service providers and participation in industry associations.

Changing climate patterns and climate-related policies may also affect the operating and capital costs of our suppliers. Suppliers may choose to pass these costs on to their customers, which could result in higher purchasing costs for BMO. Consistent with our Supplier Code of Conduct, BMO's Sustainable Procurement program considers current and future suppliers' sustainability performance and risk management, including risks related to climate change. We utilize a rigorous supplier selection process to determine which risks could have a substantive financial or strategic impact on our organization. All requests for proposals (RFPs) include a comprehensive set of sustainability questions that seek to provide an understanding of respondents' practices related to environmental and social responsibility. In fiscal 2024, we expect to complete updates to the Operational Resilience Corporate Standard to integrate E&S risk considerations, including on climate risk.

## Monitoring climate risk in our supply chain

Climate-related physical and transition risks may affect our suppliers, which may in turn affect our business relationships. BMO's Sustainable Procurement Program considers current and future suppliers' sustainability performance. We follow a rigorous supplier selection process to determine which risks could have a substantive financial or strategic impact on our organization. Requests for proposals include a comprehensive set of sustainability questions that seek to provide an understanding of respondents' practices related to environmental and social responsibility, including climate change.

BMO's Sustainability Office partners with BMO's Procurement group to better understand our exposure to climate risk in our supply chain. We are using E&S risk data tools such as RepRisk to enhance our monitoring of E&S risk issues affecting our supply chain.

BMO joined CDP Supply Chain (CDP) in 2021 to better understand the environmental impact of our procurement activities and deepen our engagement with select suppliers on climate-related risks and opportunities. In 2023, we doubled the number of suppliers engaged through the program. Through CDP, suppliers provide GHG emissions data and information on their approach to managing climate-related risks and opportunities.

You will find more information about BMO's Sustainable Procurement program in our 2023 Sustainability Report.

### Strategic risk

Understanding the climate-related risks and opportunities facing BMO over the short, medium and longer term will help us develop climate-resilient business strategies and make decisions that are intended to reduce those risks and enhance opportunities for sustainable growth. There is a risk that the bank's strategic planning process may not account for the physical and transition risks arising from climate change. These risks may result in poor financial performance, loss of customers and regulatory scrutiny.

Government policies that support the transition to a lower-carbon economy, potential regulatory or supervisory approaches and the increasing severity of climate events may make consumers more aware of climate change and result in changes to consumer behaviour. To help reduce the future impact of climate change, retail and wholesale consumers may shift their behaviour to favour more climate-friendly consumption, request financial services and products that align with a positive climate impact or choose to change service providers. Investors are also shifting their expectations in respect of climate change and a growing number are incorporating climate-related risk considerations into investment decisions.

Conversely, government policies may diverge from consumer and investor preferences and we could be prompted, through policies, taxes and/or regulation, to offer products and services that are inconsistent with those preferences or our market-based capital allocation.

This increased awareness of, and demand for, climate-friendly services and products, as well as more detailed reporting on banks' climate-related risk profile, may inform and influence adjustments to our business and investment strategies.

### Legal and regulatory risk

BMO may be faced with heightened exposures to legal and regulatory compliance risk, as well as potential litigation and liability costs. Globally, financial services regulators and supervisors are developing and finalizing regulatory frameworks governing the analysis and management of climate-related financial risk and the disclosure of climate-related financial information, and we are addressing these expectations as we continue to incorporate climate-related risk into our ERMF. For example, the Office of the Superintendent of Financial Institutions (OSFI) in Canada was the first North American prudential regulator to issue final climate requirements for financial institutions. We are focused on meeting existing and upcoming regulatory expectations that apply to BMO in every jurisdiction in which we operate, including those set out by OSFI in its Guideline B-15: Climate Risk Management. Legal and regulatory risks could also arise from our actual or perceived actions, or inaction, or those of our clients, in relation to climate change and other E&S risk issues, or our disclosures related to climate change. Current and emerging regulatory requirements in certain U.S. states may apply restrictions or sanctions on financial institutions that impose any environmental standards that exceed the legal or regulatory requirements in the states in which they operate. Additionally, trends in litigation and regulatory investigation involving disclosure practices or financing activities related to climate matters, as well as allegations of "greenwashing", continue to evolve. We are monitoring these trends and their potential impact in the context of BMO's climate-related sustainable finance and responsible investment activities, E&S risk management, and disclosure practices related to climate matters.

### Reputation risk

Increasingly, investors, customers and other interested parties are calling on financial institutions to take a leadership role in addressing climate-related risks and the impacts of climate change. We are exposed to the risk of potential financial loss or harm to BMO's brand or reputation arising from the acute and chronic impacts of climate change on BMO's premises, operations, supply chain, transport needs, and employee safety as well as the risk of shifts in customer preferences, stigmatization of the banking sector or negative community perceptions arising from BMO's contribution to, or detraction from, the transition to a lower-carbon economy. Our approach to managing and reporting on the climate-related risks and opportunities faced by BMO could result in new or heightened exposures to reputation risk. Indirectly, reputation risks may also arise as interested parties seek to hold banks responsible for financing clients in high-emitting sectors.

These risks are addressed in our lending processes, including through our Environmental and Social Risk General Financing Guideline, which outlines the bank's Risk Appetite with respect to E&S risk and climate-related risk and provides guidance on how to identify, assess and manage this risk in the context of wholesale lending. It also includes direction on developing an understanding of the specific impacts of climate change on a borrower and its operations (e.g., regulatory and/or legislative changes), including understanding a borrower's strategies for adapting to climate change and mitigating its impact.

We evaluate E&S risk, including climate-related risk, associated with clients that operate in higher-risk sectors and we apply enhanced due diligence to transactions with clients that operate in environmentally sensitive industries, including our Environmental & Social Risk Rating (ESRR) Assessment tools for petroleum, mining, and utilities and power generation projects. We also consider the maturity of a borrower's own E&S risk management programs, as discussed in more detail below. Transactions associated with significant environmental or social concerns may be escalated to BMO's Reputation Risk Management Committee for consideration.

# Engaging with clients on climate transition readiness

The steps we take to identify and assess E&S risk at BMO are set out in internal risk-related policies. To support this work, we have developed Environmental & Social Risk Rating (ESRR) assessment templates, which are integrated into the lending process.

To date, we have developed three sector-specific ESRR assessment templates: petroleum, mining, and utilities and power generation. The purpose of each template is to: (i) apply a consistent approach to assessing E&S risks; (ii) identify higher-risk borrowers that may warrant additional due diligence measures or approvals; and (iii) enable better tracking of E&S risks across the enterprise. In 2023, we expanded our ESRR assessments for these three sectors to incorporate climate-related information about each client.

One component of BMO’s evolving climate risk program is an evaluation of our clients’ exposure to climate transition risk. These evaluations support our risk management function and address the expectations of our regulators. Understanding the maturity of a client’s climate transition risk program can help BMO better assess the risks associated with that client, while also identifying opportunities for further client engagement and support in advancing their transition.

In 2024, as part of a pilot program, BMO is introducing a Client Transition Action Readiness Assessment (the Assessment) into these ESRR templates. It will apply initially to Canadian clients of BMO Capital Markets in the petroleum and power generation sectors, based on their risk profiles. The Assessment involves a thorough analysis of the key requisites for success in our clients’ climate transition planning. It includes the considerations outlined in regulatory guidance and other frameworks for transition planning, which also involve governance and implementation strategies (see Figure 13).

Each client is assigned a category indicating their readiness for the climate transition – Advanced, Moderate, or Early – based on the maturity of the climate-related practices, transparency, disclosures, planning and climate-risk awareness they have demonstrated to date. Each category reflects a consideration of the recommended components of a transition plan, as shown in Figure 13 (at right).

- **Advanced:** Advanced climate transition practices and risk awareness
- **Moderate:** Some advanced climate transition practices and risk awareness
- **Early:** Less developed climate transition practices and risk awareness

Along with BMO’s risk management practices and approach to sustainable finance, these Assessments will guide our engagement with our clients, and will also help us identify further opportunities for engagement in their energy transition planning.

We will monitor our progress as we work collaboratively with our clients. In cases where, following our engagement and support efforts, the risks presented by a client to BMO are not mitigated sufficiently, we will identify and take appropriate steps with respect to the client relationship.

This pilot program will continue to evolve in line with our climate risk management practices. We will periodically review and adapt the Assessment framework, as best practices and the regulatory landscape also continue to evolve. In the year ahead, we plan to assess the results of the pilot program and to disclose portfolio-level results, as well as framework enhancements, in the next Climate Report.

Our Climate Ambition – to be our clients’ lead partner in the transition to a net-zero world – drives our engagement with clients, as we provide advice and solutions that help them build resiliency and a well-informed strategy for the energy transition. The energy transition is rapidly evolving, and we are proactively engaging with our clients as they invest in reducing their operational (Scope 1 and 2) GHG emissions. We are also actively evaluating growth opportunities that enable new low-emission solutions.

**Figure 13: Assessment considerations**

Transition plan framework component	Examples of assessment questions
<b>Governance</b>	<ul style="list-style-type: none"> <li>• Board oversight</li> <li>• Skills and culture</li> <li>• Executive compensation</li> </ul>
<b>Foundations</b>	<ul style="list-style-type: none"> <li>• Interim and long-term ambition, commitments</li> <li>• Strategy to achieve net zero by 2050</li> </ul>
<b>Implementation strategy</b>	<ul style="list-style-type: none"> <li>• Actions to reduce real economy emissions</li> <li>• Timeline for actions</li> <li>• Capital allocation to fund emission reductions</li> <li>• Approach to responsible decommissioning, phase-out of unabated GHG-intensive assets</li> </ul>
<b>Engagement strategy</b>	<ul style="list-style-type: none"> <li>• Policy engagement aligned with the goals of the Paris Agreement</li> <li>• Summary of engagement activities, including consultations and partnerships</li> <li>• Disclosure of trade association memberships</li> </ul>
<b>Metrics and targets</b>	<ul style="list-style-type: none"> <li>• Reporting for Scope 1, 2 and 3 (as relevant) emissions, including methodology and third-party assurance</li> <li>• Reporting aligned with recognized frameworks</li> <li>• Disclosure of capital allocated to renewable sources and lower-emission operations</li> </ul>

# Climate-related scenario analysis



Climate scenario analysis (CSA) is a tool used to assess the impact of climate-related physical and transition risks on BMO's risk profile, business strategy, and business model, over a range of plausible and relevant models and climate scenarios, over various time horizons. The TCFD recommends that organizations assess the resilience of their strategy, taking into consideration different climate-related scenarios, including a scenario involving a rise in global temperatures of 2°C or less by 2100, where such information is material.

We use a range of possible scenarios, leaning on widely accepted industry standards, including transition scenarios from the Network for Greening the Financial System (NGFS) and warming pathways from the Intergovernmental Panel on Climate Change (IPCC). Scenarios are hypothetical constructs and are not expected to deliver precise outcomes or forecasts. Instead, scenarios enable organizations to consider how the future might look and how they can prepare for those hypothetical future states.

We have a CSA framework and program that is intended to assess BMO's climate-specific vulnerabilities in order to enhance our resilience to climate-related risks. This program includes the evaluation of both physical and transition risks as transverse drivers that impact our exposure to the other material risks identified in our Risk Taxonomy. Analysis is prioritized for portfolios that either have high inherent climate risk exposure or are material portfolios for the bank. Applying scenario analysis to gain a deeper understanding of climate-related risks is a new and continuously evolving discipline within the financial industry and CSA capabilities are evolving in line with internal policies and regulatory requirements. We are continuously improving the identification, collection, and use of reliable, timely, and accurate data. This data pertains not only to CSA but more broadly to climate-related risks that inform risk management and decision-making at BMO. Where gaps exist, we consider alternative data sources or reasonable proxies as appropriate. As we enhance our knowledge of climate-related impacts and continue to integrate comprehensive climate-based scenarios, our approach to analyzing these scenarios will evolve as modelling techniques and data availability improve. These efforts will help identify potential material financial risks and may inform our business strategy in relation to climate change going forward.

In 2023, in collaboration with representatives from our operating groups, Risk teams, the Sustainability Office and Technology & Operations, the Climate Risk Analytics team within BMO's E&S Risk Management team, continued to build out climate risk capability and linkages across traditional risk management data and measurement. In addition, we have onboarded third-party data and tools to facilitate both transition and physical risk assessments.

This approach to scenario analysis has generated quantitative assessments of exposure to transition and physical risks across a broad coverage of our portfolios and we continue to expand on those assessments to enable an enterprise-wide view. Where quantitative analysis is challenging, or inconclusive, we are working to incorporate qualitative overlays. Lessons from previous pilots, as well as evolving industry best practices, are being used to inform this development and expand our analysis to other sectors in our portfolio.

In 2023, we conducted several CSA exercises to evaluate the transition risk on segments in BMO's corporate and commercial lending, commercial real estate and the trading book and physical risk on BMO's real estate (both residential and commercial) and the bank's own operations. We are beginning to scale up capability to extend to liquidity and funding risks, consider integration into enterprise-wide stress testing and our Internal Capital Adequacy Assessment Process (ICAAP), and prepare for regulatory climate scenario exercises such as OSFI's Standardized Climate Scenario Exercise.

Exposure	Corporate and commercial lending	Residential real estate	Commercial real estate	Trading book	Bank operations
<b>Portfolios</b>	Agriculture, manufacturing, metals and mining, oil and gas, <sup>1</sup> utilities	Canadian and U.S. mortgages and HELOCs	North American CRE	Global Markets trading positions	Bank offices, branches, data centres and locations of significant third-party suppliers
<b>Risk type</b>	Policy, technology and behavioural drivers, particularly where borrowers' starting credit position is already under stress.	Not yet assessed	Energy cost and retrofitting drivers could impact the property values and GDP in areas exposed to oil industry.	Market price and volatility impacts of a disorderly policy transition	Not yet assessed
<b>Transition risks</b>	Policy, technology and behavioural drivers, particularly where borrowers' starting credit position is already under stress.	Not yet assessed	Energy cost and retrofitting drivers could impact the property values and GDP in areas exposed to oil industry.	Market price and volatility impacts of a disorderly policy transition	Not yet assessed
<b>Physical risks (acute and chronic)</b>	Generally low with asset and location-specific segments under higher risk from flooding, extreme temperatures, water stress and drought.	Coastal and fluvial flooding	Coastal and fluvial flooding, temperature extremes	Not yet assessed	Temperature extremes, fluvial flooding
<b>Climate scenarios</b>	Transition: NGFS phase 3 (REMIND) under Current Policies, Delayed Transition, Net Zero 2050 Physical: RCP 2.6, 4.5, 6.0, 8.5 (CMIP5) SSP1-RCP2.6, SSP2-RCP4.5, SSP5-RCP8.5 (CMIP6 in Oil & Gas assessment)	RCP 2.6, 4.5, 6.0, 8.5	Transition: NGFS phase 3 (REMIND) under Current Policies, Delayed Transition, Net Zero 2050 Physical: RCP 2.6, 4.5, 6.0, 8.5	Internally defined scenario based on BoE 2021 Climate Biennial Exploratory Scenario: Late Action and 2021 BoC-OSFI Pilot Scenario: Below 2°C Delayed	RCP 2.6, 4.5, 6.0, 8.5
<b>Time horizon</b>	Short term to long term 2022-2050	Current and long-term exposures (2050)	Current and long-term exposures (2050)	Instantaneous shock, with impact assessed over a three-month period	Current and long-term exposures (2050)

## 2023 scenario analysis of BMO's London branch

BMO's London branch aligns its approach to climate-related risk management with U.K. regulatory expectations, building on the work plan communicated to the Prudential Regulation Authority in 2019 and updated in 2023 to reflect advancements in our risk management capabilities. BMO London continues to conduct detailed climate-related risk analyses of its loan portfolio, focusing on the sectors most at risk in a low-carbon transition. The purchase of the S&P Climate Credit Analytics (CCA) tool has enabled us to conduct counterparty and portfolio climate scenario analysis that is aligned with the Network for Greening the Financial System (NGFS) scenarios and industry-standard transition paths, complemented by borrower-level qualitative analysis involving external data sources. The results are reported to the risk governance and senior management committees.

Climate risk is embedded in the branch risk taxonomy and risk appetite, with the CRO Europe having senior management function accountability. In 2023, two climate-related risk appetite metrics were added to the BMO London branch risk appetite dashboard to facilitate monitoring and communication of climate transition risk over time.

## Analysis of the metals and mining portfolio

### Qualitative analysis

Qualitative analysis was conducted to capture key climate risk indicators at the borrower and portfolio levels.

Leveraging sources, such as company reports, Bloomberg, CDP and Climate Action 100+, we combined a number of indicators to provide a view of borrowers' climate risk relative to each other and to sector averages. In addition to key climate data points, such as emissions trends, revenue splits, approaches to disclosure and decarbonization strategies, external climate risk scoring was used (MSCI, Sustainalytics). Indicators were aggregated at a portfolio level to enable trend analysis and to inform target-setting.

### Quantitative analysis

Quantitative scenario analysis was conducted to assess the long-term sensitivity of each material portfolio and individual borrower to the transition to a low-carbon economy.

The portfolio was assessed over the short term (three years) and long term (30 years) using the proprietary S&P CCA model aligned with NGFS orderly, disorderly and current policy scenarios.

The scenario analysis provided insights into the impact of changes in factors such as company financials, credit ratings and probability of default at incremental time periods.

<sup>1</sup> Included separate and combined Transition & Physical Risk assessments.



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# Metrics and Targets

We track and report on risks and opportunities associated with climate change.

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We track and report our greenhouse gas (GHG) emissions and our lending associated with carbon-related assets, and we present our GHG emissions metrics using the Greenhouse Gas Protocol. We quantify and disclose our Scope 1, 2 and 3 emissions, and we may also set targets for reducing those emissions. Scope 3 emissions related to our business operations and value chain include emissions related to category 15: Investments, often referred to as financed emissions in the banking context.

In 2021, we significantly expanded our metrics and target-setting to include the quantification and disclosure of financed emissions in certain sectors, using the Partnership for Carbon Accounting Financials (PCAF) and its Global GHG Accounting and Reporting Standard for the Financial Industry (the PCAF Standard). We also began to model decarbonization pathways, using credible science-based climate transition scenarios with low or no overshoot, with the aim of developing targets and action plans in support of our Climate Ambition. In 2023, we continued to expand the scope of this work across other sectors in BMO's portfolio.

## Acquisition of Bank of the West

BMO's acquisition of Bank of the West closed on February 1, 2023. BMO's operational and financed emissions data exclude Bank of the West. We are currently assessing the impact of Bank of the West on our Scope 1, Scope 2 and Scope 3 emissions, including our financed emissions. This may result in updates to previous disclosures, including revisions to baselines that we plan to provide in our 2024 Climate Report.

# A note about data challenges

The availability of complete, accurate and comparable data is an industry-wide challenge in deriving, analyzing and reporting on climate-related metrics. While we have higher confidence in certain classes of climate data, such as measurements of our operational emissions, significant challenges and complications remain in the quantification of financed emissions and metrics suitable for target-setting, largely because reporting across industry sectors is not standardized and data quality is often low or data availability is limited. The quantification of financed emissions and related targets for the financial sector – and the global economy – that enables informed decision-making requires more high-quality data, including information about client emissions and production activities.

We continue to improve the climate-related data available to us by partnering with third-party data providers, and by investing in our enterprise data analytics capabilities (see page 20). Data improvements will include augmenting and refining our climate-related data collection, tracking and analysis capabilities. We expect this multi-year investment to yield more timely and complete data sets, enabling the ongoing analysis of our progress on risk management and opportunity capture, and informing our decision-making. As the quantity and quality of data improve, we may periodically recalculate our baseline emissions and possibly reset our targets for emission reductions. We will update our calculations transparently, as necessary.

In setting targets for emission reductions, and then tracking and reporting on progress, BMO must rely on data obtained from clients and third-party sources related to production output, emissions, financials and other inputs. Although we believe these sources to be reliable, we have not independently verified the data we have obtained from these third parties, including our clients, or assessed any underlying assumptions about that data. We cannot guarantee the accuracy of such third-party data or the reliability of such assumptions. Further, our use of this third-party data shall not be taken as an endorsement of the third party or the data, nor is it to be construed as granting any form of intellectual property.

Certain third-party data, such as Scope 3 emissions and emissions factors, may also change over time as standards and methods of measurement and estimation evolve. These factors and related uncertainties could have a significant effect on our targets for emission reductions and our ability to meet these targets. In addition, the data we may need for defining our pathway toward meeting our interim targets may not be available or consistent and may not have sufficient quality across the sectors on which we decide to focus. The estimates, assumptions and judgments we believed to be reasonable as we prepared this report may eventually prove to be inaccurate, given their inherent complexity and uncertainty and our concerns about the underlying data and assumptions, and any interim targets we have set may need to be adjusted.

Without data of sufficiently high quality or sufficient scale, we are presenting estimates that are based on assumptions and extrapolations. We have identified the best available data under the data hierarchies set out in the PCAF Standard, which score data on a scale from 1 to 5, assigning a score of 1 to data that is the most certain. While imperfections remain, we have not delayed implementation of our net-zero strategy, so that we make immediate progress on our Climate Ambition and related net-zero commitments, consistent with our obligations under applicable law.

# Operational greenhouse gas (GHG) emissions

Scope 1 2 3 categories 1, 5 and 6

Understanding the environmental impact of our operations is important in our transition to a net-zero world. We focus on reducing our energy use and associated GHG emissions with an enterprise-wide energy management plan that includes operational efficiency improvements and capital upgrades to our buildings.

Proudly carbon neutral in our own operations since 2010, in 2020, we reached our goal of matching 100% of our global electricity use with investments in renewable energy certificates (RECs) – targets that we maintain each year. We have set an emissions reduction target, utilizing science-based approaches, of a 30% reduction in our operational Scope 1 and Scope 2 GHG emissions by 2030 from a 2019 baseline. We plan to re-assess our operational GHG emissions reduction target in 2024 to account for the impact of our acquisition of Bank of the West.

We use the following environmental indicators to track and manage our operational GHG emissions. In the period from 2020 to 2023, the annual reduction in our GHG emissions either met or came close to our 2030 target due to significant capital upgrades to our buildings and the hybrid working arrangements we put in place following the COVID-19 pandemic. The results of our performance in terms of GHG emissions are verified each year by a third party.

Figure 14: BMO's GHG emissions intensity (Scope 1 and 2)

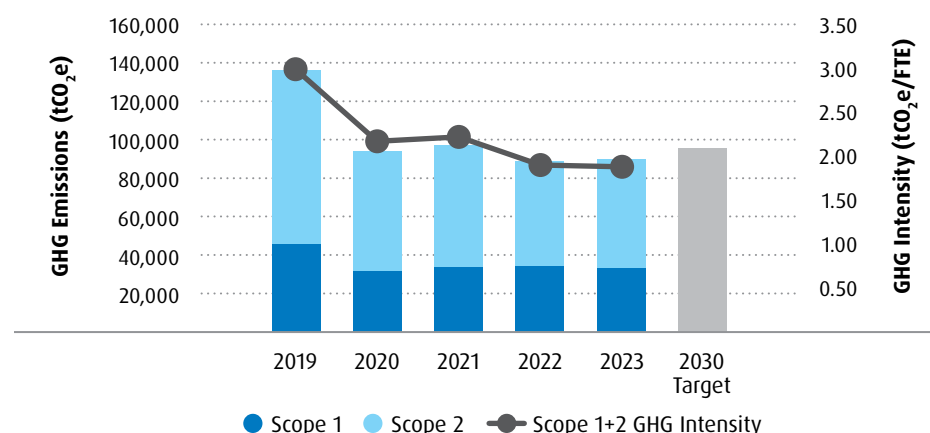


Figure 15: BMO's operational GHG emissions<sup>1</sup>

	2023	2022	2021	2020	2019	Target
GHG emissions from fuel (tCO <sub>2</sub> e) (Scope 1) <sup>2</sup>	33,350	34,083	33,661	31,621	45,672	30% reduction by 2030 from 2019 baseline Progress to date: 34%
GHG emissions from electricity and steam (tCO <sub>2</sub> e) (Scope 2 location-based) <sup>2,3</sup>	56,357	54,788	63,634	62,661	90,457	
GHG emissions from electricity and steam (tCO <sub>2</sub> e) (Scope 2 market-based) <sup>2,3</sup>	315	295	88	242	544	
GHG emissions from purchased goods and services (tCO <sub>2</sub> e) (Scope 3 category 1) <sup>4</sup>	Not available	Not available	435,335	-	-	
GHG emissions from waste sent to landfill (tCO <sub>2</sub> e) (Scope 3 category 5) <sup>2,5</sup>	433	667	1,047	676	982	
GHG emissions from business travel (tCO <sub>2</sub> e) (Scope 3 category 6) <sup>2,6</sup>	11,820	6,297	1,919	7,778	24,655	
<b>Total operational GHG emissions (tCO<sub>2</sub>e)</b>	<b>101,960</b>	<b>95,835</b>	<b>100,261</b>	<b>102,736</b>	<b>161,766</b>	
Carbon credits retired (tCO <sub>2</sub> e)	45,918	41,342	36,715	40,317	71,853	
GHG reductions from renewable energy credits purchased (tCO <sub>2</sub> e)	56,042	54,493	63,546	62,419	89,913	
<b>Net operational GHG emissions (tCO<sub>2</sub>e)</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	Carbon neutral operations annually
Global electricity use procured from renewable sources	100%	100%	100%	100%	100%	100% annually

<sup>1</sup> This section excludes Bank of the West. Metrics reflect August 1 through July 31.

<sup>2</sup> An independent third party, Morrison Hershfield, has provided reasonable assurance for all of BMO's Scope 1 and Scope 2 emissions and some Scope 3 emissions. The verification statement can be found on our [website](#).

<sup>3</sup> In accordance with GHG Protocol's Scope 2 Guidance, we report both location-based and market-based Scope 2 emissions. In calculating Scope 2 emissions related to electricity, we apply location-based Scope 2 grid emission factors, and we apply market-based Scope 2 emission factors for our REC purchases. Location-based Scope 2 emissions is used for the purposes of setting targets and tracking emissions.

<sup>4</sup> Scope 3 category 1 emissions include Scope 1, 2 and 3 GHG emissions of our suppliers apportioned to BMO based on our purchasing spend. In accordance with the GHG Protocol, these emissions have been calculated using a spend-based approach, using fiscal year 2021 spend data and a combination of supplier emissions data and sector emission intensity factors provided by S&P. We have not independently validated the accuracy of those factors. There is a data lag to calculations due to the timing of release of supplier emissions data from CDP Supply Chain.

<sup>5</sup> Scope 3 category 5 emissions include indirect GHG emissions from BMO's solid waste sent to municipal landfills from select facilities in North America, for which waste audits were conducted or diversion reports were available. Data availability represents approximately 21% of our occupied building space globally in 2023, 21% in 2022 and 21% in 2021. Other facilities are not represented, primarily due to difficulties in obtaining data from branch locations.

<sup>6</sup> Scope 3 category 6 emissions include indirect GHG emissions from employee business travel in non-company owned assets, such as travel by air, rail, and ground, based on bookings made internally. Emissions from corporate fleets are included in Scope 1 emissions. There was a significant increase in 2023 due to COVID-19 travel restrictions lifting.

# Financed emissions

Financed emissions are GHG emissions of our clients that are attributable to BMO. They are a significant contributor to Scope 3 value chain emissions, and we are committed to aligning GHG emissions from our financing with the transition to a net-zero world.

Financed emissions are GHG emissions of our clients that are attributable to BMO. They are a significant contributor to Scope 3 value chain emissions, and we are committed to aligning GHG emissions from our financing with the transition to a net-zero world. Since 2021, we have been using the PCAF standard to quantify the GHG emissions associated with our lending activities for certain sectors in our portfolio. This includes lending to companies operating in upstream oil and gas; power generation; personal automobile lending; residential mortgages; agriculture; and industrial activities, including iron and steel production, aluminum production, and cement manufacturing.<sup>1</sup> We also performed and disclosed a high-level analysis of our portfolio of business and government lending (“full portfolio analysis”) in order to understand concentrations of financed emissions.

We also modelled decarbonization pathways for these sectors in our portfolio and developed an approach to target-setting that is aligned with the UNEP FI Guidelines for Climate Target Setting for Banks (the UNEP FI Guidelines) (see Figure 16). We set intermediate targets for sectors with sufficiently reliable data and methodologies. In line with our NZBA commitment, we have disclosed our annual financed emissions, progress on reaching the targets we have set and a summary of our board-level reviewed transition plan in the Appendix to this report. Our Sustainability Office, the BMO Climate Institute and Enterprise Risk group are engaging with our lines of business and external interested parties – including governments – to understand, develop and implement strategies and action plans that will enable us to make progress on reaching our targets for reductions in financed emissions. Net-zero outcomes depend on coordinated efforts between the public and private sectors, and our strategic initiatives and action plans reflect this.

In 2023, we advanced our financed emissions and decarbonization pathway modelling to include our commercial real estate portfolio. We also looked at commercial transportation, focusing on our aviation and shipping sector portfolios. Based on our full portfolio analysis, we determined that our lending exposure and the associated emissions from commercial aviation and shipping are immaterial. In 2024, we plan to evaluate commercial land transportation.

Our analyses of financed emissions to date have been focused on on-balance sheet lending activities, in line with the PCAF Standard which calls for the use of outstanding loan amounts at the fiscal year end. Using year-end balances can cause year-over-year fluctuations in emissions data unrelated to the actual emissions activity of our clients as existing clients can draw on authorized credit at any time. This may impact our progress toward targets.

We acknowledge the role we play in facilitating emissions through off-balance sheet transactions; however, we have not yet begun accounting for “facilitated emissions” because of the methodological complexity involved.<sup>2</sup> We acknowledge the release of the PCAF Facilitated Emissions Standard and are evaluating the methodology to measure and disclose emissions associated with our Capital Markets activities and plan to disclose facilitated emissions in future years.

<sup>1</sup> We have made the decision to discontinue disclosure related to industrial activities, as our lending exposure and the related financed emissions are immaterial.

<sup>2</sup> “Facilitated emissions” refers to GHG emissions attributable to financial institutions in their role as facilitators in the issuance of capital market instruments.

**Figure 16: Characteristics of our target-setting approach**

## Sector-specific

We take a sector-based approach to identify the best available data in accordance with PCAF’s data quality hierarchies and select baseline metrics to help us understand sector-specific decarbonization pathways. This will enable us to support our clients in their transition, deliver on our Climate Ambition and advance emission reductions in the real economy.

## Science-based and practical

If possible, we benchmark our sectoral emissions and/or carbon intensity against the sectoral and/or geographic emissions pathways that science-based climate scenarios suggest would be needed to achieve a net-zero world by 2050. We evaluate those pathways in the context of industry decarbonization commitments and government policies, as well as our understanding of the technologies available to support decarbonization and the feasibility of their implementation, based on road maps that consider economic and commercial readiness.

## Widely accepted metrics

We focus on physical carbon intensity (tonnes of carbon dioxide emissions, normalized by a unit of output specific to the sector) for target-setting because it aligns with the sectoral decarbonization approach of the Science-Based Targets initiative and the requirements of the NZBA, permits easier comparisons within sectors and between clients of different sizes, and accommodates growth in the sectors providing critical material inputs for the net-zero transition. We complement our focus on physical carbon intensity with metrics that reflect the actions needed to drive reductions in sectoral carbon intensity reductions, such as technology alignment.

## Adaptable, based on data availability

Significant challenges and complications remain in quantifying financed emissions and setting targets. Thus, in some cases our estimates are based on assumptions and extrapolations derived from the best available data. As the availability and quality of data improve, we will likely make periodic restatements of our baselines. We also expect to update our decarbonization pathway modelling as climate science, models, scenarios and methodologies evolve, and as country-specific pathways and scenarios become available.

More information on the methodology developed to set financed emissions reduction targets for our upstream oil and gas and Canadian power generation portfolio can be found in our 2021 Climate Report available on our [website](#).

We expect to see improvements in estimation methodologies, data capture and data sourcing over time, which makes the calculation of financed emissions an evolving process. Given the evolving nature of these methodologies, significant volatility may arise, with potential recalculations and restatements of historical results and year-over-year comparisons. This could be driven in part by the enhanced reporting of our clients, corporate actions such as mergers and acquisitions, advances in estimation

methodologies, updates to emissions estimates, and revisions to data as more reliable sources of data are identified. We expect the quality of available data to improve with the enactment of climate-related regulations. As more companies begin to report emissions data our calculations for those years and year-over-year results may be impacted.

### Use of attribution factors in calculating financed emissions

Many factors can influence the financed emissions from a particular sector, including changes in client mix, portfolio size and geographic mix, the emissions and production profile of clients, the quality of data available and the calculation of attributions (driven by fluctuations in enterprise value). In our calculations for business loans, we accounted for our loan’s share of total borrower emissions by applying an attribution factor calculated (per PCAF) as the outstanding loan amount divided by the sum of total equity and debt for private companies,<sup>1</sup> or by total enterprise value including cash (EVIC) for public companies. Financed emissions reporting is challenged by variability in the enterprise value of a public client that reflects fluctuations in market prices. Market volatility could impact the attributed emissions reported, even if there has been no change in a client’s emissions or our financing activity, and this may limit the usefulness of year-over-year comparisons and trends. This is an issue with the PCAF methodology that is recognized by other market participants and is not unique to BMO.

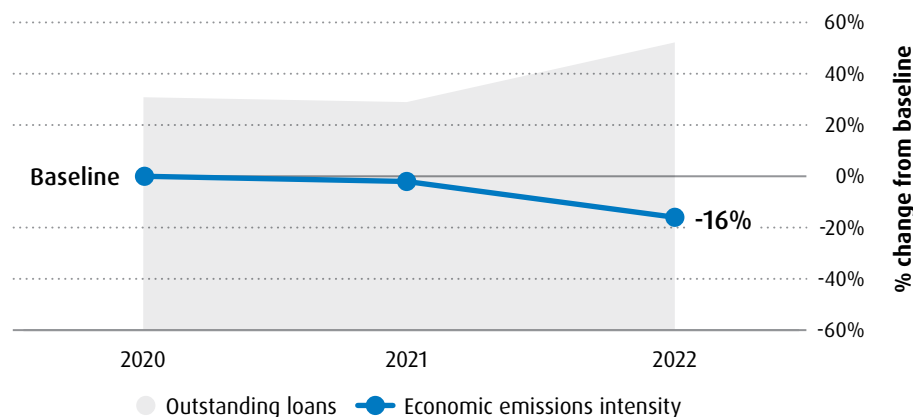
### PCAF Emission Factor Database update

High-quality borrower-level emissions data is often not available for use in calculating financed emissions. For these cases, the PCAF Standard proposes a data hierarchy that permits the use of regional and industry-specific emission factors to estimate financed emissions based on the borrower’s production volumes, financials, or loan amounts. We source emission factors from the PCAF Emission Factor Database (PCAF Database), as needed. A significant update to the PCAF Database was released in March 2023, including updates to thousands of emission factors. At the same time, PCAF issued guidance recommending that financial institutions use emission factors aggregated at an Exiobase (environmentally extended input-output) sector and regional level, instead of using more granular factors determined by country and by the North American Industry Classification System (NAICS) code. When our calculations had been based on emission factors from the PCAF Database, we updated the calculations using the regional sector average emission factors for advanced economies<sup>2</sup> from its March 2023 version. This affected the analysis of our business and government lending portfolio, as well as financed emissions calculations for our agriculture portfolio, which rely heavily on emission factors from the PCAF Database.

### Business and government lending portfolio analysis

We analyze the Scope 1 and 2 emissions<sup>3</sup> associated with our business and government lending portfolio (“full portfolio”), which includes our business banking, commercial banking and capital markets lending activity, including project finance loans, as at the end of fiscal year.<sup>4</sup> We use the PCAF methodology for business loans, at a data quality score of 5. Due to the low level of data quality associated with the full portfolio analyses, we are not disclosing absolute financed emissions at this time; instead, the analyses are intended to provide information on the intensity direction and sectoral concentrations in the full portfolio. As shown in the graph to the right, we estimate the economic emissions intensity of our portfolio (emissions per \$ million of outstanding loan) decreased by 16% between 2020 and 2022. We are working to improve data quality, which would allow us to have more confidence in the results of our estimations and their suitability for disclosure (for more on data challenges, see page 42).

Figure 17: Business and government lending portfolio – economic emissions intensity change (2020-2022)



<sup>1</sup> If total debt or total equity could not be obtained for private companies, we used the total balance sheet value (i.e., the sum of total equity and total liabilities, which is equal to the company’s total assets), in line with the PCAF Standard.

<sup>2</sup> Advanced economies as defined by the OECD and IMF and excluding European Union member states.

<sup>3</sup> This includes emissions from the operations of our clients (Scope 1 and 2) and not the ultimate consumption of their products (Scope 3).

<sup>4</sup> To date, our financed emissions analysis focuses on on-balance sheet lending activities, in line with the PCAF Standard.

In 2023, we updated our analysis of the business and government lending portfolio, applying Exiobase sector and regional emission factors from the updated PCAF Database, as described on page 45.<sup>1</sup> This resulted in a significantly different view of concentrations of financed emissions in the portfolio compared to our original analysis and previous disclosures.

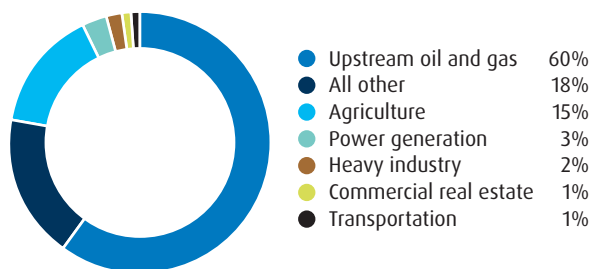
For clarity, the figures below show the trend in our portfolio emissions profile using both the original and the updated analyses for the fiscal years ended October 31, 2020, 2021 and 2022. In our updated

analysis, emissions from the upstream oil and gas sector are a significantly smaller component of overall portfolio financed emissions, and emissions from agriculture are a significantly larger component. **The variances among these sets of results, which are derived from the same underlying loan data, demonstrate the complexity and uncertainty of estimating financed emissions using PCAF methodologies, the evolution of which can significantly impact the results we report.**

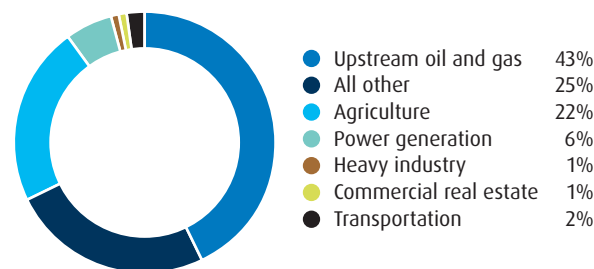
**Business and government lending portfolio – financed emissions profile, based on initial and updated PCAF Database (Scope 1 and 2)\***

**Figure 18: Financed emissions profile, based on initial PCAF Database**

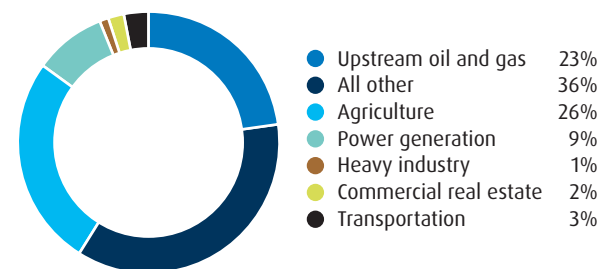
2020 full portfolio



2021 full portfolio

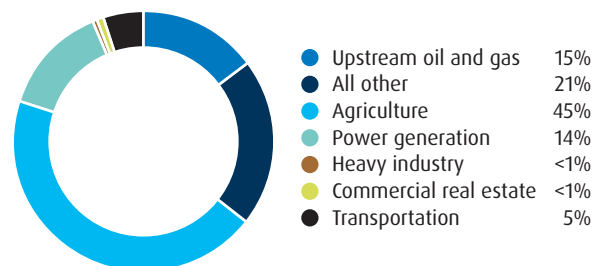


2022 full portfolio

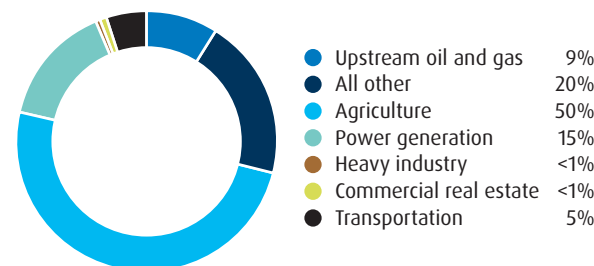


**Figure 19: Financed emissions profile, based on updated PCAF Database**

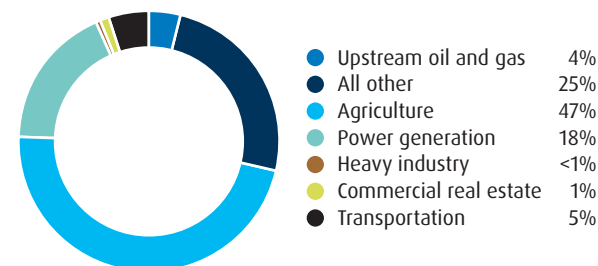
2020 full portfolio



2021 full portfolio



2022 full portfolio ♦



♦ KPMG has provided limited assurance of this figure.

<sup>1</sup> This analysis uses PCAF’s methodology for business loans for all sectors, based on borrower industry codes and a PCAF Data Quality 5 analysis. Our sectoral analysis for Commercial Real Estate (CRE) however, uses PCAF’s CRE-specific methodology, which identifies in-scope loans by assessing the loan’s use of proceeds and does not rely on industry codes for loan and sector identification. Our financed emissions analysis excludes Bank of the West.

\*“All other” represents sectors for which financed emissions and decarbonization pathways have not been evaluated, or plan to be. “Heavy industry” represents producers of iron and steel, aluminum and cement.

## Sectoral analyses and decarbonization pathway modelling

We continued to expand the scope of our sectoral financed emissions and our decarbonization pathway modelling in 2023, building on the work done in 2021 and 2022<sup>1</sup> to include additional carbon-intensive sectors identified in the UNEP FI Guidelines for Climate Target Setting for Banks. In 2023, we focused on the commercial real estate sector. Our approach to baseline quantification, target-setting and decarbonization pathway modelling is described below. We estimate that we have developed sector-specific financed emissions quantification methodologies, and evaluated decarbonization pathways and target-setting approaches for sectors representing approximately 70% of our business and government lending portfolio emissions.<sup>2</sup> These sectors represent a significant majority of our lending portfolio's financed emissions as required by the NZBA, and will continue to deepen our analysis of these sectors in future disclosures which could include coverage of additional segments of these sectors.

### Commercial real estate

Real estate drives approximately 40% of global carbon emissions, making it a key focus of the effort to reach net zero.<sup>3</sup> Carbon dioxide emissions from real estate operations have reached an all-time high of approximately 10 GtCO<sub>2</sub>, an increase of nearly 5% from 2020 and 2 percentage points above the previous peak in 2019.<sup>4</sup> The Canada Green Building Council estimates that residential, commercial and institutional real estate is the source of 17% of Canada's GHG emissions.<sup>5</sup> In the United States, commercial real estate is estimated to generate 16% of all CO<sub>2</sub> emissions.<sup>6</sup>

On the current pathway, the sector will not achieve decarbonization by 2050.<sup>4</sup> However, the latest assessment report from the Intergovernmental Panel on Climate Change (IPCC) for the mitigation working group (AR6 WGIII) indicates that the buildings and construction industry offer significant global potential for mitigation, which could meet the targets set out in the Paris Agreement. Opportunities for mitigation include improvements to the efficient use of existing real estate properties, the construction of high-performance new buildings, the installation of efficient lighting appliances and equipment, the integration of renewable resources in building materials, and the decarbonized production of building materials. The consensus of the IPCC report is that a reduction in operational emissions from commercial real estate of approximately 95% (based on current levels) will be necessary by 2050, and that the reductions will be cost-effective, with benefits for building occupants and energy security.<sup>4</sup>

### Financing opportunity with building retrofits

At BMO, we are supporting our clients' transition to net zero through a first-of-its-kind program, offered in collaboration with the Canada Infrastructure Bank (CIB), that helps owners of commercial real estate to secure financing for energy retrofits of their properties. For more information about the retrofit program, see page 25.

<sup>1</sup> For information on our sectoral analysis and decarbonization pathway modelling, including financed emissions and target-setting methodologies, in relation to our portfolios of upstream oil and gas, Canadian power generation, Canadian residential mortgages and personal automobile lending, industrials (iron and steel, cement, aluminum), and agriculture refer to our 2022 Climate Report, which is available on our [website](#).

<sup>2</sup> This estimate is based on the full portfolio emissions analysis described in the previous section and includes areas included in sector-based analyses for upstream oil and gas, agriculture, power generation, and commercial real estate. It does not consider decisions to focus on and/or phase-in specific geographies in the analyses.

<sup>3</sup> Source: [World Economic Forum](#).

**Figure 20: Commercial real estate financed emissions summary** **2021**

Loans outstanding (\$ millions) <sup>7</sup>	32,388
<b>Scope 1 and 2</b>	
Financed emissions (ktCO <sub>2</sub> e)	516
Portfolio PCAF data quality score	4.4
Economic emissions intensity (tCO <sub>2</sub> e/\$ millions of loans outstanding)	15.9
Economic emissions intensity (kgCO <sub>2</sub> e/m <sup>2</sup> financed) <sup>8</sup>	37.3
Data sources:	<ul style="list-style-type: none"> <li>• Internal BMO loan data</li> <li>• Natural Resources Canada (2020 data)</li> <li>• Emission factors from Canada's National Inventory Report (2022)</li> <li>• PCAF Database CRE emission factors</li> </ul>

### Baseline calculation

Our baseline calculation for commercial real estate (CRE):

- Includes on-balance sheet lending for commercial real estate (CRE) in Canada, as at fiscal year end 2021. CRE is defined as loans for purchasing or refinancing properties that are used or leased to generate income. This includes residential properties owned by investors.
- Excludes financing for land, construction and renovation of properties due to methodological difficulties in estimating emissions from these activities – this is a limitation acknowledged by PCAF. It also excludes financing for real estate investment trusts which are largely general corporate purpose loans.
- Calculates Scope 1 and 2 CO<sub>2</sub>e emissions from energy used by the property.

We estimate emissions using the PCAF Standard approach for CRE and mortgages and we developed a data hierarchy based on data availability:

- Property floor area, where available (58% of the portfolio based on outstanding loans) (Data Quality 4)
- Number of buildings/units (42% of the portfolio based on outstanding loans) (Data Quality 5).

Actual energy use and/or emissions data for real estate properties in this portfolio is not currently available. We use CRE emission factors based on physical activities (tCO<sub>2</sub>e/m<sup>2</sup> or tCO<sub>2</sub>e/building or unit) from the PCAF Database, which have been developed by:

- Estimating annual energy consumption for CRE properties by province and property type (e.g., wholesale trade, retail trade, transportation and warehousing, etc.) using data from Natural Resources Canada (NRCAN), and
- Multiplying this by provincial emission factors from Canada's National Inventory Report, and
- Dividing this by total floor area or by property-related data from NRCAN or the Guidehouse Building Stock Database.

<sup>4</sup> UN Environment Programme – 2022 Global Status Report for Buildings and Construction.

<sup>5</sup> Source: [Canada Green Building Council](#).

<sup>6</sup> Source: [U.S. Department of Energy](#).

<sup>7</sup> In the PCAF methodology for commercial real estate, loans outstanding include only eligible assets as described on this page, and therefore are not the same as the outstanding loan balances for commercial real estate reported in the BMO Supplementary Financial Information package.

<sup>8</sup> Physical emissions intensity is calculated for properties with available data for floor area (58% of the portfolio).

For income-generating residential mortgages, we calculate internal emission factors, which we also apply in our non-income-generating residential mortgage portfolio. Our approach is similar to the PCAF method described above and uses similar data sources. However, instead of estimating energy consumption for CRE properties, we focus on average household energy use for residential properties.

Within our portfolio, loans may be secured by multiple properties. In these cases, we take a proportional approach, allocating a portion of the loan to each property in the associated collateral pool based on property value.

We account for our share of the properties' emissions by applying an attribution factor, which we calculate as the proportion of the outstanding loan balance divided by the value of the property.<sup>1</sup> If an attribution factor cannot be calculated because of poor data availability, we apply a factor of 100%.

We calculate an overall PCAF data quality score for the portfolio by determining the average of the data quality scores assigned to all properties, weighted by the outstanding loan balance. The quantification of financed emissions from the CRE sector is complicated by the inconsistent internal capture of key metrics (e.g., square footage of properties, property value at origination) and a lack of widely available data on the actual energy consumption of properties in the market. We expect our data quality score to improve as we make improvements in the quality and capture of internal data.

### Climate scenarios and decarbonization pathway modelling

We assessed decarbonization pathways for the CRE sector that were derived from the following climate scenarios, all of which align with a net-zero outcome:

Climate scenario	Scale	Assumptions
International Energy Agency (IEA) – Net Zero by 2050	Global	<ul style="list-style-type: none"> <li>Global population increases steadily, reaching 9.6 billion in 2050.</li> <li>GDP is projected to increase by 147% from 2020 to 2050.</li> <li>Orderly transition across the energy sector, ensuring security of fuel and electricity supply at all times.</li> </ul>
IEA – Energy Technology Perspectives (ETP) – Sustainable Development Scenarios (SDS)	Global	<ul style="list-style-type: none"> <li>Global population increases steadily, reaching 10.5 billion in 2070.</li> <li>GDP is projected to increase by 147% from 2020 to 2050.</li> <li>No dependence on unforeseen breakthrough technologies, and taking into account already established policies (pathway may differ from the most cost-effective transition).</li> </ul>
Carbon Risk Real Estate Monitor (CRREM)	Global	<ul style="list-style-type: none"> <li>Global population increases to 9.7 billion in 2050.</li> <li>Global building stock grows by approximately 180% from 2020 to 2050.</li> <li>By 2030, energy demand has declined by up to 46% from 2021 due to mandated renovation policies.</li> <li>Country downscaling based on global carbon budget and baseline emissions intensity.</li> </ul>

The IEA SDS scenario is aligned with the 1.7°C objective. The NZBA references the SDS in the [Guidelines for Climate Target Setting for Banks](#) as a scenario that is fit for purpose, since it is aligned with the temperature goals of the Paris Agreement.

The scenarios show that for the sector to be aligned with a net-zero outcome by 2050, absolute emissions reductions of 52% to 59% by 2030 (see Figure 21)<sup>2</sup> and emissions intensity (kgCO<sub>2</sub>/m<sup>2</sup>) reductions of 42% to 64% in (see Figure 22) would be necessary. The scenarios include Scope 1 and Scope 2 CO<sub>2</sub> emissions from commercial real estate properties. The majority of emissions reductions involve electrifying the properties and switching the fuels used for space and water heating. Overall decarbonization of the real estate sectors depends on decarbonization of the electricity grid. Both IEA scenarios show trajectories for Scope 2 emissions that reach net negative by 2050, following the introduction of negative emissions technologies in the power generation sector.

Figure 21: CRE Scope 1 and 2 absolute emissions reduction pathways (MtCO<sub>2</sub>)

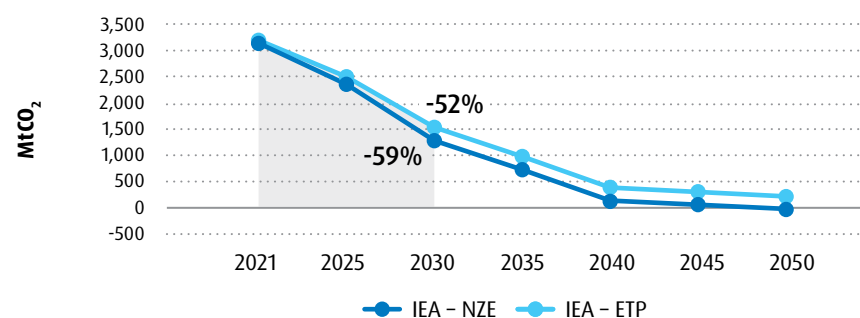
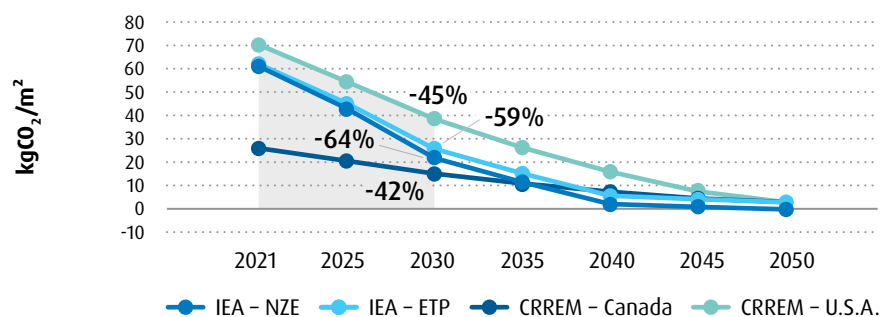


Figure 22: CRE Scope 1 and 2 emissions intensity pathways (kgCO<sub>2</sub>/m<sup>2</sup>)



<sup>1</sup> The PCAF methodology for commercial real estate uses property value at origination; however, if this data is not available, it is recommended that banks should use the most recent property value available and fix the value for following years of emissions accounting.

<sup>2</sup> The CRREM scenario does not provide absolute emissions figures (only intensities), so an absolute emissions pathway is not shown.



The quantification of our financed emissions and emissions intensities is largely based on estimates, and we have not been able to derive a physical emissions intensity that we believe is representative of the full CRE portfolio. Without actual energy use and/or emissions data for real estate properties in this portfolio we are unable to accurately track reductions in emissions or the emissions intensity for this

portfolio. As such, we have not set targets for those reductions. As the quality and availability of data improve, and as methodologies and scenarios continue to evolve over time, we may be able to update our analysis and approach in the future. At present, we remain committed to supporting actions that help the CRE sector reduce GHG emissions in line with a pathway to net zero.

## Commercial real estate decarbonization roadmap

### Nature of the challenge and key technologies

The commercial real estate sector accounts for a total of 760 million m<sup>2</sup> of floor space in Canada<sup>1</sup> and 8.9 billion m<sup>2</sup> of floor space in the United States, with total U.S. floor space projected to increase to 11.5 billion m<sup>2</sup> by 2050.<sup>2</sup> As most properties standing today will still be operational in 2050, the pace and scale of deep retrofits need to accelerate dramatically. Currently, less than 1% of total CRE building stock is retrofitted annually: the annual rate should be between 4% and 5%.

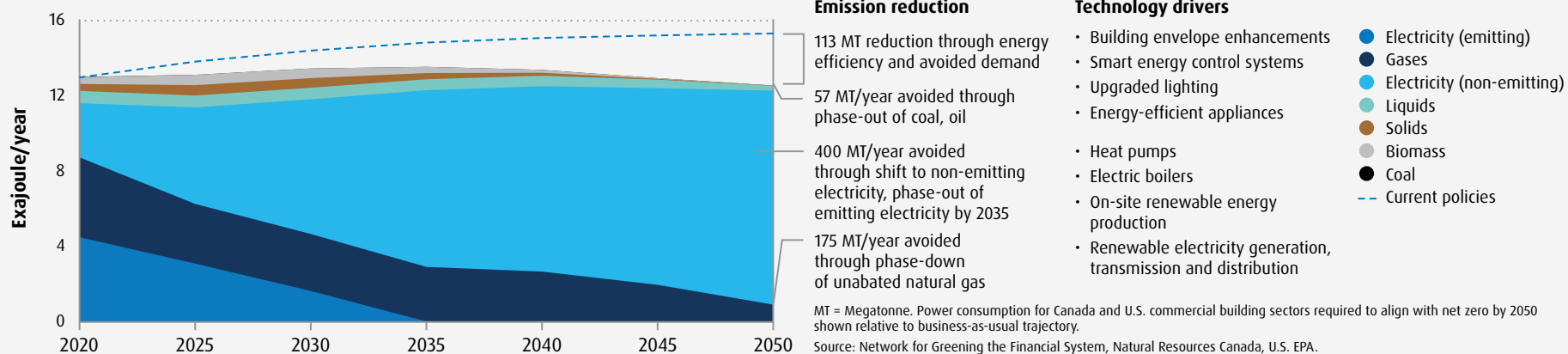
While incremental operational efficiencies have offset the expansion in floor space, annual emissions from the CRE sector have remained relatively unchanged, and absolute emissions are not yet declining along a pathway to net zero. Achieving net zero by 2050 requires a reduction in emissions of 7% every year until 2030<sup>3</sup>. This level of emission reductions requires urgent action to:

1. Decarbonize energy consumption by electrifying water and space heating, deploying heat pumps, installing on-site renewable energy systems, and incorporating non-emitting gases (hydrogen, renewable natural gas) into existing infrastructure where electrification is not feasible.

2. Reduce overall energy demand, primarily by enhancing the building envelope, optimizing the performance of internal systems (e.g., lighting, equipment), and integrating smart controls for energy consumption. These steps can reduce the energy intensity of real estate operations by 1% annually across the CRE sector.
3. Incorporate low-carbon building materials and follow net-zero ready standards for construction, so that new buildings are aligned with a low-carbon future.

As Figure 23 shows, current technologies can deliver significant reductions in emissions, and 90% of those reductions can be achieved by electrifying building systems. Unlike other sectors in which decarbonization solutions have not yet reached technological or commercial maturity, the key technologies necessary to reduce emissions in the CRE sector exist today, and their adoption can be accelerated with suitable financing, market demand and sources of emission-free power.

Figure 23: Commercial real estate decarbonization roadmap



<sup>1</sup> Source: [Natural Resources Canada](#). <sup>2</sup> Source: [U.S. Energy Information Administration](#). <sup>3</sup> Analysis provided by Guidehouse.

## Enablers

Governments at all levels can implement these actions to accelerate market adoption of deep commercial retrofits:

### 1. Leverage the reach of lenders to accelerate deep retrofit rates in the commercial sector

Achieving the annual deep retrofit rate needed to align the CRE sector with net zero requires sizeable investments, estimated to be \$280 billion in Canada<sup>1</sup> and \$180 trillion in the United States,<sup>2</sup> primarily in the form of upfront capital expenditures. With the scarcity of historical data on project economics, and with payback taking the form of cost savings over the long term, most lenders and investors will not see a return on investment for decades, which has limited any incentive in the private sector. Governments can accelerate capital flows by partnering with lenders to leverage the scale and distribution channels of financial institutions, and by introducing public-private financing solutions that combine capital stacks to offer larger sums, at favourable financing rates, with acceptable risk exposures and payback terms for lenders.

### 2. Stimulate the retrofit market

Federal, state and provincial governments are among the largest owners of property and consumers of energy, with significant market influence that they can leverage to stimulate demand for deep energy retrofits and non-emitting power solutions – across all geographic regions and property types. Governments can also pilot an industrialized approach to retrofitting, in which deep retrofits are undertaken across a portfolio of properties of similar type and age, capitalizing on economies of scale. This approach would have the added benefit of building expertise across the retrofit economy.

Federal, state, provincial and municipal governments can also drive growth in market demand by establishing building performance standards (BPS) for existing and new properties. When supported by enhanced transparency in emissions measurement and reporting, BPS can provide greater long-term certainty for the phase-down of CRE sector emissions.

### 3. Transition to a 100% renewable electricity grid

In jurisdictions powered by electricity from non-emitting sources, the electrification of building systems, combined with enhancements to the building envelope, can deliver significant reductions in emissions – immediately. However, in jurisdictions powered by electricity from sources that emit GHGs, the full potential of decarbonization will not be realized without a transformation of the electricity grid. Measures to electrify the CRE sector and enhance operational efficiency must be matched by a growing supply of electricity from non-emitting sources. Overall, electricity represented 40% of energy consumption in the CRE sector in 2020: this must reach 90% by 2050.<sup>3</sup> While 80% of the current electricity supply in Canada is generated using non-emitting sources,<sup>4</sup> electricity supply in the United States is farther off, with 40% generated using non-emitting sources.<sup>5</sup> For Canada and the United States together, this will require renewable power generation capacity to increase from 2,600 TWh/year today to more than 11,000 TWh/year by 2050.<sup>6</sup>

## What BMO is doing

BMO is focused on efforts that support decarbonization and enhanced climate resilience in the CRE sector, including:

Initiative	Description
<b>Launching innovative financing products to fund commercial retrofits</b>	<ul style="list-style-type: none"> <li>Offering first-of-its-kind financing, in collaboration with the Canada Infrastructure Bank, that helps owners of all types of commercial real estate secure the funding at the price and structure they need to finance decarbonization and energy efficiency retrofits (see page 25)</li> </ul>
<b>Developing partnerships and conducting analyses of the impacts of climate change in the CRE sector</b>	<ul style="list-style-type: none"> <li>Partnering with Concordia University to support a research project that models financial risk exposures in commercial real estate</li> <li>Partnering with Climate Engine, BMO Data and Analytics and BMO Equity Research to assess the financial implications of climate change for Real Estate Investment Trusts (REITs) in the United States</li> </ul>
<b>Convening industry to accelerate growth in sustainable finance</b>	<ul style="list-style-type: none"> <li>Participated in the Net-Zero Capital Allocation Working Group (NZCAWG) of the Sustainable Finance Action Council (SFAC), a government-mandated consortium of financial institutions that are providing recommendations for the mobilization of private capital to develop net-zero solutions, with support from the BMO Climate Institute</li> </ul>
<b>Sharing expertise and shaping the discussion of climate solutions</b>	<ul style="list-style-type: none"> <li>Participated in the 2023 Retrofit Canada Conference in Montreal and held a workshop on implementing deep retrofits for commercial buildings (see <a href="#">Taking Canada's building retrofits to the next level</a>)</li> <li>Presented at the Canada Green Building Council annual conference, with discussions of alternative financing models to accelerate retrofits and factoring resilience and climate risk into decarbonization strategies</li> <li>Launched <a href="#">Building a Sustainable Future</a> webinar and a two-part podcast, as well as <a href="#">Can U.S. REITs Take the Heat (Wind and Rain)</a> podcast.</li> </ul>

<sup>1</sup> Source: [Canada Green Building Council](#). <sup>2</sup> Source: [Princeton University](#). <sup>3</sup> Source: [Network for Greening the Financial System](#). <sup>4</sup> Source: [Canada Energy Regulator](#). <sup>5</sup> Source: [U.S. Energy Information Administration](#). <sup>6</sup> Source: [U.S. Energy Information Administration](#).

# Carbon-related assets

Lending associated with carbon-related assets is a Board-level key risk metric for BMO’s Risk Appetite.

In line with the TCFD Recommendations’ 2017 guidance, we define carbon-related assets as the value of net loans and acceptances connected to the energy and utilities sectors as a percentage of total net loans and acceptances, net of an allowance for credit losses for impaired loans. The definition does not include water utilities, independent power producers, electricity transmission and distribution companies, renewable electricity producers, nuclear electricity producers and waste management companies. In 2021, the TCFD updated its guidance document *Implementing the Recommendations of the Task Force on Climate-related Financial Disclosures*, including a revised definition of carbon-related assets. The revised definition of carbon-related assets includes all four non-financial groups identified by the TCFD: energy, transportation, materials and buildings, and agriculture, food and forest products.

In 2021, we established risk tolerance thresholds for lending to carbon-related assets based on the 2017 guidance from the TCFD, linked quantitatively to our financed emissions reduction targets. The thresholds came into effect at the beginning of the 2022 fiscal year, and are updated annually, with consideration given to decarbonization pathway modelling, TCFD recommendations, current industry practices, government policy objectives, and applicable law. In 2023, the Board also began to monitor our exposure to carbon-related assets under the TCFD 2021 definition.

Our lending to carbon-related assets in fiscal 2023, determined using 2017 guidance from the TCFD, was approximately \$10.0 billion, and represented 1.5% ♦ of total lending. Our lending to carbon-related assets has declined since 2019, because of strategic decisions taken at BMO regarding capital allocation and the prioritization of opportunities. Our exposure to carbon-related assets, determined using the revised 2021 TCFD definition was approximately \$136.1 billion, and represented 20.4% ♦ of total lending portfolio. The measures of our 2023 lending to carbon-related assets, as shown in Figure 24, reflect the impact of Bank of the West; historical data has not been restated. The contribution of Bank of the West is minimal for Metric 1. For Metric 2, without the Bank of the West’s portfolio our lending to carbon-related assets would have been 17.9%.

**Figure 24: BMO’s lending to carbon-related assets**

	2023	2022	2021	2020	2019
Lending to carbon-related assets – Metric 1 (non-renewable energy and power generation) <sup>1</sup> (%)	1.5 ♦	1.4	1.9	3.0	3.3
Lending to carbon-related assets – Metric 2 (includes Metric 1 plus transportation, materials and buildings, and agriculture, food and forest products) <sup>2</sup> (%)	20.4 ♦	19.8	-	-	-

♦ KPMG has provided limited assurance of this figure.

<sup>1</sup> This metric is aligned with the TCFD Recommendations’ 2017 guidance and is defined as the value of net loans and acceptances connected to the energy and utilities sectors as a percentage of total net loans and acceptances, net of the allowance for credit losses on impaired loans. It does not include water utilities, independent power producers, electricity transmission and distribution companies, renewable electricity producers, nuclear electricity producers and waste management companies.

<sup>2</sup> This metric is aligned with the TCFD Recommendations’ 2021 guidance and includes sectors covered in Metric 1 as well as transportation, materials and buildings, and agriculture, food and forest products.

# Appendix

## A: Sectoral financed emissions measurement and progress toward targets

### Upstream oil and gas – Global

**Figure A.1: Upstream oil and gas financed emissions summary**

		2022	2021	2020	2019
Canada	<b>Loans outstanding (\$ millions)</b>	1,390 ◆	2,425	3,003	2,917
	<b>Scope 1 and 2</b>				
	Financed emissions (ktCO <sub>2</sub> e)	347 ◆	665	1,146	887
	Portfolio PCAF data quality score	2.0 ◆	1.7	1.7	2.1
	Economic emissions intensity (tCO <sub>2</sub> e/\$ millions of loans outstanding)	250 ◆	274	382	304
	Physical emissions intensity (tCO <sub>2</sub> e/TJ)	6.4 ◆	5.6	5.9	5.3
	Rest of world <sup>1</sup>	<b>Loans outstanding (\$ millions)</b>	656 ◆	2,046	5,120
<b>Scope 1 and 2</b>					
Financed emissions (ktCO <sub>2</sub> e)		159 ◆	605	1,210	1,382
Portfolio PCAF data quality score		3.2 ◆	3.6	3.5	4.0
Economic emissions intensity (tCO <sub>2</sub> e/\$ millions of loans outstanding)		242 ◆	296	236	245
Physical emissions intensity (tCO <sub>2</sub> e/TJ)		3.0 ◆	3.2	3.0	3.4
Global		<b>Loans outstanding (\$ millions)<sup>2</sup></b>	2,046 ◆	4,471	8,123
	<b>Downstream Scope 3</b>				
	Financed emissions (ktCO <sub>2</sub> ) <sup>3</sup>	6,852 ◆	19,320	37,645	38,914
	Portfolio PCAF data quality score	3.1 ◆	3.3	3.1	3.4
	Economic emissions intensity (tCO <sub>2</sub> /\$ millions of loans outstanding)	3,350 ◆	4,321	4,635	4,550
	Physical emissions intensity (tCO <sub>2</sub> /TJ)	64.4 ◆	62.6	63.2	62.2

Data sources

- Internal Risk Rating Tool
- S&P Trucost Capital IQ
- Publicly available disclosures
- IPCC Guidelines for National Greenhouse Gas Inventories (2006)

◆ KPMG has provided limited assurance of this figure.

<sup>1</sup> In 2020, we announced a decision to wind down our non-Canadian investment and corporate banking energy business. We anticipate the majority of run-off will occur before 2030.

<sup>2</sup> Our methodology includes our global portfolio of upstream oil and gas borrowers operating in Crude Petroleum Extraction and Natural Gas Extraction NAICS codes, and therefore outstanding loan balances reported here are not the same as the outstanding loan balances for oil and gas reported in the BMO Supplementary Financial Information package.

<sup>3</sup> Greenhouse gases other than CO<sub>2</sub> are excluded due to relative immateriality and to align our financed emissions calculations with the metrics used in the climate models and decarbonization pathways we evaluated (refer to our 2021 Climate Report). Emission factors are sourced from the IPCC Guidelines for National Greenhouse Gas Inventories (2006).

**Figure A.2: Upstream oil and gas targets**

<b>Activity focus</b>	Global upstream oil and gas portfolio	
<b>Emissions scope</b>	Scope 1 and Scope 2 emissions	Downstream Scope 3 emissions
<b>Metric</b>	Carbon intensity (tCO <sub>2</sub> e/TJ of primary energy)	Absolute emissions (tCO <sub>2</sub> e)
<b>Net-zero-aligned target</b>	Targeting a 33% reduction in portfolio emissions intensity by 2030.	Targeting a 24% reduction in <b>absolute</b> Scope 3 emissions by 2030.

CAUTION: During the COVID-19 pandemic in 2020, corporate valuations for companies in the oil and gas sector declined substantially. Applying the PCAF Standard, such declines result in an increase in attributed emissions, whether or not there was an actual increase in reported emissions or an increase in lending to the company. In fact, an analysis of the actual reported absolute emissions for publicly traded oil and gas borrowers in our portfolio (for which corporate valuation data exists) determined that Scope 1 and 2 emissions for 2020 were relatively unchanged from 2019 levels. By contrast, the attributed emissions for this same subset, calculated by applying the PCAF Standard, were almost 40% higher. The increase was largely due to changes in corporate valuations, as noted above, and did not reflect an increase in actual emissions. In 2021, actual reported absolute emissions for this subset declined 1% year-over-year, but attributed emissions declined 45% year-over-year as corporate valuations recovered, resulting in lower attribution rates relative to 2020. This limitation of the PCAF Standard impairs comparability of financed emissions data from year to year.

Our analysis of financed emissions uses outstanding loan amounts at the fiscal year end in line with the PCAF Standard. Using year-end balances of drawn amounts can cause year-over-year fluctuations in emissions data unrelated to the actual emissions activity of our clients or new lending authorized to those clients as existing clients can draw on authorized credit at any time. This may impact our progress toward targets.

In 2021, we surpassed our target for reductions in Scope 3 emissions with a reduction of 50% in absolute emissions relative to our 2019 baseline. By the end of 2022, the Scope 3 emissions from our oil and gas portfolio was 83% lower than in 2019.

## Actions to achieve targets

### Implementation Strategy

Products, services, policies, activities, or decision-making that advance the achievement of BMO's targets

Actions	Impact on client and sectoral decarbonization
Developing sustainable finance products, including transition bonds, with financing contingent on decarbonization KPIs	Sustainable financing to support companies pursuing sustainable outcomes. Proceeds may help clients realize decarbonization strategies by achieving KPIs such as improvements in energy efficiency, reductions in GHG emissions, increases in the amount of renewable power, sustainable procurement, etc.
Tracking energy transition financing	Automated tracking of labelled loan products using drop-down menu to tag whether a loan is green, transition, or sustainability-linked. Manual tracking of advisory services and sustainable bond underwriting, as well as manual tracking of sustainable investments, equity and debt financing, and lending authorized for clients pursuing sustainable outcomes.  Tracking energy-related financing activities improves insights across the enterprise and informs internal data-driven decisions related to decarbonization efforts.
Acquired Radicle to develop carbon credit generation and trading capabilities	Originating carbon credits with clients through decarbonization projects, which can create financial incentives for clients to engage in climate-aligned activities and build out low-carbon portfolios. Carbon pricing and carbon market opportunity cost can be integrated into client data profiles to promote identification of opportunities and risks related to carbon intensity.

### Engagement Strategy

Efforts to educate, advise, and/or collaborate with clients, industries and governments on the transition

Actions	Impact on client and sectoral decarbonization
Established the Energy Transition Group (ETG)	Help clients identify opportunities emerging in the energy transition, with key insights into the use of hydrogen, CCUS and alternative energy sources to reduce client emissions in the energy sector.
Create new capital deployment partnership	Unlocks private capital that would otherwise not be available for investment and financing in support of decarbonization.
Early-stage tracking of ETG activities with clients	Tagging function on Salesforce is used by Energy Transition Group to flag the time and date of an ETG engagement with a client, allowing BMO to evaluate and monitor client engagement on sustainable finance and ETG-related activities. This supports a more systematic way of engaging with clients and will inform future engagement strategy.
Tracking client transition action plan activities	We are beginning to collect data on clients' transition action plans through a credit risk process. Environmental and social risk rating (ESRR) assessment templates were enhanced to collect climate-related client information for the oil and gas sector, as well as other sectors. We introduced a Client Transition Action Readiness Assessment into the ESRR templates in 2024 which will apply initially to certain Canadian clients of BMO Capital Markets, based on an assessment of their risk. This will help us better assess the risks the client presents to the bank, while also providing insight into opportunities for further client engagement and assistance in managing their transition. See page 38 for more information.

## Power generation – Canada

Figure A.3: Power generation financed emissions summary<sup>1</sup>

	2022	2021	2020	2019
Canada				
<b>Loans outstanding (\$ millions)</b>	1,473 <span style="color: green;">◆</span>	1,441 <span style="color: green;">◆</span>	1,100	1,339
<b>Scope 1</b>				
Financed emissions (ktCO <sub>2</sub> e)	403 <span style="color: green;">◆</span>	249 <span style="color: green;">◆</span>	332	360
Portfolio PCAF data quality score	3.4 <span style="color: green;">◆</span>	3.1 <span style="color: green;">◆</span>	3.1	3.5
Economic emissions intensity (tCO <sub>2</sub> e/\$ millions of loans outstanding)	274 <span style="color: green;">◆</span>	173 <span style="color: green;">◆</span>	302	269
Physical emissions intensity (tCO <sub>2</sub> e/MWh of electricity generated) <sup>2</sup>	0.24 <span style="color: green;">◆</span>	0.08 <span style="color: green;">◆</span>	0.16	0.20

Data sources

- Internal Risk Rating Tool
- Emission factors from Canada’s National Inventory Report (2023, 2022, 2021) and U.S. eGRID and Ember database
- Publicly available company disclosures
- S&P Trucost Capital IQ

Figure A.4: Share of low-carbon generation in portfolio (% of total loans outstanding)<sup>3</sup>

	2022	2021	2020	2019
Canada	89%	89%	79%	76%

Figure A.5: Power generation targets

<b>Activity focus</b>	Canadian power generation portfolio
<b>Emissions scope</b>	Scope 1 emissions from fuel combustion for electricity generation
<b>Metric</b>	Carbon intensity (tCO <sub>2</sub> e/MWh of electricity generated) Share of low-carbon power generation in the portfolio
<b>Net-zero-aligned target</b>	Targeting a Canadian portfolio carbon intensity of 0.06 tCO <sub>2</sub> e/MWh by 2030, which is indicated by an 88% share of low-carbon power generation.

CAUTION: Our analysis of financed emissions uses on-balance sheet lending activities, in line with the PCAF Standard which calls for the use of outstanding loan amounts at the fiscal year end. Using year end balances of drawn amounts can cause year-over-year fluctuations in emissions data unrelated to the actual emissions activity of our clients or new lending authorized to those clients as existing clients can draw on authorized credit at any time. This may impact our progress toward targets.

◆ KPMG has provided limited assurance of this figure.

<sup>1</sup> Loans outstanding include only eligible assets for power generation specifically and therefore may vary from outstanding loan balances reported as “Utilities” in BMO’s Supplementary Financial Information package.

<sup>2</sup> Canadian physical emissions intensity is calculated for borrowers with available electricity generation data (representing 61% of the power generation share of outstanding loans in 2019, 74% in 2020, 64% in 2021, and 51% in 2022).

<sup>3</sup> Includes hydro, wind, solar, biomass and nuclear power generation.

## Actions to achieve target

### Implementation Strategy

Products, services, policies, activities, or decision-making that advance the achievement of BMO’s targets

Actions	Impact on client and sectoral decarbonization
Pursuing clean power generation financing opportunities	Support electrification and increase the share of renewable electricity generation aligned with net zero by 2050 policy objectives.

### Engagement Strategy

Efforts to educate, advise, and/or collaborate with clients, industries and governments on the transition

Actions	Impact on client and sectoral decarbonization
Working with clients to advise on, and finance, current and new clean energy generation and associated technologies	Identification and advancement of energy transition opportunities for our clients, increasing the share of low-carbon power generation in our portfolio.
Tracking client transition action plan activities	We are beginning to collect data on clients’ action plans for transition through a credit risk process. Environmental and social risk rating (ESRR) assessment templates were enhanced to collect climate-related client information for the power generation sector, as well as other sectors. We introduced a Client Transition Action Readiness Assessment into the ESRR templates in 2024 which will apply initially to Canadian clients of BMO Capital Markets, based on an assessment of their risk. This will help us better assess the risks the client presents to the bank, while also providing insight into opportunities for further client engagement and assistance in managing their transition. See page 38 for more information.

## Personal automobiles – Canada

**Figure A.6: Personal automobile lending financed emissions summary**

	2023	2022	2021	2020	2019
<b>Loans outstanding (\$ millions)</b>	6,319	8,537 ◆	8,190	7,809	7,752
<b>Scope 1 and 2</b>					
Financed emissions (ktCO <sub>2</sub> ) <sup>1</sup>	512	753 ◆	794	828	855
Portfolio PCAF data quality score	3.2	3.2 ◆	3.1	3.1	3.1
Economic emissions intensity (tCO <sub>2</sub> /\$ millions of loans outstanding)	81	88 ◆	97	106	110
Physical emissions intensity (kgCO <sub>2</sub> /auto-km financed)	0.21	0.22 ◆	0.22	0.23	0.23
<b>Zero-emission vehicle (ZEV) share</b>					
ZEVs in portfolio (% of total loans outstanding)	8.5%	5.5%	2.9%	0.9%	0.6%
New ZEVs in portfolio of new loans originated (% of loans outstanding)	25.1%	18.4% ◆	11.0%	1.7%	2.0%
Data sources	<ul style="list-style-type: none"> <li>• U.S. Department of Transportation National Highway Traffic Safety Administration for auto information</li> <li>• U.S. Department of Energy for fuel efficiency</li> <li>• Statistics Canada for annual distance travelled (2009)</li> <li>• Emission factors from Canada's National Inventory Report (2022, 2021, 2020)</li> <li>• PCAF Database emission factors</li> </ul>				

**Figure A.7: Personal automobiles targets**

<b>Activity focus</b>	Canadian personal auto lending portfolio
<b>Emissions scope</b>	Scope 1 and 2 “tank-to-wheel” emissions from auto fuel combustion and electricity consumption
<b>Metric</b>	Share of new loan originations to zero emissions autos
<b>Scenario</b>	IEA NZE Government of Canada
<b>Net-zero-aligned target</b>	Targeting the share of new loans for new light-duty cars and passenger trucks in Canada that are ZEVs to be 100% by 2035.

In September 2023, we announced our decision to wind down our indirect retail auto finance business. As a result of the decision, we are reporting the financed emissions associated with our personal automobile lending portfolio for the last time in this report.

◆ KPMG has provided limited assurance of this figure.

<sup>1</sup> Greenhouse gases other than CO<sub>2</sub> are excluded due to relative immateriality, to align our financed emissions calculations with the metrics used in the climate models and decarbonization pathways we evaluated (refer to our 2021 Climate Report), and because emission factors sourced from the PCAF database are expressed as kgCO<sub>2</sub>/km.

## Residential real estate – Canada

Figure A.8: Residential mortgages financed emissions summary

	2022	2021	2020	2019
<b>Loans outstanding (\$ millions)<sup>1</sup></b>	117,165	110,051	102,693	99,148
<b>Scope 1 and 2</b>				
Financed emissions (ktCO <sub>2</sub> ) <sup>2</sup>	963	1,057	1,123	1,155
Portfolio PCAF data quality score	4.1	4.1	4.2	4.2
Economic emissions intensity (tCO <sub>2</sub> /\$ millions of loans outstanding)	8.2	9.6	10.9	11.7
Physical emissions intensity (kgCO <sub>2</sub> /m <sup>2</sup> financed) <sup>3</sup>	26.2	28.0	29.2	29.2
Data sources	<ul style="list-style-type: none"> <li>Natural Resources Canada for average household energy use (2020)</li> <li>Emission factors from Canada's National Inventory Report (2022, 2021, 2020)</li> </ul>			

## Agriculture – Global

Figure A.9: Agriculture financed emissions summary<sup>4</sup>

	2021	2020
<b>Loans outstanding (\$ millions)<sup>5</sup></b>	13,709	13,268
<b>Scope 1 and 2</b>		
Financed emissions (ktCO <sub>2</sub> e)	9,995	9,263
Portfolio PCAF data quality score	4.3	4.3
Economic emissions intensity (tCO <sub>2</sub> e/\$ millions of loans outstanding)	729	698
Data sources	<ul style="list-style-type: none"> <li>Internal Risk Rating Tool</li> <li>PCAF emission factor database</li> </ul>	

KPMG has provided limited assurance of this figure.

<sup>1</sup> In the PCAF methodology for residential real estate, loans outstanding include only eligible assets, and therefore are not the same as the outstanding loan balances for residential mortgages reported in the BMO Supplementary Financial Information package.

<sup>2</sup> Greenhouse gases other than CO<sub>2</sub> are excluded due to relative immateriality and to align our financed emissions calculations with the metrics used in the climate models and decarbonization pathways we evaluated.

<sup>3</sup> Physical emissions intensity is calculated for properties with available data for floor area (81% of the portfolio in 2019, 85% in 2020, 87% in 2021, and 89% in 2022).

<sup>4</sup> Financed emissions for 2020 have been recalculated for this sector using emission factors from the updated PCAF Database, and applying the sector average emission factors for advanced economies.


For more information, see the PCAF Database emission update section on page 45.

<sup>5</sup> Loans outstanding include only eligible assets for Agriculture and may vary slightly from outstanding loan balances reported as "Agriculture" in BMO's Supplementary Financial Information package as additional loans that are labelled as "Other" are included in the sectoral analysis.



# Independent Practitioner's Limited Assurance Report

## To Management of Bank of Montreal:

We have undertaken a limited assurance engagement on selected indicators of Bank of Montreal ("BMO"), denoted by the symbol  in the accompanying 2023 Climate Report (the "Report") ("subject matter information") and as described below, as at and for the year-ended October 31, 2023.

Topic	Selected Indicator(s)	Reported Value for 2023	Climate Report Page(s)	Applicable Criteria
Climate change <sup>1</sup>	Lending to carbon-related assets – Metric 1 (non-renewable energy and power generation) (%)	1.5%	51	Internally developed criteria, which is presented on pages 89-92 of the <a href="#">2023 Sustainability Report</a> .
	Lending to carbon-related assets – Metric 2 (includes Metric 1 plus transportation, materials and buildings, and agriculture, food and forest products) (%)	20.4%	51	
Financed emissions – Total Portfolio <sup>2</sup>	Business and government lending portfolio – 2022 full portfolio (%)	• Upstream oil and gas	4%	46
		• All other	25%	
		• Agriculture	47%	
		• Power generation	18%	
		• Heavy Industry	<1%	
		• Commercial real estate	1%	
Financed emissions – Upstream Oil and Gas (Canada) <sup>2</sup>	Loans outstanding (\$ millions)	Financed emissions (ktCO <sub>2</sub> e) for Scope 1 and 2	\$1,390 million	52
		Portfolio Partnership for Carbon Accounting Financials (PCAF) data quality score	347 ktCO <sub>2</sub> e	
		Economic emissions intensity (tCO <sub>2</sub> e/\$ millions loan outstanding)	2.0	
		Physical emissions intensity (tCO <sub>2</sub> e/TJ)	250	
			6.4	
Financed emissions – Upstream Oil and Gas (Rest of World) <sup>2</sup>	Loans outstanding (\$ millions)	Financed emissions (ktCO <sub>2</sub> e) for Scope 1 and 2	\$656 million	52
		Portfolio PCAF data quality score	159 ktCO <sub>2</sub> e	
		Economic emissions intensity (tCO <sub>2</sub> e/\$ millions loan outstanding)	3.2	
		Physical emissions intensity (tCO <sub>2</sub> e/TJ)	242	
			3.0	
Financed emissions – Upstream Oil and Gas (Global) <sup>2</sup>	Loans outstanding (\$ millions)	Financed emissions (ktCO <sub>2</sub> ) for Downstream Scope 3	\$2,046 million	52
		Portfolio PCAF data quality score	6,852 ktCO <sub>2</sub>	
		Economic emissions intensity (tCO <sub>2</sub> /\$ millions loan outstanding)	3.1	
		Physical emissions intensity (tCO <sub>2</sub> /TJ)	3,350	
			64.4	
Financed emissions – Power Generation (Canada) <sup>2,3</sup>	Loans outstanding (\$ millions)	Financed emissions (ktCO <sub>2</sub> e) for Scope 1	\$1,441 million (2021) \$1,473 million (2022)	54
		Portfolio PCAF data quality score	249 ktCO <sub>2</sub> e (2021) 403 ktCO <sub>2</sub> e (2022)	
		Economic emissions intensity (tCO <sub>2</sub> e/\$ millions loan outstanding)	3.1 (2021) 3.4 (2022)	
		Physical emissions intensity (tCO <sub>2</sub> e/MWh of electricity generated)	173 (2021) 274 (2022)	
			0.08 (2021) 0.24 (2022)	
Financed emissions – Personal Motor Vehicles (Canada) <sup>2</sup>	Loans outstanding (\$ millions)	Financed emissions (ktCO <sub>2</sub> ) for Scope 1 and 2	\$8,537 million	55
		Portfolio PCAF data quality score	753 ktCO <sub>2</sub>	
		Economic emissions intensity (tCO <sub>2</sub> /\$ millions loan outstanding)	3.2	
		Physical emissions intensity (kgCO <sub>2</sub> /vehicle-km financed)	88	
		New Zero Emission Vehicles (ZEVs) in portfolio of new loans originated (% of loans outstanding)	0.22	
			18.4%	
Financed emissions – Residential Real Estate (Canada) <sup>2</sup>	Loans outstanding (\$ millions)	Financed emissions (ktCO <sub>2</sub> ) for Scope 1 and 2	\$117,165 million	56
		Portfolio PCAF data quality score	963 ktCO <sub>2</sub>	
		Economic emissions intensity (tCO <sub>2</sub> /\$ millions loan outstanding)	4.1	
		Physical emissions intensity (kgCO <sub>2</sub> /m <sup>2</sup> financed)	8.2	
			26.2	
Financed emissions – Agriculture (Global) <sup>3</sup>	Loans outstanding (\$ millions)	Financed emissions (ktCO <sub>2</sub> e) for Scope 1 and 2	\$13,709 million	56
		Portfolio PCAF data quality score	9,995 ktCO <sub>2</sub> e	
		Economic emissions intensity (tCO <sub>2</sub> e/\$ millions loan outstanding)	4.3	
			729	

PCAF (2022). The Global GHG Accounting and Reporting Standard Part A: Financed Emissions. Second Edition issued by the Partnership for Carbon Accounting Financials. The Standard can be found [here](#).

Other than as described in the preceding paragraph, we did not perform assurance procedures on the remaining information included in the Report, and accordingly, we do not express a conclusion on this information.

<sup>1</sup> As at and for the year-ended, October 31, 2023 <sup>2</sup> As at and for the year-ended, October 31, 2022 <sup>3</sup> As at and for the year-ended, October 31, 2021

### Management's Responsibility

Management is responsible for the preparation and presentation of the subject matter information in accordance with the applicable criteria (the "applicable criteria").

There are no mandatory requirements for the preparation or presentation of the subject matter information. As such, BMO has applied the following applicable criteria:

- For financed emissions, PCAF (2022). The Global GHG Accounting and Reporting Standard Part A: Financed Emissions. Second Edition issued by the Partnership for Carbon Accounting Financials to calculate the Financed Emissions Indicators. The Standard can be found [here](#);
- For selected indicators within the Climate change topic, BMO's own internally developed measurement methods as described in the Glossary on pages 89-92 of the [2023 Sustainability Report](#);

Management is responsible for the development of such criteria and for determining the appropriateness of the use of the applicable criteria.

Management is also responsible for determining BMO's objectives in respect of sustainability performance and reporting, including the identification of stakeholders and material issues.

Management is also responsible for such internal control as management determines necessary to enable the preparation and presentation of the subject matter information that is free from material misstatement, whether due to fraud or error.

### Practitioner's Responsibilities

Our responsibility is to express a limited assurance conclusion on the subject matter information based on evidence we have obtained. We conducted our limited assurance engagement in accordance with Canadian Standards on Assurance Engagements (CSAE) 3000, *Attestation Engagements Other than Audits or Reviews of Historical Financial Information* and CSAE 3410, *Assurance Engagements on Greenhouse Gas Statements*. These standards require that we plan and perform our engagement to obtain limited assurance about whether based on the procedures performed and evidence obtained, any matter(s) has come to our attention to cause us to believe that the subject matter information is materially misstated.

The procedures performed in a limited assurance engagement vary in nature and timing from and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Accordingly, it is not a guarantee that a limited assurance engagement conducted in accordance with this standard will always detect a matter that causes the practitioner to believe that the subject matter information is materially misstated.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of users of our report.

The nature, timing and extent of procedures performed depends on our professional judgment, including an assessment of the risks of material misstatement, whether due to fraud or error, and involves obtaining evidence about the subject matter information.

Our engagement included: assessing the appropriateness of the subject matter information, the suitability of the criteria used by BMO in preparing the subject matter information in the circumstances of the engagement and evaluating the appropriateness of the: methods, policies and procedures, and models used in the preparation of subject matter information and the reasonableness of estimates made by BMO.

Our engagement included, amongst others, the following procedures:

- Inquiries of BMO's management, including those with responsibility for sustainability reporting governance, management and reporting;
- Assessment of the suitability, application and disclosure of the applicable criteria in respect of the subject matter information;

- Where relevant, performance of walkthroughs to understand the processes for data collection and reporting of the subject matter information;
- Comparisons of the reported data for the subject matter information to underlying data sources on a sample basis;
- Inquiries with relevant personnel regarding key assumptions and the limited re-performance of calculations on a sample basis; and
- Review of the presentation and disclosure of the subject matter information

The engagement was conducted by a multidisciplinary team which included professionals with suitable skills and experience in both assurance and in the applicable subject matter, including environmental, social and governance aspects.

### Practitioner's Independence and Quality Management

We have complied with the relevant rules of professional conduct/code of ethics applicable to the practice of public accounting and related to assurance engagements, issued by various professional accounting bodies, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies Canadian Standard on Quality Management 1, *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements* which requires the firm to design, implement and operate a system of quality management, including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

### Significant Inherent Limitations

Historical non-financial information, such as that contained in the Report, is subject to more inherent limitations than historical financial information, given the qualitative characteristics of the underlying subject matter and methods used for determining this information. The absence of a significant body of established practice on which to draw allows for the selection of different but acceptable evaluation techniques, which can result in materially different measurements and can impact comparability. The nature and methods used to determine such information, as described in the applicable criteria, may change over time, and it is important to read BMO's reporting methodology presented on pages 89-92 of the [2023 Sustainability Report](#).

### Conclusion

Our conclusion has been formed on the basis of, and is subject to, the matters outlined in this report. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion. Based on the procedures performed and evidence obtained, no matters have come to our attention to cause us to believe that BMO's subject matter information as at and for the year ended October 31, 2023 is not prepared and presented, in all material respects, in accordance with the applicable criteria.

### Specific Purpose of Subject Matter Information

The subject matter information has been prepared in accordance with the applicable criteria and as a result may not be suitable for another purpose.



### Chartered Professional Accountants

Toronto, Canada

March 6, 2024

# Important Notice Regarding This Report

## Cautionary statement regarding forward-looking information

Certain statements in this report are forward-looking statements under the United States Private Securities Litigation Reform Act of 1995 (and are made pursuant to the 'safe harbour' provisions of such Act) and applicable Canadian securities legislation. These forward-looking statements include, but are not limited to, statements with respect to our purpose, objectives and priorities for fiscal 2024 and beyond, our strategies or future actions, sustainable lending and underwriting targets, sustainable investment targets, BMO's Climate Ambition, net-zero financed emissions targets and reducing operational GHG emissions. Forward-looking statements are typically identified by words such as "strive", "targeting", "committed", "commitment", "ambition", "goal", "expect", "plan", "will", "may", "aim to", "would", "should", "believe", "anticipate", "project", "intend", "estimate", "might", "schedule", "forecast", "seek" and "could" and other similar expressions.

By their nature, forward-looking statements are based on various assumptions and are subject to inherent risks and uncertainties, both general and specific in nature. Certain statements made in this report use a greater number and level of assumptions and estimates and are over longer time frames than many of our required disclosures. These assumptions and estimates are highly likely to change over time. Certain statements in this report are based on hypothetical or severely adverse scenarios and assumptions, and these statements should not necessarily be viewed as being representative of current or actual risk or forecasts of expected risk. While future events discussed in this report may be significant, any significance should not be read as necessarily rising to the level of materiality of the disclosures required under Canadian or U.S. federal securities laws. In addition, our climate risk analysis and net-zero strategy remain under development, and the data underlying our analysis and strategy remain subject to evolution over time. As a result, we expect that certain disclosures made in this report are likely to be amended, updated or restated in the future as the quality and completeness of our data and methodologies continue to improve.

We caution readers of this report not to place undue reliance on our forward-looking statements as there is significant risk that the assumptions underlying such statements may not turn out to be correct and a number of factors could cause actual future results, conditions, actions or events to differ materially from the targets, commitments, ambitions, plans or goals expressed in the forward-looking statements. Such factors include, but are not limited to: the availability of comprehensive and high-quality GHG emissions data and standardization of climate-related measurement methodologies, climate-related conditions and weather events, the evolution of our lending portfolios over time, the need for active and continued participation of stakeholders (including enterprises, financial institutions and governmental and non-governmental organizations), the development and deployment of new technologies and industry-specific solutions, the evolution of customer behaviour, international cooperation, the development of regulations internationally, the challenges of balancing emission reduction targets with an orderly and inclusive transition and geopolitical factors that impact global energy needs, our ability to gather and verify data, our ability to successfully implement various initiatives under expected time frames, the compliance of various third parties with our policies and procedures and legal requirements, general economic and market conditions in the countries in which we operate, exposure to, and the resolution of, significant litigation or regulatory matters, our ability to successfully appeal adverse outcomes of such matters and the timing, determination and recovery of amounts related to such matters, global capital markets activities and those other factors set out in the Enterprise-Wide Risk Management section of BMO's 2023 Annual Report that may affect our future results and our ability to anticipate and effectively manage risks arising from all of the foregoing factors. We caution that the foregoing list is not exhaustive of all possible factors. For further information on the assumptions, risks, uncertainties, and other factors affecting the bank's emissions targets, see the A Note about Data Challenges section on page 42 and the Financed Emissions section on page 44. These factors should be considered in addition to other uncertainties and potential events, and the inherent uncertainty of forward-looking statements.

Material economic assumptions underlying the forward-looking statements contained in this document include those set out in the Economic Developments and Outlook section, and the Allowance for Credit Losses section, of BMO's 2023 Annual Report, as updated by quarterly reports.

BMO does not undertake to update any forward-looking statement, whether written or oral, that may be made, from time to time, by the organization or on its behalf, except as required by law.

## Non-GAAP and Other Financial Measures

Results and measures in BMO's Management's Discussion and Analysis dated December 1, 2023 for the fiscal year ended October 31, 2023 ("2023 Annual MD&A") and this document are presented on an International Financial Reporting Standards ("IFRS") basis. We use the terms IFRS and Generally Accepted Accounting Principles ("GAAP") interchangeably. Adjusted net income by geography is a non-GAAP ratio. Readers are cautioned that non-GAAP measures and ratios do not have standardized meanings. They are unlikely to be comparable to similar measures and ratios presented by other companies and should not be viewed in isolation from, or as a substitute for, GAAP results. For additional information regarding the composition of our non-GAAP and other financial measures, an explanation of how non-GAAP and other financial measures provide useful information, any additional purposes for which management uses such measures, and a quantitative reconciliation of adjusted net income to the most directly comparable financial measure in BMO's financial statements for the period ended October 31, 2023, see Non-GAAP and Other Financial Measures starting on page 28 and the Glossary of Financial Terms starting on page 135 of the 2023 Annual MD&A. This information and the reconciliation are incorporated by reference. The 2023 Annual MD&A is available on SEDAR+ at [www.sedarplus.ca](http://www.sedarplus.ca) and on BMO's website at [www.bmo.com/investorrelations](http://www.bmo.com/investorrelations).

## Other disclaimers

This report includes voluntary disclosures on sustainable lending and underwriting targets, sustainable investment targets, operational GHG emissions and targets, climate-related opportunities and risks, governance, strategy, risk management and metrics and targets that may not be, and are not required to be, incorporated into our mandatory disclosures, where we use a definition of materiality established under applicable securities laws for the purpose of complying with the disclosure rules and regulations promulgated by applicable securities regulators and applicable stock exchange listing standards.

Nothing in this report shall constitute, or form part of, an offer to sell or a solicitation of an offer to buy or subscribe for any security or other instrument of the bank or any of its affiliates, or as an invitation, recommendation or inducement to enter into any investment activity, and no part of this document shall form the basis of, or be relied upon in connection with, any contract, commitment or investment decision. Offers to sell, sales, solicitations of offers to buy or purchases of securities issued by the bank or any of its affiliates may only be made or entered into pursuant to appropriate offering materials prepared and distributed in accordance with the laws, regulations, rules and market practices of the jurisdictions in which such offers, solicitations or sales may be made. Professional advice should be sought prior to any decision to invest in securities.

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## BMO's Sustainability Leaders Podcast

BMO's Sustainability Leaders podcast series introduces you to the innovative minds and diverse perspectives that are pushing the boundaries in sustainability good practice.

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