# Climate report.



2022 Annual Report



## Introduction

2022 Climate highlights

## **Climate governance**

Board oversight of climate-related risks and opportunities Board committees' climate-related mandate Management structure and accountabilities

## **Climate strategy and** transition plan

Our approach
Our climate commitments
Our interim climate targets
Lending-related targets
Targets relating to managed client investments
Climate-related policies and processes
Lending
Managed client investments
Products and services to address climate change
Engagement and culture
Engagement with our value chain
Engagement with industry, peers, and community partners
Engagement with government

## **Climate risk management**

Process for identifying and assessing climate risks	
Climate risks and opportunities	
Impacts from climate risks and opportunities on business, strategy, and financial planning	
Managing climate risks and integration of climate risk into risk management practices	

	Climate metrics and targets	16
	Progress on Vancity's interim climate targets	18
	Context	18
	Progress and actions	18
	Reviewing our targets	19
(	Operational greenhouse gas emissions— scope 1, 2, and 3 (categories 1, 6, 7, and 8)	21
	Financed emissions—scope 3 (category 15)	24
	Changes to data and methodologies since 2021	24
	Vancity's overall financed emissions profile by asset class (estimated)	25
	Methodology for interim	
,	climate targets	33
	Lending-related targets	33
	Lending-related targets Net-Zero Banking Alliance (NZBA) disclosure checklist: targets	33 33
	Lending-related targets Net-Zero Banking Alliance (NZBA) disclosure checklist: targets Targets relating to managed client	33 33
	Lending-related targets Net-Zero Banking Alliance (NZBA) disclosure checklist: targets Targets relating to managed client investments (off-balance sheet)	33 33 35
	Lending-related targets Net-Zero Banking Alliance (NZBA) disclosure checklist: targets Targets relating to managed client investments (off-balance sheet) <b>Methodologies for</b>	33 33 35
	Lending-related targets Net-Zero Banking Alliance (NZBA) disclosure checklist: targets Targets relating to managed client investments (off-balance sheet) Methodologies for emissions calculations	33 33 35 36
	Lending-related targets Net-Zero Banking Alliance (NZBA) disclosure checklist: targets Targets relating to managed client investments (off-balance sheet) <b>Methodologies for</b> <b>emissions calculations</b> Scope 1, 2, and 3—operational emissions	33 33 35 <u>36</u> 36
	Lending-related targets Net-Zero Banking Alliance (NZBA) disclosure checklist: targets Targets relating to managed client investments (off-balance sheet) <b>Methodologies for</b> <b>emissions calculations</b> Scope 1, 2, and 3—operational emissions Introduction	33 33 35 36 36 36
	Lending-related targets Net-Zero Banking Alliance (NZBA) disclosure checklist: targets Targets relating to managed client investments (off-balance sheet) <b>Methodologies for</b> <b>emissions calculations</b> Scope 1, 2, and 3—operational emissions Introduction Objectives	33 33 35 36 36 36
	Lending-related targets Net-Zero Banking Alliance (NZBA) disclosure checklist: targets Targets relating to managed client investments (off-balance sheet) <b>Methodologies for</b> <b>emissions calculations</b> Scope 1, 2, and 3—operational emissions Introduction Objectives Reporting period covered	33 33 35 36 36 36 36 36
	Lending-related targets Net-Zero Banking Alliance (NZBA) disclosure checklist: targets Targets relating to managed client investments (off-balance sheet) <b>Methodologies for</b> <b>emissions calculations</b> Scope 1, 2, and 3—operational emissions Introduction Objectives Reporting period covered Carbon neutrality intention	33 33 35 36 36 36 36 36 36
	Lending-related targets Net-Zero Banking Alliance (NZBA) disclosure checklist: targets Targets relating to managed client investments (off-balance sheet) <b>Methodologies for</b> <b>emissions calculations</b> Scope 1, 2, and 3—operational emissions Introduction Objectives Reporting period covered Carbon neutrality intention Vancity's offset criteria	33 33 35 36 36 36 36 36 36 36 36
	Lending-related targets Net-Zero Banking Alliance (NZBA) disclosure checklist: targets Targets relating to managed client investments (off-balance sheet) <b>Methodologies for</b> <b>emissions calculations</b> Scope 1, 2, and 3—operational emissions Introduction Objectives Reporting period covered Carbon neutrality intention Vancity's offset criteria Roles and responsibilities	33 33 35 36 36 36 36 36 36 36 36 36 37
	Lending-related targets Net-Zero Banking Alliance (NZBA) disclosure checklist: targets Targets relating to managed client investments (off-balance sheet) <b>Methodologies for</b> emissions calculations Scope 1, 2, and 3—operational emissions Introduction Objectives Reporting period covered Carbon neutrality intention Vancity's offset criteria Roles and responsibilities Organizational boundary	33 33 35 36 36 36 36 36 36 36 36 37 38
	Lending-related targets Net-Zero Banking Alliance (NZBA) disclosure checklist: targets Targets relating to managed client investments (off-balance sheet) <b>Methodologies for</b> emissions calculations Scope 1, 2, and 3—operational emissions Introduction Objectives Reporting period covered Carbon neutrality intention Vancity's offset criteria Roles and responsibilities Organizational boundary Quantification methodology and procedure	33 33 35 36 36 36 36 36 36 36 36 36 37 38 41
	Lending-related targets Net-Zero Banking Alliance (NZBA) disclosure checklist: targets Targets relating to managed client investments (off-balance sheet) <b>Methodologies for</b> emissions calculations Scope 1, 2, and 3—operational emissions Introduction Objectives Reporting period covered Carbon neutrality intention Vancity's offset criteria Roles and responsibilities Organizational boundary Quantification methodology and procedure Scope 1: direct GHG emissions	333 335 366 366 366 366 366 366 366 366

16	Scope 2: indirect GHG emissions from	
18	purchased electricity	44
18	Scope 3: other indirect GHG emissions	45
18	Scope 3, category 7: employee commuting	47
10	Inventory exclusions	50
19	Baseline year	50
21	Base year recalculation process for scope 1, 2, and operational scope 3 emissions	50
24	Reporting	51
24	Reporting requirements	51
25	Information management	52
20	Verification procedure	52
	Financed emissions: scope 3, category 15	53
22	Introduction	53
33	Financed emissions base year data and climate targets recalculation policy	53
33	Data quality	54
55	Net-Zero Banking Alliance disclosure	54
35	requirements: emissions profile	56
	Detailed emissions calculation methodology	
	by asset class	57
36	Residential mortgages	57
	Commercial real estate	60
36	Operational business loans	62
36	Motor vehicle loans	63
36	Project finance	64
36	Liquidity investments	66
36	Managed client investments	67
36		

#### **Glossary and abbreviations**

# Introduction.

We believe financial institutions, including Vancity, can and should play a critical role in enabling the transition to a clean, resilient, and fair economy. The climate crisis is a global issue with significant implications for the financial sector, our own operations and business model, and for the people and communities we serve. It requires a fundamental shift in the way we all do business.

The cost to BC's economy from 2021's unprecedented heat dome, wildfires, floods, and landslides was between \$10.6 billion and \$17.1 billion, making it the most expensive climate disaster in Canadian history, according to an independent study by the Canadian Centre for Policy Alternatives which Vancity funded in 2022. With climate change come more extreme weather events that not only result in lost lives and damage to property, but also lead to lost income for people due to business closures, lost productivity, and impacts on communities, particularly to the vulnerable and marginalized.

Vancity has long recognized the need for urgent action on climate change. We're dedicated to supporting the transition to a low-carbon economy. We've committed to measure and openly report our progress on our financed emissions targets in addition to our operational emissions, and to continue to implement and advance global standards for climate and impact accounting, target setting, and disclosure.

This Climate Report provides information on:

- How we address climate risks and opportunities in our governance practices
- How we respond to climate risks and opportunities in our business strategy

- What programs, products, and services we provide to support members to transition to a low-carbon economy
- How we identify, rate, and manage climate risks as part of our risk management framework
- Our performance on our emissions reduction targets as well as how we measure greenhouse gas emissions, both operational and financed
- How we may have revised data or our approach after reviewing our targets or methodologies

The Report is informed by the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), including the supplemental guidance for the financial sector. It's also guided by the disclosure requirements of the Net-Zero Banking Alliance (NZBA), Partnership for Carbon Accounting Financials (PCAF), and the Powering Past Coal Alliance (PPCA).

Vancity also publishes climate-related information in our Annual Report and Accountability Statements.

This report covers the 2022 calendar year. KPMG provided limited assurance over select 2019 and 2022 data. For details, see KPMG LLP's Independent Practitioners' Assurance Report in our Annual Report, page 43.



# 2022 Climate highlights.

#### Strategy



Working towards net zero by 2040 for all mortgages and loans



### Established 2025 interim financed emissions targets for commercial service building

for commercial service buildings and residential buildings



Signatory to the UN-convened Net-Zero Banking Alliance (NZBA)



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#### Launched Home Energy Advice service to help personal members reduce emissions

#### Risk Management



Base and current year financed emissions data **externally assured** for our interim real estate targets



Improved our **climate risk modelling** for physical climate hazard assessment

#### **Metrics and targets**



Worked through data challenges, guided by the PCAF methodology Continued to implement the UN's Guidelines for **Target Setting** for Banks



# **617,024 ft<sup>2</sup>** of energy-efficient

buildings financed

in climate-opportunity aligned grants

\$5.7 million

\$369 million

in green assets and

**\$0** financing for

fossil fuels



## \$6.5 million

worth of Planet-Wise™ loans to help members take climate action in affordable ways



**5,743 tonnes** of CO<sub>2</sub>e avoided through clean energy project financing Ξ

#### Governance



#### **Climate targets** approved by Vancity's CEO

and Board of Directors



Governance of Vancity's response to climate change was one of the Board's **strategic goals** 

# Climate governance.

# Board oversight of climate-related risks and opportunities

Elected by and accountable to our members, Vancity's Board of Directors is responsible for setting Vancity's strategic direction and overseeing a strong risk culture. Effective governance ensures there is understanding, oversight, and accountability for the financial risks and opportunities Vancity and members will face stemming from climate change.

Governance of Vancity's response to climate change was one of five strategic goals in the May 2021–April 2022 Board calendar year and remains a priority. This includes overseeing progress on Vancity's five climate commitments via quarterly reports from management, and oversight of climate risk management, which enhances Vancity's understanding of climate risks based on quantitative and scenariobased analysis in conjunction with external stakeholders.

The Board has access to internal and external resources with climate expertise. To further their own expertise, Directors requested education sessions on climate risk, and a session was held in October 2021. Individual directors have also taken external courses such as the Institute of Corporate Directors' "Board Oversight of Climate Change" and Global Risk Institute's "Board's Role in Planning for Low Carbon Transition." In recruiting candidates for the 2022 election, the Board actively sought nominees with experience in the role of finance in improving sustainable communities and climate justice.

The Board has delegated certain climate-related accountabilities to its committees, per the table to the right.

#### **Board committees' climate-related mandates**

Board committee	Climate-related mandate
Risk Committee	The Risk Committee (RC) is a sub-committee of the Board of Directors. The RC provides oversight and advice to the Board in relation to current and potential future risk exposure and risk strategy, including determination of risk appetite, key risk indicators, and related tolerance levels. Vancity's Risk Appetite Framework (RAF) monitors organizational risk using nine Risk dimensions, each with defined Risk Appetite Statements, Risk Thresholds and Key Risk Indicators. One of the nine dimensions that the Risk Committee governs is Climate. The RC meets quarterly and oversees our current and future risk exposures.
	In conjunction with the Board, the Risk Committee approves Vancity's Internal Capital Adequacy Assessment Process (ICAAP). Vancity's ICAAP includes modelling on credit risk impacted by climate-related events (such as flooding and wildfires). The ICAAP ensures Vancity has adequate capital reserves to operate during unlikely but severe, climate-related stress events.
Governance Committee	Reviews for approval Vancity's Ethical Principles for Business Relationships policy on an annual basis.
Board	Uses climate-related issues as a key lens in the revision and approval of risk management policies and frameworks, business plans, and setting and monitoring of organizational performance objectives. Approves Vancity's Enterprise Risk Management (ERM) Framework, ICAAP, and Ethical Principles for Business Relationships policy.

### Management structure and accountabilities

Vancity's CEO and Executive Leadership Team (ELT) are responsible for delivering on the strategic direction set by the Board, for fostering an effective risk culture, and integrating financial, social, and environmental factors into the business decision-making process. Specific accountabilities for climate risks and opportunities at the executive level are as follows:

Role/line of business	Climate-related accountability
Executive Leadership Team (ELT) members	Work within their respective divisions to identify, assess and act upon opportunities to drive positive climate impacts among our members, in the community, and within Vancity.
Chief Risk Officer	Oversees climate-related risks, focusing on physical risk identification and mitigation since 2021. Oversight is in accordance with the ERM Framework and Risk Appetite Framework. Chairs the executive Risk Management Committee.
Chief External Relations Officer (CERO)	Oversees and leads Vancity's public climate-related commitments as well as our climate-related obligations under the international agreements and partnerships Vancity is part of. Chairs the Climate Commitments Council (see below).
Vice President Impact Strategy	Reports to the CERO and is responsible for implementing actions to achieve our climate targets.
Climate Strategy and Performance (CSP) team	Dedicated team of eight full time employees focused on creating and leading Vancity's approach to achieving net zero as well as measuring our climate performance and establishing targets. Director of CSP reports into the VP Impact Strategy.

The Climate Strategy and Performance and Enterprise Risk Management teams engage with external experts including climate consultants, insurance companies, and standards organizations. These teams also engage with peers by sharing learnings and advising on climate-related risks and opportunities through internal working groups described below:

Working group	Mandate
Operational Risk Management Committee (ORMC)	Reporting to the executive Risk Management Committee (RMC), ORMC meets bimonthly with a standing discussion on physical and transition climate risks (i.e., what they are, where they exist, and what mitigations are being taken or recommended).
Sustainability and Climate Risk working group	Informal group that meets bimonthly to promote knowledge and collaboration amongst multiple areas of Vancity involved in climate-related and sustainability risk management efforts.
Climate Commitments Council	Chaired by the Chief External Relations Officer, this cross-functional team meets quarterly to review progress on climate commitments and ensure an organization-wide and co-ordinated approach to climate action, including climate-aligned public policy advocacy and lobbying.



# Climate strategy and transition plan.

### **Our approach**

Social and environmental sustainability have long been at the heart of Vancity's business model dating back to our founding as a credit union. The financial sector must play a central role in supporting the shift to a low-carbon economy that's clean and fair for everyone. Our climate strategy focuses on addressing climate change and its interconnections with systemic inequity by providing banking and other solutions to help people who are affected by the climate emergency.

Climate risks compound existing social inequalities, and this is likely to grow as the world experiences greater frequency and severity of weather-related events. As the global transition toward net zero is accelerated, it will result in fast economic shifts.

Vancity's participation in the global climate transition requires a holistic understanding of the risks and opportunities that our members and communities will be challenged with. Vancity fully utilizes and leverages both our co-operative identity and cooperative business model to address one of the most defining issues of our age to understand the risks, opportunities, and daily activities that impact climate change. Vancity has established a formal climate oversight function, with appropriate climate governance, to enable bold climate action to be realized. We're a signatory to both the UN Principles for Responsible Banking's Collective Commitment to Climate Action (CCCA) and the UN-convened Net-Zero Banking Alliance (NZBA). We were the first Canadian financial institution to join the NZBA in early 2021, which at the time of writing had grown to include eight Canadian members, including two credit unions. Vancity Investment Management, an investment manager for individual and institutional investor portfolios, has been a signatory to the Principles for Responsible Investing since 2009, and joined the Net Zero Asset Managers initiative (NZAMI) in October 2021. Both the NZBA and NZAMI commit signatories to support the goal of net-zero emissions by 2050 or sooner, in line with global efforts to limit warming to 1.5°C above pre-industrial levels.

We participate in numerous global, national, and local working groups and forums to share and encourage the implementation of best practices across the banking sector, and to contribute to the development of harmonized and ambitious sustainability frameworks and standards. Through these working groups we have helped shape the United Nations Environment Program Finance Initiative's (UNEP FI) Principles for Climate Target Setting for Banks implementation guidance, and we contributed to the PCAF Global GHG Standard for measuring financed emissions. Our approach is to:

- Measure and disclose operational and financed emissions annually, expanding coverage and data quality over time in line with the PCAF Global GHG Standard
- Establish targets in line with the Net-Zero Banking Alliance/UNEP FI's <u>Guidelines for Climate Target Setting for Banks</u> (for on-balance sheet assets) and the <u>Net Zero Asset Managers initiative</u> (for off-balance sheet managed client investments)
- Take early climate action, learn what works, and develop a comprehensive net-zero transition plan
- Assess the impacts of climate risk on Vancity's lending and investment portfolios and mitigate them in accordance with our ERM framework
- Monitor progress as well as the science and best practices
- · Regularly review and adjust our strategy and targets as needed

Vancity is in the early stages of assessing the physical and transition impacts of climate change on its lending and investment portfolio. We work very closely with the BC government and the insurance industry to assess where there may be flood or fire exposure based on severe weather events, whether our members are protected against them, now and in the future, and how we can mitigate these risks to protect our members and the health of our balance sheet. Our assumption is that these events will unfold more severely and more frequently over time, causing a fundamental shift to how and where homes are built, and how they are insured or mortgaged. In a province where home affordability is an ongoing challenge, this will add more complexity to managing the housing needs of its residents.

#### **Our climate commitments**

Building on decades of leadership on environmental sustainability and issues of social and economic inclusion, in 2021 Vancity announced five commitments to address the global climate crisis.

The five commitments, integrated into Vancity's business strategy, include:

#### Net zero by 2040

Our ambition is to make Vancity net zero by 2040 across all our mortgages and loans. That means the carbon emitted from anything we finance will be eliminated or significantly reduced, with any remaining emissions being brought to net zero.

In late 2021, upon joining the Net Zero Asset Managers initiative, Vancity Investment Management took a further step and committed to achieving net zero by 2050 across the investment portfolios it manages.

## Financing an equitable climate transition

Unaddressed, climate change will change how we work and live, and will drive further inequality. We're focusing our work in financial and social inclusion to provide banking and other solutions to help people who are affected by the climate emergency, as well as those seeking support in transitioning to cleaner and more sustainable living.

#### Investing in a better future

We will help our members invest for the future we need by offering only responsible investment options that can demonstrate the integrity of their Environmental, Social, and Corporate Governance (ESG) screening and stewardship process.

#### Be transparent and accountable

Encouraging change within the financial services sector by accurately measuring and openly reporting on how our own actions are improving the wellbeing of people, communities, and the environment. We aim to continue implementing, testing, and helping improve emerging international standards for climate and impact reporting.

#### Walk the talk in all we do

We're living our values in our daily decision-making to serve the diverse needs of our members, employees, and our communities and do our part across our operations to contribute to a just climate transition.

We've highlighted specific actions taken in 2022 in the sections that follow, and we're working on building a comprehensive climate transition plan that will serve as our roadmap.

## What does our net-zero commitment actually mean?

When it comes to net zero, the prefix "net" implies that there will be some form of compensating or balancing for any remaining emitted carbon, often referred to as residual or unabated emissions.

There is a strong emphasis on reducing emissions first, to the extent possible, and only then compensating for residual emissions. Currently, there is a lack of consensus on how residual emissions can be validly compensated for—or "offset." In line with current best practice, we plan to limit carbon offsets for achieving end-state net zero to carbon removals.

The amount of residual emissions deemed acceptable varies by region and sector. According to the Science Based Targets Initiative's <u>Corporate Net-Zero Standard</u> as of 2021 global residual absolute emissions by 2050 for commercial service buildings are expected to be around two per cent, while for residential buildings they are expected to be around five per cent. These amounts may differ for Vancity given our 2040 end state and regional factors. We hope to be able to estimate residual emissions with a higher degree of certainty as more regionally granular and relevant 1.5 degree aligned scenarios and tools become available, and to plan and refine our strategy for compensating residual emissions accordingly.

We've laid out our interim climate targets on page 18. To help us achieve these targets, we've identified three key areas of action, which we'll continue to evolve:

- Developing products and services for Vancity members to support the emissions reductions they want to achieve in their lives and businesses
- Engaging with officials and policymakers at every level of government to share learnings and advocate for policies critical to achieving emissions reductions in ways that are affordable, equitable, and improve the wellbeing of people and communities
- Growing Vancity's lending in loweremitting assets and businesses

### **Our interim climate targets**

#### **Lending-related targets**

Membership of the Net-Zero Banking Alliance (NZBA) commits us to "transition all operational and attributable greenhouse gas (GHG) emissions from our lending and investment portfolios to align with pathways to net zero by 2050 or sooner, consistent with a maximum temperature rise of 1.5 degrees centigrade above pre-industrial levels by 2100." We follow the Guidelines for Climate Target Setting for Banks to ensure our approach to achieving net zero is consistent, follows best practice, and is aligned with the evolving science.

#### **Real estate targets**

As a member of the NZBA, we're required to set decarbonisation targets for all, or a substantial majority, of the following carbonintensive sectors: power generation, coal, oil and gas, cement, commercial real estate, residential real estate, iron and steel, agriculture, transport, and aluminium. Vancity doesn't lend to coal, oil, or gas, or to many of the carbon-intensive industries. Our 2025 absolute emission reduction targets therefore cover two significant sources of emissions attributed to our lending: residential and commercial service buildings. The following emissions reduction targets, which were approved by Vancity's Board of Directors, covered 66 per cent of on-balance sheet lending at the end of 2019 (our base year), and 81 per cent at the end of 2022:

- A 17 per cent reduction in absolute financed emissions for residential buildings by 2025 from a 2019 base year, and
- A 27 per cent reduction in absolute financed emissions for commercial service buildings by 2025 from a 2019 base year

Our interim targets are for 2025, which is five years ahead of NZBA requirements. Our intent is to signal the necessity of immediate climate action and model the transparency we would like to see institutions adopt on our collective journey toward a low-carbon future. This is despite significant challenges related to data quality and availability (see page 24). We believe that these challenges should not delay target setting or developing a strategy and plan to achieve targets. We're cognizant that setting an earlier target will challenge our ability to both meet it and/or to track actual emissions reductions as a result of member actions.

We believe in the importance of setting absolute emissions reduction targets versus intensity targets (emissions per square metre financed). Absolute targets aim to reduce GHG by a set amount, while intensity targets allow businesses to set emissions reduction targets while accounting for economic growth. Setting absolute emission reduction targets reflects our commitment to reducing total emissions and challenges us to grow in a way that aligns with our net-zero goal and commitment to financing a just transition.

See <u>page 18</u> for progress on targets, <u>page 33</u> for our approach to establishing science-based targets, including key assumptions and underlying scenarios used, and <u>page 53</u> onwards for details on our financed emissions calculation methodologies.

#### **Business engagement targets**

We also set goals to support the small- and medium-sized organizations we lend to in reducing their emissions, particularly those in higheremitting sectors such as manufacturing and construction, specifically:

- By the end of June 2023, we will proactively connect with a significant majority of business members in five high-emitting sectors to provide resources to measure and disclose their emissions
- Businesses in high-emitting sectors seeking new loans over \$750,000 will need to provide data on their emissions. Those with significant actual emissions will be supported to develop a climate action plan
- By the end of June 2023, we will also have engaged with at least 15 members with existing lending and high emissions to develop a Climate Transition Plan

While our business operational loan portfolio is small in terms of balance sheet lending (around one per cent), in 2022, it contributed around one-third of measured emissions if we factor in scope 3 client emissions. Despite contributing significantly to Canada's economy,<sup>1</sup> small- and medium-sized enterprises or businesses (SMEs) are often overlooked in net-zero pathways and goals. With rising consumer expectations and supply chain practices increasingly taking into consideration sustainability factors, SMEs who take steps to reduce their emissions will have a competitive advantage. We want to support SMEs in contributing to a low-carbon, resilient and fair economy, and to ensure they possess the resources to remain competitive in such an economy. See <u>page 11</u> for details on engagement with our business members.

## Targets relating to managed client investments (off-balance sheet)

In addition to our commitment to reach net zero by 2040 across all mortgages and loans, Vancity Investment Management (VCIM) joined the Net Zero Asset Managers Initiative in 2021 and committed to achieving net zero by 2050 across the investment portfolios we manage. VCIM's climate strategy, including divestment from fossil fuel companies, is a key element of its approach to socially responsible investing (SRI). VCIM made its initial target disclosures in November 2022, using the Paris Aligned Investment Initiative's Net Zero Investment Framework (NZIF), one of the target-setting approaches endorsed by the Net Zero Asset Managers initiative. The targets cover 52 per cent of assets under management and are as follows:

- Portfolio coverage targets: 90 per cent of assets under management in material sectors will be net zero by 2030, with 100 per cent net zero by 2040
- Portfolio decarbonization reference target: VCIM will maintain its carbon footprint below each funds' respective benchmark with key check points of interim targets in 2030 and 2040. As the benchmark footprint declines towards net zero, VCIM's footprint will equal it by 2050
- Engagement threshold target: 75 per cent of financed emissions will be aligned with net zero or subject to engagement by 2025, and 90 per cent by 2030

VCIM has already taken steps to significantly reduce its portfolio's carbon footprint, including a fossil fuel free strategy. We opted not to set emissions reduction target(s) because this would potentially limit our investment options in climate solutions. Some climate solutions can be carbon intensive relative to our already heavily decarbonized portfolios. VCIM's first progress report will be in the 2023 Climate Report, given that these targets were established in the fall of 2022.

# Climate-related policies and processes

#### Lending

Vancity's lending and community investing decisions, as well as our procurement decisions, are guided by our Ethical Principles for Business Relationships (EPBR). The EPBR directs us to place particular focus on working with businesses and organizations that generate positive impact or reduce harm for people and community, in line with core Vancity values. This explicitly includes businesses and organizations that show "environmental and sustainability leadership." Loans to such businesses and organizations are included in our triple bottom line assets and assets under administration metric (TBLAA), for which we have growth targets in our annual performance metrics. Our definition of triple bottom line assets is reviewed annually and includes, among other things, green buildings and homes, green businesses, and clean energy loans.

We don't lend to oil, gas, or coal producers or projects, and we've embedded that in our lending policies. We have a specific policy to guide lending to energy-related projects and support the transition to a low-carbon economy. The policy confirms our focus on financing clean energy projects and reinforces our practice of not lending to companies that extract, produce and/or distribute fossil fuels, biogases, or nuclear energy. Because this is a rapidly evolving area, we plan to review these policies regularly with both internal and external stakeholders.

#### **Managed client investments**

In terms of the investments managed on behalf of clients through VCIM, we don't invest in companies whose primary line of business is the extraction, production, and distribution of fossil fuels. This means we don't invest in oil, gas and coal producers, pipeline companies, natural gas distribution utilities, or liquefied natural gas operations. VCIM also avoids investing in service companies whose primary business is supporting the fossil fuel industry.

Note that VCIM remains invested in railroad companies despite some involvement in transporting fossil fuels, as it's not core to their business and can be readily replaced by other freight and cargo. VCIM also invests in specific renewable energy companies. While they may have some legacy natural gas-powered co-generation facilities, they're committed to growing their renewable energy generation assets.

# Products and services to address climate change

Our primary avenue for reductions in emissions is in helping and enabling members to take climate action. This includes developing products and services to support members with making retrofitting more affordable and that target replacing gas-powered heating and cooling systems with lower-emitting solutions. In addition, we're conducting and funding research into the barriers that stand in the way of members and communities taking further climate action. This research will inform us in both helping create the enabling conditions for members to reduce their emissions and in creating the right products and services for our members' needs.

Our Planet-Wise<sup>™</sup> products are designed to help members take action in affordable ways:

- <u>Transportation</u>: financing zero- and low-emission transportation including new or used pedal bikes, e-bikes, scooters, electric cars, hybrids, charging stations, and conversion kits
- <u>Renovation</u>: financing home energy efficiency improvements and providing support to access assessments, evaluations, and rebates
- <u>Teardown</u>: taking borrowers through the financial and environmental benefits of deconstruction, providing information on tax credits, and working with them to find the best financing option
- <u>Business</u>: financing for businesses and not-for-profit organizations to undertake building retrofits, switch to electric vehicles, and acquire other energy-saving technologies

Directly addressing one of the key barriers to decarbonization identified in our research—lack of information—we launched a support service in 2022 called <u>Home Energy Advice</u>. In partnership with the not-for-profit City Green Solutions, this service helps our members reduce emissions related to their homes by having access to energy expert advice about how they can address both home comfort and emissions. These experts can also help members review contractor quotes and their EnerGuide assessments. In addition, Vancity offers members a rebate on their pre- and post-upgrade EnerGuide assessments to help them afford these important home upgrades. In 2022, we provided resources to support our employees to have conversations with members about lowering emissions from buildings, including information on retrofits and the implications of net-zero government policy and green building codes on local businesses. We also launched Vancity's Planet-Wise<sup>™</sup> Business Guide for Climate Action in 2021.

In 2023, Vancity will become the first financial institution in Canada to offer members a way to estimate the emissions that come from their enviro<sup>™</sup> Visa card purchases through Canada's first credit card carbon counter.

We also created a grant program to support non-profit housing providers to plan retrofits of their buildings. Providing safe housing to people who rely on non-profit housing is crucial as we prepare for future extreme climate events.

Our subsidiary, Vancity Community Investment Bank (VCIB), seeks to drive the transition to a low-carbon future by lending at a scale that will help get capital into the hands of those who are looking to lead low carbon-related innovation, including financing dedicated to the under-invested small to mid-size renewable energy market. Examples in 2022 included financing the purchase and lease of ten electric trucks and the required electric vehicle (EV) fast chargers to accelerate the delivery of EV fleets in Canada, and a financing partnership with the City of Ottawa to support the city's Better Homes Ottawa Loan Program, which allows residents to borrow funds for home energy improvement projects. VCIB also works with businesses and institutions developing, testing, and demonstrating emerging technologies such as geo-exchange and bioenergy systems.

#### **Engagement and culture**

Our ability to achieve our climate commitments relies heavily on informed and engaged employees and members that can promote and utilize the climate products and services we offer. To develop a culture that is aligned with our strategic ambition, we're seeking to inspire, educate, and equip our employees and members with resources and tools that can make climate action less complex and more accessible and connected to everyday challenges and needs. We've sought to advance member-facing employees' understanding of the climate crisis and the impacts of recent extreme weather events as entry points to understanding what we can do to make homes safer, more resilient, and more climate friendly. Through a monthly newsletter we've shared stories of employees and their families switching to heat pumps, relevant news, as well as updates on new offers to support our members. In 2022, we created an online learning module on the climate emergency that was compulsory for employees across our Member Experience and Community Engagement division. We also held Climate townhalls to update employees on our progress towards our climate commitments and to raise awareness about the role all employees play in helping us achieve our climate goals.

Moving forward, we're embarking on more tailored training and engagement programs for key lines of business to help equip them to be leaders in low-carbon lending and to support our members in understanding what climate actions would work for them and why. We're continuing to explore and implement ways that we can embed conversations about climate action and our offers into everyday banking conversations with our members.

#### Engagement with our value chain

#### **Business and individual members**

To enable systemic change, we're both engaging directly with individual and business members and working with key partners to deliver member supports and create the conditions needed for rapid decarbonization—an approach that will increase the likelihood and ability of our members to take action on the emissions stemming from their homes, buildings, and businesses.

For individuals and families, in addition to the launch of Home Energy Advice, we offered a webinar on heat pumps, updated our website to include links to rebates and equipped employees with scripting tools and job aids to help them talk to members about home energy retrofits. To better understand the homeowner experience when undertaking home energy upgrades, we partnered with OPEN Technologies to conduct a homeowner journey mapping study. We've used the published report to inform Vancity offers, and it has also been used by community partners and other stakeholders looking at home retrofits.

For business members, we're in the process of launching several new supports in service of our business engagement targets (see <u>page 9</u>). Current research tells us that the main barriers to businesses actively decreasing emissions and mitigating their environmental impact are a lack of organizational expertise and capacity, financial constraints, and lack of access to good quality information.

As well as helping members reduce their emissions, we want to help build their financial resilience and support them—especially our most vulnerable members—so they can handle unexpected stressors and shocks, including those related to our changing climate. In 2021 and 2022, <u>Financial Resilience Institute</u> utilized its Financial Resilience Index model, the Seymour Financial Resilience Index<sup>™</sup>, to analyze if there was any association between households that were negatively impacted by extreme weather events over the past 12 to 24 months and increased household financial vulnerability and/or increased financial stress.<sup>1</sup> The model confirmed there was indeed an association with both.

Thirty per cent of British Columbians, 26 per cent of Vancity members, and 19 per cent of Canadians were negatively impacted by extreme weather events (such as extreme heat, floods, or wildfires) as of June 2022. Households that were negatively impacted had a mean financial resilience score that was 30 points lower than those who were not impacted (i.e., a financial resilience score of 34.4 out of 100 for Vancity members negatively impacted by extreme weather events, compared to a score of 63.23 for those members who were not impacted). People who were negatively impacted by extreme weather events also had higher levels of financial stress, which was the case for 57 per cent of Canadians and 56 per cent of British Columbians. These results highlight the need to focus our collective attention as financial institutions to work to help build financial and overall resilience and enable a just transition.

#### **Companies in our managed investment portfolios**

Vancity Investment Management (VCIM) has been a signatory to the UN's Principles for Responsible Investment since 2009. In 2021, it deepened its climate commitment by joining the Net Zero Asset Managers (NZAMI) and committing to achieving net zero by 2050. To achieve its climate targets, VCIM will significantly increase the percentage of assets held in its portfolios that align to net zero. It will also increase the percentage of its portfolios representing companies with which it's actively engaging to help them achieve net-zero emissions.

VCIM has divested from companies that are primarily involved in the production, processing, and distribution of fossil fuels. VCIM also represents Vancity as a founding member of <u>Climate Engagement</u> <u>Canada</u>, alongside 20 other Canadian institutions.

Shareholder engagement is a key component of VCIM's responsible investment process and climate risk strategy. Shareholder engagement allows for further enhancement of value by encouraging environmental, social and governance best practices and includes:

- direct dialogue with company leaders and Board of Directors
- shareholder proposals
- proxy voting

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<sup>1</sup> Financial Resilience Institute's Financial Resilience Index model is being used by Vancity for its longitudinal consumer and member financial inclusion, and impact measurement. The non-profit Institute's proprietary Index has been peer-reviewed by Statistics Canada, the C.D. Howe Institute and other organizations. The Seymour Financial Resilience Index<sup>™</sup> measures a household's financial resilience, defined as their ability to get through financial hardship, stressors, and shocks as a result of unplanned life events. For details, see Financial Resilience Institute scoring and methodology. and reports, including the joint report published with Statistics Canada in September 2021. The contents above are copyright © the Financial Resilience Society and used by Vancouver City Savings Credit Union under licence. All rights reserved. Seymour Financial Resilience Index<sup>™</sup> is a trademark used under licence by the Financial Resilience Society.

In 2022, VCIM led or participated in the following collaborative climate related engagement initiatives: Climate Action 100+, Climate Engagement Canada (CEC) and the Carbon Disclosure Project (CDP). In addition, VCIM co-filed shareholder proposals with four financial institutions on climate-related topics. It also joined more than 600 signatories representing almost \$42 trillion (US) in assets under management in the Global Investor Statement calling on governments to entrench five climate priorities into national legislation.

VCIM votes proxies in alignment with <u>SHARE 2022 Proxy Voting</u> <u>Guidelines</u>. As outlined in these guidelines, VCIM supports most climate related proposals filed by shareholders. Examples include:

- VCIM will vote for proposals asking companies to implement TCFD's recommendations in their annual financial reports
- VCIM will vote against the chair of the board at companies that fail to adequately disclose climate-related emissions, risks, plans or targets as significant emitters based on the Transition Pathways Initiative rating of 3 or lower
- VCIM will vote for reasonable proposals calling for companies to improve oversight, management, and reduction of their greenhouse gas emissions. This includes setting clear performance targets aligned with the Paris Agreement's goals
- VCIM will vote for reasonable proposals that encourage boards and management to disclose steps they are taking to address climaterelated risks
- VCIM will abstain on proposals requesting an advisory vote on the company's climate/energy transition plans (Say on Climate) due to concerns with this mechanism not being an effective way to hold companies accountable for implementing credible climate transition plans
- VCIM will vote against proposals on climate/energy transition plans if they don't include all the following criteria:
- Absolute targets for the next five years and a 5- to 10-year plan
- Phase out fossil fuel use and production, stop financing new projects

- Executive compensation, strategy and lobbying must be aligned with Paris Agreement goals
- Capital expenditures commitments aligned with Paris Agreement goals
- Address deforestation through cuts to harvesting and increases to reforestation
- Independent auditing of emissions
- Annual performance reporting to shareholders
- Commitment to a just transition for workers and communities

## Engagement with industry, peers, and community partners

#### Peer networks and alliances

We participate in numerous global, national, and local working groups and forums to share and encourage the implementation of best practices across the banking sector, and to contribute to the development of harmonized and ambitious sustainability framework and standards. These working groups include:

- UNEP FI Banking Board, which oversees the effective implementation of the Principles for Responsible Banking (PRB), as well as the Community of Practice for Chief Sustainability Officers, and other PRB working groups, including Financial Health and Inclusion, Biodiversity, and Reporting and Assurance
- Various regional and asset-class specific working groups related to the Partnership for Carbon Accounting Financials
- Net-Zero Banking Alliance Implementation worktrack and Data and Methodologies subtrack
- <u>Sustainable Finance Action Council</u> (SFAC), SFAC's Disclosure technical expert group and the Capital Allocation working group
- Homeowner Climate Data Working Committee, convened by Canada Mortgage and Housing Corporation to convene public and private housing finance sector participants and support federal government priorities to improve financial sector access to climate-related data and information needed to mobilize private finance for sustainability and climate resilience

- Building to Electrification (B2E) Coalition, whose purpose is to identify and address barriers to electrification and take actions that contribute to a meaningful and equitable market shift to decarbonizing BC's building sector
- Provincial Virtual Home Energy Rating System Advisory Committee

**Community partners: Shared Success and Vancity enviroFund**<sup>™</sup> Vancity shares 30 per cent of net profits with members and communities through the Shared Success program, and at least five per cent of annual profits from Visa card products go to enviroFund<sup>™</sup> programs. A significant component of our plan to achieve our climate commitments is to deploy funds from these programs to support organizations and initiatives that align with and help advance our climate commitments. We fund a range of projects and programs. Some directly support our members to reduce their greenhouse gas emissions (thereby helping to reduce Vancity's financed emissions), while others help create the enabling conditions necessary for us to fulfill our commitments. For more information about the outcomes we aim for when we invest in communities, see Annual Report, page 28.

In 2022, we provided \$5.7 million in grants in support of climate-related initiatives. Examples of organizations and projects funded include:

- City Green Solutions in support of the Home Energy Advice service, which provides Vancity members with expert advice as they plan for and undertake home retrofits that reduce greenhouse gas emissions and improve energy efficiency and climate resilience
- We launched the Non-Profit Housing Retrofit Program to support non-profit housing providers and housing co-operatives in carrying out deep low-carbon retrofits that also improve buildings' resilience to climate impacts such as extreme heat events. Our strategic community partnerships with the Aboriginal Housing Management Association, BC Non-Profit Housing Association and Affine Climate Solutions anchor the program and help to strengthen those organizations' work to build sector capacity for deep retrofits
- Support for Musqueam Indian Band, Tsawout Indian Band, Heiltsuk Nation and 'Namgis First Nation to study and implement low-carbon, energy efficiency retrofits of homes on reserve

- Community Energy Association's convening of the BC Municipal Climate Leaders Council, which supports elected officials to step up to effective climate leadership and engages provincial government colleagues in a positive, non-partisan dialogue focused on collective action and cooperation
- BCIT Zero Emissions Building Learning Centre in support of four initiatives to develop training in low-carbon construction, two of which focus on serving First Nations and supporting the entry of Indigenous people into green building trades
- BC Non-Profit Housing Association to co-fund the development of a Low Income and Social Housing Building Electrification Road Maps

#### **Engagement with government**

Vancity meets and consults regularly with officials and policymakers at every level of government to advance our commitment to building a cleaner and fairer world, as well as in service of our business and regulatory needs. Our climate commitments are highly dependent on enabling government policy and regulations, and we've formed strategic partnerships and networks to serve those goals and drive systemic change. We've also begun building coalitions of stakeholders who share our goals, as well as working with community partners to inform research and initiatives that serve to illuminate and elevate the profile of our advocacy priorities.

We sit on the federal government's Sustainable Finance Action Council, and we meet regularly with policymakers to discuss strategies for reducing GHG emissions from commercial and residential buildings. In 2021, at the invitation of the Canadian and UK governments, Vancity joined the <u>Powering Past Coal Alliance</u> (PPCA). We don't invest in thermal coal, however, as a PPCA member we have the opportunity to work with international partners to support the world's phasing out of thermal coal and support a just transition from carbon-intensive investments.

- In 2022, we wrote position papers supporting:
- The Government of BC to switch the focus of utility-funded efficiency programs from incentives for gas-fired heating equipment to building-envelope measures and heat pumps
- Metro Vancouver's plans to regulate emissions from existing large buildings
- The Office of the Superintendent of Financial Institutions to introduce strong requirements for federally regulated financial institutions' management of climate-related risks
- The Government of Canada in creating a strategy to bring buildings to net zero while looking after the financial wellbeing of families and businesses
- The Canadian Securities Administrators to require climate-related financial disclosures
- The City of Vancouver in reducing greenhouse gas pollution from existing homes through zero-emission equipment for water and space heating and cooling

## Policy priorities.

We've determined the following climate-related policy priorities that are critical to enabling us to reduce our financed emissions. These policies are aimed to make it easier, more affordable, and more accessible for members to take climate action:

- Policies driving at direct emission reductions in equipment, new construction, and existing buildings
- Policies aimed at creating the underlying conditions to facilitate these emission reductions, such as those addressing affordable electricity, increasing the number and diversity of skilled tradespeople to meet growing demand, and supporting supply chains for products needed for net-zero buildings
- Policies aimed at providing energy, emissions, and climate risk data and tools to businesses and organizations to inform their decision-making
- Policies enabling sustainable finance by aligning lending, investment, and risk frameworks to net-zero targets

# Climate risk management.

# Process of identifying and assessing climate risks

Enterprise risk management (ERM) is a methodology that looks at risk management strategically at the enterprise level. A Risk Appetite Framework (RAF) helps organizations identify, evaluate, and monitor the most significant risk areas from the potential risks that may limit the organization from achieving their strategic objectives and identify unique opportunities.

Vancity's RAF provides a structured approach to support consistent and robust decision-making to reduce the effect of uncertainties on organizational objectives. The RAF is revised annually, reviewed by the Executive Leadership Team (ELT), recommended by the Risk Committee to the Board, and approved by the Board. We monitor performance against our risk appetite using key risk indicators (KRIs), which are reported to the Board on a quarterly basis.

We're committed to Canada's and BC's climate action plans. We recognize that climate change exposes the financial sector to physical and transition risks, while also offering new opportunities. As climate risk can affect multiple risk dimensions, the use of key risk indicators enables the Board to understand the type and scale of uncertainties Vancity may face, and to discuss and challenge climate-related actions and decisions.

While Vancity has some influence over how we affect the climate, if the global community doesn't take urgent and necessary actions to keep warming below 1.5°C, the consequences will be significant. Even with a 1.5°C warming scenario, there will be greater climate risks facing Vancity than ever before.

The 2021 heatwaves and wildfires in BC are something we expect to see more frequently in the short term. We also expect greater rainfall during the winter, which is likely to increase flooding, and we anticipate rising sea levels in the longer term. We've identified flooding as our greatest current and short-term climate-related physical risk, with wildfires as an emerging risk, given the lending growth we're seeing in geographic areas that could face a higher risk of fire. Forecasting the potential future scale of these risks is both new and challenging. In 2022, we began working with other organizations that offer climate modelling software to assess the impacts of possible future climate scenarios on our assets. Modelling climate risk is a new discipline, and we're evolving our methodology and knowledge of this complex field. The work ahead includes deepening our understanding of the various climate scenarios relevant to our market to establish forward-looking risk thresholds and metrics.

### **Climate risks and opportunities**

We're seeing significant extreme weather events stemming from a changing climate and expect to see more. The rate and magnitude of climate change under various future emission scenarios will result in different outcomes for communities of all sizes, putting the strain of climate change on community infrastructure, health and wellbeing, and cultural traditions and practices. Given the pace of climate change, there remain many unknowns about how severe climate disruptions may be, or what technologies emerge that may address both climate mitigation and adaptation issues. As such, we have yet to classify our risks across our time horizon:

- Short term, 3–5 years
- Medium term, 5–10 years
- Long term, 10–20 years

# Impacts from climate risks and opportunities on business, strategy, and financial planning

Going beyond the general qualitative scenarios used for our Internal Capital Adequacy Assessment Process (ICAAP), Vancity plans to use specific scenario pathways developed by a Bank of Canada pilot program. This work will be particularly useful in developing a sense of our potential future physical and transition risks under different warming scenarios.



New initiatives including new products and services may introduce changes to Vancity's operating environment and as a result, may affect Vancity's risk profile. It's therefore important to manage risks related to new initiatives. In 2022, Vancity launched the New Initiative Risk Assessment (NIRA) Process to fully understand the risks and rewards of new initiatives undertaken by Vancity, including those related to climate change.

### Managing climate risks and integration of climate risk into risk management practices

Climate risk is one of nine key risk dimensions within Vancity's Risk Appetite Framework. Climate risk can be divided into two categories: physical and transition risks. Physical risks result from acute or chronic climatic events, such as wildfires, storms, and floods, and transition risks stem from actions taken to transition the economy off fossil fuels.

While we've monitored flood risk in our lending portfolio for some years, in 2021 we improved our climate-related flood risk modelling by incorporating more accurate and precise property location data. The results of our modelling indicated a decrease in our overall flood risk exposure. We're currently evaluating ways of managing this risk beyond insurance coverage, launching conversations with our personal and business members about climate risk mitigation they can perform to increase their resilience. We expect to make improvements to the flood model as it doesn't currently assess urban flooding from overwhelmed infrastructure or sewer backups. Further, the fluvial (river flooding) assessment is based solely on the Fraser River and its tributaries and assumes flood defences are adequate, however such defences failed in many places in late 2021. While this analysis provided useful insights, the methodology was limited to static data and didn't support future, climate scenario-based analysis.

In 2022, we evolved our work further by partnering with Munich Re and leveraged its Location Risk Analysis Tool. The physical climate hazard assessment used in Munich Re's climate scenario modelling tool is based on the Representative Concentration Pathway (RCP) scenarios for atmospheric greenhouse gas concentrations, which chart different climate futures that are considered plausible depending on the future volume of greenhouse gas (GHG) emissions from the United Nations Intergovernmental Panel on Climate Change (IPCC) Assessment Report version AR5. The IPCC was created to provide policymakers with regular scientific assessments on climate change, its implications, and potential future risks, as well as to put forward adaptation and mitigation options. The pathways describe different climate futures, all of which are considered possible depending on the volume of greenhouse gases emitted in the years to come. Three emission scenarios—RCP 2.6, 4.5 and 8.5—were projected against multiple future dates.

As climate risks pose a multitude of unknowns, climate risk programs such as Munich Re's support organizations to assess risks stemming from natural hazards or climate changes being experienced on a global scale. We'll evaluate how to expand the use of the modelling tool within our Enterprise Risk Management practices.

Our work on measuring emissions attributed to our lending (see page 25) helps us identify transition risks and opportunities by showing us where our highest concentrations of financed emissions are, including by asset class, sector, and building use. It identifies where we can lead and have greater impact, for example, by encouraging and supporting electrification. In addition, our climate transition plan includes providing financing to help decarbonize buildings and adapt to a changing climate.

Transition risk can be further divided into policy, legal and regulatory, market, and reputational risks. We manage legal risk by making decisions within existing legal and regulatory frameworks. We also monitor the legal and regulatory landscape, keeping close contact with industry associations and all levels of government to understand and influence policy and regulatory direction. To mitigate reputational risk, we seek to understand our community's needs, which we then translate into changes in our products and service offerings as well as our strategy and messaging.

On the investing side, we're guided by our EPBR, which include environmental and sustainability leadership. We conduct carbon footprinting, both absolute (market capitalization based) and relative (revenue based) for scope 1 and 2 emissions, as part of our climate risk assessments, and review how companies are managing climate risks to ensure we're offering sustainable investments for our members.



# Climate metrics and targets.

Below are our key performance measures on climate-related risks and opportunities.

Measures	Performance				
Governance – climate-related remuneration					
Senior management remuneration impacted by climate considerations	We believe that connecting remuneration to climate considerations is a vital step in supporting our climate commitments. As our climate strategy and plans evolve, we'll explore connections to remuneration. Currently, executive incentive remuneration is linked to climate indirectly through targets for TBLAA, which includes climate-related impact categories. For more on incentive plans, please see page 36 of the Annual Report.				
Assets, investing, and financing aligned to climate opportunities					
	2022	2021			
Green assets (triple bottom line assets under administration that are climate opportunity-aligned) (includes Planet-Wise™ loans)	\$369 million	\$308 million			
Planet-Wise <sup>™</sup> loans	\$6.5 million	n/a			
Climate-opportunity aligned grants (Shared Success and Vancity enviroFund <sup>™</sup> programs)	\$5.7 million or 38 per cent of total granting	\$1.8 million or 21 per cent of total granting			
Avoided emissions from clean energy projects	Approx. 5,743 tonnes CO <sub>2</sub> e	Approx. 4,300 tonnes CO <sub>2</sub> e			
Square feet of energy-efficient buildings financed	617,024 ft² (57,323 m²)	720,133 ft² (66,902.5 m²)			
Capital invested in own operations toward climate risks and opportunities	\$238,326	\$357,000			
Carbon price and other financial impacts of climate risks					
Impact on cost from carbon price	In 2022, BC set a carbon tax of \$50 per tonne of $\rm CO_2$ . There is no d	irect material cost to Vancity from the carbon tax.			
Other impacts on cost (business interruption, contingency, etc.)	While we expect the nature of climate events to change and increase in severity, we've not experienced, nor do we expect to experience in the short term, any material impacts to business operations. There have been some immaterial impacts, such as the need to retrofit our owned infrastructure to address cooling and air quality needs during heatwaves, and we expect there will be more.				
Impairment charges due to assets exposed to physical and transition risks	By not doing business directly with the oil and gas sector and by ha construction and internal combustion vehicle lending), impairment rather than transition risks. While we've improved our understand work to be done before we assess potential short-, medium- or lor	aving a small portfolio of carbon-intensive assets (e.g., t may come in the form of assets exposed to physical risks, ing of our portfolio exposure to physical risks, there is more ng-term impairments.			

Measures	Performance						
Assets, investing, and financing activity exposed to material transition and physical risks and greenhouse gas emissions							
	2022	2021					
Percentage of mortgage portfolio exposed to high or very high flood risk (assessment of storm surge—a 1-in-20-year event—and excessive rainfall causing fluvial flooding <sup>1</sup> of the Fraser River)	0.3%	0.3%					
Percentage of lending portfolio exposed to high or very high wildfire risk (exposure to historic wildfires using a footprint database with records from 1986 to 2020 and a 20 km buffer)	3.5%	2.4%					
Greenhouse gas emissions (absolute scope 1, scope 2 and relevant, material categories of scope 3 operational emissions, and financed emissions, where data exists; see	Operational emissions: 2,827 tonnes CO <sub>2</sub> e	Operational emissions: 1,955 tonnes CO <sub>2</sub> e					
<u>page 20)</u>	Financed emissions due to lending: 123,386 <sup>2</sup> tonnes CO <sub>2</sub> e	Directly comparable data isn't available for financed emissions					
	Financed emissions due to liquidity investments: 3,650 tonnes CO <sub>2</sub> e	due to improvements in methodology and/or scope.					
	Financed emissions due to managed client investments: 26,174 tonnes CO <sub>2</sub> e						
Percentage change in financed emissions for residential buildings: 2022 over base year (2019) <sup>2, 3</sup>	+3%	Not applicable					
Percentage change in financed emissions for commercial service buildings: 2022 over base year (2019) <sup>2, 3</sup>	+43%	Not applicable					

1 Fluvial flooding or river flooding occurs when the water level in a river, lake or stream rises and overflows onto the neighboring land.

2 There are differences between the PCAF asset classes of commercial real estate and residential buildings and units owned by a business). In our financed emissions disclosures below, these are included under commercial real estate, in line with the PCAF Global GHG Standard.

3 This percentage change was calculated based on recalculated financed emissions data (see page 19). Note that the financed emissions used for target setting (page 9) were based on earlier estimates of financed emissions.

### **Progress on Vancity's interim climate targets**

#### Change in emissions since base year for climate targets

Activity Emissions tC0 <sub>2</sub> e		2025 target: percentage change Actual percentage emissions change emissions		Total outstanding Ioans covered \$ million		Percentage change dollar balance	
	2022	2019		2022 from 2019	2022	2019	2022 from 2019
Residential buildings	44,652	43,255	-17%	+3%	15,957	12,313	+30%1
Commercial service buildings	33,652	23,579	-27%	+43%	3,468	2,678	+30%

1 Note the following difference between the asset classes of commercial real estate and residential mortgages (as defined in the PCAF Global GHG Standard and as disclosed under our Financed Emissions profile later in this report) and our climate targets. Our climate targets cover residential buildings and commercial service buildings: Residential buildings include income-generating residential properties (i.e., residential buildings and units owned by a business). In our financed emissions disclosures below, these are included under commercial real estate, in line with the PCAF Global GHG Standard.

#### Context

Buildings (residential and commercial combined, excluding construction) account for around 10–13 per cent of greenhouse gas emissions in BC and Canada, mainly from the energy used to heat and cool them, and provide hot water. Additional emissions relate to building materials and the construction sector.

Canada's <u>Green Buildings Strategy</u>'s goal is net-zero emissions and a climate-resilient buildings sector by 2050, with an interim goal of 37 per cent emissions reductions from 2005 levels by 2030. The province of BC has enacted climate legislation and targets for reducing greenhouse gas emissions to 40 per cent below 2007 levels by 2030. To help meet this target, the province has established targets for four sectors, including reducing emissions from building and communities by between 59–64 per cent.

The operational energy use attributed to the commercial service buildings we finance accounts for around 27 per cent of measured on-balance sheet lending financed emissions. Our commercial real estate portfolio primarily comprises buildings used for retail trade or housing, particularly apartments. Residential buildings account for around 36 per cent of measured on-balance sheet lending financed emissions and primarily comprises single detached family homes. Most of our real estate related emissions can be attributed to natural gas use from the buildings and homes we finance. For more details, see the relevant asset classes in the financed emissions section below.

#### **Progress and actions**

Our emissions tracking process lacks the sophistication and data we need to track actual emission reductions as a result of actions members have taken, and to factor in our proactive financing of green/lower-emission buildings. Rather, we use provincial averages based on building type/use and size. In addition, our approach and methodology are evolving and also lack sophistication. While our goal is to apply the PCAF Global GHG Standard, limitations to our data and systems meant that we were not able to fully comply with it (see page 24). Our data may change as we continue to improve our financed emissions data, and underlying systems, affecting year over year comparisons.

At a high level, since 2019, both portfolios have grown considerably. Emissions related to residential buildings have stayed fairly consistent, increasing by three per cent since 2019, while emissions relating to commercial service buildings have been increasing more or less in line with portfolio growth. A key factor in the relatively smaller growth in emissions related to residential buildings was a significant decrease in Natural Resources Canada's consumption intensity factors for the BC Grid, which offset portfolio growth of 30 per cent.

For commercial service buildings, there was a significant increase in emissions attributed to social purpose real estate financed through Vancity Community Investment Bank, specifically affordable apartment buildings. Other key growth areas included properties used for educational services and retail trade.

Currently, we're still in the early stages of developing and implementing our detailed plan to achieve our net-zero goal and interim climate targets, and hope our actions will show tangible emission reduction results once fully implemented. To decarbonize our real estate portfolios, our focus is threefold:

 First, we're taking an integrated approach to researching, developing, and advocating for policy changes that will make it easier, more affordable, and more accessible for our members to take actions such as affordably retrofitting homes and buildings, embarking on climate-friendly and climate resilient projects, or switching from a natural gas to electric heat source. This work involves advocacy at all levels of government, policy development, thought leadership and strategic partnerships, as well as coordination among many stakeholders

- Second, our approach involves developing products and other solutions for members to help finance and support the actions they want to take toward decarbonization
- The third approach is to grow in a way that aligns with our climate ambitions

Our approach is informed by research and direct insights from members and community partners. We'll continue to evolve and refine this approach to ensure we keep pace with what members need to take action toward a just and equitable climate transition. We've included examples of our plans and the actions we're taking throughout this report.



# Regulations need to change.

Achieving our climate commitments is highly dependent on enabling government policy and regulations. Key provincial government policies that will help us to achieve our targets include requirements for new buildings to be zero carbon, and for new space and water heating equipment, including baseboard heaters and heat pumps, to be at least 100 per cent efficient by 2030. Given that residents of BC still rely on fossil fuels to meet more than half the energy needs in buildings, fuel-switching to electricity is also a critical step. Considering BC's increasingly hot summers as well as the associated increase in wildfire smoke, heat pumps are particularly attractive as they can double as air conditioners and can include air filtration. However, relatively high costs in addition to navigating rebates and the installation process remain barriers for many households and businesses. This is why our advocacy priorities also address affordability and a skilled and sufficient workforce.

As well as incentivizing energy-efficient retrofits, building energy labels are critical in enabling us and other financial institutions to measure and track emissions reductions over time. Federal government actions include advancing the adoption of benchmarking, labelling, and disclosure for residential and commercial buildings. On a provincial level, the province of BC is introducing home energy labelling at point of sale. To achieve labelling at the pace that is needed, we're asking governments to implement energy labelling beyond point of sale to include, for example, point of rental and following renovations.

#### **Reviewing our targets**

Our targets are ambitious. One of the biggest challenges associated with reducing financed emissions is that they're not under our direct control. Rather, they're the emissions generated by our members as they live their lives and operate their businesses. The second key challenge is Vancity's lending targets and underlying inputs and emissions data are based on assumptions and estimates. Measurement errors, inaccurate approximations and assumptions, and choice of methodology can all lead to high levels of uncertainty in the targets we've established, as well as challenges in tracking actual progress.

When <u>disclosing our interim targets</u> in 2022, we noted our expectation that we'll need to recalculate and amend our targets in the future. We further disclosed that the option to set a 1.5 degree aligned target for commercial and residential buildings using the Science Based Targets initiative's (SBTi) Sectoral Decarbonization Approach real estate tool was not available at the time we set our targets due to the lack of scenario data and that we planned to review the 1.5 degree aligned target-setting tool(s) once available.

In 2022, we identified a significant error in our base year calculation for both residential and commercial service buildings, including the incorrect summing of gross floor area in cases of multiple collaterals (loans secured by more than one property) and the attribution factor being applied twice. This resulted in gross floor area being overstated and emissions being understated. We also made methodological and process improvements, and updated some emission factors and external government-issued data relevant to our financed emissions calculations, where available and as noted in our detailed emissions methodology, starting on page 53. Initial exploration into the impact of the recalculated base year data on our targets suggests we may need to adjust our target for residential buildings to be more ambitious. Our plan is to wait until the SBTi's 1.5 degree aligned target-setting tool for real estate is released, and to further review our targets using the tool, as well as considering any other relevant tools and guidance. We'll then decide whether to adjust our targets, in line with our *Climate Base Year and Targets Recalculation Policy* (see page 53). We've reported the recalculated financed emissions data throughout this report where relevant.

We report Financed GHG emissions in accordance with the Global GHG Accounting and Reporting Standard for the Financial Industry issued by the Partnership for Carbon Accounting Financials (PCAF Global GHG Standard) with the exception of the calculation of attributable annual GHG emissions from residential and commercial service buildings to Vancity. The PCAF Global GHG Standard requires an attribution factor to be calculated using a loan-to-value ratio based on the property value at the time of loan origination consistently over the life of the loan. Due to data limitations, we are currently unable to obtain a consistent, historic property value to calculate the loan-to-value attribution factor and therefore apply the most recent property value available which may impact comparability year-over-year.

This serves as a reminder that until we can use actual member-level emissions data, the underlying data, assumptions, and estimates our targets are based on are subject to change. Our hope is that by being highly transparent and continuing to share best practices with our peers we'll help evolve, improve, and harmonize financed emissions reporting and climate target setting.

#### Overall emissions profile—scope 1, 2, and 3

Emission sc	opes and categories	2022 Emissions (tCO <sub>2</sub> e)	2019 Base year emissions (tC0 <sub>2</sub> e)	Percentage change from 2019 base year
Scope 1: Emis	sions from natural gas	391	390	+0.3%
Scope 1: Emis	sions from fleet	29	38	-25%
Total scope 1	emissions	420	428	-2%
Scope 2: Emis	sions from purchased electricity <sup>1</sup>	57	202	-72%
Total scope 2	emissions <sup>1</sup>	57	202	-72%
Scope 3 emis	sions <sup>2</sup>			
Category 1	Purchased goods & services (paper) <sup>3</sup>	185	283	-33%
Category 6	Business travel	188	740	-75%
Category 7	Employee commuting	1,768	2,211	-20%
Category 8	Upstream leased assets	210	287	-25%
Total scope 3	emissions (not including category 15) <sup>4</sup>	2,351	3,521	-33%
Category 15	Investments and loans	153,210	n/a	n/a
Total scope 3	emissions (including category 15)	155,561	n/a	n/a
Total emission	ons all scopes	156,038	n/a	n/a

n/a = not available: We only have comparable base year (2019) emissions for category 15 emissions for two of the six asset classes.

Emissions from CH<sub>4</sub> and N<sub>2</sub>O have been included in the calculations and converted as CO<sub>2</sub>e. Emissions from other GHGs (HFCs, PFCs and SF<sub>6</sub>) aren't significant and therefore not reported in above table.

1 Scope 2 emissions are calculated using the location-based method. Vancity does not operate in markets that provide product or supplier-specific data or other contractual instruments.

2 Rationale on the materiality of the different scope 3 categories is available in the methodology section.

3 Environmental impact estimates were made using the **Environmental Paper Network Paper Calculator**.

4 May not sum due to rounding.

### Operational greenhouse gas emissions—scope 1, 2, and 3 (categories 1, 6, 7, and 8)

Our operational emissions remain below our total GHG emissions target of 4,500 tonnes, and below our 2019 baseline.

Since 2008, Vancity has been reporting and offsetting operational GHG emissions, and taking action to reduce energy consumption (and associated emissions) across our facilities. Reporting on operational greenhouse gases is prepared in accordance with the World Resources Institute's <u>GHG Protocol</u>. Our offset criteria and GHG calculation methodology are outlined in the Methodologies for emissions calculations section beginning on <u>page 53</u>. Both our operational GHG emissions and carbon-neutral assertion from the previous year are externally assured.

In 2022, we made some notable changes to our operational GHG calculation methodology. First, we changed our operational emission baseline to 2019, instead of 2007, to align with the base year for financed emissions. Net-zero targets to reduce our operational emissions are currently in development. Second, our utility data was previously calculated on an October–September year, which has now been adjusted to a January–December year to better align with our reporting period. Third, the electricity emission factors were also changed to align with the British Columbia generation emission factors for electricity, published in the most recent National Inventory Report by Environment and Climate Change Canada. As such, GHG emissions for 2019, 2020 and 2021 have been recalculated, and the 2019 data for our new baseline has also been externally assured. Finally, we've made changes to our calculation methodology and identified some errors which have now been corrected and restated in the tables in this section.

When the 2021 Annual Report was published, we had calculated our operational GHG emissions at 1,930 tCO<sub>2</sub>e. Vancity purchased carbon offsets from the Quadra Island Forestland Conservation Project through Ostrom Climate Solutions for \$44,583 to offset these emissions (comprising scope 1, 2, and 3 for paper consumption, business travel, employee commuting, and upstream leased assets) in 2022. With the updated methodology, our 2021 recalculated operational emissions equate to 1,955 tCO<sub>2</sub>e. Prior to publishing this report, Vancity purchased an additional 25 tonnes of carbon offsets to close the gap between the previously published 1,930 tonnes and the newly recalculated 1,955 tonnes.

Vancity's sources of scope 1 and 2 emissions come from the operation of our branches and offices, and a small fleet of service vehicles. Vancity's sources of scope 1 greenhouse gas emissions include fuel use from our small feet of service vehicles and the operation of boilers and natural gas consuming equipment at facilities that Vancity owns and/or operates, and leased facilities where Vancity has control over the natural gas consumption. Natural gas from leased facilities, which is burned in boilers not controlled by Vancity has been included in (other indirect) scope 3 emissions (category 8: downstream leased assets), per guidance from the GHG Protocol. Vancity's scope 2 emissions come from purchased electricity used to operate its facilities.

Vancity calculates scope 3 operational emissions from our paper consumption (category 1), natural gas consumption from leased facilities with natural gas equipment that Vancity doesn't control (category 8), employee commuting (category 7), and business travel (category 6). We're working toward calculating and reducing emissions from additional scope 3 categories to provide a more accurate representation of our environmental impact and will be adding any material categories to our disclosures in future reporting. Total operational greenhouse gas (GHG) emissions increased in 2022 primarily due to an adjusted employee commuting methodology that used 2019 commuting survey results and adjusted for changes in the number and distance per trip per employee in 2022. Our operational emissions remain below our target for total GHG emissions of 4,500 tonnes CO<sub>2</sub>e, and below pre-pandemic levels. While Vancity has a permanent remote work program available, our offices were re-opened to all employees in April 2022. Prior to this, our offices were open only for essential work in office from March 2020, due to the pandemic.

Educating and engaging our employees are key to reducing our operational GHG emissions, which we aim for by conducting employee awareness campaigns. We also have incentives and programs to encourage employees to commute using sustainable transportation modes and locating our corporate offices with access to rapid transit. We have a remote work program available whenever the role of an employee allows.

We're currently working on an enterprise-wide strategy to further reduce our remaining operational emissions. We're working toward setting our net-zero targets for our scope 1 and 2 emissions and developing a detailed roadmap of how to achieve these reductions.

					Percentage change
Operational GHG emissions by scope and category (tCO $_2$ e)	2022	2021 <sup>1</sup>	2020 <sup>1</sup>	2019 <sup>1</sup>	baseline
Scope 1: Natural Gas	391	389	382	390	+0.3%
Scope 1: Fleet	29	43	42	38	-25%
Total scope 1	420	432	424	428	-2%
Scope 2: Electricity <sup>2</sup>	57	66	98	202	-72%
Total scope 2 <sup>2</sup>	57	66	98	202	-72%
Scope 3, category 1: Purchased Goods and Services (paper use) <sup>3</sup>	185	193	216	283	-33%
Scope 3, category 6: Business Travel	188	165	266	740	-75%
Scope 3, category 7: Employee Commuting	1,768⁴	8864	1,142	2,211	-20%
Scope 3, category 8: Upstream Leased Assets	210	268	214	287	-27%
Total scope 3⁵	2,351	1,458	1,892	3,521	-33%
Total operational GHG emissions <sup>5,6</sup>	2,827	1,955	2,414	4,151	-32%
Total operational GHG emissions per employee (FTE)	1.2	0.8	1.0	1.7	-33%

 $tCO_2e = tonnes of CO_2-equivalent.$ 

Emissions from CH<sub>4</sub> and N<sub>2</sub>O have been included in the calculations and converted as CO<sub>2</sub>e. Emissions from other GHGs (HFCs, PFCs and SF<sub>6</sub>) are not significant and therefore not reported in above table.

For further details on how emissions are calculated see Methodology for operational GHG emissions section, page 36.

1 Data for 2019, 2020, and 2021 have been restated due to changes in the reporting period, correction of errors, and changes to methodology.

2 Scope 2 emissions are calculated using the location-based method. Vancity does not operate in markets that provide product or supplier-specific data or other contractual instruments.

3 Environmental impact estimates were made using the **Environmental Paper Network Paper Calculator**.

4 An adjusted methodology was used since a Transportation survey was not administered.

5 Scope 3, category 15, financed emissions, are reported separately.

6 May not sum to total due to rounding.

#### Premises energy use: electricity and natural gas

Since 2019, our total energy consumption and energy consumption per FTE have been decreasing. We're developing targets to reduce our fossil fuel consumption and subsequent emissions, and will be developing a plan to implement our operational emissions targets.

	Units	2022	<b>2021</b> <sup>1</sup>	2020 <sup>1</sup>	2019 <sup>1</sup>
Electricity use (millions)	kWh	7.6	8.4	9.6	9.8
Natural gas use	GJ	10,970	11,247	11,789	12,472
Premises energy use (electricity and natural gas)					
Energy use (actual) at metered locations (millions)	ekWh	7.9	8.2	8.2	10.1
Energy use (estimated) at non-metered locations (millions)	ekWh	1.6	2.2	3.3	1.6
Total premises energy use (millions)	ekWh	9.5	10.4	11.5	11.7
Total premises energy use per employee	ekWh	3,942	4,405	4,840	4,908

kWh = kilowatt hour. GJ = gigajoules. ekWh = equivalent kilowatt hours (unit of measurement used when different units of measurement are combined, such as gigajoules of gas converted to kilowatt hours)

Metered energy use for 2022 is based on data from 50 locations with electricity meters, 24 locations metered with gas and 27 locations with no gas use (only electricity).

For details on the calculation for estimated branches, see Climate Report on vancity.com/AnnualReport.

1 Data for 2019, 2020 and 2021 have been restated due to changes in the reporting period, correction of errors, and changes to methodology.

The methodology for estimating non-metered utility consumption changed, by using actual Vancity metered data instead of using NRCan building energy performance intensities, as we felt this was reflective of the energy use in our region, and how Vancity completes its tenant fit-outs and operates its facilities.



### Financed emissions—scope 3 (category 15)

In Vancity's financed emissions profile that follows, note that financed emissions (scope 3, category 15 for Vancity) equates to scopes 1, 2, and 3 for our members and clients. It's best practice to report client scope 3 emissions in addition to scope 1 and 2 where significant, and where data allows. However, few of our members measure and report on their emissions, especially scope 3, and even fewer have their emissions-related data verified. We therefore rely heavily on sector estimates. Please see page 53 for more details on our approach and methodologies, including what's covered.

#### Changes to data and methodologies since 2021

In 2022, we identified and corrected a significant error in our base year (2019) calculation for residential mortgages and commercial real estate, in line with our recalculation policy (see <u>page 19</u> for more details on the error). We also made methodological and process improvements, and updated some emission factors and external government-issued data relevant to our financed emissions calculations, where available. Where significant, these have been noted in our detailed emissions methodology, starting on <u>page 53</u>.

We also encountered challenges in complying with the following PCAF Global GHG Standard requirements:

- We use the property value at loan origination (or the latest property value if unavailable), and "fix" (i.e., keep static) this value for the following years of GHG accounting
- When a residential or commercial real estate loan is modified (e.g., the loan amount is increased, renewed, refinanced, or extended) and a new property value is obtained as part of the transaction, we update the property value to the property value at the time of the modification.

If we were unable to retrieve a property value from our system, we obtained it from a third-party data provider. This is in line with PCAF. However, our systems do not "fix" the property value for the following years. This means we have understated emissions in 2022 and 2019, potentially materially. (The effect of updating property values, as we have done, and assuming those values increase, is to reduce the attribution factor and, subsequently, our share of emissions). We have raised the issue with PCAF, and we plan to seek guidance and explore solutions in 2023.

We have a comprehensive and evolving data improvement plan to support improvements to data access, quality, and coverage, as well as process and system improvements. The financed emissions data presented in the following tables is based on our updated calculation methodology. Data and year over year comparisons may change as we continue to improve our financed emissions data and underlying processes.

Note the following difference in what is included between the asset classes of commercial real estate and residential mortgages, as defined in the PCAF Global GHG Standard, and our climate targets, which cover residential buildings and align with the data inputs required by the target-setting tool we used:

- Our target for residential buildings includes all residential buildings, regardless of whether the financing is provided to an individual or a business
- In our financed emissions disclosures, residential buildings and units owned by a business are included under the commercial real estate asset class rather than the residential real estate asset class

## The uncertainty of our climate data.

The voluntary climate-related data and related conclusions and statements we've chosen to disclose in this report are necessarily based on many assumptions and estimates. Measurement errors, inaccurate approximations, and choice of methodology can all lead to higher levels of uncertainty in the data we have reported. While we applied the PCAF Global GHG Standard to the extent feasible, reducing uncertainty by constraining the choices we may make in our methodology, we still needed to make certain methodological choices and assumptions. We've outlined these in this document for full transparency and to allow others to understand and to use the same approach, or build on and improve it.

The underlying data, assumptions, and estimates contained in this report are subject to change, just as our climate-related capabilities and climate transition strategy and plans will continue to evolve. We expect that certain disclosures made in this report will be amended, updated, recalculated, and restated in the future.

#### Vancity's overall financed emissions profile by asset class (estimated)

Our financed emissions data, despite being highly estimated, provides valuable insights into the size and concentration of emissions within our lending and investment portfolios. While many financial institutions must contend with emissions attributed to fossil fuel investments, we don't lend or directly invest in that sector. Most of our lending-related emissions can be attributed to natural gas use from the buildings and homes we finance. Our business loans support small- and medium-sized enterprises. In 2022, the top emitters by total emissions in our portfolio were associated with manufacturing and construction (primarily construction and renovation of buildings).

Our data quality score ranges between 4.1 and 4.6 for loans, which the PCAF Global GHG Standard defines as proxy data (data quality 4) or estimated data with very little support (data quality 5).

#### 2022 Estimated financed emissions profile by asset class

		Total outstanding				Emissions per million dollars		
Asset class <sup>1</sup>	Total outstanding Ioans and investments	loans and investments covered²	Percentage of asset class value covered in 2022	Scope 1+2 emissions (annual)	Scope 3 emissions (annual)	financed (including scope 1 to 3 if applicable)	Weighted data quality score <sup>3</sup>	Total emissions
	\$ million	\$ million	%	tCO <sub>2</sub> e	tCO <sub>2</sub> e	tCO₂e	High quality  = 1 Low quality = 5	tCO <sub>2</sub> e
Operational business loans	262	239	91	11,532	30,242	175	4.6	41,774
Commercial real estate	7,103	5,570	78	40,117	Not estimated	7.2	4.5	40,117
Residential mortgages	14,092	13,855	98	38,188	Not estimated	2.8	4.1	38,188
Motor vehicle loans	19	19	100	3,139	Not estimated	163	4.5	3,139
Project finance	55	55	100	168	Not estimated	10.54	2.5	168
Total lending	21,531	19,738	92	93,144	30,242	6.3	4.2	123,386
Liquidity investments	3,484	536	15	3,650	Not estimated	6.8	Approx. 3	3.650
Total on-balance sheet	25,015	20,274	81	96,794	30,242	6.3	4.5	127,036
Managed client investments⁵	3,510	1,717	49	22,404	3,770 <sup>6</sup>	116.6 <sup>7</sup>	2.6	26,174
Total off-balance sheet	3,510	1,717	49	22,404	3,770	116.6	2.6	26,174

Not estimated = reasons include it's not required by the PCAF Global GHG Standard, data or resource limitations, and/or the lack of standardized approach.

Please refer to the Glossary for definitions for these and other technical terms including absolute emissions, emissions intensity, scope 1–3, and weighted data quality score.

1 Activities/asset classes are defined according to the PCAF Global GHG Standard and may not align with the terms used in our financial statements. See "Emissions profile: coverage by asset class" on page 55 for general exclusions.

2 Coverage may not be 100 per cent of the asset class/sector due to inadequate data for loans or investments within the asset class listed. More details are provided in the sections below.

3 Per the PCAF Global GHG Standard, a data quality score of 5 is highly estimated/uncertain and a score of 1 signifies certainty (i.e., verified reported emissions).

4 Our clean energy projects have zero emissions associated with them, therefore, emissions intensity applies to energy efficiency projects only.

5 Third-party data provider tools don't include relevant data for fixed income securities, therefore, we've reported emissions attributed to listed equity and preferred shares only.

6 Emissions reported for the Global Industry Classification Sector (GICs) for Mining only. We plan to report scope 3 emissions for additional sectors in the future.

7 Emissions intensity according to MSCI measure of public equities.

#### **Residential mortgages**

Our residential mortgage portfolio accounts for around 31 per cent of our on-balance sheet lending-related emissions, all scopes. Most of our portfolio helps people buy single-family detached homes, and most emissions are attributed to the use of natural gas. Overall, the covered loan balance has grown in 2022 by a total of 21 per cent since 2019, our base year, with the largest growth in apartments, followed by single-family detached homes. Emissions increased slightly by four per cent, primarily due to a significant decrease in Natural Resources Canada's consumption intensity emission factors for the BC grid, which decreased from 19 to 7.8, despite increases in overall electricity use and floor area by building type across that province. Note that it is likely emissions data is understated for 2022 and 2019, and that data and year over year comparisons may change as we continue to improve our financed emissions data and underlying systems (see page 24).

#### 2022 Estimated financed emissions by property type for residential mortgages

Residential mortgages for home purchases	Loan balance covered	Scope 1 + 2 absolute emissions (annual)	Annual emissions per million dollars financed	Gross floor area <sup>1</sup>	Annual emissions per square metre financed²	Notes and key assumptions
Property type	\$ million	tCO <sub>2</sub> e	tCO <sub>2</sub> e	Metre <sup>2</sup>	kgCO <sub>2</sub> e	
Single-family house detached	9,859	29,033	2.9	2,013,030	14.4	
Single-family house attached	1,920	5,247	2.7	392,364	13.4	Single attached includes semi-detached, rowhome unit, townhouse unit, duplex.
Apartments	2,076	3,908	1.9	311,915	12.5	Includes high- and low-rise apartments/condos, hotel condo units, stacked, triplex and fourplex, and modular.
Total	13,855	38,188	2.8	2,717,309	14.1	

Please refer to the Glossary for definitions and other technical terms including absolute emissions and scopes 1–3.

1 Where we didn't have floor area data, we estimated it by deriving the square footage based on the dollar value of the property, extrapolating from loans where we know both the dollar value of property and square footage by building type. 2 Annual emissions per square metre financed was calculated based on data quality 4 loans only as this was the most appropriate representation of this data.

#### **Commercial real estate**

Our commercial mortgage portfolio and business mortgages (mortgages provided to small- and medium-sized enterprises) account for around 33 per cent of our on-balance sheet financed emissions, all scopes. Most of our portfolio supports buildings that are used for retail trade or housing, particularly apartments. For many years we've been proactively financing green buildings (and affordable housing), and we expect that our actual emissions will be less than estimated emissions, which are based on averages by building use and size. Since 2019, our base year, the covered loan balance has grown by 28 per cent, while emissions have increased by 47 per cent. The increase in both the loan balance and emissions is due to increased financing of properties used for educational services and retail trade and apartments that are owned and rented out by a business. In particular, Vancity Community Investment Bank (VCIB) has undergone significant growth in social purpose real estate, specifically financing affordable apartment buildings. See <u>VCIB Social Purpose Real Estate</u> Financing. Note that it is likely emissions data is understated for 2022 and 2019, and that data and year over year comparisons may change as we continue to improve our financed emissions data and underlying systems (see page 24).

Commercial real estate and business mortgages for property acquisition	Loan balance covered	Scope 1 + 2 absolute emissions (annual)	Emissions per million dollars financed	Gross floor area¹	Annual emissions per square metre financed²	Notes and key assumptions
Property use	\$ million	tCO <sub>2</sub> e	tCO <sub>2</sub> e	Metre <sup>2</sup>	kgCO <sub>2</sub> e	
Accommodation and food services	146	4,906	33.7	51,258	108.1	Includes care facilities, assisted living and childcare facilities, hotels, mobile homes and restaurants.
Educational services	71	948	13.4	22,982	41.3	Includes schools and religious buildings.
Health care and social assistance	12	203	17.4	2,092	97.0	Includes hospitals and medical buildings.
Offices	830	9,123	11.0	139,601	76.9	Includes mixed-use buildings, including retail/ commercial and office/residential. To determine emissions, we allocate the building to the category with the higher emission factor.
Retail trade	2,117	14,569	6.9	332,654	43.8	Includes mixed-use buildings, including retail/ commercial and office/residential. To determine emissions, we allocate the building to the category with the higher emission factor.
Other services	293	3,904	13.3	54,485	86.9	Includes buildings associated with commercial and hobby farms, golf courses, and recreational property.
Residential homes—single detached	406	848	2.1	58,805	14.4	Includes single family detached homes owned by a business.
Residential homes—single attached	77	131	1.7	9,806	13.4	Includes single family attached homes owned by a business.
Residential homes—apartments	1,619	5,485	3.4	379,908	15.6	Includes multi-unit residential apartment buildings and revenue-generating apartments.
Total	5,571	40,117	7.2 Weighted average	1,051,591	42.8 Weighted average	

#### 2022 Estimated financed emissions by property use for commercial real estate loans and business mortgages

Please refer to the **Glossary** for definitions for this and other technical terms including absolute emissions and scope 1–3.

1 Includes actual floor area financed plus estimated square feet financed, which we derived from the dollar value of the property, extrapolating from mortgages where we knew both the dollar value of property and square footage by building type.

2 Annual emissions per square metre financed was calculated based on data quality 4 loans only as this was the most appropriate representation of this data.

#### **Operational business loans**

The table on the following page shows the top emitting sectors we finance in terms of absolute emissions and/or emissions intensity eight sectors in total. We've also included emissions data, where relevant, for additional carbon-intensive sectors as defined by the NZBA. Note that we report commercial and residential real estate under the asset classes of commercial real estate and residential mortgages, and we report clean energy power generation under project finance. Per the <u>Guidelines for Climate Target Setting for</u> <u>Banks</u>, carbon-intensive sectors include agriculture, aluminum, cement, coal, commercial and residential real estate, iron and steel, oil and gas, power generation, and transport.

According to Statistics Canada, small businesses with 1–99 employees made up 98.1 per cent of all businesses in Canada as of June 2021 and employed almost 63.8 per cent of the total labour force. They also contribute significantly to Canada's GHG inventory: in a 2018 report, ClimateSmart estimated *"total emissions from Canadian SMEs to be more than 200 million tonnes of carbon dioxide equivalent (CO<sub>2</sub>e), nearly 30 per cent of the national total." While there is growing awareness and expectation of climate action from customers, suppliers, and regulators, small business may lack the knowledge and resources to reduce emissions from their own operations and value chain, and/or to build the business case for doing so. Moreover, they are often overlooked when it comes to net-zero pathways and goals. We see supporting SMEs to contribute to a low-carbon, resilient, and fair economy as a significant opportunity.* 

In 2022, operational business loans represented one per cent of total lending dollars outstanding while contributing 34 per cent of emissions if we factor in scope 3 emissions.

Our business loans support small- and medium-sized enterprises and not-for-profit organizations. For years we've proactively lent to organizations that are community-oriented and values-based. We expect that our actual emissions will be less than estimated emissions which are based on averages by sector.

In 2022, the top emitters by total emissions in our portfolio were associated with construction (in particular, emissions related to the construction and renovation of buildings), manufacturing, and public administration. In terms of emissions per dollar invested, the most carbon-intensive sectors we lend to are mining and quarrying, utilities, agriculture, forestry, fishing and hunting, and manufacturing. However, our exposure to the first two sectors is limited.

#### 2022 Estimated financed emissions by sector for business loans

Business in order intensity	<b>b loans for operational purposes (excludes mortgages)</b> of annual emissions per million dollars loaned, highest emissions and NZBA material sectors	Loan balance covered	Scope 1 + 2 absolute emissions (annual)	Scope 3 absolute emissions (annual)	Total emissions (annual)	Annual emissions per million dollars financed
NAICS <sup>1</sup>	Description of North American Industry Classification System (NAICS)	\$	tCO <sub>2</sub> e	tCO <sub>2</sub> e	tCO <sub>2</sub> e	tCO <sub>2</sub> e
23	Construction	26,794,949	1,182	8,782	9,964	372
31-33	Manufacturing	10,869,449	1,717	4,668	6,385	587
90-99	Public administration	34,301,224	2,376	3,919	6,295	184
72	Accommodation and food services	11,850,671	1,088	3,792	4,880	412
62	Health care and social assistance	36,850,086	727	2,696	3,423	93
212–213	Mining and quarrying & support activities for mining (we don't lend to coal mining activities)	84,328	101	12	113	1,340
11	Agriculture, forestry, fishing and hunting	913,419	331	204	535	586
22	Utilities (excluding fossil fuel power generation)	70,920	31	5	36	508
48-49	Transportation and warehousing	3,823,629	171	341	512	134
211	Oil and gas extraction and support activities for oil and gas extraction	0	0	0	0	0
221112	Fossil fuel power generation	0	0	0	0	0
Other	All remaining sectors	113,526,717	3,808	5,823	9,631	85
Total	All sectors	239,085,392	11,532	30,242	41,774	175

Please refer to the **Glossary** for definitions for technical terms including absolute emissions and scopes 1–3.

1 North American Industry Classification Codes.

#### Motor vehicle loans

In 2020, transportation represented the largest source of emissions in BC—approximately 40 per cent of BC's gross emissions—with light-duty vehicles contributing approximately 13 per cent of the province's emissions. While vehicle emissions don't represent a significant portion of our estimated on-balance sheet financed emissions (three per cent in 2022), the emissions intensity of vehicle loans (163 tonnes CO<sub>2</sub>e/\$ million) is substantial in comparison to that of other sectors represented in our portfolio.

#### 2022 Estimated financed emissions for motor vehicle loans

	Loan balance covered	Scope 1 + 2 absolute emissions (annual)	Annual emissions per million dollars loaned	Notes and key assumptions
	\$ million	tCO <sub>2</sub> e	tCO <sub>2</sub> e	
Motor vehicle loans	19	3,139	163	Includes on-balance sheet consumer loans, business loans, and lines of credit for the specific, known purpose of financing motor vehicles.

Please refer to the **<u>Glossary</u>** for definitions for technical terms including absolute emissions and scopes 1–3.

#### Project finance (clean energy power generation)

In addition to reporting financed emissions, we report avoided emissions from clean energy projects. In 2022, our clean energy projects resulted in approximately 5,743 tonnes of avoided emissions, the majority of which were from geothermal, solar, and wind technologies. This is equivalent to removing 1,759 passenger vehicles off the road or eliminating 12,976 barrels of oil according to National Resources Canada Greenhouse Gas Equivalencies Calculator.

Read more on our clean energy financing at Vancity Community Investment Bank Climate Financing.

#### 2022 Estimated financed emissions for project finance, by type

Activity	Loan balance covered	Scope 1 + 2 absolute emissions (annual)	Absolute avoided emissions (annual)	Annual emissions per million dollars loaned	Notes and assumptions
Project finance, by type	\$ million	tCO <sub>2</sub> e	tCO <sub>2</sub> e	tCO <sub>2</sub> e	
Clean energy (solar and wind)	36	0	2,758	0	Assumes emissions produced of 0 for wind and solar projects.
Energy efficiency (various)	16	168	2,981	10.5	
Energy storage	3	0	4	0	Due to lack of relevant data for "behind the meter" battery energy storage projects, assumes operational emissions of 0.
Total	55	168	5,743	10.5	

Please refer to the Glossary for definitions for technical terms including absolute emissions, emissions intensity, scopes 1–3, and weighted data quality score.

#### Liquidity investments

Liquidity investments make up a sizeable portion of Vancity's on-balance sheet investments. These are liquid investments that can be quickly and economically converted to cash, as needed. In 2022, we expanded the scope and dollar value of investments covered, including additional types of bonds. For this reason, we're unable to compare emissions to prior years for this asset class.

Liquidity investments include term deposits, government and corporate bonds. We didn't estimate emissions for mortgage-backed securities and some government, provincial, and municipal bonds due to the absence of available emissions data. We plan to continue to improve our approach, data quality, and coverage.

#### 2022 Estimated financed emissions for liquidity investments, by type of investment

Activity	Investments covered (in the calculated emissions)	Scope 1 + 2 absolute emissions (annual)	Annual emissions per million dollars invested	Notes and assumptions
Investment type	\$ million	tCO <sub>2</sub> e	tCO <sub>2</sub> e	
Term deposits—\$US	41	113	2.8	Our approach was informed by the PCAF Global GHG Standard for business loans and unlisted equity.
Federal conventional and green bonds	137	2,937	21.5	Our approach was informed by: the 2nd version of the PCAF Global GHG Standard, released late in 2022, which includes a method for sovereign debt, and PCAF's draft new methods for public consultation, which includes a method for green bonds.
Corporate bonds (including impact bonds), mortgage-backed securities, and bankers acceptances	359	615	1.7	Our approach was informed by the PCAF Global GHG Standard for listed equity and corporate bonds.
Total	537	3,665	6.8	

Please refer to the **Glossary** for definitions for technical terms including absolute emissions, emissions intensity and scopes 1–3.

#### Managed client investments

Our highest emitting sectors in this asset class for scope 1 and 2 emissions are Materials (excluding Mining), Industrials, and Utilities. We've broken out Mining from the Global Industry Classification Standard (GICS) for Materials, and disclosed scope 3 emissions for this sector as required by the PCAF Global GHG Standard.

See <u>page 9</u> for details on our net-zero targets for managed client assets.

#### 2022 Estimated financed emissions for managed client investments

GICS <sup>1</sup>	Sector	Dollars invested (market value)	Scope 1 + 2 absolute emissions (annual)	Scope 3 absolute emissions (annual)	Annual emissions per million dollars invested <sup>2</sup>
#	Description	\$ million	tCO₂e	tCO₂e	tCO <sub>2</sub> e
10	Energy	4	131	Not estimated	0.3
15 (excluding mining)	Materials	62	9,631	Not estimated	35.5
15	Mining	32	1,059	3,770	23.9
20	Industrials	206	6,242	Not estimated	28.1
25	Consumer discretionary	257	1,357	Not estimated	3.1
30	Consumer staples	53	715	Not estimated	0.8
35	Health care	112	124	Not estimated	0.8
40	Financials	429	212	Not estimated	0.8
45	Information technology	318	367	Not estimated	3.8
50	Communication services	126	236	Not estimated	0.8
55	Utilities	47	1,835	Not estimated	13.2
60	Real estate	109	495	Not estimated	5.6
Total		1,756	22,404	3,770	116.6

Please refer to the **Glossary** for definitions for technical terms including absolute emissions and scopes 1–3.

1 Global Industry Classification Standard.

2 Emissions intensity according to MSCI measure for public equities.

# Methodology for interim climate targets.

### **Lending-related targets**

As a member of the Net-Zero Banking Alliance, we follow the United Nations Environment Programme Finance Initiative's (UNEP FI's) <u>Guidelines for Climate Target Setting for Banks</u> on a comply or explain basis. The Guidelines set out requirements for types and coverage of targets, financed emissions disclosure, use of decarbonization scenarios to set targets, and review of targets. They require banking institutions to set scenario-based absolute and/or sector-specific emissions intensity intermediate targets for 2030, or sooner, that account for a significant majority of the bank's portfolio emissions where data and methodologies allow. Below, and on page 56 (emission profile) we've included the NZBA's intermediate disclosure checklist for targets, targets coverage, and other considerations. For more details on our target-setting approach and alignment with the Guidelines, please refer to Vancity's climate targets 2022.

#### Net-Zero Banking Alliance (NZBA) disclosure checklist: targets

NZBA checklist – targets		Vancity's response	
Long-term target	Align the attributable GHG emissions from lending (shall) and investment (should) portfolios to align with pathways to net zero by 2050 or sooner.	Our net zero by 2040 goal applies to all on-balance sheet lending.	
Intermediate targets	Targets shall include sector-specific and/or portfolio-wide targets for 2030 or sooner.	We've set two sector specific targets for commercial and residential real estate.	
Target types	Intermediate and long-term targets shall be set based on: <ul> <li>absolute emissions; and/or</li> <li>sector-specific emissions intensity (e.g., CO, e/ metric)</li> </ul>	We've set absolute emission reduction targets. Note that the financed emissions used for target setting (page 9) were based on earlier estimates of financed emissions.	
	$\circ$ sector-specific emissions intensity (e.g., $\circ \circ_2 e^{-2}$ metric).		
Base year	The base year for the above targets shall be set to be no more than two full reporting years prior to the year when the target is set (unless exceptional economic circumstances).	Our target base year is 2019. This is more than two full reporting years prior to when we set the targets in 2022, but subsequent guidance from the NZBA allows this due to the COVID-19 pandemic.	
Scenarios	Banks shall disclose which scenario their climate targets are based upon (scenario name, date, and provider). Scenarios:	We use the SBTi's SDA real estate target-setting tool which uses the IEA ETP B2DS reference scenarios for commercial services and residential buildings. This scenario is	
	<ul> <li>shall limit global warming to 1.5°C by the end of the century</li> </ul>	based in a >50% probability of limiting global warming to 1.75 degrees above pre- industrial levels. Once appropriate 1.5 degree aligned tools become available, we'll revisit	
	• shall come from credible, well-recognized sources (e.g., IEA, IPCC, NGFS, etc.)	our approach and adjust our targets if needed.	
	• shall be no- or low-overshoot	The SBTi shapes industry best practice, and uses screening processes for scenario	
	<ul> <li>shall rely conservatively on negative emissions technologies</li> </ul>	selection, which screens for plausibility.	
	<ul> <li>shall have reasonable assumptions on carbon sequestration achieved through nature-based solutions and land use change</li> </ul>	The <u>IEA ETP scenario</u> is described as a no-low overshoot pathway.	
	• shall, where possible, minimize misalignment with other Sustainable Development Goals.		

NZBA checklist – target cove	erage	Vancity's response
Carbon intensive sectors	Agriculture; aluminium; cement; coal; commercial and residential real estate; iron and steel; oil and gas; power generation; and transport.	See below.
Sector selection	Targets shall be set for all, or a substantial majority of, the carbon-intensive sectors listed above, where data and methodologies allow. Sub-sectoral targets may be set in the transport and	Vancity doesn't lend to coal, oil, or gas, or to many of the carbon-intensive industries that are the focus of efforts by others in setting interim climate targets.
	agriculture sectors.	Our 2025 targets cover two significant sources of emissions attributed to our lending: residential real estate and commercial real estate service buildings.
Sector definition	Banks should disclose the sector definition according to internationally recognized sector classification codes, such as the NACE, SIC, GICS, or NAICS codes used for the targets for comparability across the banking sector.	We use asset class definitions for commercial and residential real estate per the PCAF Global GHG Standard to ensure comparability across the banking sector.
Emissions coverage of clients	<ul> <li>Targets:</li> <li>shall include banks' clients' scopes 1, 2, and 3 emissions, where significant and where data allow.</li> <li>shall cover a significant majority of a bank's portfolio emissions where data and methodologies allow. Scope coverage is expected to increase between each review period.</li> </ul>	Our real estate targets cover scope 1 and 2 emissions in line with the PCAF Global GHG Standard and data availability.
		Our 2025 targets cover two significant sources of emissions attributed to our lending: residential real estate and commercial real estate service buildings.
		Operating loans to small- and medium-sized enterprises account for around one per cent of on-balance sheet lending and a quarter of estimated portfolio-wide emissions (if we include scope 3 business member emissions). We're engaging our business clients, especially those in higher emitting sectors, to gain important insights, which will support us to set targets for these loans in the future.
Scope of financial activities	Lending and on-balance sheet investment activities should be included. The scope is expected to increase over time (e.g., facilitated capital market activities). Banks should be clear about which parts of the balance sheet the targets encompass.	Our emissions reduction targets covered 81 per cent of balance sheet lending, as at the end of 2022.
Automatic inclusion	Clients with >5% revenues from thermal coal mining and electricity generation activities shall be included in the scope of targets.	Vancity doesn't lend to, or invest in, thermal coal mining, or oil and gas.

NZBA checklist – other cons	siderations	Vancity's response
Governance	Targets shall be approved by the highest executive level and reviewed by the highest-level governance body in the bank and should be part of broader organization's strategic plans.	Our targets were approved by Vancity's CEO and Board of Directors, along with near-term actions for how we'll begin making progress to achieve the targets.
Revision of targets	Targets shall be reviewed and, if necessary, revised at least every five years to ensure consistency with the latest science.	We plan to review our 2025 targets in 2023 following the release of 1.5 degree aligned tools and, if necessary per our targets recalculation policy (see <u>page 53</u> ).
		We further plan to regularly review targets to ensure consistency with the latest science.
Assurance	UNEP FI Principles for Responsible Banking (PRB) signatory banks shall obtain third-party independent verification or assurance within four years of signing the Principles, while non- PRB banks are encouraged to obtain third-party independent verification or assurance.	As a PRB signatory, progress made on our interim real estate climate targets (2019-2022) was assured by a third party. See KPMG LLP's independent practitioners' assurance report on page 34 of the Principles for Responsible Banking Self-Assessment.
Offsets	In implementing and reaching targets for all scopes of emissions, offsets can play a role to supplement decarbonisation in line with climate science. Banks shall be diligent in applying evolving leading practice on the use of offsets. The reliance on carbon offsetting for achieving end-state net zero should be restricted to carbon removals to balance residual emissions where there are limited technologically or financially viable alternatives to eliminate.	We're determining our approach to offsets. We'll apply best practice and align with NZBA guidance.

### Targets relating to managed client investments (off-balance sheet)

Vancity Investment Management (VCIM) uses the target-setting approach of the <u>Paris Aligned Investment Initiative's (PAII) Net Zero</u> <u>Investment Framework (NZIF)</u>, one of three methodologies endorsed by the Net Zero Asset Management Initiative (NZAMI), which VCIM joined in 2021.

VCIM's targets cover 52 per cent of assets under management, and include scope 1 and 2 greenhouse gas emissions. VCIM is targeting 2024 to include scope 3 emissions, and plans to increase coverage to 100 per cent of assets under management. Due to data limitations, targets currently exclude corporate and sovereign fixed income. They also exclude off-model holdings, which are unmanaged assets (new clients commonly transfer existing holdings to VCIM, but there are tax or other reasons for maintaining security positions in specific holdings that aren't in VCIM's model portfolios). Similar to using benchmarks to assess funds' financial performance, VCIM intends to measure its funds' carbon footprint performance against them as well. Benchmarks are the investable universe from which investors can select companies. VCIM's aggregate benchmark carbon footprint is composed of the carbon footprint of MSCI World Index and S&P TSX Composite Index, combined proportionally based on the market value of assets benchmarked to each index.

We calculated VCIM's own carbon footprint by aggregating the carbon emissions of the individual companies held in the fund portfolios based on the proportion of total assets invested. We combined the holdings across all their funds to determine the percentage of assets invested in each company. Each percentage is applied to the carbon emissions of the respective company, which we then aggregated into a total carbon footprint number.

VCIM's public NZAMI signatory disclosures are available here.

# Methodologies for emissions calculations.

# Scopes 1, 2, and 3—operational emissions

#### Introduction

This section outlines the procedures and methodologies Vancity uses to assess and estimate the emissions of greenhouse gases (GHGs) associated with our operational footprint. It covers Vancity's GHG emissions inventory for 2022, scope 1, 2, and scope 3 categories except for category 15. Please see separate methodology below for scope 3 (15) Financed Emissions. The procedures and methodology have been developed to comply with the World Resources Institute's GHG Protocol and were designed to reflect the principles of relevance, completeness, consistency, accuracy, and transparency.

#### Objectives

We calculate operational GHG emissions each year in order to:

- Estimate Vancity's climate impact
- Measure and verify its progress against an established performance baseline

#### **Reporting period covered**

As of 2022, each Climate Report measures activities that occurred within the previous calendar year. This Report covers emissions from January 1, 2022, to December 31, 2022.

#### **Carbon neutrality intention**

Since 2007, Vancity has been calculating and offsetting our operational GHG emissions (scope 1, scope 2, scope 3: categories 1 [Paper only], 6 [Business Travel], 8 [Natural Gas Consumption at Leased Facilities], and 7 [Employee Commuting]). Note that carbon neutrality in 2019 and 2020 was based on operational emissions of 3,984 tonnes and 2,421 tonnes, prior to restatement in 2022.

Over time, we've expanded our GHG calculations to include a more holistic picture of our operations and impact as a financial institution. In 2021, we announced net-zero targets for the emissions in our loan portfolio by 2040 (scope 3, category 15).

Note that Vancity's commitment to net zero in its lending portfolio by 2040 is outside the scope of this methodology and is covered on page 53.

#### Vancity's offset criteria

Since 2017, we have selected carbon offset projects by direct award.

Original guidance came from the Carbon Advisory Group (experts from The David Suzuki Foundation, The Pembina Institute, and Ecotrust Canada), and from criteria outlined within the "Purchasing Carbon Offsets: A Guide for Canadian Consumers, Businesses, and Organizations" paper, published by the David Suzuki Foundation and The Pembina Institute in 2009. In 2012, in addition to the original guidance, we consulted with external and internal subject matter experts to expand our criteria and use only offsets from projects that directly reduce energy consumption and/or create some kind of renewable energy, focus on waste reduction, and utilize biological sequestration.

Under current criteria projects must:

- Be additional (the reduction in emissions wouldn't have occurred without the carbon finance)
- Be validated by a third-party assessor to identify a baseline and quantify emissions reductions
- Be verified by a third-party assessor to make sure that the greenhouse gas emission reductions were achieved using independent, recognized, standard quantification methodologies. Projects that create more than 5,000 tonnes of greenhouse gas emission (tonnes of  $CO_2e$ ) reductions per year will need to have separate groups do the validation and verification
- · Be able to show unique ownership of the offset credits

Vancity prefers projects that:

- Are Canada-based and local (with a preference to those based in BC)
- · Have no negative environmental or social impacts
- Contribute to sustainable development in the community of which they are a part and support Vancity's ethical principles
- Demonstrate a leadership role
- Educate the public about climate change
- Provide social and community co-benefits, such as those that directly support/engage communities, local/small business, and/or projects with First Nations' ownership
- · Have obtained certification with applicable standards

Projects that demonstrate involvement in the mining and/or fossil fuel extraction and production industry will not be considered.

#### **Roles and responsibilities**

The following table outlines the roles and responsibilities that are assigned before estimating the greenhouse gas emissions inventory. Note that multiple people or a group can be responsible for a single role and that a single person can be responsible for more than one role.

Name	Responsibility	Training level
Verification Officer (VO)	This officer is responsible for coordinating the overall emissions inventory effort. The officer is responsible for overseeing the other officers and ensuring they are following the appropriate procedures. The officer is also responsible for for coordinating the verification and audit process.	This officer should be familiar with the relevant data collection and modelling standards as well as an understanding of the overall process including verification.
Data Collection Officer/ Provider (DCO)	This officer is responsible for collecting, managing and logging all data used to estimate Vancity's greenhouse gas emissions inventory, as described in this document. The officer is responsible for ensuring all data is reported to them and that the data adheres to the specified data collection standards. Where possible, data quality testing is performed. Finally, the officer is responsible for ensuring that all data collection procedures in this document adhere to the relevant standards.	This officer should have a thorough understanding of the relevant data collection process standards as well as quality assurance procedures.
Modelling Officer (MO)	This officer is responsible for ensuring the emissions inventory model adheres to the methodologies described in this document. The officer is also responsible for reviewing the methodologies described in this document to ensure they are current and adhere to the relevant standards. Finally, this officer is responsible for running the model and reporting the results of the emissions inventory to the Data Collection Officer.	This officer should have a thorough understanding of the relevant standards and modelling methodologies. The officer needs to possess sufficient quantitative skills to understand and run the model.
Finance Officer (FO)	This officer is responsible for collecting and reporting activity data derived from accounting records to the Data Collection Officer.	This officer should be familiar with the accounting system and accounting practices at Vancity.
Energy Assessment Officer (EAO)	This officer is responsible for collecting and recording energy use (electrical and fuel) at all Vancity facilities and reporting this information to the Data Collection Officer. This officer may be an external contractor.	This officer should be familiar with energy systems and utility reporting processes.
Survey Officer (SO)	In some cases, for example, employee commuting, a survey may need to be conducted to estimate activity data or other model parameters. The survey officer shall be responsible for conducting and interpreting such a survey.	This officer should be familiar with survey methodologies including how to correctly conduct a survey and interpret the results.
External Verification Officer (EVO)	This officer is optional. If chosen, this officer is responsible for providing expert guidance on the overall emission inventory process. This officer might be a steering committee or some other advisory group.	This officer should be a recognized expert or leader in the area for which they are providing direction.

#### **General procedures**

The following describes the general procedure that shall be followed in estimating and documenting the greenhouse gas emissions inventory.

Procedure	Role
The procedures described in this document shall be followed to estimate Vancity's greenhouse gas emissions inventory.	All
The reporting period shall be January 1 <sup>st</sup> to December 31 <sup>st</sup> of the year. <sup>1</sup>	n/a
Identification and review of the responsibilities and authorities of each officer will be done on an annual basis at the beginning of each reporting period. At the beginning of each reporting period, a roles and responsibilities document shall be completed listing the names and contact information for each officer.	VO
Appropriate orientation/awareness training will be conducted with all new officers within the first quarter of each reporting period, as well as regular quarterly check-ins to ensure a strong feedback loop is established.	VO
The operational emissions methodology and the procedures described within it shall be reviewed at a minimum of once a reporting period to ensure compliance and conformance with the relevant standard (GHG Protocol). The review shall occur while the inventory is being estimated. Any changes shall be documented.	VO
Review and update emission factors and other model parameters as required.	DCO/ MO
Collect and input activity data.	DCO
Using the modelling procedures described in this document, estimate the emissions inventory.	МО
Document the results and record all relevant information.	VO/ DCO
This document shall be logged each reporting period and be available to the assurance provider for external assurance. The results of the calculation and the process shall be verified by an external assurance provider.	All

1 Previously, Vancity reported energy data between October 1 and September 30 of each year. From the 2022 report onward, energy data will be reported on a calendar year (January 1 to December 31). Calculation adjustments have been made for 2019, 2020 and 2021 GHG emissions and restated in the 2022 report.

#### **Organizational boundary**

Vancouver City Savings Credit Union has several subsidiaries. It's collectively referred to as Vancity (see Annual Report, page 35). Per guidance from the GHG Protocol, Vancity has selected the Control approach, specifically the Operational Control approach, to define its organizational and operational boundaries. We include in our emissions inventory all operational sources and sinks associated with the organizations over which we exercise direct operational control. Financed emissions (scope 3, category 15) are outside the boundary considered in this inventory but are included in the methodology for scope 3 (15) on page 53.

The following describes the procedures used to review the organizational boundary.

Procedure	Role
The organizational boundary shall be reviewed once per reporting period, at the beginning of the period, to ensure its compliance with the relevant standards and reflects any changes in Vancity's business operations. For example, the organizational boundary would change if a subsidiary was sold or a new one purchased. Any changes to the boundary must be justified and recorded in this document.	VO
If the organizational boundaries change the base year inventory shall be recalculated.	MO
If the organizational boundary changes the exact nature of the change shall be noted in Organizational boundary changes.	VO

#### **Organizational boundary changes**

Table 1 below describes changes to the organizational boundary that have occurred since 2019.

#### Table 1: organizational boundary changes

Year	Change	Rationale
2020	Vancity Community Investment Bank (VCIB)	VCIB acquired a subsidiary at the end of 2019, CoPower Inc., which has been
		integrated into VCIB operations. CoPower consisted of six employees.

#### Operational boundary: greenhouse gas sources and sinks

As discussed above, Vancity uses the operational control approach to define its organizational and operational boundary. Vancity includes in its inventory all sources and sinks over which it has operational control and for which it's practically and economically feasible to assess.

#### Direct (scope 1)

As a financial institution, Vancity has few sources of direct (scope 1) greenhouse gas emissions. This includes a small fleet of light duty vehicles and the operation of boilers and natural gas consuming appliances at facilities Vancity owns and/or operates. In 2016, the scope 1 criteria were changed to include leased facilities at which Vancity controls the natural gas consumption. Control of natural gas

consumption was established at all facilities at which the consumption is sub-metered for the space that Vancity leases. Natural gas which is burned in boilers not controlled by Vancity and is used to provide heat to Vancity facilities has been included in other indirect emissions (scope 3) below. Vancity also purchases steam derived from natural gas and these are included in the scope 3 emissions.

#### Energy indirect (scope 2)

Vancity controls a range of facilities including office buildings and branches to serve our members. Energy—delivered in the form of electricity—is required to operate these facilities. Emissions associated with electricity comprise Vancity's energy indirect (scope 2) emission sources.

#### Other indirect (scope 3)

In 2021, Vancity commissioned a study by an external consultant to identify relevant scope 3 categories not currently included in our inventory. As a result, we're working to expand our inventory to be more reflective of our operational impact. The table below outlines the different scope 3 categories from the World Resources Institute's GHG Protocol, and Vancity's coverage for each category.

Category	Relevance and disclosure of the categories to Vancity's operations
1 Purchased Goods & Services	Paper is relevant, calculated. Other purchased goods and services under evaluation.
2 Capital Goods	Under evaluation.
3 FERA	Under evaluation.
4 Upstream Transportation and Distribution	Not relevant. As a financial institution, Vancity doesn't engage in the transportation or distribution of physical products.
5 Waste Generated in Operations	Relevant, but amount of emissions is insignificant so not included.
6 Business Travel	Relevant, calculated. Vancity calculates air and land transportation for the business-related activities of our employees. The materiality of ferry travel was evaluated by the Pembina Institute and was deemed immaterial (<1% of total emissions), to Vancity's operations and is therefore not included in the calculation.
7 Employee Commuting	Relevant, calculated. Emissions from single-occupancy vehicles (SOV) and high-occupancy vehicles (HOV) are included.
8 Upstream Leased Assets	Relevant, calculated. Natural gas emissions from leased facilities where Vancity doesn't have operational control over the HVAC equipment is calculated as scope 3. All other emissions from Vancity's upstream leased assets are included in our scope 1 and 2 emissions in accordance with the GHG Protocol operational control approach.
9 Downstream Transportation and Distribution	Not relevant. Customer transport to and from branches is an optional emissions category per GHG Protocol and not included as part of Vancity's inventory.
10 Processing of Sold Products	Not relevant. As a financial institution, Vancity doesn't sell physical products that need to be processed.
11 Use of Sold Products	Not relevant. As a financial institution, Vancity doesn't sell physical products.
12 End-of-life Treatment of Sold Products	Not relevant. As a financial institution, Vancity doesn't sell physical products.
13 Downstream Leased Assets	Under evaluation.
14 Franchises	Not relevant. Vancity doesn't engage in franchising,
15 Investments	Relevant, calculated. Vancity began calculating and disclosing emissions related to investments in 2021. Emissions coverage is approximately 82 per cent of on-balance sheet lending per our financial statements. In addition, we cover 53 per cent of the market value of Vancity's on-balance sheet liquidity investments, and 63 per cent of off-balance sheet managed client investments. See <u>page 53</u> for category 15 methodology.

#### Table 2: greenhouse gas sources and sinks

	Source	Classification (scope)	Description
Energy	Natural gas combustion	Direct (S1) & other indirect (S3, C8)	Vancity burns natural gas to heat, cool, and supply hot water to our facilities. If the gas is burned in an appliance operated by Vancity, the associated emissions are classified as direct (scope 1); otherwise they are classified as other indirect (scope 3). Vancity also purchases steam derived from natural gas and these are included in scope 3, as Vancity doesn't have operational control over the systems in the facilities that use steam for heating.
	Electricity use	Energy indirect (S2)	Vancity uses electricity to heat, cool, light, and run appliances at our facilities.
Transportation	Vehicle fleet	Direct (S1)	Vancity leases and operates a small fleet of light-duty service vehicles.
	Employee commuting (single occupancy and high occupancy vehicles)	Other indirect (S3, C7)	Vancity employees commute from their residences to various Vancity facilities.
	Business-related air travel	Other indirect (S3, C6)	Vancity employees travel by air and land to conduct business activities.
	Business-related vehicle travel	Other indirect (S3, C6)	Vancity employees travel by private vehicle to conduct business activities.
	Car allowance	Other indirect (S3, C6)	Vancity employees travel by private vehicle to conduct business activities. Car allowances are used to compensate those employees who travel frequently.
Office activity	Paper use	Other indirect (S3, C1)	Emissions from this source include Vancity paper purchasing as a result of our business operations and marketing materials and advertising campaigns.
Financed emissions	Loan portfolio	Other indirect (S3, C15)	Emissions from this source include Vancity's lending and investment portfolio. Financed emissions disclosures cover on-balance sheet lending, on-balance sheet liquidity investments, and off-balance sheet managed client investments.

#### Quantification methodology and procedure

Emission factors have been identified for all emissions sources. The emission factors specify the amount of emissions per unit of activity.

For premises energy use, emission factors are taken from Canada's National Inventory Report (NIR): Greenhouse gas sources and sinks in Canada. The following table outlines the version of NIR used. The NIR's latest update was in 2020.

Vancity Annual Report year	National Inventory Report emission factor year
2019	2019
2020	2020
2021	2020
2022	2020

Activity data for each of the scopes is collected (or estimated, where required) to quantify the activity level. This section describes data is collected or estimated for each GHG emission source identified in Table 2 above.

#### Methodological guidance and secondary data sources

Vancity's GHG disclosures are prepared in conformance with the World Resources Institute's (WRI) GHG Protocol, Corporate Standard. The WRI Corporate Standard provides guidance for establishing organizational and operational corporate boundaries as well as the various scopes that are to be included in a GHG inventory and served as the basis for the overall design of Vancity's GHG inventory. Neither standard provides specific methodological guidance on quantification procedures or references to secondary data sources that are required to complete the inventory.

In selecting emission factor sets, Vancity uses the WRI Corporate Standard's Accounting and Reporting <u>Principles</u> to determine the most appropriate emission factor set for each scope category.

The remainder of this section specifies the primary data collection and the various secondary data sources, including emission factor sets that are to be incorporated into the GHG inventory model. The emission factors and modelling parameters are reviewed annually and updated if they have changed from the previous year.

### Energy

Facilities

Vancity owns and/or leases both office and retail space to serve our members. Our energy-related emissions are associated with the operation of these facilities. In order to estimate these emissions, information about each facility is required.

Procedure	Role
The following information shall be obtained for each facility, with the source in brackets:	DCO/EAO
The name (Real Estate, Facilities and Procurement, REFP)	
<ul> <li>If electricity is metered at the facility (REFP)</li> </ul>	
<ul> <li>If natural gas is metered at the facility (REFP)</li> </ul>	
<ul> <li>If the facility is owned by Vancity (REFP)</li> </ul>	
• The area (ft²) (REFP)	
• The opening and closing dates of all facilities in operation during the reporting period (REFP)	
• The type or category of building (REFP)	

- The address, including the province the facility is located (REFP)
- Controllability of HVAC systems at the facility (REFP)

Only if a facility is added or removed as a result of a divestment or merger shall MO the base year inventory be recalculated. Facilities added or removed as a result of organic growth shall not trigger a recalculation, and the base year shall not be recalculated if the facility didn't exist in the base year. Furthermore, if the addition or removal of a facility as a result of a divestment or merger results in less than three per cent change in total square footage, or less than 1.5 per cent change in total employees, the base year shall not be recalculated.

#### Scope 1: direct GHG emissions

#### Natural gas (scope 1 and 3, category 8) Emission factor

Combustion of natural gas releases three greenhouse gases,  $CO_{2'}$ ,  $CH_{4'}$  and  $N_2O$ . The precise chemical composition of natural gas varies from province to province and the emission factor varies accordingly. Emission factors from the latest National Inventory Report are used unless specific emission factors are available in the case of district energy systems. Where National Inventory Report factors are being used, emission factors specific to each province are used for  $CO_2$  and emission factors for residential, commercial, institutional and agriculture are used for  $CH_4$  and  $N_2O$ . There are also emissions associated with natural gas distribution. However, as distribution emissions are small (about one per cent based on FortisBC's 2005 estimate of 0.539 kg  $CO_2e$ ) they are currently not included.

Procedure	Role
The natural gas emission factor shall be measured in Metric Tonnes/Cubic Metre (t/m³)	n/a
The natural gas emission factor will be taken from the latest version of Canada's National Inventory Report from Environment and Climate Change Canada (Tables A6.1-1 and A6.1-3). The fuel combustion for natural gas and natural gas liquids emission factor will be used.	МО
Where applicable, specific emission factors from district energy systems will be obtained directly from the managing organization of the district energy system.	
The natural gas emission factors shall be reviewed each reporting period at the beginning of the period. Should emission factors change, an assessment shall be performed to determine if base year recalculation is required.	DCO/MO

#### Activity data

The majority of Vancity facilities are in the province of British Columbia and thus Vancity purchases the bulk of its natural gas from FortisBC. Natural gas consumption is metered at most Vancity facilities. At non-metered facilities consumption is estimated using a model which calculates the energy use intensity (EUI) of natural gas of all metered facilities, by building type, and then extrapolates the unmetered facilities' annual natural gas consumption using the EUI for its building type.

As of 2022, two of Vancity's facilities were connected to district energy systems for space and hot water heating. Specific emission factors for these systems were obtained directly from the managing organizations.

Where Vancity has control over the natural gas consumption, emissions from these facilities are classified under scope 1. When there is no direct control over the natural gas consumption, these facilities are classified under scope 3, category 8: Upstream Leased Assets.

Procedure	Role
Natural gas consumption measurements for all metered Vancity facilities shall be collected at a minimum of once a reporting period at the end of the period.	EAO/DCO
Where there is no meter at a facility or it's otherwise infeasible to measure natural gas consumption, consumption estimates shall be completed.	EAO/MO

#### Vancity vehicle fleet: scope 1, fleet

Vancity leases and operates a small fleet of vehicles. Actual fuel consumption isn't tracked at this time, however, both the type of vehicle and the distance travelled is tracked.

Procedure	Role
Vehicle fleet activity shall be measured in litres (L) of fuel.	n/a
For every vehicle in the fleet the VIN, license plate number, make, model, year, fuel type, and subsidiary it's associated with shall be obtained and confirmed at the beginning of each period.	DCO
Natural Resources Canada publishes an annual <u>Fuel Consumption Guide</u> . For every vehicle in the fleet, the highway and city fuel economy in L/100km shall be obtained from this guide.	DCO
Where the vehicle operating modes are not known an average fuel economy shall be calculated for each vehicle in the fleet. The following formula, obtained from Natural Resources Canada's Fuel Consumption Guide, shall be used to calculate average fuel economy:	МО
Average Fuel Economy (L/100km) = (0.55)x(City Fuel Economy) + (0.45)x(Highway Fuel Economy)	
The odometer reading (km) shall be obtained from the employee responsible for the vehicle on a quarterly basis at the same intervals from year to year.	DCO
Annual distance travelled shall be calculated by subtracting the last reading in the current reporting period by the last reading from the previous reporting period. For example, to calculate the 2021 distance travelled, the 2020 Q4 reading is subtracted from the 2021 Q4 reading.	МО
For every vehicle in the fleet fuel consumption (L) shall be calculated using:	МО
Fuel Consumption (L) = (Annual Distance Travelled (km)) x (Average Fuel Economy (L/100km))/100	
Based on the fuel type, the appropriate emission factor (diesel or gasoline) shall be used to calculate total emissions.	MO
Both the methodology Natural Resources Canada uses to estimate fuel economy and the weighting between city and highway driving should be reviewed each reporting period at the beginning of the period. If significant changes are made the base year inventory may need to be recalculated.	MO/VO
The vehicle fleet inventory shall be reviewed twice per reporting period, at the beginning of the period and end of the period, to ensure it's accurate.	DOC

#### Scope 2: indirect GHG emissions from purchased electricity Activity data

Electricity consumption is metered at most Vancity facilities. At non-metered facilities consumption is estimated using a model, which calculates the energy use intensity of electricity (EUI) of all metered facilities, by building type, and then extrapolates the unmetered facilities' annual electricity consumption using the EUI for its building type.

Procedure	Role
Electricity consumption measurements for all metered Vancity facilities shall be collected at a minimum of once a reporting period, at the end of the period. The province the facility is located in shall also be recorded so that the appropriate emission factor can be selected.	EAO/DCO
Where there is no meter at a facility or it's otherwise infeasible to measure electricity consumption, energy use intensities of metered Vancity facilities shall be used to estimate consumption for the reporting period.	MO/EAO
The energy model shall be reviewed each reporting period, at the beginning of the period, to ensure that the underlying assumptions are valid and the estimates up to date for the current reporting year.	МО
<b>mission factors</b> Consumption emission factors from the latest National Inventory Report are used for Cancity operates facilities in.	r all provinces that

Procedure	Role
The electricity emission factor shall be measured in Metric Tonnes per Gigawatt Hour (t/GWh).	n/a
If available, the electricity emission factor shall account for the import and export of electricity in each jurisdiction.	DCO
The generation emission factors latest National Inventory Report shall be used for all provinces that Vancity operates a facility in.	DCO/MO

#### Scope 3: other indirect GHG emissions

#### Scope 3, category 1: purchased goods and services (Paper)

The operational boundary for measuring emissions for purchased goods and services includes emissions from paper consumption only.

Vancity is planning to develop a methodology for expanding purchased goods and services to include other goods and services.

#### **Emission factor**

There is significant uncertainty associated with estimating emissions of greenhouse gases resulting from the production and disposal of paper. A 2002 study completed by the US-based Paper Task Force estimates GHG emissions for paper from virgin and recycled sources. This study is endorsed by the US Office of the Federal Environmental Executive. The report was commissioned by Environmental Defense, amongst others, and was used to develop an online calculator. The online calculator is now run by the Environmental Paper Network. The calculator estimates greenhouse gases based on the amount of paper (measured by weight), the type of paper, and the per cent of recycled content. Paper use is measured by collecting data on paper purchased, as it's assumed that the amount of paper purchased is equivalent to paper used. Vancity extrapolates an emission factor from this source.

#### Activity data

Procedures have been developed to capture paper use in Vancity as best as is reasonably possible. It's not feasible to track paper use at the facility level and thus paper use is reported at the subsidiary level. As with transportation emissions, subsidiary level emissions are reported against the subsidiary head office.

Procedure	Role
Paper use emission factors shall be measured in Metric Tonnes per Metric Tonnes (t/t) of paper as a function of recycled content (post-consumer waste).	n/a
Paper use emission factors shall be obtained for office paper (Uncoated Freesheet) once per reporting period at the beginning of the period.	DCO
Paper use emission factors shall be sourced from <u>Environmental Paper</u> <u>Network's online calculator</u> .	DCO/MO
Paper use emission factors shall be reviewed each reporting period, at the beginning of the period. Only if the methodology used to derive the emission factors changes shall the base year inventory be recalculated.	DCO/MO
Paper use data will be collected quarterly.	DCO

#### Scope 3, category 6: business travel *Air travel*

#### Emission factor

The UK Department for Environment, Food and Rural Affairs (DEFRA) publishes the most widely used air travel emission factors. These emission factors are specified as a function of flight length and are based on UK flight patterns. As per the BC Best Practices, Vancity has adopted these emission factors and reclassified the flight lengths to be compatible with the North American aviation environment. Vancity also tracks cabin class for all flights and uses emission factors specific to each cabin class.

It's widely recognized that the climate change impact of aviation emissions is attributable to more than just carbon dioxide. Indeed, various other factors influence the overall total impact. The Radiative Forcing Index (RFI) is the mostly widely used measure to consider non- $CO_2$  climate forcing. In previous years, a conservative estimation of 2 was assumed as the RFI because a more specific value was unavailable. In recent years DEFRA began publishing factors that incorporate a more precise RFI and these are now incorporated into the GHG model. The RFI from DEFRA (1.89) was also assumed for the float plane and helijet transportation factors since these are not incorporated into the factors taken from the BC Best Practices Guide.

Procedure	Role
Air travel emission factors shall be measured in Metric Tonnes per Kilometre (t/km) per person.	n/a
Flight length classifications (e.g., short, medium, or long haul) shall be obtained from the <u>World Resources Institute</u> once per period at the beginning of the period.	DCO
Emission factors for each flight length classification shall be obtained from DEFRA, or the World Resources Institute, specifically the "WRI Transport Tool" model, whichever is most current, once per period at the beginning of the period. Note if DEFRA emission factors are used the $CH_4$ and $N_2O$ emission factors shall be converted from $CO_2e$ to $CH_4$ and $N_2O$ .	DCO
A radiative forcing factor of 2 shall be used.	МО
Emission factors shall be multiplied by the radiative forcing factor.	МО
Air travel emission factors shall be reviewed each reporting period at the beginning of the period. If the methodology, emission factors, or flight length classification change the base year inventory shall be recalculated.	DCO/MO
The radiative forcing factor shall be reviewed each reporting period, at the beginning of the period to ensure it's consistent with the most current research. If the factor is updated the base year inventory shall be recalculated.	DCO/MO

#### Activity data

The most common method used to estimate the one-way length of a flight is to calculate the great-circle distance between the airport of origin and airport of destination, the shortest distance between two points on a sphere. However, as this is the shortest distance between two points, the IPCC recommends adding an additional nine to ten per cent to account for non-direct routing and delays.

Procedure	Role
Air travel activity shall be measured in kilometres (km) per person.	n/a
The Finance Officer (FO) shall report all employee business air travel to the Documentation Collection Officer at the end of each quarter. The FO shall report the departure, destination, and intermediate airport codes and the subsidiary the travel is associated with.	FO/DCO
For each airport the latitude and longitude shall be obtained in degrees, minutes and seconds from world-airport-codes.com. If the specific airport isn't known, the nearest international airport shall be used.	DCO
For each flight segment, the total one-way distance travelled (km) shall be calculated using the great-circle distance algorithm. If the flight is round trip, the distance shall be multiplied by 2.	МО
The flight length shall be multiplied by a factor of 1.09 to account for non-direct routing.	МО
The flight length shall determine the flight length classification (e.g., short, medium, or long haul) and the appropriate emission factor to use (see emission factor procedures).	МО
The flight cabin class shall determine the cabin class classification (e.g., economy or business/first class) and the appropriate emission factor to use (see emission factor procedures).	

#### Business vehicle travel

Vancity compensates employees for use of their private vehicles for business-related travel using two methods: 1) mileage reimbursement (referred to as business vehicle travel in this document) and 2) transportation allowances. This section details the calculation for business vehicle travel. Business vehicle travel is broken into two parts.

Operational boundary for scope 3, category 6

1. The first part is the use of an employee's personal vehicle for business travel. In this case, the employee submits the number of kilometres driven for reimbursement. The reimbursement value is used to calculate the number of kilometres driven and the resulting emissions.

2. The second part of business vehicle travel is the use of Modo carsharing vehicles booked through Vancity's corporate account. This is in addition to the company-branded Modo vehicle secured exclusively for Vancity use and permanently housed at Vancity Centre. In 2017, non-company car Modo usage became a material contributor to Vancity's overall GHG emissions and was added to its scope 3 emissions under business travel.

The following procedures describe how activity data is estimated to calculate the emissions from business vehicle travel.

Procedure	Role
Business vehicle travel activity shall be measured in litres (L) of fuel.	n/a
For reimbursed mileage, the total mileage reimbursed (\$) for the reporting period, the reimbursement rate (\$/km), and the subsidiary the travel is billed to shall be obtained quarterly. If the reimbursement rate changes during the reporting period, the lesser of the two reimbursement rates will be used for the reporting period to ensure emissions calculations are as conservative as possible. Automobile allowance rate per CRA guidelines for automobile reimbursement is used.	FO/DCO
The total distance of reimbursed travel (km) shall be calculated using:	МО
(Total Mileage Reimbursed (\$)) / (Reimbursement Rate (\$/km)) The total distance of Modo usage is provided by Modo.	
An average fuel economy shall be obtained from <u>Natural Resources Canada</u> for each fuel type (gasoline and diesel) once per period at the beginning of the period. Note that a change in average fuel economy shall <b>not</b> trigger a recalculation of the base year inventory.	DCO
The percentage of gasoline and diesel vehicles shall be obtained from the Travel Survey. It's assumed that on average the annual distance travelled by diesel and gasoline-fuelled vehicles is equivalent.	50
Total fuel consumption (L) shall be calculated for each fuel type (gasoline and diesel) using:	МО
Total Fuel Consumption (L) = (Total Distance Travelled (km)) x (% Vehicles of the Fuel Type) x (Average Fuel Economy of the Fuel Type (L/100km)/100)	
Based on the fuel type, the appropriate emission factor (diesel or gasoline) shall be used to calculate total emissions.	МО

#### Transportation allowance travel

The following procedures describe how activity data associated with car allowances is estimated.

Procedure	Role
Transportation allowance travel activity shall be measured in litres (L) of fuel.	n/a
The total number of employees with car allowances shall be obtained once per period at the beginning of the period.	FO/DOC
The average annual fuel price for regular gasoline and diesel shall be obtained from Statistics Canada (Table 326-0009) for each region Vancity has operations in up to the month the Travel Survey was conducted. For hybrid vehicles, gasoline engines are used so the average annual fuel price will be assigned the same cost per litre as gasoline as stated above.	DCO
The subsidiary, facility name, average spending on fuel per week, per cent of work-related travel, and fuel type shall be obtained from the Travel Survey annually for each respondent who indicates they are receiving a car allowance.	SO
For each applicable response from the previous step the average annual fuel consumption shall be estimated using:	МО
Total Fuel Consumption (L) = (% Work-Related Travel) x (Average Spending on Fuel per Week (\$))/(Average Annual Fuel Price for the Fuel Type (\$/L)) x (Number of Working Weeks in a Year)	
Based on the fuel type, the appropriate emission factor (diesel or gasoline) shall be used to calculate total emissions.	MO
The number of employees who have Transportation allowances but didn't respond to the survey shall be calculated by subtracting the total number of employees with car allowances by the total number of respondents indicating they were receiving car allowances.	MO/SO
Average emissions per car allowance shall be calculated by dividing the total estimated emissions of respondents by the total number of respondents.	МО
Total emissions of non-respondents shall be estimated by multiply the average emissions per Transportation allowance by the number of non-respondents.	МО
Total car allowance emissions shall be the sum of the estimated respondent's emissions and the estimated non-respondent's emissions.	МО

#### Scope 3, category 7: employee commuting

Greenhouse gas emissions associated with employee commuting are challenging to estimate and correspondingly, there is significant uncertainty associated with the estimate. The most common estimation approach is to conduct a travel survey to assess how often employees are commuting, what modes of transportation they are using, how far they are travelling, etc. It should be noted that this model accounts solely for emissions from employee vehicles; emissions associated with transit and other modes of commuting are not estimated.

In 2021 and 2022, transportation surveys weren't administered. Vancity also has a remote work program available whenever the role of an employee allows. 2021 estimates were based on 2020 survey data as this was reflective of the remote working patterns during the COVID-19 pandemic. However, since Vancity opened its offices to all employees in April 2022, 2019 transportation survey data was used to better reflect more in-office working behaviours. This process will be re-evaluated for 2023. The following outlines the methodology used for estimating 2022 employee commuting data.

The scope of this exercise is to generate a corporate-wide per employee commuting emission rate over a one-week (7 day) duration. The approach is to use disaggregated data that will generate emission totals per work location, and this would be used to determine an overall corporate emission rate.

The specific assignment parameters are as follows:

- Use of 2019 (fall) survey data to mimic pre-pandemic conditions as a baseline
- Modify this baseline to include the impact of pandemic-affected travelling (i.e., degrees of remote working) through the use of employee data describing the degree of remote working per employee in 2022 (fall)
- Commute distances were determined through the use of employee home and work postal codes

The main inputs used in the generation of the estimates are:

- 2019 Vancity Commuting Survey Data
- 2022 Vancity employee data (assumed end-of-year employee state, full population)
- Travel distance simulations based on return-from-work commuting from our transportation consultant's model

#### Operational boundary:

Estimated gasoline and diesel consumption based on the single occupant vehicles and high occupancy vehicles used by employees to commute to Vancity facilities.

These calculations exclude other modes of employee commuting. Vancity gathers information on the typical commuting habits of Vancity employees. Typically, an annual survey administered by a transportation consultant in the fall (with the exception of 2021 and 2022), assesses the following commuting transportation modes: drove alone, carpool/vanpool driver (with at least two adults in the vehicle, carpool/vanpool passenger (with at least two adults in the vehicle), walking (includes jogging, rollerblading, skateboarding, etc.), bicycle and e-bike, motorcycle, public transit, worked from home/telecommuting, and other. Vancity includes emissions from private internal combustion engines and taxis in its emissions inventory. Emissions from transit have been excluded.

Procedure	Role
Employee commuting emissions shall be estimated once per period using an Employee Commuting Emissions Model.	MO
The Employee Commuting Emissions Model shall estimate the total emissions of greenhouse gases per employee effective trip for Vancity as a whole.	MO
Total emissions per employee per week shall be calculated using:	МО
(Emissions from SOV and HOV / physical trips and telecommutes) x 10 one-way effective trips for a full-time (equivalent) employee (FTE)	
Total emissions shall be calculated using:	МО
Total Emissions (t) = (Emissions per Employee per Week) x (Number of FTEs per year) x (Number of Working Weeks in a Year for a Vancity Employee)	

#### Vehicle travel

There are a few categories of vehicle travel within Vancity's operational boundary. For each of these, total fuel consumption (the activity data) is estimated or measured, and a set of emission factors is obtained to estimate emissions. Only gasoline and diesel fuel types are modelled as they make up the majority of fuel types currently in use. Furthermore, the emissions associated with these other fuel types are often low or zero. Blended fuels such as biodiesel or ethanol are considered equivalent to the fuel they are blended with (e.g., diesel or gasoline) as the (non-lifecycle) greenhouse gas emissions are nearly equivalent.

#### Emission factor

Although emissions of  $CH_4$  and  $N_2O$  are released by internal combustion engines, they are comparatively small (less than eight per cent of the total  $CO_2e$  emission factor in the worst case after incorporating global warming potentials) and highly uncertain. The uncertainty stems from the fact that these emission factors are both highly dependent on engine and emissions control technology and actual operating conditions. The National Inventory Report lists three  $CH_4$ , and  $N_2O$  emission factors for both gasoline and diesel burned in light duty vehicles. As the exact emissions control technology and operating conditions for vehicles included in the Vancity inventory are unknown, the most conservative (highest emissions value) is used. Estimates of uncertainty are sourced from the uncertainty table in the National Inventory Report.

Procedure	Role
Vehicle travel emission factors shall be measured in grams per litre (g/L) of fuel.	n/a
Vehicle travel emission factor for $CO_2$ shall be obtained from the most recent National Inventory Report: Greenhouse Gases Sources and Sinks in Canada (Annex 12 – Mobile Combustion) authored by Environment Canada at the beginning of each period. Because $CO_2$ emission factors are generally independent of current emissions control technology but dependent on the fuel type, emission factors for both gasoline and diesel fuel shall be obtained.	DCO
Vehicle travel emission factors for $CH_4$ and $N_2O$ emissions shall be obtained from the most recent National Inventory Report. Since the age of vehicles and operating conditions of vehicles isn't known the most conservative (highest emissions value) shall be used.	n/a
Vehicle travel CO <sub>2</sub> emission factors (gasoline and diesel) shall be reviewed each reporting period at the beginning of the period. Should emission factors change, an assessment shall be performed to determine whether base year recalculation is required.	DCO/MO

#### Transportation survey

For some vehicle travel sources, neither fuel consumption nor distance travelled is directly tracked, such as for commuting and car allowances. For these sources, an annual transportation survey is used to estimate distance travelled and ultimately total emissions. Vancity has developed a transportation survey in cooperation with a transportation consultant. The survey is used to estimate emissions associated with employee commuting, business vehicle travel, and vehicle transportation allowance travel. For 2021 and 2022, a survey was not administered, so data from 2019 was used.

Procedure	Role
The travel survey shall be reviewed once a reporting period prior to running the survey to ensure correctness (e.g., facility and subsidiary names are up to date).	SO
The travel survey shall be conducted at a minimum of once a reporting period, generally in the fall or spring.	SO
The travel survey shall have a minimum response rate of 30 per cent.	SO

#### Scope 3, category 8: upstream leased assets Activity data

Where Vancity has control over the natural gas consumption, these emissions from these facilities are classified under scope 1. When there is no direct control over the natural gas consumption, these facilities are classified under scope 3, category 8: Upstream Leased Assets. These activities include:

- 1. Two facilities that are connected to district energy systems for space and hot water heating. Specific emission factors for these systems were obtained directly from the managing organization.
- 2. Estimated consumption from non-metered facilities where Vancity has no operational control over natural gas consumption. In this case, the annual natural gas consumption is estimated using the EUI for its building type.

Procedure	Role
Natural gas consumption measurements for all metered Vancity facilities shall be collected at a minimum of once a reporting period at the beginning of the period.	EAO/DCO
Where there is no meter at a facility or it's otherwise infeasible to measure natural gas consumption, consumption estimates shall be completed.	EAO/MO

#### **Emission factor**

Combustion of natural gas releases three greenhouse gases,  $CO_2$ ,  $CH_4$ , and  $N_2O$ . The precise chemical composition of natural gas varies from province to province and the emission factor varies accordingly. Emission factors from the latest National Inventory Report are used unless specific emission factors are available in the case of district energy systems. Where National Inventory Report factors are being used, emission factors specific to each province are used for  $CO_2$  and emission factors for residential, commercial, institutional and agriculture are used for  $CH_4$  and  $N_2O$ . There are also emissions associated with natural gas distribution. However, as distribution emissions are small (about one per cent based on FortisBC's 2005 estimate of 0.539 kg  $CO_2e$ ), they are currently not included.

Procedure	Role
The natural gas emission factor shall be measured in metric tonnes/cubic metres (t/m³)	n/a
The natural gas emission factor will be taken from the latest version of Canada's National Inventory Report from Environment and Climate Change Canada (tables A6.1-1 and A6.1-3). The fuel combustion for natural gas and natural gas liquids emission factor will be used.	МО
Where applicable, specific emission factors from district energy systems will be obtained directly from the managing organization of the district energy system.	
The natural gas emission factors shall be reviewed each reporting period at the beginning of the period. Should emission factors change, an assessment shall be performed to determine if base year recalculation is required.	DCO/MO

#### Inventory exclusions

#### **Immaterial sources**

Vancity commissioned the Pembina Institute in 2009 to examine three potential sources of emissions to determine if they were material, greater than one per cent of the total GHG inventory, and should be measured and included in the inventory. The three sources of emissions were ferry travel, standalone ATMs and refrigerant leakage from kitchen refrigerators and HVAC systems. The report found that none of the three activities was likely to be a material source of emissions. Even under the highest emissions scenarios all three failed to meet the materiality threshold and as result are not included in the emissions inventory.

#### **Baseline year**

Vancity has been calculating its scope 1, scope 2 and scope 3 (paper, business travel, upstream leased assets, commuting) since 2007. To align with our financed emissions, Vancity will be using 2019 emissions as its new baseline for the operational net-zero targets that are currently under development. Additionally, prior to 2022, building energy use was calculated using an October–September year. Starting in 2022, building energy use is now calculated using a January– December year. GHG emissions for the years 2019, 2020, 2021 and 2022 have been readjusted for the January–December year. Note that all other scopes and categories have been using the January–December year since 2007.

The following table summarizes Vancity's restated 2019 baseline.

#### Table 3: total 2019 GHG emissions by scope and category

GHG scopes and categories	2019 baseline GHG emissions (tCO <sub>2</sub> e)
Scope 1: Natural gas	390
Scope 1: Fleet	38
Total scope 1	428
Scope 2: Electricity <sup>1</sup>	202
Total scope 2 <sup>1</sup>	202
Scope 3, category 1: Purchased goods and services (paper use) <sup>2</sup>	283
Scope 3, category 6: Business travel	740
Scope 3, category 7: Employee commuting	2,211
Scope 3, category 8: Upstream leased assets	287
Total scope 3 <sup>3</sup>	3,521
Total operational GHG emissions <sup>4</sup>	4,151

Emissions from  $CH_q$ ,  $N_2O$  have been included in the calculations and converted as  $tCO_2e$ . Emissions from other GHGs (HFCs, PFCs and SF<sub>e</sub>) are not significant and therefore not reported in the above table.

1 Scope 2 emissions are calculated using the location-based method. Vancity does not operate in markets that provide product or supplier-specific data or other contractual instruments.

- 2 Environmental impact estimates were made using the Environmental Paper Network Paper Calculator. For more information, visit <u>www.papercalculator.org</u>.
- 3 Rationale on the materiality of the different scope 3 categories is available in the methodology section, **page 40**.
- 4 May not sum due to rounding.

## Base year recalculation process for scope 1, 2, and operational scope 3 emissions

Determining when to recalculate the base year is ultimately up to the discretion of the Verification Officer. Recommendations as to when the base year should and should not be recalculated have been made throughout this document. The following procedures should guide the Verification Officers in this decision. Neither ISO nor WRI provide guidance on how to adjust the base year when an acquisition is made and there is no historical activity data available. In this case the base year would be calculated using a rolling average. If a business unit is divested, historical emissions related to that business unit would be subtracted from the base year. Emissions from energy would be determined based on the facilities that the business units occupied at the time of the base year. Emissions from transportation and office activities would be pro-rated based on the number of employees working for the business unit during the base year. If base years are recalculated, the most recent available emission factors for the year will be used. Note that our financed emissions data follows a different base year recalculation policy (see page 53).

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#### Emissions targets recalculation process for scope 1, 2, and operational scope 3 emissions

When the base year has been recalculated emissions targets are also updated to reflect the new emissions total. Updated emissions targets should represent the same relative targets as the original target.

Procedure	Role
If changes to the quantification methodologies and procedures described in this document result in significant change of the estimated emissions inventory the base year shall be recalculated. Significant change shall be defined as a per cent change greater than 10 per cent.	VO/MO
The base year shall not be recalculated if activity levels (i.e., activity data) change unless this change is a result of a change in the collection or estimation procedures.	VO
If an emission factor changes, the reason for this change shall be determined. If the change is a result of improved understanding or knowledge then the base year shall be recalculated. However, if the change is a result of technological improvement, then the base year shall not be recalculated.	VO/MO
The base year shall not recalculate as a result of so called "organic growth." Only as a result of structural change—divestment or acquisition of organizational entities—shall the base year be recalculated. Note that if the entity divested or acquired didn't exist in the base year, the base year shall not be recalculated.	VO/MO
If an organizational entity is acquired and historical activity data exists, or a reasonable and defensible estimate can be made the base year shall be recalculated to incorporate this acquisition. If historical activity data doesn't exist and can't be estimated, the base year shall be calculated using a rolling average.	VO/MO
If any change in a procedure or methodology results in per cent change to the base year that is less than 10 per cent, the decision to recalculate the base year shall be left to the discretion of the Verification Officer.	VO
If the base year is recalculated the justification for this shall be documented.	VO/DCO
If the base year is recalculated the emission reduction targets shall be recalculated using the same relative targets.	VO/ MO
In the event of organizational change, the base year shall be recalculated by accounting for the historical emissions of the investiture or divestiture. These emissions will be added to the baseline if it's an investiture and subtracted from the baseline in the result of a divesture. As mentioned above, if the investiture/ divestiture didn't exist during the base year, no recalculation is necessary.	VO/MO

#### Reporting

Vancity reports annually on our GHG inventory, aligns with the requirements of the GHG Protocol, and undertakes the steps necessary for external assurance.

Procedure	Role
GHG reporting shall be prepared at the end of each reporting period and be verified by a third party.	VO
The reports shall be prepared in accordance with the GHG Protocol.	VO
The reports shall document the results of the review of this document and any changes made including supporting sources.	VO
The reports shall document any deviations from the procedures described in this document and the reasons for these deviations.	VO
The reports shall document any problems encountered and potential solutions and an implementation strategy.	VO

#### **Reporting requirements**

The GHG Protocol Corporate Standard outlines requirements on the public reporting of GHG emissions. These are outlined on page 65 of the <u>GHG Protocol Corporate Standard</u>.

#### **Information management**

Documentation supporting the design, development and maintenance of the inventory is retained to support the verification process and provide a historical record. This task is the primary responsibility of the Data Collection Officer. In determining what information needs to be retained the following principles can be applied:

- 1. At any point in time, all past emissions inventories should be able to satisfy an audit.
- 2. At any point in time, any past emissions inventory should be able to be recalculated from the retained records.
- In general, the following information needs to be retained in some form:
- The verification report described in the following section
- The procedures, processes, and methodologies used to estimate the emissions inventory (i.e., this document) and relevant sources
- All emission factors and their sources
- All activity data, activity data models, and their sources
- All models
- All supporting documentation and sources
- · The emissions inventory, reported at the facility level

The following directory structure should be created on a single, backed-up storage location and used to store and maintain all information:

- Emissions Inventory:
- Procedures and Reporting—Contains a copy of this document and other relevant documents and supporting source material
- Model—Contains a clean copy of all major versions of the model
- Year (2019, 2020, 2021...)
- Report—Contains the Verification Report
- Data—Contains raw activity data and survey results
- Model—Contains the emissions inventory model
- Base Year—Contains the emissions inventory model of the current base year

#### **Verification procedure**

The following describes the general procedures that shall be followed during the verification procedure with the external assurance provider:

Procedure	Role
Before verification is conducted the procedures described in this document shall have been completed.	n/a
The appointed external assurance provider shall have the necessary background, training, and competency to perform the verification and compliance with the requirements of the GHG Protocol.	VO
The objectives, scope, level of assurance, materiality, and data sampling and custody criteria shall be discussed and established with the verifier.	VO
A verification statement shall be obtained from the verifier that includes as a minimum: a description of the objectives, scope and criteria of the verification activities, a description of the level of assurance, and the verifier's conclusion indicating any qualification or limitations.	VO
The verification statement shall be reviewed to ensure it's consistent with criteria established with the verifier.	VO

### Financed emissions: scope 3, category 15

#### Introduction

There are numerous challenges associated with measuring our scope 3, category 15 emissions, also known as financed emissions. For financial institutions, financed emissions equate to scope 1, 2, and 3 client emissions. Best practice is to report on clients' scope 1, 2, and 3 emissions where significant, and where data allows. The key challenge we and other financial institutions face is the availability of reliable data. Very few of our members measure and report on their emissions, especially scope 3. Even fewer have their emissions-related data verified.

This means our financed emissions data is highly estimated, which gives rise to another challenge: tracking progress (reductions) over time in a meaningful way. Our estimates result in significant margins of error, and that means it's not possible to attribute any changes directly to the activities of our members. Meaningful tracking of progress is further muddied by the fact that emission factors are updated over long periods of time and can change considerably over that span. There can be as much as a two-year time lag between the year we're reporting, and the release of the emission factor for that year. Furthermore, even if members report financed emissions information, we may not be able to access it in time to include it in the appropriate transaction year.

To the extent feasible, we apply the PCAF Global GHG Standard when measuring and disclosing emissions (see page xx), which in turn aligns to the GHG Protocol. This reduces uncertainty by constraining the choices we made in our methodology. However, we still needed to make certain methodological choices, interpretations and assumptions, and we've documented these below.

For these reasons, we fully expect our voluntary disclosure of our financed emissions (and associated targets) to be amended, recalculated, and restated in the future. To this end, we've developed the following Policy to guide our decisions.

#### **Financed emissions base year data and climate targets recalculation policy** Financed emissions base year data (on-balance sheet)

Accounting for financed emissions is a relatively new and quicky evolving area, and approaches are constantly being refined. Vancity's financed emissions disclosures undergo a continuous process of updates, revisions, and improvements to maintain and enhance relevance, completeness, consistency, transparency, and accuracy.

This Policy applies to base year data used when setting our climate targets. It also applies to the year with which we compare current year financed emissions, by asset class. The intention of this Policy is to ensure comparability and relevance of financed emissions data, year over year, from base year.

Vancity may recalculate the base year data for different reasons. The following list includes example changes that could trigger a base year recalculation:

- Changes in boundaries (e.g., acquisitions, divestitures, mergers, insourcing or outsourcing, shifts in product or service offerings)
- Changes to the inventory/what's included. This may include reallocation of loans to different categories, or the inclusion of additional loan types or categories previously not estimated but that existed in the base year
- Refinements of calculation methodologies, including assumptions, improvements in data quality/ availability, updated emission factors and/or data sources, and changes required to the methods/protocols we choose to follow
- Discovery of significant errors

Our approach to whether a recalculation of base year data is necessary is based on multiple considerations including quantitative (percentage threshold change as noted below) and qualitative factors. In general, our goal is to recalculate base year data, along with any historical data, if the recalculation exceeds the quantitative change thresholds noted below, **and** it's feasible to do so (i.e., it doesn't require undue cost or effort). We'll omit reporting historical data that isn't comparable to base or current year data. Under certain circumstances, we may decide to change our base year rather than recalculate base year data. For example, if the level of uncertainty in base year data could significantly affect the reliability of comparisons, and/or it requires undue cost or effort to recalculate base year data.

Quantitative change thresholds:

- For data errors, the effect of expected changes exceeds +/- 5 per cent of base year emissions
- For all other reasons, the effect of expected changes exceeds +/- 10 per cent of base year emissions

Note that there may be additional situations where we decide not to recalculate base year emissions even if it's feasible and the quantitative change thresholds are exceeded. If that's the case, we'll disclose the rationale, which could include factors such as proximity to meeting targets or the impact on management incentive pay. We may also choose to perform recalculations when changes represent less than the thresholds set out above.

#### Climate targets for on-balance sheet lending-related emissions

Vancity's climate targets and underlying data are based on assumptions and estimates. Measurement errors, inaccurate approximations, and choice of methodology can all lead to uncertainty in the targets we've established, as well as challenges in tracking actual progress. Our expectation is that we'll need to review, recalculate and adjust our targets regularly in the future. The intention of our target recalculation policy is to ensure our targets remain relevant and meaningful, and that they align with current climate science, sectoral pathways, and the Net-Zero Banking Alliance's Climate Target Setting for Banks.

The following list includes example changes that could trigger a target recalculation:

- Significant changes in structure and activities (e.g., acquisitions, divestitures, mergers, insourcing or outsourcing, shifts in service offerings)
- · Significant changes to the inventory or target boundary
- Significant changes in data used to calculate the targets including financed emissions data and gross floor area financed, including the discovery of significant errors or several errors
- · Significant changes to projections/assumptions used when setting our targets
- · Changes required to meet the target-setting methods/protocols we choose to follow

Our approach to whether a recalculation of a target is necessary is based on multiple considerations. These include:

- Materiality: Not recalculating the target would significantly compromise the relevance and/or meaningfulness of the target to Vancity and its climate transition plan, and/or would, individually or in the aggregate, likely influence or change the opinions of a reasonable person relying on the information provided. This includes considering proximity to meeting established targets, and/or impact on management incentive pay.
- Timing considerations: There may be instances where recalculating of a target is impractical given timing considerations per the methods/protocols we choose to follow, and/or per Vancity's plans to review and update targets. This includes reviewing (and, if necessary, adjusting targets) at least every five years, as well as establishing new targets before existing targets are reached, in line with the <u>Guidelines for Climate</u> <u>Target Setting for Banks</u>.
- Assurance: Our third-party assurance provider's ability to provide an unqualified assurance opinion on progress made on climate targets.

Re-baselining or target adjustment process:

- 1. Identify change
- 2. Assess impact on base year data and/or targets
- 3. If change exceeds quantitative change thresholds and qualitative factors, raise the impact to the Chief External Relations Officer
- 4. Recalculate base year data (if feasible) and/or targets, and restate

#### **Data quality**

Disclosing and improving data quality over time is a core requirement of the PCAF Global GHG Standard. PCAF's data quality hierarchy ranges from 1 to 5. A data quality score of 5 is highly estimated/uncertain and based primarily on sector or building averages, and a score of 1 signifies certainty (i.e., verified reported emissions). Because data quality will differ across asset classes, and can also vary within asset classes (e.g., by sector or building type) PCAF requires financial institutions to report the weighted data quality score by asset class. This normalizes the data quality score for each asset class based on the total outstanding loan amount. We've included the weighted data quality score along with additional explanations on data quality in the sections below, by asset class.

In 2022, we continued to expand on a climate data improvement plan. Our plan spans general improvements in our processes and systems, awareness and change management—particularly for account managers being asked to track additional information—and options for accessing additional data, including actual energy use data related to buildings and businesses (small- and medium-sized enterprises).

In 2022, we focused on improving our methodology and coverage (see details by asset class below), ensuring our assumptions are robust and documented, and that we're using the most reliable and up-to-date emission factors—preferably the same ones that the major Canadian financial institutions are using to support comparability. An important input into our work is via the PCAF working groups and their technical team. Topics discussed at the Canadian working group (composed of Canadian financial institutions) included the challenges of accessing data for non-listed companies (i.e., small- and medium-sized businesses), reliable sources of up-to-date emission factors, data volatility (especially for scope 3 client emissions), and protocols for updating/recalculating historical data. A key objective of the working group is to harmonize approaches across Canadian banking institutions, with a view to documenting key decisions and eventually integrating them into future updates of the PCAF Global GHG Standard. The group also identifies opportunities to collectively advocate for improved data.

#### Note on emission factors

In general, we first looked to PCAF's web-based emission factor database to access emission factors. These include national and provincial emission factors by building use and type and for various industry sectors. Where we didn't use PCAF's database, we've noted the rationale, which is typically because we identified a more up-to-date emission factor from the same original source. We've also included the emission factor source and the value for current and base year data (if applicable) as this can change significantly. Note there is typically an unavoidable 2-3 year time lag between the current reporting year (2022 in this case) and the year to which the emission factor applies.

#### Emissions profile: coverage by asset class

Asset class	Total loan balance or market value of investments	Percentage of asset class value covered 2022	Percentage of asset class value covered 2019
	\$ million	%	%
Operational business loans	262	91	98
Commercial real estate	7,103	78	73
Residential mortgages	14,092	98	89
Motor vehicle loans	19	100	Not estimated
Project finance (clean energy and energy-efficiency projects)	55	100	Not estimated
Vancity's own liquidity investments	3,484	15	Not estimated
Total on-balance sheet loans and investments	25,015	81	Not estimated
Total off-balance sheet managed client investments	3,510	49	Not estimated

We exclude the following activities in our emissions calculations due to data limitations and/or because there is no generally accepted global methodology in place to quantify them:

- · Consumer credit, including credit cards, loans, and lines of credit used for general purposes (no methodology)
- Property construction and retrofit loans (no methodology, see note below)
- Business credit cards (data limitations)
- Certain types of investments where methodologies are lacking, or because we're unable to access the data we need directly or through third-party data providers. These include "funds of funds," mortgage-backed securities, and off-balance sheet managed client investments in fixed income securities

Loans for the purposes of property construction and retrofits totalled around \$544 million in 2022 for commercial real estate and around \$1,328 million for residential homes. According to the PCAF Global GHG Standard, these loans are currently optional. The rationale is because buildings are typically constructed or renovated by a third party (i.e., a construction company or a home builder) who is contracted by the project developer or homeowner. As such, any emissions related to construction activities would normally be accounted for by the third party, and it can be impractical for the lender to measure financed emissions unless the third-party reports construction-related emissions. We hope to be able to include these loans in the future. In the meantime, we'll continue to monitor developments related to financed emissions measurement, including in-use and up-front emissions, and explore opportunities to engage the construction sector, including members who operate as construction companies, home builders, tradespeople, and so on.

**Commercial and business mortgages**, loans that aren't covered in the calculation but do fall within the PCAF definition of commercial real estate, totalled \$1.53 billion. We excluded these loans from the calculation because we lack sufficient data to allocate a suitable emission factor. Such loan types include:

- land-only financing (\$152 million, of which some is agricultural land)
- financing for industrial buildings (\$1,077 million)
- uncategorized (\$303 million)

We're working on obtaining more details about the nature of these loans and hope to be able to apply an appropriate calculation to include them in our emissions estimates in the future.

For **residential mortgages**, loans not covered accounted for two per cent of the portfolio in 2022 and totalled \$237 million. We excluded them from the calculation because we don't have sufficient data to be able to estimate emissions, such as the type of building.

For **operational business loans**, we covered 91 per cent of the portfolio. The remaining nine per cent totalled \$23 million in 2022 and were loans that lacked sufficient data to be able to calculate emissions.

For **motor vehicle loans**, while we cover 100 per cent of loans identified as being used for the specific purpose of financing motor vehicles, we could not identify and therefore cover instances where members purchased vehicles using loans and lines of credit that didn't have a detailed purpose specified.

For **on-balance sheet liquidity investments**, we covered term deposits, corporate bonds, sovereign, and green bonds. We excluded mortgage-backed securities and some government and provincial/municipal bonds due to the absence of available emissions data and/or methodologies.

For **project finance**, we covered all on-balance sheet project finance for power generation (clean energy projects) as well as energy efficiency and energy storage.

For **off-balance sheet managed client investments**, we covered 98 per cent of equity investments including holdings in mutual funds. We excluded other types of client investments such as corporate bonds and sovereign bonds due to challenges accessing the required data.

#### Net-Zero Banking Alliance disclosure requirements: emissions profile

PCAF disclosure requirements are extensive and include a weighted data quality score, the sources and dates of emission factors used, key assumptions, and transparency around what is and is not included. In addition, the Net-Zero Banking Alliance has a checklist of items to be disclosed, and we've included the required information that relates to our emissions profile below. See <u>page 33</u> for items relating to targets, targets coverage and other considerations. See sections below for the details on our approach and methodology by asset class, per the PCAF Global GHG Standard.

NZBA checklist – emissions	profile	Vancity's response
Emission profile	Banks shall establish an emissions baseline and annually measure and report the emissions profile of their lending	We use the Partnership for Global Accounting Financials (PCAF) Global GHG Accounting and Reporting Standard for Financial Institutions.
	portfolios and investment activities following relevant international and national GHG emissions reporting protocols and guidelines.	We annually report the emissions profile of our lending and investment activities, including residential mortgages, commercial and business mortgages, operational business loans, motor vehicle loans, project finance (clean energy and energy efficiency), liquidity investments, and a portion of off-balance sheet managed client investments.
Coverage	Emissions profile shall cover a significant majority of a	In 2022, our emissions disclosure covered approximately:
	bank's scope 3 emissions, including the set list of carbon- intensive sectors (see below).	• 81 per cent of on-balance sheet lending per our financial statements
		• 15 per cent of the market value of Vancity's on-balance sheet liquidity investments
		• 49 per cent of off-balance sheet managed client investments
		lt's not yet possible to measure all our financed emissions, or to calculate the precise proportion of our financed emissions that have been measured.
Carbon-intensive sectorsAgriculture; aluminium; cement; coal; commercial and residential real estate; iron and steel; oil and gas; power		We've disclosed emissions attributed to businesses operating within these sectors using NAICS codes for operational business loans, and GICS codes for managed client investments.
	generation; and transport	We use the PCAF asset class definitions for commercial and residential real estate.
Reporting of emissions	Annual reporting of emissions where targets have been set:	Where we've set targets (residential building and commercial service buildings) we've disclosed (see pages 26 and 27):
	• absolute emissions, and	Absolute emissions
	• portfolio-wide emissions intensity (e.g., CO <sub>2</sub> e/dollar lent or	• Emissions intensity (emissions per dollars loaned or invested)
	invested), and	• Sector-specific emissions intensity (emissions per square metre buildings financed).
	<ul> <li>sector-specific emissions intensity (e.g., CO<sub>2</sub>e/metric)</li> </ul>	

## Detailed emissions calculation methodology by asset class

#### **Residential mortgages**

In line with the PCAF Global GHG Standard, we included on-balance sheet consumer loans and lines of credit used for the purchase and refinance of residential property. For now, in the absence of an agreed-upon approach or methodology, we attribute 100 per cent of the outstanding portion of lines of credit towards the home purchase, likely resulting in an overstatement of what's attributed to Vancity. We've included residential property owned by a business under the commercial real estate asset class.

#### Calculation approach

## Financed emissions = $\sum$ (Attribution factor x Emissions of the property)

The overall approach to calculating financed emissions in line with the PCAF Global GHG Standard is to multiply an attribution factor by scope 1 and 2 emissions associated with the energy use of the property financed on an individual loan basis. PCAF doesn't provide emission factors for scope 3 at this time, noting on page 7 of the PCAF Mortgages and Commercial Real Estate Methodology: *"the financial institution doesn't really have any influence on these emissions, while it can potentially influence the scope 1 and 2 emissions by requiring minimum efficiency investments or requiring new built buildings to have a certain energy label."* 

#### Attribution factor = <u>Outstanding amount</u> Property value at origination

We accounted for the portion of the annual emissions of the buildings we finance by determining the ratio between the outstanding amount (numerator) and the property value (denominator). This ratio is called the **Attribution factor** and is intended to reflect Vancity's contribution to the purchase of real estate by our members.

The **Outstanding amount** is the drawn amount of funds by the individuals we lend to at the end of the year (December 31).

**Property value at origination** is the appraised value of the property at the time of the loan origination. If the property value at loan origination was not readily available or accessible, we used the most recent value that was in our system. If we were unable to retrieve a property value from our system, we obtained it from a third-party data provider.

PCAF asks that when the property value at origination isn't feasible to obtain, "financial institutions shall use the latest property value available and fix this value for the following years of GHG accounting (i.e., the denominator remains constant)." However, our systems do not "fix" the property value for the following years. This means we have understated emissions in 2022 and 2019, potentially materially. (The effect of updating property values, as we have done, and assuming those values increase, is to reduce the attribution factor and, subsequently, our share of emissions). We raised the issue with PCAF and we plan to seek guidance and explore solutions in 2023.

#### Emissions of the property = $\sum$ (Energy consumption x Emission factor)

In the absence of reliable data on energy consumption, we estimated emissions using proxies based on the type, location, and size of the property in line with PCAF's data quality hierarchy (see page 98 of the PCAF GHG Standard for more details). While we collect floor area data for most of our mortgages, this data is typically contained within a PDF and not easily accessed. After exploring options and potential data sources, we decided to purchase property attribute data for BC-based commercial and residential properties. As well as enabling us to estimate financed emissions with a greater degree of accuracy, the property attribute data helps us assess physical climate-related risks associated with mortgage lending. Overall, the weighted data quality score was 4.1 for residential mortgages in 2022. For residential properties where we have floor area data, we calculated total emissions for properties financed as follows for 2022:

- We multiplied **electricity use by building type in BC** by the most recent **consumption intensity emission factor per the** Natural Resources Canada's consumption intensity emission factors for the BC Grid (see <u>page 59</u> for emission factors used)
- For non-electricity-related emissions (e.g., from natural gas, oil, wood) we applied the most recent non-electricity-related GHG emission factors by building type in BC (see page 59 for emission factors used)
- We summed these to obtain total emissions for each building type in BC
- We divided this by **total floor space by building type in BC** to get total emissions per square metre
- We multiplied **emissions per square metre by the relevant total floor area of the buildings** (i.e., by type) in Vancity's portfolio, and summed these to get total emissions
- This approach equates to a PCAF data quality of 4

For residential properties where we don't have floor area data (data quality 5 loans) we calculated total emissions per square metre based on data quality 4 loan data, with our tested assumption that this would be more representative of our building portfolio than using Natural Resources Canada's "per building" averages. The buildings we finance tend to be smaller on average. PCAF confirmed they were supportive of our approach, assuming we had a solid rationale. We calculated emissions as follows:

- We estimated the floor area by calculating the dollar value per square metre of data quality 4 loans by dividing total property value by total floor area. We multiplied this by the total property value of data quality 5 loans
- We then applied the same methodology as for data quality 4 loans above. We still note these loans as data quality 5 given the estimated floor area data

#### Data quality

The PCAF data quality score ranges from 1 to 5, where 5 is highly estimated/uncertain and based primarily on building averages, and 1 is certain (i.e., verified reported emissions). As data quality can vary within portfolios or by building type, PCAF requires financial institutions to report the weighted data quality score by asset class. For residential mortgages, the PCAF Global GHG Standard includes the following data quality options to estimate financed emissions.

Data quality score 1 (highest quality/ certain): Actual building emissions	Actual building emissions (e.g., data on actual building energy consumption (i.e., metered data) is available and emissions are calculated using actual building energy consumption and supplier-specific emission factors specific to the respective energy source.
<b>Data quality score 2:</b> Actual building emissions	Primary data on actual building energy consumption (i.e., metered data) is available. Emissions are calculated using actual building energy consumption and average emission factors specific to the respective energy source.
<b>Data quality score 3:</b> Estimated building emissions based on floor area and energy labels	Estimated building energy consumption per floor area based on official building energy labels <b>and</b> the floor area are available. Emissions are calculated using estimated building energy consumption and average emission factors specific to the respective energy source.
<b>Data quality score 4:</b> Estimated building emissions based on floor area	Estimated building energy consumption per floor area based on building type and location-specific statistical data <b>and</b> the floor area are available. Emissions are calculated using estimated building energy consumption and average emission factors specific to the respective energy source.
Data quality score 5 (lowest quality/ most uncertain): Estimated building emissions based on number of buildings	Estimated building energy consumption per building based on building type and location-specific statistical data <b>and</b> the number of buildings are available. Emissions are calculated using estimated building energy consumption and average emission factors specific to the respective energy source. (Note that we applied a different approach, as detailed above.)

The majority of our residential mortgage balance is data quality 4.0.

#### Weighted data quality score for residential mortgages: ((A × 5)+(B x 4)) = 4.1

A+B

PCAF data quality score	Mortgage balance (\$ million)	Per cent loan balance	Per cent emissions
5	767 (A)	6%	5%
4	13,088 (B)	94%	95%

#### **Emission factors**

		2020 <sup>1</sup>		2019			
Grid factors	BC	Ontario	BC	Ontario	PCAF database	Source	Publication date
Consumption intensity gGHG/kWh electricity generated	7.8	28	19	30	Same source but more recent year <sup>2</sup>	National Inventory Report <u>1990–2020</u> Part 3 BC: Page 71 Ontario: Page 67	2022

1 The most recent emission factors available at the time we calculated emissions for 2022 activities were for 2020. We therefore used 2020 emission factors when calculating emissions for 2022. 2 The PCAF database, at the time of writing, used 2018 data that references the **National Inventory Report**. We used 2020 data, drawing directly from the National Inventory Report 1990–2020.

	2019 <sup>1</sup>			
Frankty was by building types in British Aslymphia	Energy use/	PCAF		
Energy use by building type in British Columbia	GHG emissions	database	Source	
Electricity use	PJ	Same source but more	Office of Energy Efficiency, Natural Resources Canada and Statistics Canada Tables 32, 34 and 36.	
Detached homes	45.2	recent year		
Attached homes	8.7			
Apartments	16.6			
GHG emissions – non-electricity	Mt of CO <sub>2</sub> e	Same source but more	Office of Energy Efficiency, Natural Resources Canada and Statistics Canada Tables 32, 34 and 36.	
Detached homes	2.7	recent year		
Attached homes	0.5			
Apartments	0.9			
	2019			
Data quality 4: floor area by building type in		PCAF		
British Columbia	Million m <sup>2</sup>	database	Source	
Detached homes	194	Same source but more recent year	Office of Energy Efficiency, Natural Resources Canada and Statistics Canada Table 18.	
Attached homes	38.8			
Apartments	74.7			

1 The most recent emission factors available at the time we calculated emissions for 2022 activities were for 2019. We therefore used 2019 emission factors when calculating emissions for 2022. We also updated the emission factors for base year data from 2018 to 2019.

#### **Commercial real estate**

In line with the PCAF Global GHG Standard, we included on-balance sheet loans used for the purchase and refinance of commercial real estate (CRE), defined as property that is used for commercial purposes, such as retail, hotels, office space, or large multifamily rentals. In all cases, the building owner leases the property to tenants to conduct income-generating activities.

#### Calculation approach

## Financed emissions = $\sum$ (Attribution factor x Emissions of the property)

We calculated on-balance sheet financed emissions for commercial real estate and business mortgages based on PCAF guidance, per the formula above. The overall approach to calculating financed emissions is to multiply an attribution factor to the emissions associated with the energy use of the property financed.

#### Attribution factor = <u>Outstanding amount</u> Property value at origination

This ratio is called the **Attribution factor** and reflects our contribution to the acquisition of commercial properties by our members.

The **Outstanding amount** is the drawn amount of funds by the businesses we lend to at the end of the year (December 31).

**Property value at origination** is the appraised value of the property at the time of the loan origination. If the property value at loan origination was not readily available or accessible, we used the most recent value in our system. If we were unable to retrieve a property value from our system, we obtained it from a third-party data provider.

PCAF requires that when the property value at origination isn't feasible to obtain, "financial institutions shall use the latest property value available and fix this value for the following years of GHG accounting (i.e., the denominator remains constant). Furthermore, "when a commercial real estate loan is modified (e.g., loan amount is increased, renewed, refinanced, or extended) and a new property value is obtained as part of the transaction, the property value at origination shall be updated to the property value at the time of the modification." However, our systems do not "fix" the property value for the following years. This means we have understated emissions in 2022 and 2019, potentially materially. (The effect of updating property values, as we have done, and assuming those values increase, is to reduce the attribution factor and, subsequently, our share of emissions). We raised the issue with PCAF, and we plan to seek guidance and explore solutions in 2023.

#### Emissions of the property = $\sum$ (Energy consumption x Emission factor)

Actual building energy consumption isn't widely available in Canada. In the absence of data, we estimated emissions based on building characteristics and publicly available data and emission factors, in line with PCAF's data quality hierarchy (see page 92 of the PCAF GHG Standard for more details). While we collect floor area data for most of our mortgages, this data is typically contained within a PDF and not easily accessed. After exploring options and potential data sources, we decided to purchase property attribute data for BC-based commercial and residential properties and manually track floor area data for large commercial real estate loans (more than \$10 million). In addition to enabling us to estimate financed emissions with a greater degree of accuracy, the property attribute data helps us assess physical climaterelated risks associated with mortgage lending. Overall, the weighted data quality score was 4.5 for commercial real estate in 2022. For commercial services buildings where we have floor area data, we estimated emissions as follows:

- We obtained emission factors expressed in tonnes CO<sub>2</sub>e per square metre, scope 1 plus scope 2, according to building use and location (province of British Columbia or Ontario); see <u>page 61</u> for emission factors used
- We multiplied the appropriate emission factors by the relevant total floor area of the buildings (i.e., by use and location) in Vancity's portfolio, and summed these to get total emissions
- This approach equates to a data quality of 4

For commercial buildings where we don't have floor area data (data quality 5 loans) we calculated total emissions based on data quality 4 loan data, with our tested assumption that this would be more representative of our building portfolio than using Natural Resources Canada's "per building" averages. The buildings we finance tend to be smaller on average. PCAF confirmed they were supportive of our approach, assuming we had a solid rationale. We calculated emissions as follows:

- We estimated the floor area by calculating the \$ value per square metre of data quality 4 loans by dividing total property value by total floor area. We multiplied this by the total property value of data quality 5 loans
- We then applied the same methodology as for data quality 4 loans above. We still note these loans as data quality 5 given the estimated floor area data

For residential properties used for income-generating purposes by a business, we applied the same calculation methodologies that we used for residential mortgages.

#### Data quality

The PCAF data quality score ranges from 1 to 5 where 5 is highly estimated/uncertain and based primarily on building averages, and 1 is certain (i.e., verified reported emissions). Because data quality can vary within portfolios or by building type, PCAF requires financial institutions to report the weighted data quality score by asset class. For commercial real estate, the PCAF Global GHG Standard includes the following data quality options to estimate financed emissions.

Data quality score 1 (highest quality/ certain): Actual building emissions	Primary data on actual building energy consumption (i.e., metered data) is available. Emissions are calculated using actual building energy consumption and supplier-specific emission factors specific to the respective energy source.
<b>Data quality score 2:</b> Actual building emissions	Primary data on actual building energy consumption (i.e., metered data) is available. Emissions are calculated using actual building energy consumption and average emission factors specific to the respective energy source.
<b>Data quality score 3:</b> Estimated building emissions based on floor area and energy labels	Estimated building energy consumption per floor area based on official building energy labels <b>and</b> the floor area are available. Emissions are calculated using estimated building energy consumption and average emission factors specific to the respective energy source.
<b>Data quality score 4:</b> Estimated building emissions based on floor area	Estimated building energy consumption per floor area based on building type and location-specific statistical data <b>and</b> the floor area are available. Emissions are calculated using estimated building energy consumption and average emission factors specific to the respective energy source.
Data quality score 5 (lowest quality/ most uncertain): Estimated building emissions based on number of buildings	Estimated building energy consumption per building based on building type and location specific statistical data <b>and</b> the number of buildings available. Emissions are calculated using estimated building energy consumption and average emission factors specific to the respective energy source. (Note that we applied a different approach, as detailed above).

#### Weighted data quality score for commercial real estate: ((A × 5)+(B x 4)) = 4.5

A+B

PCAF data quality score	Mortgage balance (\$ million)	Percentage of Ioan balance	Percentage of emissions
5	2,663 (A)	48%	38%
4	2,907 (B)	52%	62%

#### Emission factors

The following are 2017 emission factors sourced from Natural Resources Canada (NRCAN) per the PCAF database.

Building use	Emission factor (tC0 <sub>2</sub> e/m²) BC	Emission factor (tC0 <sub>2</sub> e/m²) Ontario
Educational services	Scope 1 = 0.0237412 Scope 2 = 0.0175149	Scope 1 = 0.048762 Scope 2 = 0.006214
Health care and social assistance	Scope 1 = 0.043643 Scope 2 = 0.031621	Scope 1 = 0.0874187 Scope 2 = 0.00954681
Other services	Scope 1 = 0.0248983 Scope 2 = 0.0187	Scope 1 = 0.04614 Scope 2 = 0.0052779
Offices	Scope 1 = 0.0209507 Scope 2 = 0.0199158	Scope 1 = 0.0395145 Scope 2 = 0.00699344
Retail trade	Scope 1 = 0.0242209 Scope 2 = 0.0195233	Scope 1 = 0.0484401 Scope 2 = 0.00606153
Accommodation and food services	Scope 1 = 0.043456 Scope 2 = 0.0277231	Scope 1 = 0.0719245 Scope 2 = 0.00850746

#### **Operational business loans**

In line with the PCAF Global GHG Standard, we include on-balance sheet loans and lines of credit to businesses, nonprofits, and any other structures of organization that aren't traded on a market and are for general corporate purposes (i.e., with unknown use of proceeds as defined by the GHG Protocol). We also include revolving credit facilities, overdraft facilities, and business loans secured by real estate.

#### Calculation approach

Our approach to calculating financed emissions in line with PCAF is to multiply an attribution factor by the emissions of the borrower. While not required, we report estimated scope 3 member emissions, as well as scope 1 and 2 member emissions. To increase data quality, we focused on accessing financial data for the organizations we finance, specifically annual revenue, total debt, and total equity. We were able to extract this data manually from our credit risk rating model, which we apply to larger business loans. However, the financial data may not be up to date. PCAF recognizes that there is often a time lag between the year of reporting and required emissions or business-related data. We use the most recent data available, per PCAF's guidance. The weighted data quality score was 4.6 in 2022.

#### Attribution factor = $\sum Outstanding amount$ Company value

We accounted for a portion of the annual emissions of the organizations we finance by determining the ratio between our outstanding amount (numerator) and the economic value of the organization (denominator). This ratio is called the **Attribution factor** and reflects that our financing funds general operating activities undertaken by organizations in our communities.

The **Outstanding amount** is the drawn amount of funds by the organizations we lend to at the end of the year (December 31).

#### We calculated **Company value** in two ways:

- Where available from our internal records, we used total debt and equity to calculate enterprise value based on year-end reported financials
- In cases where information on debt and equity was not readily available, we defaulted to using total balance sheet value (total assets) as a proxy for organizational value

#### Financed emissions = Attribution factor x Emissions of the borrower

Few of the small- and medium-sized enterprises we lend to track or currently report emissions. In the absence of reliable member and client data on their emissions, we estimated emissions using economic activity-based emissions by sector in line with PCAF's data quality hierarchy (see page 73 of the PCAF GHG Standard for more details). We calculated emissions of the borrower in one of two ways and used the same approach for scope 1, 2, and 3 emissions:

• For companies where we knew the company's revenue, we applied the appropriate emission factor for the sector (based on NAICS) per unit of revenue (e.g., tCO<sub>2</sub>e per dollar revenue earned in a sector). This approach equates to a data quality of 4

• Where we knew the outstanding amount in the company, but didn't have financial data, we applied the appropriate emission factor for the sector (based on NAICS) per unit of asset (e.g., tCO<sub>2</sub>e per dollar of asset in a sector). This approach equates to a data quality of 5

#### Data quality

The PCAF data quality score ranges from 1 to 5 where 5 is highly estimated/uncertain and based primarily building averages, and 1 is certain (i.e., verified reported emissions). As data quality can vary across and portfolios, PCAF requires financial institutions to report the weighted data quality score by asset class. For business loans and unlisted equity, the PCAF Global GHG Standard includes the following data quality options to estimate financed emissions.

Data quality score 1 (highest quality/ certain): Verified emissions	Outstanding amount in the company and total company equity plus debt are known. Verified emissions of the company are available.
<b>Data quality score 2:</b> Physical activity- based emissions	Outstanding amount in the company and total company equity plus debt are known. Unverified emissions calculated by the company are available OR emissions are calculated using primary physical activity data for the company's energy consumption and emission factors specific to that primary data. Relevant process emissions are added.
<b>Data quality score 3:</b> Physical activity- based emissions	Outstanding amount in the company and total company equity plus debt are known. Emissions are calculated using primary physical activity data for the company's production and emission factors specific to that primary data.
<b>Data quality score 4:</b> Economic activity- based emissions	Outstanding amount in the company, total company equity plus debt, and the company's revenue are known. Emission factors for the sector per unit of revenue are known (e.g., tCO <sub>2</sub> e per dollar of revenue earned in a sector).
Data quality score 5 (lowest quality/ most uncertain): Economic activity-based emissions	Outstanding amount in the company is known. Emission factors for the sector per unit of asset (e.g., $tCO_2e$ per dollar of asset in a sector) <b>or</b> emission factors for the sector per unit of revenue (e.g., $tCO_2e$ per dollar revenue earned in a sector) and asset turnover ratios for the sector are known.

#### Weighted data quality score for residential mortgages: ((A × 5)+(B x 4)) = 4.6

A+B

PCAF data quality score	Loan balance (\$ million)	Percentage of loan balance	Percentage of emissions
5	137 (A)	57%	54%
4	102 (B)	43%	46%

#### **Emission factors**

	Value	Year	PCAF database	Source
Emission intensity per million € of revenue	Various, by sector based on NAICS code	2019	Yes	PCAF Economic Activity-based Emission Factors for Canada derived from EXIOBASE <sup>1</sup>
Emission intensity per million € of assets	Various, by sector based on NAICS code	2019	Yes	PCAF Economic Activity-based Emission Factors for Canada derived from EXIOBASE <sup>1</sup>

1 The EXIOBASE database is a global, detailed multi-regional table that estimates emissions by industry. The database has high sectoral coverage and a large set of environmental information (e.g., types of emissions, materials/resources). Note that we convert euros to Canadian dollars when performing emissions analysis using the Bank of Canada rates.

#### **Motor vehicle loans**

In line with the PCAF GHG Standard, we've included on-balance sheet consumer loans and lines of credit that are used for the specific purpose of financing motor vehicles. However, more members purchase vehicles using loans and lines of credit than we can identify. We don't know the value or number of these loans, and so we have either excluded them (in the case of consumer loans) or included them under operational business loans where appropriate. As the portfolio is likely relatively small and our systems and processes would require a major overhaul to begin tracking all motor vehicle purchases, we're currently focusing data quality improvements on residential mortgages, commercial real estate, and operational business loans.

#### Calculation approach

#### Financed emissions = $\sum$ Attribution factor x Vehicle Emissions

The overall approach to calculating financed emissions in line with PCAF is to multiply an attribution factor to scope 1 and 2 emissions associated with the energy use of the motor vehicle, scope 1 being direct emissions from fuel combustion in vehicles and scope 2 being indirect emissions from electricity generation consumed in hybrids or fully electric vehicles.

#### Attribution factor = $\sum_{v=1}^{v}$ Outstanding amount Value of motor vehicle at origination

We account for the portion of the annual emissions of motor vehicles we finance by determining the ratio between our outstanding amount (numerator) and the total value of the motor vehicle at the time of the transaction (denominator). This ratio is called the **Attribution factor** and reflects our contribution to the purchase of vehicles by our members.

The **Outstanding amount** is the drawn amount of funds by the individuals we lend to at the end of the year (December 31).

The **Value of the motor vehicle at origination** is the assessed value of the motor vehicle at the time of loan origination. If this information isn't readily available in our systems, we take a conservative approach and assume 100 per cent attribution of the vehicle's emission as per PCAF's recommendations.

#### Emissions of the motor vehicle = $\sum$ Distance travelled x Efficiency x Emission factor

In the absence of reliable data on the majority of the above (we don't track the model or make or year of the motor vehicle we're financing), we estimated emissions by multiplying the number of motor vehicles financed (using number of loans as a proxy) by **emissions per average vehicle year in BC**, which we sourced from the PCAF database.

PCAF prescribes that emissions per vehicle-year are calculated by multiplying the distance travelled (km) in a year by the vehicle's fuel efficiency (litres of gasoline/km) and the vehicle's fuel type-specific emission factor (kg CO<sub>2</sub>e/litre of gasoline).

#### Data quality

In the absence of vehicle-specific emissions data in general, we applied a highly estimated approach to calculating emissions in line with the lowest data quality score of 5 (see page 106 of the PCAF Global GHG Standard for more details).

**Emission factors** 

	Value tC0 <sub>2</sub> e	Year	PCAF database	Source
Emissions per average passenger car vehicle- year in BC	2.66429	2008	Yes	Office of Energy Efficiency, Natural Resources Canada and Statistics Canada <sup>1</sup>

1 We understand that the PCAF database will be updated in 2023, and may include updates to the motor vehicle asset class.

#### **Project finance**

In line with the PCAF Global GHG Standard, we included on-balance sheet loans for specific projects/ purposes, specifically financing for power generation (clean energy projects) as well as energy efficiency and energy storage projects.

#### Calculation approach Financed emissions = $\sum$ Attribution factor x Project emissions

The overall approach to calculating financed emissions in line with the PCAF Global GHG Standard is to multiply an **Attribution factor** to scope 1 and 2 absolute emissions associated with the project. Due to a lack of reliable data, we haven't estimated scope 3 emissions at this time. In addition to measuring financed emissions, we track and separately report avoided emissions.

## $\begin{array}{l} \text{Attribution factor} = \sum \text{Outstanding amount} \\ \hline \text{Project value} \end{array}$

We account for a portion of the annual emissions of the financed project by determining the ratio between the outstanding amount (numerator) and the total project value (denominator). For **Project value**, we've used total project value (cost). This is in place of total project equity and debt, or total balance sheet value, per the PCAF Global GHG Standard. We plan to use balance sheet value in the future. The **Outstanding amount** is the balance sheet value of the debt the borrower owes to Vancity as at the end of the financial year (December 31).

Our approach to calculating **Project emissions** generated varies by project. In many cases, we obtain projected energy consumption and/or emission generated and avoided by the project directly from the project developer, which the developer calculates based on certain assumptions, which we record. In cases where the developer provides energy use data (versus emissions data), we apply the appropriate emission factors to calculate emissions generated or avoided. In some cases, energy use/emissions projections are verified by an independent engineering report. For one project, we didn't have complete energy data and used estimated annual project revenue combined with an economic activity-based emission factor from the PCAF database. We'll adjust our approach to better align with the PCAF Global GHG Standard and explore options for obtaining primary rather than estimated data.

#### Data quality

The PCAF data quality score ranges from 1 to 5, where 5 is highly estimated/uncertain and based on economic activity data (e.g., revenue) and average emission factors per economic activity (e.g., tCO<sub>2</sub>e/dollar revenue), and 1 is certain (i.e., verified emissions collected from the project or through independent third parties). Our emissions data is mostly based on projections provided by the developer/third party at the time of the loan origination. PCAF's data quality hierarchy (see page 83 of the PCAF Global GHG Standard) doesn't consider third-party projections of emissions. Because of this, and due to the variation in approach by project, we've reported that project finance emissions data contains the highest degree of uncertainty.

#### Emission factors

Project type	Emission factor description	Emission factors	Year	PCAF database	Source	Publication date
Energy generation projects (solar and wind)	Assume no produced emissions from renewable energy generation	Assumed emissions = 0	Not applicable	Not applicable	Not applicable	Not applicable
Energy efficiency projects (various,	Provincial grid emissions	BC Grid Intensity = 0.0000117 t/kWh	2019	Same source but more	National Inventory Report 1999-2019 – Part 3	2021
including LED building retrofit projects and geo-exchange)		AB Grid intensity = 0.00062 t/kWh		recent year <sup>1</sup>		
		ON Grid Intensity = 0.00003 t/kWh				
		QC Grid Intensity = 0.0000012 t/kWh				
<b>Energy efficiency projects</b> (deep building retrofit – one project)	Canadian emissions intensity per \$M in revenue: electricity, gas, steam and air conditioning	Scope 1: 2,139.41	2015	Yes	PCAF database	-
		Scope 2: 43.627				
		Scope 3: 178.667				
Energy storage (one project)	Provincial grid emissions	ON Grid Intensity = 0.00003 t/kWh	2019	Same source but more recent year <sup>1</sup>	National Inventory Report 1999-2019 – Part 3	2021

1 We use the same source per the PCAF database, but a slightly more recent version. The PCAF database uses 2018 data listed in a 2021 Energy Star report that references the National Inventory Report. We used 2019 data, drawing directly from the National Inventory Report 1999-2019 published in 2021. We'll update these factors to the most recently updated data next year.

#### Avoided emissions calculation

Avoided emissions related to renewable power projects are the reduction in emissions of the financed project compared to what would have been emitted in the absence of the project (the baseline emissions). To calculate emissions avoided as a result of the project, we used annual kWh avoided estimates provided directly by the project developer compared to what would have been emitted in the absence of the project (the baseline emissions).

#### Accounting for lifetime emissions as an initial lender:

#### Wastewater Energy Transfer

Vancity Community Investment Bank (VCIB) is financing the construction of a wastewater energy transfer (WET) project at a Toronto hospital. Thermal energy is extracted from municipal wastewater and delivered to the hospital through closed loop heat exchangers and heat pumps and expected to supply 90 per cent of the hospital's space heating and cooling requirements. With annual emissions of 1,125 tonnes of greenhouse gas based on the use of grid electricity, the projected lifetime scope 1 and 2 emissions are 33,750 tonnes of CO<sub>2</sub>e over 30 years. Approximately 35 per cent of the annual financed emissions are attributed for each year that we service the loan, around 401.6 tonnes a year once the project is operational. As a carbon reduction project, the installation is also expected to reduce 8,400 tonnes of greenhouse gases annually. Overall, an estimated 250,000 tonnes of greenhouse gas will be avoided over its 30-year lifetime.

#### Geo-exchange projects

VCIB extended a construction financing facility for the installation of geo-exchange systems for new condo developments in the Greater Toronto Area. The geo-exchange systems use stable underground temperatures to regulate the buildings' temperature. As of December 31, 2022, this credit facility has provided construction financing to three projects that together are projected to emit 752.4 tonnes of greenhouse gas emissions over their 30-year lifetimes. The project's scope 2 emissions are associated with the use of grid electricity used to power the heat pumps. The installations are also expected to reduce 654 tonnes of greenhouse gas annually. Over the course of their 30-year lifetime, an estimated 19,620 tonnes of greenhouse gas will be avoided.

#### Liquidity investments

Our 2022 calculation included term deposits, corporate bonds, and sovereign bonds. We didn't estimate emissions for mortgage-backed securities and some government and provincial/municipal bonds due to the absence of available emissions data. We applied the new PCAF methodologies for sovereign bonds, where applicable, in line with the updated 2nd edition of the PCAF standard.

#### Calculation approach

Our overall approach to calculating financed emissions in line with the PCAF Global GHG Standard was to multiply an attribution factor to scope 1 and 2 absolute emissions associated with the investments. We didn't include scope 3 emissions due to challenges accessing reliable scope 3 data.

We accounted for a portion of the annual emissions associated with the investments by determining the ratio between the outstanding amount of our investments (numerator) and financial investments classified and designated as fair value through other comprehensive income (FVOCI—denominator). The denominator excluded financial investments measure at fair value through profit or loss (FVTPL), which primarily consist of impact investment funds.

#### Financed emissions = Attribution factor x Emissions

We reviewed available PCAF methodologies to determine which ones were best suited to calculate the attribution factor for the different investment types. We obtained actual emissions data from annual or sustainability reports. We used the most recent available financial and emissions data were available even though this may have resulted in a discrepancy between the date of the transaction and company data. While the PCAF Global GHG Standard doesn't have an approach for off-balance sheet investments, we applied the PCAF methodology for listed equity *"used for general corporate purposes that are traded on a market and are on the balance sheet of the financial institution."* 

Attribution factors for listed equity and bonds to private companies

Listed equity attribution factor =  $\sum$  Outstanding amount Enterprise value including cash

## Bonds to private companies attribution factor = $\sum \frac{\text{Outstanding amount}}{\text{Total equity + debt}}$

The **Outstanding amount** is the on-balance sheet market value of the investment as at the end of the financial year (December 31).

Financial data for **Enterprise value including cash** (EVIC) or **Total equity and debt** (the denominator(s)) was based on the most recent available company data. We obtained financial data from a variety of sources, including Bloomberg financial data or directly from annual reports. Some of the financial data was based on the value at December 31, 2022, where available, which aligns with our financial year-end. However, some financial data was based on 2021 data due to lags in financial reporting.

We calculated company (investee) emissions as follows:

#### Financed emissions = Attribution factor x Company emissions

Due to an inherent lag in public greenhouse gas emissions accounting and reporting by companies, investee emissions were based on 2022 reports where available, and 2021 reports if not, or most recently available data This is a known issue for this type of calculation and reporting, with PCAF recognizing that "There is often a lag between financial reporting and required data, such as emissions data for the borrower or investee becoming available. In these instances, financial institutions should use the most recent data available even if it's representative of different years, with the intention of aligning as much as possible."

We calculated sovereign (government) emissions as follows:

We applied the method for sovereign debt per PCAF's 2nd version of the Global GHG Accounting and Reporting Standard.

#### Financed emissions = $\sum$ s Attribution factor<sub>s</sub> × Sovereign emissions (with<sub>s</sub> = sovereign borrower)

We calculated financed emissions by multiplying the **Attribution factor** by **Sovereign emissions** (emissions of the respective sovereign borrower).

#### Attribution factor = Outstanding amount<sub>s</sub> Purchasing Power Parity (PPP)-adjusted Gross Domestic Product (GDP)<sub>s</sub> (with<sub>s</sub> = sovereign borrower)

The **Outstanding amount** is the exposure to the sovereign bond and is the on-balance sheet market value of the investment as at the end of the financial year (December 31).

#### Data quality

For sovereign bonds, the data quality score is 1 according to PCAF's data quality hierarchy on page 120 of the 2nd version of the GHG Standard. For corporate bonds and term deposits, the data quality score is 3 according to PCAF's data quality hierarchy. As we don't have full data quality coverage and sovereign bonds are a small percentage of the asset class, we've approximated a data quality score of 3.

**Sovereign emissions**, per PCAF, are the scope 1 emissions of the country defined as production emissions excluding land use, land-use change and forestry (LULUCF). LULUCF is excluded as they "*have the potential to distort the overall trends of key sectors (energy, industrial processes) that contribute to global warming.*"

#### Sovereign emissions

Country	Production emissions including LULUCF (ktC0 <sub>2</sub> e)	Production emissions excluding LULUCF (ktCO <sub>2</sub> e)	Year	Source
Canada	665,593.5	672,354.0	2020	United Nations Climate

PPP-adjusted GDP is the value of a country's output as a proxy for the "value of the country."

Country	PPP-adjusted GDP (\$ millions int'l)	Year	Source
Canada	1,992,049.90	2021	<u>World Bank</u>

We've excluded provincial government and municipal bonds as at the time of writing there is no methodology for sub-national (e.g., provincial and municipal) bonds. Per PCAF, this is due to *"very limited data availability and because these counterparties are not directly subject to international GHG emissions inventory standards."* 

#### Managed client investments

Total managed investments include mutual funds, stocks, bonds, and cash plus equivalents. In 2022 our emissions calculation covered equity investments including holdings in mutual funds—specifically public common and preferred stock. While we didn't estimate emissions for other types of client investments such as corporate bonds and sovereign bonds due to challenges accessing the required data, we plan to include these in the future, as data allows.

#### Calculation approach

#### Financed emissions = Attribution factor x Company emissions

While the PCAF Global GHG Standard doesn't have an approach for off-balance sheet investments, we applied the PCAF methodology for listed equity "*...used for general corporate purposes that are traded on a market and are on the balance sheet of the financial institution.*" The overall approach to calculating financed emissions for listed equity is to multiply an attribution factor to emissions associated with covered investee companies. PCAF requires financial institutions to report investees' absolute scope 1 and scope 2 emissions across all sectors. For scope 3 emissions, PCAF recommends a phased approach. Sectors where scope 3 emissions reporting is currently required by PCAF include oil and gas and mining, and we've reported these emissions where applicable.

Vancity Investment Management doesn't directly invest in oil and gas; it does invest in mining (Materials), and we've disclosed scope 3 for mining in this specific GICS Industry. In line with requirements and best practice, and as data and methodologies allow, we plan to report scope 3 emissions attributed to portfolio holdings for additional sectors in the future.

For our managed investments, we're aligned with best practice and improved on our methodology for calculating the **Attribution factor** by utilizing enterprise value including cash (EVIC) rather than market capitalization for a more streamlined approach to reporting in line with our net-zero targets.

## Attribution factor = $\sum \frac{\text{Outstanding amount}}{\text{EVIC}}$

MSCI accounts for a portion of the annual emissions associated with our investments by determining the ratio between the outstanding amount of our investment (numerator) and the value of the investee company (denominator). MSCI uses Enterprise Value including Cash (EVIC) to calculate the value of the investee company.

The **Outstanding amount** is the market value of the dollars invested as at the end of the financial year (December 31, 2022).

Emissions data for investee companies was provided by MSCI ESG Research. MSCI ESG Research collects data once per year from the most recent corporate sources, including annual reports, corporate social responsibility/sustainability reports and websites. When reported company data is unavailable, MSCI look at emissions data reported through the CDP (formerly the Carbon Disclosure Project) or government databases. In cases where companies haven't disclosed any relevant data, MSCI ESG Research uses a proprietary methodology to estimate scope 1, scope 2, and scope 3 downstream and upstream emissions either from previous company data or extrapolated values from peer groups. We don't report all scope 3 emissions because of concerns surrounding the reliability of scope 3 data and potential double (or triple) counting.

Because of an inherent lag in public greenhouse gas emissions accounting and reporting by investees, the majority of reported 2022 actuals and estimates are likely based on 2021 company financial and emissions information. This is a known issue for this type of calculation and reporting, with PCAF recognizing that *"There is often a lag between financial reporting and required data, such as emissions data for the borrower or investee becoming available. In these instances, financial institutions should use the most recent data available even if it's representative of different years, with the intention of aligning as much as possible."* 

#### Data quality

The PCAF data quality score ranges from 1 to 5, where 5 is highly estimated/uncertain and based on economic activity data (e.g., revenue) and average emission factors per economic activity (e.g., tCO<sub>2</sub>e/dollar revenue), and 1 is certain (i.e., verified emissions of the investee company are available).

Emissions data for investee companies was provided by MSCI ESG Research, a third party using a proprietary methodology. We are therefore unsure of the weighted data quality score. Data quality likely ranges between 2 (company-reported emissions) and 5 (estimated emissions based on extrapolation from peer groups), assuming the methodology used is in line with the GHG Protocol. There may be reported data that is verified, but we're unable to confirm this. In these cases we've assigned reported data a data quality score of 2.

#### Weighted data quality score for managed client investments (all emissions scopes):

((A × 5)+(B x 4)+(C x 2)) = 2.6

A+B+C

PCAF data quality score	Data source	Balance (\$ million)	Per cent Ioan balance	Scope 1+2 absolute emissions (tC0 <sub>2</sub> e)	Per cent emissions
5	MSCI estimates data (peer group)	271 (A)	15%	3,074	14%
4	MSCl estimates (company data)	119 (A)	7%	2,669	12%
2	Reported data	1,328 (A)	76%	16,661	74%

# **Glossary and abbreviations.**

**Absolute emissions:** The emissions attributed to a financial institution's lending and investing activity. Expressed in tonnes CO<sub>2</sub>e.

**Assurance provider (independent/external):** A practitioner who provides assurance. Types of assurance providers vary from professional audit and quality assurance firms, sustainability assurance consultancies, civil society assurers and opinion/non-governmental organization leaders or advisory panels.

**Attribution factor:** The share of total greenhouse gas (GHG) emissions of the borrower or investee that is allocated to the loans or investments made.

**Base year:** A historical year against which a company's emissions are tracked over time.

**Business loans/Operational business loans:** Per the PCAF Global GHG Standard, for the purposes of emissions reporting, this asset class includes on-balance sheet loans and lines of credit for general business purposes (i.e., with unknown use of proceeds) to non-listed/private businesses and not-for-profits. Loan recipients can include businesses, nonprofits, and any other structure of organization that isn't traded on a market. We include revolving credit facilities, overdraft facilities, and real estate secured general purpose loans/line of credits. Note that mortgages for the purposes of purchasing or refinancing a building are included under commercial real estate loans (see below).

**Carbon offsets:** A reduction in greenhouse gas emissions created by one party that can be purchased and used to compensate for (offset) the greenhouse gas emissions of another party.

**CO<sub>2</sub> equivalent (CO<sub>2</sub>e):** The universal unit of measurement to indicate the global warming potential (GWP) of each greenhouse gas, expressed in terms of the GWP of one unit of carbon dioxide. It's used to evaluate releasing (or avoiding releasing) different greenhouse gases against a common basis.

**Commercial real estate (CRE) loans:** Per the PCAF Global GHG Standard, for the purpose of emissions reporting, this asset class incudes on-balance sheet loans and mortgages used for the purchase or re-finance of properties used for commercial purposes, such as office, retail, hotels, and large multifamily rentals. Generally, the building owner leases the property to tenants to conduct incomegenerating activities, but we also include owner-occupied commercial real estate. While commercial real estate lending also includes loans that finance the purchase of industrial properties and land, we don't currently include these in d when reporting emissions due to lack of a suitable methodology or appropriate data.

**Commercial service buildings:** Defined according to SBTi's Sectoral Decarbonization Approach, commercial service buildings include properties related to trade, finance, retail, public administration, health, food and lodging, education, and commercial services. We used this definition to establish base year data for our interim climate targets.

**Direct emissions:** Emissions from sources that are owned or controlled by the reporting entity or the borrower or investee.

**Emission factor:** A factor that converts activity data into GHG emissions data (e.g., kg  $CO_2e$  emitted per litre of fuel consumed, kg  $CO_2e$  emitted per kilometre travelled, etc.).

**Emissions:** This is a short-form way of referring to greenhouse gas emissions (GHGs) and refers to the release of greenhouse gases into the atmosphere.

**Emissions intensity (economic):** Absolute emissions divided by the loan and investment volume, expressed as tCO<sub>2</sub>e/\$M invested.

**Emissions intensity (physical):** Absolute emissions divided by an output value, expressed as tCO<sub>2</sub>e/MWh, tCO<sub>2</sub>e/tonne product produced.

**Energy Use Intensity (EUI):** Refers to the amount of energy used per square foot annually. It's calculated by dividing the total energy consumed by the building in a year by the total gross floor area.

**External assurance:** The provision of an independent, objective examination and assessment of certain subject matter or performance information to give confidence or credibility.

**Financed emissions:** Absolute emissions that banks and investors finance through their loans and investments.

**Global Industry Classification Standard (GICS):** A method for assigning companies to a specific economic sector and industry group that best defines its business operations. It's used widely by investment market participants as an industry analytical framework for investment research and portfolio management.

**Greenhouse gases (GHGs):** Six gases covered by the United Nations Framework Convention on Climate Change (UNFCCC): carbon dioxide ( $CO_2$ ), methane ( $CH_4$ ), nitrous oxide ( $N_2O$ ), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride ( $SF_6$ ).

**GHG Protocol:** A comprehensive global standardized framework to measure and manage GHG emissions from private and public sector operations, value chains, and mitigation actions. The GHG Protocol supplies the world's most widely used GHG accounting standards.

**Indirect emissions:** Emissions that are a consequence of the activities of the reporting entity but occur at sources owned or controlled by another entity. Scope 2 and 3 emissions cover indirect emissions.

**Listed equity:** Shares, units or other financial products listed and traded on an exchange.

**Loan origination:** The process by which a borrower applies for a new loan, and a lender processes that application.

**Motor vehicle loans:** Per the PCAF Global GHG Standard, for the purpose of financed emissions reporting this asset class includes on-balance sheet consumer loans and lines of credit used for the specific purpose of financing motor vehicles. Note that personal and business loans/lines of credit may also be used to finance motor vehicles. Vancity is currently unable to track these, and as such, these loans are either excluded (personal) or included under operational business loans.

**North American Industry Classification System (NAICS):** A business classification system that facilitates the comparison of statistics of business activities across North America. Companies are classified and separated into industries defined by the same or similar production processes. (For business loans in Vancity's portfolio where we know company revenue, we apply the appropriate emission factor for the sector based on NAICS per unit of revenue (e.g., tCO<sub>2</sub>e per dollar revenue earned in a sector).)

**Net zero:** Reducing GHG emissions and investing in solutions that bring the balance of your emissions to net zero. Once reductions have come as close to zero as possible, remaining solutions may include carbon sequestration through forests or other nature-based solutions, and/or technologies that sequester (or trap) GHG emissions. Many businesses (and governments) are setting time-bound targets for net zero (e.g., Vancity is committed to net zero by 2040).

**Off-balance sheet managed client investments:** Discretionary and non-discretionary member and client investments, such as mutual funds, stocks, bonds, or cash and cash equivalents, which we manage on their behalf.

**On-balance sheet assets:** Everything a company owns that is determined to have a future economic benefit, and that is reported on the balance sheet.

**Operational business loans:** See Business loans above.

**Operational emissions:** The emissions generated by a company's operations, expressed in tonnes of carbon-dioxide equivalent (tCO<sub>2</sub>e). At Vancity, operational greenhouse gas emissions include those from premises energy use, paper use, our vehicle fleet, employee business travel by vehicle or air, and employee commuting to and from work in a vehicle.

**Partnership for Carbon Accounting Financials (PCAF):** Open-source methodologies that enable financial institutions to measure the greenhouse gas emissions associated with their loans and investments.

**PCAF Global GHG Standard:** The Partnership for Carbon Accounting Financials (PCAF) is an industry-led initiative enabling financial institutions to measure and disclose greenhouse gas (GHG) emissions of loans and investments. The Global GHG Standard provides detailed methodological guidance to measure and disclose GHG emissions by specific asset class.

**Project finance:** Per the PCAF Global GHG Standard, for the purposes of emissions reporting, this asset class includes loans or equities to projects for specific purposes (i.e., with known use of proceeds as defined by the GHG Protocol) that are on the balance sheet of the financial institution. The financing is designated for a defined activity or set of activities, such as the construction and operation of a wind or solar project, or energy efficiency projects. (Note that construction and installation emissions are current excluded from Vancity's emissions reporting).

**Residential buildings:** Defined according to SBTi's Sectoral Decarbonization Approach, residential buildings refer to private dwellings such as apartments and houses, and include single family and multi-family buildings. We used this definition to establish base year data for our interim climate targets.

**Residential mortgages:** Per the PCAF Global GHG Standard, for the purpose of emissions reporting this asset class includes on-balance sheet loans provided to individual for the specific purpose of purchasing or refinancing residential property. Residential property used to conduct income-generating activities (e.g., properties that are owned by a business and rented out) are included under commercial real estate.

**Science Based Targets initiative (SBTi):** SBTi is a partnership between CDP, the United Nations Global Compact, World Resources Institute (WRI), and the World Wide Fund for Nature (WWF). Its goal is to drive ambitious climate action in the private sector by enabling organizations to set science-based emissions reduction targets. **Scope 1 emissions:** Direct emissions that occur from sources owned or controlled by the reporting company (i.e., emissions from combustion in owned or controlled boilers, furnaces, vehicles), etc.

**Scope 2 emissions:** Emissions from the generation of purchased or acquired electricity, steam, heating, or cooling consumed by the reporting company.

**Scope 3 emissions:** All indirect emissions (not included in scope 2) that occur in the value chain of the reporting company, including both upstream and downstream emissions. Upstream emissions are the indirect emissions related to suppliers, from the purchased materials that flow into the company to the products and services the company utilizes. Downstream emissions are the emissions related to customers, from selling goods and services to their distribution, use, and end-of-life stages. The downstream category also includes investment emissions, known as financed emissions and of particular relevance for financial institutions.

**Scope 3, category 15 (investments) financed emissions:** This category includes scope 3 emissions associated with the reporting company's loans and investments in the reporting year. Note that scope 3 (15) for Vancity equates to scope 1 and 2 for our members and clients—and scope 3 where required and/or data and methodologies exist.

Small- and medium-sized businesses/enterprises (SMEs):

According to Industry Canada, small businesses are businesses with 1 to 99 employees; medium-sized businesses are businesses with 100 to 499 employees.

# Vancity

We'd like to hear what you think about this report. Send comments and questions to **accountability@vancity.com**, tweet us **@vancity**, or connect with us on **facebook.com/vancity** 

