



Delivering  
**extraordinary  
energy solutions**  
so the **world can thrive.**

20  
22

Sustainability  
Report

**PEMBINA**

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## Pembina's Land Acknowledgement


Pembina acknowledges our traditional hosts and thanks them for their graciousness in welcoming us to carry out work on their traditional territories.

Pembina plays a role in the Economic Reconciliation with Indigenous Peoples and their respective communities where Pembina operations take place. We acknowledge the collective responsibility we all have to these lands and to the future generations who will be stewards of them. Pembina recognizes and respects:

- The spirit and intent of the United Nations Declaration on the Rights of Indigenous Peoples, within the context of the Canadian Constitution and existing Canadian laws;
- The United Nations Declaration on the Rights of Indigenous Peoples as a framework for reconciliation; and
- That all Canadians, including private industry and government, must play a role in advancing the Truth and Reconciliation Commission of Canada's Calls to Action, and in particular, Call to Action Number 92, Business and Reconciliation.

Indigenous Peoples are the traditional stewards of the lands and waters where each of us work and choose to live. We further acknowledge that the Indigenous Peoples have inhabited these lands and waters since time immemorial. The Indigenous Peoples' territory, culture, truths, traditions, teachings, and languages are sacred, and we are honoured to live and work here. We acknowledge the original inhabitants of this place, who have hunted, fished, gathered, and taken care of these lands. We respect their right to self-determination and we honour their sacred spiritual connection with the land and water.




 We will continue to focus on making meaningful progress towards our targets and evaluate longer-term opportunities to support and respond to the transition to a lower-carbon economy.

## Message from the Board

On behalf of the Board of Directors of Pembina Pipeline Corporation, I am proud to present our 2022 Sustainability Report.

Overseeing our sustainability strategy is a core responsibility of the Board and one we take seriously. We dedicate significant time engaging on Pembina’s approach to ESG and how we are integrating it into our priorities, long-term business planning, organizational structure and corporate policies and practices.

Over the course of last year, we are pleased to see the progress Pembina has made on many fronts. This progress is outlined in the report and covers updates on Pembina’s corporate strategy, material ESG topics, major investments towards a lower carbon economy and actions to help achieve our targets. We value the work the organization is doing on our climate strategy and the evolving ESG regulatory landscape to ensure we are set up for future success.

The Board understands that a resilient and sustainable organization requires a strong safety culture. We know how critical it is for Pembina to protect people, the environment and the integrity of its assets. We are also proud to report that, within the organization and in terms of Board composition, we are now exceeding three of our equity, diversity and inclusion (“EDI”) targets, including women in executive roles as well as overall diversity and women on the Board. By becoming more diverse and inclusive, we will make Pembina a more innovative and resilient organization for years to come.

Finally, we recognize that effective governance is essential for a strong business and supports our ability to operate successfully, mitigate risk and enhance value for our customers, investors, employees and communities. The Board is confident in Pembina’s long-term strategy and ability to identify and understand risks while pursuing new opportunities so the organization can thrive. Pembina’s strong foundation, through its skilled workforce, breadth of assets, strong partnerships including with Indigenous communities and commitment to best practices and industry-leading initiatives, will allow it to continue to build a more sustainable future.

As we look ahead, we will continue to focus on making meaningful progress towards our targets and evaluate longer-term opportunities to support and respond to the transition to a lower-carbon economy. ESG represents a journey for all of us. I am proud of the path we are on and excited to see what Pembina will achieve in the years to come.

Sincerely,

**David M.B. LeGresley**  
 Chair, Governance, Nominating and  
 Corporate Social Responsibility Committee



## Message from our President and CEO

At Pembina, our purpose every day is to deliver extraordinary energy solutions so the world can thrive. We are focused on leveraging our assets and expertise to proactively chart a course toward a more sustainable future.

In support of these efforts, our executive team and Board spent considerable time in 2022 refreshing our purpose and strategy and codifying our values. This work resulted in establishing clear strategic priorities focused on ensuring our business will become even more resilient and thrive into the future as demonstrated through rigorous scenario analysis. As you will read more about in this report, these strategic priorities align with the meaningful steps we are taking across our organization to advance our ESG performance.

In 2022, to make our business more resilient through environmental leadership, we progressed our scope 1 and 2 greenhouse gas (“GHG”) emissions reduction efforts and expanded our delineation of scope 3 emissions. We advanced several significant projects, offering tangible proof of our progress to date, such as completing the Empress Cogeneration facility, executing a second 105-megawatt (“MW”) renewable power purchase agreement (“PPA”), and implementing targeted emissions reduction projects across our assets. In addition, we continued to focus on employing best-practices that support greater transparency and accountability, including investing in new data technology systems and processes and making organizational changes to support this.

We continue to focus on creating positive, long-lasting impacts on the communities in which we live and work, generating more than \$4.2 billion in direct economic value and investing approximately \$7 million in the communities in which we operate. We are also focused on developing meaningful Indigenous partnerships and have made significant progress with the Haisla Nation on regulatory, engineering and commercial streams for


Cedar LNG, the world’s first Indigenous majority-owned liquid natural gas (“LNG”) project. This project is an important part of Pembina’s strategy. It will provide long term prosperity for the Haisla community and support global decarbonization and energy security by exporting responsibly produced Canadian energy to offset higher emitting resources in global markets.

We are also meaningfully advancing diversity and inclusion at Pembina. Through efforts like our Conversations for Change and Inclusion Networks, we are seeing employees share their experiences and build a stronger sense of belonging within the workplace. We promote a spirit of giving back, both through donations at the corporate level and by encouraging our Pembina colleagues to give of themselves through volunteering. I am honoured that we received the 2022 United Way President’s Award in recognition of the contributions by our employees, Board of Directors and retirees, including raising over \$3.4 million through our campaign.

In this, my second year as President and CEO of Pembina and my thirteenth year since I joined the company, I truly believe the best is yet to come. With our strategic priorities embedded across the organization, we will continue to embrace the opportunities and responsibilities that come our way. Together, with all of our stakeholders, we will continue to create a culture that fosters safety, values all people, celebrates diversity, and creates a healthier and more sustainable future for all.

Sincerely,

**Scott Burrows**  
President and Chief Executive Officer


  
 Together, with all of our stakeholders, we will continue to create a culture that fosters safety, values all people, celebrates diversity, and creates a healthier and more sustainable future for all.

## Reading This Report

- This report has been developed using guidance from leading sustainability reporting standards, including the Sustainability Accounting Standards Board (“SASB”) and with reference to the Global Reporting Initiative (“GRI”). Where applicable, we have also referenced the recommendations of the Task Force on Climate-related Financial Disclosures (“TCFD”) as we work to align our reporting to this framework.
- This report covers performance for the period January 1, 2022 to December 31, 2022. Quantitative data from 2019, 2020 and 2021 has been included to provide context where applicable.
- Unless otherwise stated, financial data is reported in Canadian dollars. For more information on Pembina’s financial performance, please refer to Pembina’s Audited Consolidated Financial statements and Management’s Discussion and Analysis for the year ended December 31, 2022 and for the three months ended March 31, 2023, as well as our most recent Annual Information Form (“AIF”). Each of these documents can be found on our website ([www.pembina.com](http://www.pembina.com)), on SEDAR ([www.SEDAR.com](http://www.SEDAR.com)) and on EDGAR ([www.sec.gov](http://www.sec.gov)).
- The terms “Pembina,” “our,” “we,” “organization,” and “the company” refer to Pembina Pipeline Corporation and its subsidiaries and affiliated entities taken as a whole.
- Throughout this report we have used the term “stakeholder” to refer collectively to the individuals and groups who have an interest, or may be affected by, the work that we do. We recognize that Indigenous and Tribal People in Canada and the United States have distinct rights, title and connection to the land, as affirmed in our Indigenous and Tribal Relations Policy.
- The terms “sustainability” and “ESG” are used interchangeably in this report. Generally speaking, “sustainability” refers to a focus on outcomes and “ESG” refers to a focus on the measurement of performance.
- On August 15, 2022, Pembina completed a joint venture transaction with KKR & Co. (“KKR”) to combine their respective Western Canadian natural gas processing

assets into a single, new joint venture entity, Pembina Gas Infrastructure Inc. (“PGI”) (the “PGI Transaction”). Pembina owns 60% of PGI while KKR’s global infrastructure funds own the remaining 40%. Pembina serves as the operator and manager of PGI. Pembina contributed to PGI its wholly-owned field-based gas processing assets as well as its 45% interest in Veresen Midstream. KKR contributed to PGI its 55% interest in Veresen Midstream, as well as its 49% interest in PGI Processing ULC (formerly named Energy Transfer Canada ULC) (“ETC”). Concurrent with the closing of the transaction, PGI also acquired the remaining 51% common share equity interest in ETC. Throughout this report the above transaction has been referred to as “assets acquired as part of the PGI Transaction.” For additional information about PGI and its approach to sustainability please visit [Pembina Gas Infrastructure](#).

- Unless otherwise noted, this report covers performance for Pembina and is inclusive of assets recently acquired through the PGI Transaction, including all data where Pembina is the operator.
- As part of our commitment to continually improve our reporting, we have obtained independent third-party limited assurance of select 2022 environmental metrics. The select metrics include total scope 1 GHG emissions, scope 2 GHG emissions, physical throughput and GHG emissions intensity. Additionally, we restated our 2019 baseline due to a material increase in emissions related to the PGI Transaction. As a result, we have also obtained independent third-party limited assurance of our 2019 restated baseline, including scope 1 and 2 emissions, physical throughput, and GHG intensity. The third-party limited assurance statement is available [here](#).
- This report contains forward-looking statements that are based on management’s current expectations, estimates, projections, and assumptions in light of our experience and perception of historic trends. This information is provided to assist readers in understanding the company’s future and expectations and may not be appropriate for other purposes. Please see [Forward-looking Statements on pages 77-78](#) for more information.

- In this report, we also use certain financial measures and ratios that are not defined by generally accepted accounting principles (“GAAP”). Please see [Non-GAAP and Other Financial Measures on pages 78-79](#) for more information about these measures and why they are used.



# Sustainability at Pembina

## 2022 ESG Highlights

### Governance

**45%**

of our independent Board members were diverse<sup>1</sup>



**45%**

of our independent Board members were **women**

Aligned

**25%**

of our employees' short-term compensation goals to **environmental and workforce metrics**

**Completed climate-aligned scenario analysis**

to validate our corporate strategy

### Energy Transition & Climate

On track to achieve our GHG emissions intensity reduction target of **30% by 2030<sup>2</sup>**

Established a **sustainability-linked loan** tied to our GHG emissions intensity target

Advanced development of the **Alberta Carbon Grid** ("ACG") and the **Cedar LNG** project

Signed a **PPA for 105 MW** from the Wild Rose 2 Wind Farm

Implemented GHG abatement projects resulting in more than **60,000 tonnes of annual emission reductions**

### Employee Well-Being & Culture

Held **18 EDI-related events** with over 2,500 attendees

Introduced our **inaugural Pembina RISE** ("Recognize Individuals who Show Excellence") Awards, a comprehensive employee awards celebration that aligns with our values

Recognized as one of **Alberta's Top 75 Employers** for the tenth consecutive year



**35%**

women in executive leadership<sup>3</sup>



**28%**

women in managerial positions



**26%**

women in the workforce

<sup>1</sup> An individual is considered diverse if the individual belongs to one of the four designated groups in the Employment Equity Act (Canada): Indigenous Peoples, persons with disabilities, members of visible minorities and women.

<sup>2</sup> Pembina's 30 by 30 target is based on an operational control approach to define our organizational boundaries for GHG reporting and includes all material scope 1 and 2 emissions sources associated with Pembina operated facilities and pipelines, as well as corporate activities.

<sup>3</sup> Our Executive team includes our officer team as well as vice presidents in Canada and the U.S.



## Health & Safety



Completed more than **8,000** hazard identifications

Approximately **15,000** positive safety recognitions submitted

Completed three major turnarounds at the Redwater, Channahon and Hythe facilities with **zero injuries**

Rolled out **Inclusive Personal Protective Equipment (PPE) Project** to provide a safer, more inclusive and equity-based option for all employees

## Responsible Asset Management



Recovered **over 99%** of hydrocarbons spilled and remediated impacted sites

Conducted **over 100** emergency management personnel training sessions and exercises

Implemented **satellite imagery technology** to assist right-of-way ("RoW") monitoring

Received **Green Marine environmental certification** for Prince Rupert Terminal's marine operations on Watson Island

## Indigenous & Community Engagement



Employees volunteered **more than 3,500** hours

**97%** completion rate of Indigenous Awareness training

**Redesigned supply chain process** to embed and integrate Indigenous engagement

**Received United Way President's Award** recognizing our longstanding commitment to create lasting social change



## About Pembina

Pembina is a leading energy transportation and midstream service provider that has served North America’s energy industry for more than 65 years.

Pembina owns an integrated network of hydrocarbon liquids and natural gas pipelines, gas gathering and processing facilities, oil and natural gas liquids (“NGLs”) infrastructure and logistics services, and an export terminals business. Through our integrated value chain, we seek to provide safe and reliable energy solutions that connect producers and consumers across the world, support a more sustainable future and benefit our customers, investors, employees and communities. For more information, please visit [pembina.com](http://pembina.com).

In 2022, following a period of succession and reorganization, Pembina’s executive team and Board took the year to review and refresh our purpose and strategy and codify our values to ensure we continue to build on our successful history and remain resilient into the future. Part of the strategy work included undertaking scenario analysis using the International Energy Agency (“IEA”) future energy scenarios<sup>4</sup> including the Stated Policies Scenario<sup>3</sup> (“STEPS”) and the Sustainable Development Scenario (“SDS”) to evaluate the potential implications of changes in the rate of decarbonization and energy demand both at the regional and global scale. The strategy work was guided by input from our Board and the scenario analysis served as an important input into the refreshed corporate strategy. The refreshed perspective positions Pembina to continue to invest in, grow, and decarbonize the core businesses that provide critical transportation and midstream services ensuring reliable and secure energy supply. At the same time, we will capitalize on exciting opportunities to leverage our assets and expertise into new service offerings that proactively respond to the transition to a lower-carbon economy.

## Our Purpose

Our refreshed purpose reflects the breadth and diversity of our operations and future aspirations:

To deliver **extraordinary energy solutions** so the **world can thrive**.

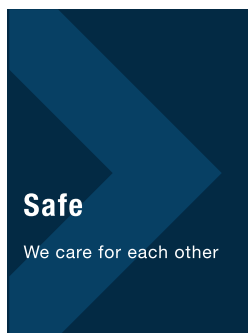
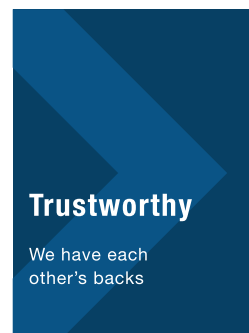



## Our Values

Pembina cares not only about results, but also how those results are achieved.

We are committed to creating a great culture and elevating the experience of our stakeholders. To that end, in 2022, we codified our values that represent the behaviours Pembina’s people strive to exhibit every day.

Clearly communicating our values is the start of the journey

toward operational excellence. Our vision is to be best-in-class operators as measured through our balanced scorecard of safety, reliability, environmental performance, employee engagement, and profitability. This journey involves the entire enterprise and seeing our values in action is pivotal to our future success.

 <p><b>Safe</b> We care for each other</p>	 <p><b>Trustworthy</b> We have each other’s backs</p>	 <p><b>Respectful</b> We seek to be gracious and kind</p>	 <p><b>Collaborative</b> We are great together</p>	 <p><b>Entrepreneurial</b> We create to succeed</p>
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<sup>4</sup> International Energy Agency World Energy Outlook 2021. Available online at <https://www.iea.org/reports/world-energy-outlook-2021>

## Our Strategic Priorities

Our strategy recognizes that the future is dynamic, the energy industry is rapidly evolving, and scenarios exist that could materially impact our performance and resilience longer term.

Our core business, focused on energy transportation and midstream services, is sound and we will continue to invest in, and grow, our integrated value chain to meet our customers' needs for many years to come, including responding to opportunities to provide new services.



In continuing to meet global energy demand and our customers' needs, while ensuring Pembina's long-term success and resilience, the company has established four strategic priorities:

- 1

To be resilient, we will sustain, decarbonize, and enhance our businesses.

We will focus on strengthening and growing our existing franchise and demonstrating environmental leadership.
- 2

To thrive, we will invest in the energy transition to improve the basins in which we operate.

We will expand our portfolio to include new businesses associated with lower-carbon commodities.
- 3

To meet global demand, we will transform and export our products.

We will continue to support the transformation of Western Canadian Sedimentary Basin commodities into higher margin products and enabling more coastal egress.
- 4

To set ourselves apart, we will create a differentiated experience for our stakeholders.

We remain committed to delivering excellence for our four key stakeholder groups meaning that:

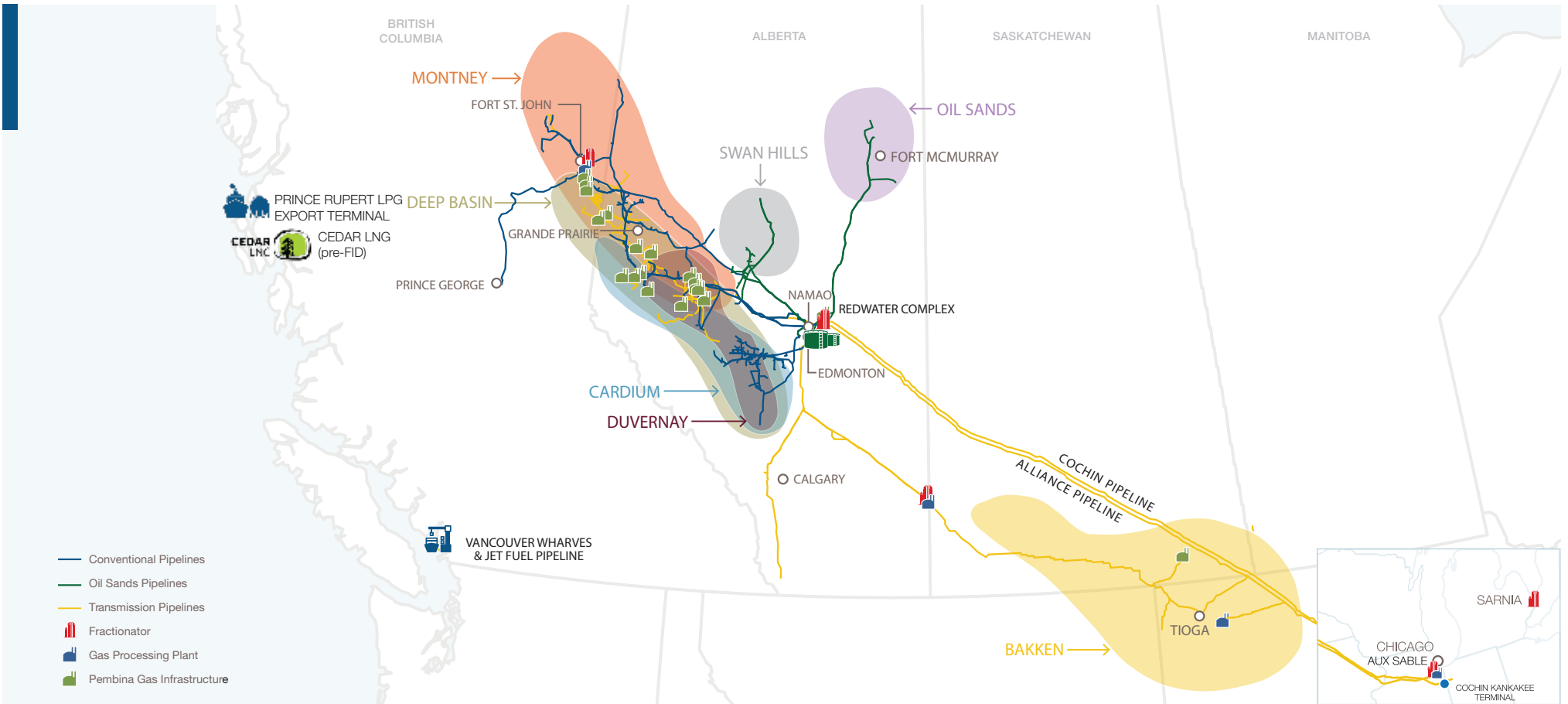
  - **Employees** say we are the 'employer of choice' and value our safe, respectful, collaborative, and inclusive work culture.
  - **Communities** welcome us and recognize the net positive impact of our social and environmental commitment.
  - **Customers** choose us first for reliable and value-added services.
  - **Investors** receive sustainable industry-leading total returns.

In executing our strategy, we remain committed to our financial guardrails and delivering industry-leading returns through prudent capital allocation and a focus on return on invested capital.

## Our Operations







Pembina is structured into three divisions:

- Pipelines Division:** We own and operate a strategically located pipeline network that serves various markets and basins across North America.
- Facilities Division:** We own and operate natural gas processing and NGL fractionation facilities, export terminals, and related infrastructure.
- Marketing and New Ventures Division:** To support our customers' overall business interests, we seek to create new markets and further enhance existing markets through the development of infrastructure.



# Sustainability Focus Areas

To determine which sustainability-related areas are of highest priority to our business we have taken a deliberate and robust approach to identify our material focus areas<sup>5</sup>, using a third-party materiality assessment that included broad engagement with capital markets and other stakeholders. Based on the results of this assessment, we have organized our report into six sustainability focus areas:

 <p><b>Governance</b></p> <p>Strong governance is essential to support the achievement of our sustainability goals.</p> <p><a href="#">Pages 13-18</a></p>	 <p><b>Energy Transition and Climate</b></p> <p>Climate change presents both opportunities and risks for our business. Through our refreshed strategy and continued innovation, we can support the energy transition.</p> <p><a href="#">Pages 19 - 26</a></p>	 <p><b>Employee Well-Being &amp; Culture</b></p> <p>We are great together – we aspire to create a culture that provides meaningful opportunities and attracts and retains diverse talent.</p> <p><a href="#">Pages 27 - 32</a></p>
 <p><b>Health and Safety</b></p> <p>Safe is a core Pembina value and we are committed to zero harm to our people, assets and environment.</p> <p><a href="#">Pages 33-36</a></p>	 <p><b>Responsible Asset Management</b></p> <p>We are committed to ensuring the reliability of our assets and protecting the environment.</p> <p><a href="#">Pages 37-51</a></p>	 <p><b>Indigenous and Community Engagement</b></p> <p>We recognize the important relationship that Indigenous Peoples have with the land and value our relationships with all the communities in which we operate.</p> <p><a href="#">Pages 52-60</a></p>

<sup>5</sup> The terms "material", "materiality" and "materiality assessment" are used specifically in this report to identify the sustainability topics that we believe are important to our stakeholders. These definitions may not be the same as the meaning of "material" pursuant to applicable securities legislation.

# Governance



Pembina's **commitment to strong and effective governance is foundational to our thriving and resilient business** and supports our ability to operate successfully, mitigate risk and enhance value for our customers, investors, employees and communities.

**25%**  
of our employees' short-term compensation targets relate goals to environmental and workforce metrics

  
**45%**  
of our independent Board members are diverse



### Analyst Corner

2023 Management Information Circular - Governance (pages 28-56)  
 2022 Annual Information Form - Corporate Governance (pages 57-61)  
 CDP Climate Change Submission  
 Website - Governance

Additional information on our governance practices can be found in our 2023 Management Information Circular and on the governance page of our website.

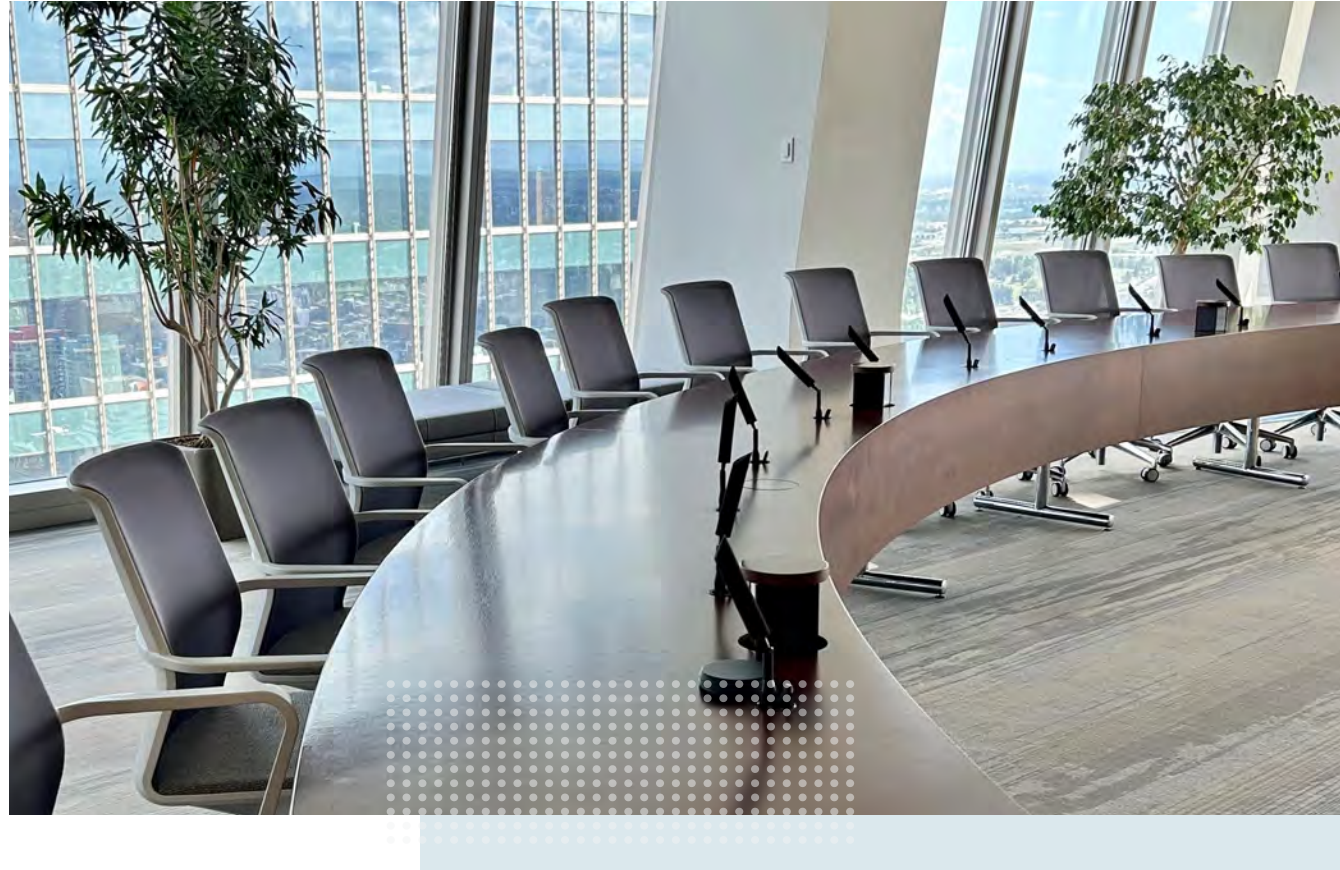
## Approach

### The Board's Role

Overseeing our sustainability strategy is a core responsibility of the Board. The Board regularly engages on ESG issues through presentations by management and third-party experts at its annual strategy sessions and quarterly meetings.

On certain key sustainability topics, the Board has delegated regular oversight to specific Committees including:

- The Governance, Nominating and Corporate Social Responsibility Committee (the "Governance Committee") assists the Board in providing oversight of our ESG strategy and makes recommendations to the Board on the integration of ESG considerations into long-term business planning, organizational structure and corporate policies and practices. The Governance Committee also reviews the enterprise risk oversight functions of the Board and Board Committees to confirm that identified risk oversight is appropriately allocated and facilitates and provides education to the Board, including on ESG matters.
- The Safety, Environment and Operational Excellence Committee oversees the development, implementation and monitoring of risks and policies related to process and occupational safety, environment, operational excellence, asset integrity management, corporate security and cyber security.
- The Human Resources, Health and Compensation Committee (the "HR Committee") oversees our approach to employee health and wellness as well as EDI strategies and programs. The HR Committee is also responsible for approving our incentive compensation programs for all employees and executives, including the incorporation of ESG metrics into those programs.
- The Audit Committee maintains oversight of the integrity of Pembina's financial statements, the reporting process and the internal audit function.



## Management’s Role

Management plays a critical role in advancing our sustainability objectives.

Each member of our senior executive team is responsible for components of sustainability, including employee and contractor safety, environment and process safety, assessing climate-related risks and opportunities, overseeing the development of strategic opportunities, enhancing organizational culture and diversity of our employee base and reporting to the Board on our ESG-related actions.



<p><b>President and Chief Executive Officer (CEO)</b></p>	<p>Responsible for providing oversight and coordination of sustainability-related matters and for ensuring timely and effective reporting to the Board and our stakeholders.</p>
<p><b>Senior Vice President and Chief Financial Officer (CFO)</b></p>	<p>Responsible for overall financial stewardship, including assessing climate-related risks and opportunities, financial reporting as well as providing timely, accurate and transparent information to our stakeholders.</p>
<p><b>Senior Vice President and Chief Operating Officer (COO)</b></p>	<p>Responsible for pipeline and facility operations, business development and commercial services, operationalizing our ESG objectives, including through engineering and construction, and supporting our various Operating Management System (“OMS”) strategies and programs.</p>
<p><b>Senior Vice President, External Affairs and Chief Legal and Sustainability Officer</b></p>	<p>Responsible for overseeing our ESG strategy, including oversight and monitoring of sustainability issues, risks, trends, and our performance, as well as making recommendations to the executive team and Board on sustainability matters.</p>
<p><b>Senior Vice President and Corporate Development Officer</b></p>	<p>Responsible for initiatives associated with extending our value chain and exploration of new opportunities centered around a lower carbon economy, including New Ventures.</p>
<p><b>Senior Vice President and Corporate Services Officer</b></p>	<p>Responsible for advancing Pembina’s ESG objectives by fostering an inclusive organization and culture and the diversity of our employee base as well as strategic supply chain management and through support of our various OMS strategies and programs.</p>
<p><b>Senior Vice President, Marketing and Strategy Officer</b></p>	<p>Responsible for overseeing our strategy work, including the evaluation of enterprise risks and sustainability-related factors, energy management, carbon markets, as well as managing the enterprise transformation portfolio that contributes to our ESG performance.</p>

**Teams across our entire business collaborate and work cross-functionally to support the advancement of our ESG priorities.**

In addition to our formal organizational structure, there are a number of cross-functional committees and teams that help manage risk, share learnings and collaborate on new opportunities that support our ESG-related priorities.



## Enterprise Risk Management

Our Enterprise Risk Management (“ERM”) program underpins the identification, measurement, prioritization and management of enterprise level risk across our company, including climate-related risks and opportunities, in alignment with our corporate strategy. Our ERM policy defines principles and specific expectations associated with our risk management activities and governance. All employees are required to sign off on our ERM policy, outlining individual responsibilities for the identification, reporting and mitigation of risks.

We consider several factors, both qualitative and quantitative, when defining a substantial financial or strategic impact on our business. Assessments of identified risks and opportunities include the evaluation of potential impacts on financial results, health, safety, environmental conditions, operating assets and reputation. It can also include external reports on macro considerations and associated risks we see in the market, political and business environments. The associated probabilities are also considered, and those with higher potential financial or strategic impact are prioritized accordingly for investigation, management, mitigation or implementation.

Once the Enterprise Risk Management Committee (“ERC”) has identified a risk, an executive officer is assigned as risk owner based on associated oversight and portfolio responsibility. The ERC meets at least quarterly to review the performance, appropriateness and current business environment surrounding our risk management activities, with an additional, more comprehensive review completed annually. As part of the review process, the identified risk is evaluated against our identified potential scenarios to help determine our strategic direction and mitigation measures.

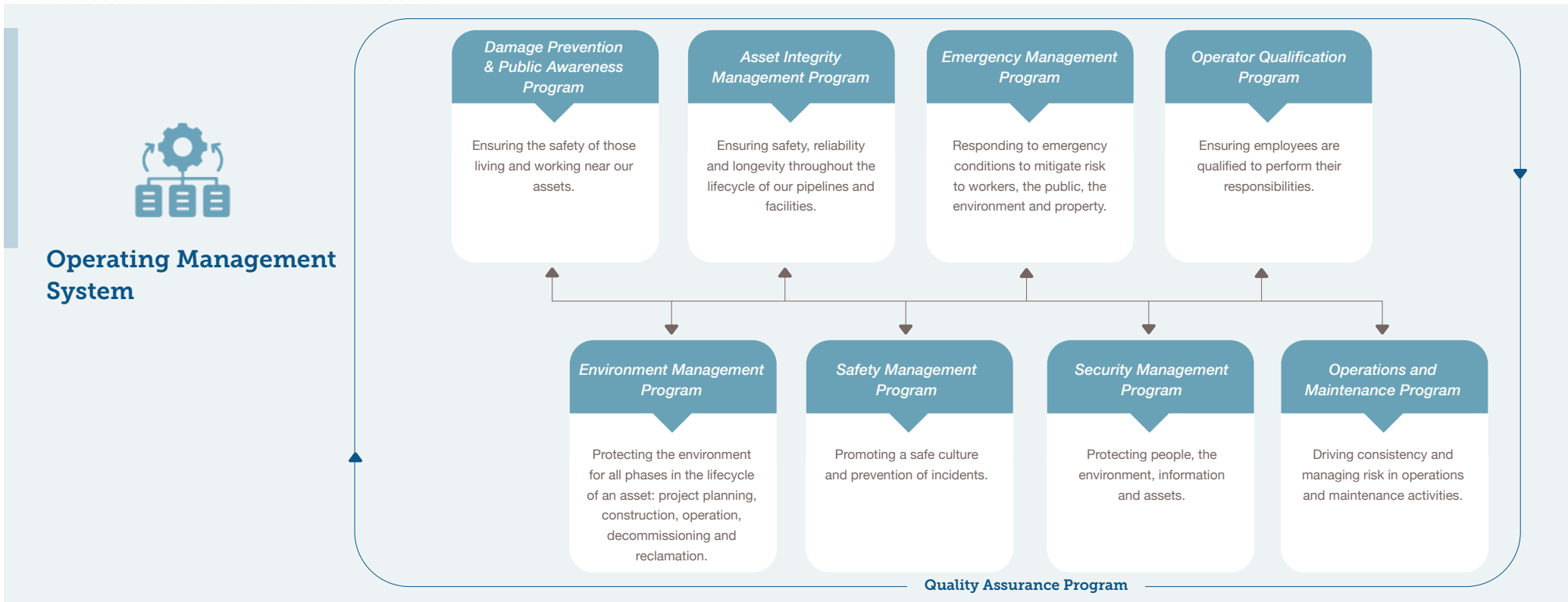
Management reports periodically to the Board about the risks that have been identified by our ERM program and at least once per year, presents to the Board a summary of the ERC’s review of risk identification, management and reporting and any deficiencies identified. These include risks related to climate change, occupational safety and cyber security among others. Refer to our [2023 Management Information Circular](#) for more information on our ERM process.



## Operating Management System

The ERM program is aligned with our OMS, an operational framework that governs our key sustainability-related topics including safety, security, emergency management, integrity and environment. The OMS is a continuous improvement framework supported by policies, processes and procedures to guide planning, implementation, checking and corrective action.

More information on the OMS programs can be found in the Health and Safety and Responsible Asset Management sections of this report and in [our AIF](#).



## Supply Chain Management

We are on a journey to more fully enhance our supply chain processes to better incorporate community-based and diverse-owned businesses that provide quality goods and services. Governed by our Supplier Code of Conduct, we work with businesses who identify safety as a top priority, uphold the

highest standards of ethics and integrity, and are economically, environmentally, and socially responsible. Please refer to our Employee Well-Being and Culture and [Indigenous Engagement sections](#) of this report for more information.

# 2022 Performance

## Key 2022 governance highlights are as follows:

- › **Board independence:** All our directors, other than our CEO, are independent.
- › **Board attendance:** Our Board meeting attendance was approximately 99%.
- › **Board gender diversity:** Our Board has a gender diversity target of at least 30% for independent Board members. As of December 31, 2022, 45% of our independent directors were women.
- › **Overall Board diversity:** Our Board has an overall diversity target of at least 40% of the independent directors being women, persons with disabilities, Indigenous Peoples and/or members of other racial, ethnic and/or visible minorities. In 2022, we met this target with 45% of our independent directors being diverse. As of the date of this report, 55% of our independent directors are diverse.
- › **Executive and employee gender and diversity:** We made significant progress towards achieving a more diverse workforce. Refer to the Employee Well-Being and Culture section of this report for additional details.
- › **Purpose and Strategy:** The Board approved a refreshed purpose and strategy that recognizes the future is dynamic and the energy industry is rapidly evolving. The strategy work utilized scenario analysis to help ensure our business will be resilient in the future. [Refer to the About Pembina section](#) of this report for more information on our corporate strategy.
- › **ESG tied to compensation:** ESG performance continues to be part of our annual corporate short-term incentive compensation for all eligible employees, including safety, GHG emissions and EDI performance.
- › **ESG Data and Technology:** We made significant investments in technologies that enhance our overall ESG disclosure. The first is a comprehensive program supporting all ESG data collection, compilation, and review process for our annual Sustainability Report and other ESG reporting

commitments. The second is a new GHG emissions platform that will aggregate our emissions from our facilities into one system and provide more timely emissions information which we believe will enhance our ability to proactively reduce emissions. These advancements in technology and reporting will assist in accelerating our ESG reporting and improve our internal controls over our ESG data.



**2023**  
**REPORT ON BUSINESS**  
**WOMEN LEAD HERE**

We are honoured to be recognized in **The Globe and Mail's 2023 Report on Business Women Lead Here** - an annual editorial benchmark which identifies Canadian businesses with the highest executive gender diversity. As of December 31, 2022, 35% of our executives were female.

## Looking Forward:

### 2023 and Beyond

Pembina remains committed to maintaining robust governance practices and will continue to leverage best practices to progress in this area.

We continue to monitor the dynamic ESG regulatory landscape for developments that could impact our company, including climate-related proposals/regulations from the International Sustainability Standards Board, guidance from the Canadian Sustainability Standards Board, the Security and Exchange Commission, and the Canadian Securities Administrators. We are also preparing for climate-related regulated financial disclosure through participation in industry groups and engagement with government.

Going forward, we will continue to enhance the integration of ESG metrics into our supply chain processes to create clear expectations and help guide decisions about the suppliers with which we work.

# Energy

## Transition & Climate Change



We are committed to **environmental leadership through responsible operation of our existing assets and investment in the energy transition.**

Our approach includes reducing our operational emissions through technology and improved operating practices, increasing our use of renewable energy and allocating capital to lower carbon investments. As part of our approach, we are committed to achieving our GHG emissions intensity reduction target to reduce scope 1 and scope 2 GHG emissions intensity 30% by 2030, relative to a 2019 baseline ("30 by 30").



On track to reduce GHG intensity

**30%** by 2030

Achieved operational GHG reductions of

**> 60,000** tonnes per year

This section covers two related topics:

**Pembina's broader approach to the energy transition and our update on our GHG emissions.**



### Analyst Corner

- [2022 Annual Information Form - Risks Related to Climate Change \(pages 102-104\)](#)
- [2022 Annual Report - Risks Related to Climate Change \(pages 65-66\)](#)
- [CDP Climate Change Submission](#)
- [Website - Energy Transition & Climate](#)

# Energy Transition and Climate

## Our Approach

We understand the complexity of providing reliable secure energy to power the economy and sustain and improve global standards of living, while at the same time addressing the risks associated with climate change.


Western Canada is fortunate to have abundant hydrocarbons, and with our customers and asset base, we have a unique opportunity in delivering environmentally responsible energy.

In 2022, as part of the work we completed to refresh our corporate strategy, we undertook robust scenario planning to evaluate the potential implications of changes in the rate of


decarbonization and energy demand both at the global and regional scale. By evaluating our business performance against a range of potential energy futures we were able to test the resilience of our business and establish strategic priorities to ensure the business will thrive through 2030 and beyond. This resulted in alignment on strategic priorities including a focus on

environmental leadership to sustain, decarbonize, and enhance our businesses and investing in the energy transition to improve the basins in which we operate.


### Some of the ways we are approaching this important work includes:

- 


**1**

**Reducing emissions from our operations** through equipment modernization, system optimization and fugitive emissions management in support of achieving our 30% by 2030 target
- 


**2**

**Developing transformational opportunities** like the ACG, Cedar LNG and the proposed Blue Ammonia and Low Carbon Complex projects
- 


**3**

**Investing in renewables** through power purchase agreements and developing solar projects integrated with our existing assets
- 

**4**

**Linking our financing strategy** to achieving our emission reduction targets
- 

**5**

**Tying executive and employee short-term incentive compensation** to GHG emissions reduction performance
- 

**6**

**Working with government and lending partners** to access energy transition grants, incentives and financing

Pembina is committed to environmental leadership through our emission intensity reduction target and proposed projects like the ACG. We are currently evaluating what would be necessary to achieve net zero emissions at some of our higher emitting facilities and will use this information to help inform our longer term approach. As part of this assessment we will continue to carefully evaluate several factors and uncertainties including:

- the development of new technologies and solutions, and their applicability to Pembina's specific operations;
- evolving climate change and carbon pricing regulations and legislation; and
- the commercial impact of pursuing net zero emissions.

Importantly, net zero targets can only be credible with robust short and medium-term targets, which is where we are focused today.

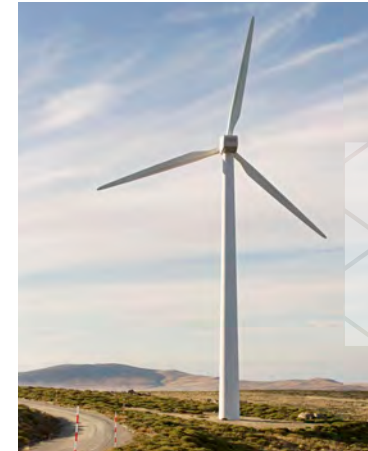


## 2022 Performance

From an operations perspective, we implemented a number of improvements to reduce our absolute emissions including completion of the Empress Cogeneration facility, as well as many efficiency enhancements, including pump replacements and optimizations, pipeline flow rate optimizations, engine conversions from rich-burn to lean-burn, fugitive leak repairs, and several other initiatives. These actions resulted in an absolute annual reduction of approximately 60,000 tonnes of GHG emissions.

We also took a step to align our financing strategy with our ESG priorities by establishing a sustainability-linked loan. The \$1 billion sustainability-linked revolving credit facility contains pricing adjustments that reduce or increase borrowing costs based on our performance relative to our GHG emissions intensity reduction performance target. The specific terms of the new loan facility include annual targets that align with our trajectory towards our 2030 goal.

We made further advancements in securing renewable energy sources. Following our first PPA for the offtake of 100 MW of renewable energy power from the Garden Plain Wind Farm in 2021, we signed a second agreement with a wholly owned subsidiary of Capstone Infrastructure Corporation for the offtake of 105 MW from the Wild Rose 2 Wind Farm.



### Wild Rose 2 Wind Farm

In May 2022, Pembina entered into a PPA with Capstone Infrastructure to offtake 105 MW of renewable energy and associated renewable attributes over a 15 year period from their 192 MW Wild Rose 2 Wind Farm, which is currently under development. The PPA signals another step forward towards a low-carbon electricity sector in Alberta.

The Wild Rose 2 Wind Farm will be constructed in Cypress County, Alberta, approximately 35 kilometres ("km") southeast of Medicine Hat, and will benefit from the exceptionally high wind resource in the area.

"We are pleased to be working with Capstone on their project and furthering our sustainability goals. Power purchase agreements are an effective tool to support development of renewable energy infrastructure, lower emissions, and support the transition to a lower carbon energy system."

Scott Burrows, Pembina's President and CEO

We are pleased to share that we have advanced development of two major proposed energy transition investments, ACG and Cedar LNG:



### Alberta Carbon Grid (ACG)

Pembina and TC Energy are jointly developing the ACG, a carbon transportation and sequestration system, which will enable Alberta-based industries to effectively manage their GHG emissions, contribute positively to Alberta's lower-carbon economy and create sustainable long-term value for Pembina and TC Energy stakeholders.

The ACG project is expected to provide emitters in the area with a cost-effective, safe and reliable solution to permanently store carbon dioxide ("CO<sub>2</sub>") in geological formations two kilometres below the surface. In 2022, Pembina and TC Energy entered into a carbon sequestration evaluation agreement with the Government of Alberta to further evaluate one of the largest areas of interest (AOI) for the ACG project. This agreement will allow the ACG to move forward into the next phase of the province's carbon capture use and storage process to provide confidence to customers, Indigenous communities, stakeholders and government in the project's carbon storage capabilities.

The first phase of the system is the Industrial Heartland project, which will have the potential of storing up to 10 million tonnes of CO<sub>2</sub> annually. Our long-term vision is to annually transport and store up to 20 million tonnes of CO<sub>2</sub> through several hubs across Alberta. These hubs are part of our ongoing commitment to energy diversification and will support federal emissions targets to reduce CO<sub>2</sub> and other GHG emissions by at least 40% compared to 2005 levels by 2030.

Learn more about the ACG Industrial Heartland Project at [www.albertacarbongrid.ca](http://www.albertacarbongrid.ca).



### Cedar LNG

Cedar LNG is a partnership between Pembina and the Haisla Nation to develop a proposed floating LNG facility in Kitimat, British Columbia, within the traditional territory of the Haisla Nation. Cedar LNG is the world's first Indigenous majority-owned LNG project. Powered by renewable energy from BC Hydro, the project will be one of the lowest carbon LNG facilities in the world, providing significant opportunities for both the Haisla Nation and the region. The project is strategically positioned to leverage Canada's abundant natural gas supply and British Columbia's growing LNG infrastructure to produce industry-leading, low-carbon, cost-competitive Canadian LNG for overseas markets. Cedar LNG is expected to contribute to the displacement of coal as an energy source in Asia and could achieve higher prices for Canadian producers, contributing to lower overall emissions, and enhancing global energy security. As a replacement for coal power, it is estimated that LNG from Cedar could result in GHG reductions of six to 14 million tonnes of carbon dioxide equivalent ("tCO<sub>2</sub>e") per year, on a lifecycle basis.

In 2022, the Cedar LNG project continued to progress regulatory, commercial and engineering workstreams as it moves towards a final investment decision in 2023.

Refer to the [Indigenous Engagement](#) section of this report for more information.

# Looking Forward

## 2023 and Beyond

We continue to work on increasing Pembina’s long-term value and helping ensure Canadian energy is developed and delivered responsibly.

Going forward, our focus is on:

- › Implementing opportunities to improve operational efficiency and asset optimization to reduce emissions and environmental impacts;
- › Advancing the ACG by continuing evaluation of the proposed location to safely sequester carbon, progressing engineering work and advancing commercial discussions with customers;
- › Progressing Cedar LNG to a final investment decision. In March 2023, we achieved a major project milestone in receiving our Environmental Assessment Certificate from the British Columbia Environmental Assessment Office and the positive Decision Statement from the Federal Minister of Environment and Climate Change noting that Cedar LNG **“would be among the lowest-emitting LNG production facilities in the world based on its GHG emissions intensity, due largely to its reliance on clean hydroelectricity for power. This aligns with Canada’s expectations for best-in-class GHG emissions performance by oil and gas projects;”**
- › Advancing Pembina’s recently announced Joint Venture with Marubeni Corporation of Japan to investigate the building, transporting and delivery of Blue Ammonia (derived from natural gas utilizing carbon capture and storage technologies) to Asian markets. This project, along with other energy transition projects (e.g., ACG), will serve as an anchor development for our envisioned Low Carbon Complex that would be located adjacent to our existing Redwater assets;
- › Continuing to explore investment opportunities in renewable power including the proposed development of a 5MW solar farm at our Empress facility and a potential solar program at one of our pump stations. Additionally, we expect the Garden Plain Wind Farm to be operational in mid 2023 and the Wild Rose 2 Wind Farm to be operational in late 2024; and
- › We are evaluating an investment in a major energy transition venture fund focused on early-stage decarbonization, infrastructure and technology opportunities.



# GHG Emissions

## Our Approach

At Pembina, we are committed to environmental leadership, including reducing GHG emissions across our operations.

In late 2021, we established a GHG emissions intensity reduction target and over the last two years we have executed a number of emissions reduction and clean technology projects. We have also made investments in measurement and data management technologies both of which will improve the

timeliness of our reporting.

Pembina's GHG emissions footprint is generated from its facility and pipeline operations. Scope 1 GHG emissions result primarily from fuel combustion, flaring and venting at our

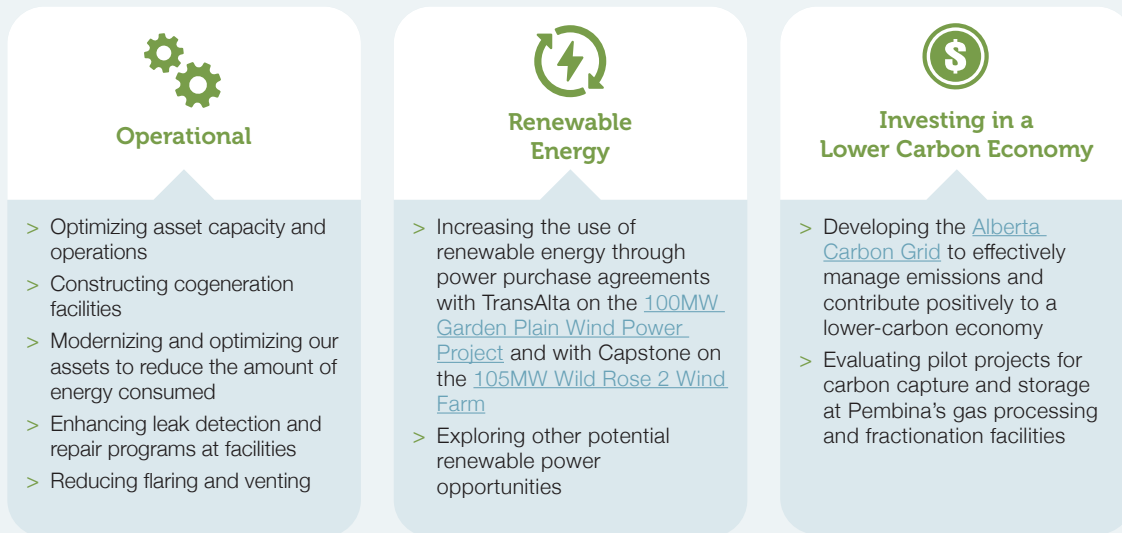
facilities. Scope 2 GHG emissions are primarily from purchased electricity, which is used to run equipment and power our offices. A breakdown of the composition of our 2022 scope 1 and 2 emissions is shown on [page 25](#).

### Our approach to GHG emissions includes:

- > Our 30 by 30 commitment to reduce GHG emissions intensity 30% by 2030<sup>6</sup>, relative to a 2019 baseline. The target will help guide business decisions and improve overall emissions intensity performance while increasing our long-term value and ensuring Canadian energy is developed and delivered responsibly;
- > Reduction of scope 2 emissions through purchase and generation of renewable electricity;
- > Expanding our scope 3 emission measurement and reporting;
- > Reducing GHG emissions through energy efficiency and asset optimization, as well as investing in abatement projects across our assets including equipment modernization, electrification, and small-scale renewable energy projects;
- > Improvements in GHG measurement, data management, and assurance processes to ensure timely and accurate evaluation of our progress; and
- > Continuing to further align to TCFD reporting standards.

## 30% reduction in greenhouse gas emissions intensity by 2030

Multiple pathways to achieve target



<sup>6</sup> Pembina's 30 by 30 target is based on an operational control approach to define our organizational boundaries for GHG reporting and includes all material scope 1 and 2 emissions sources associated with Pembina operated facilities and pipelines, as well as corporate activities.



## 2022 Performance

In August 2022, we closed the PGI Transaction which added emissions sources, including three gas processing facilities and other pipeline related infrastructure.

As a result, our GHG emissions baseline was subject to a material adjustment. To enable comparison and support tracking against our target, we recalculated and assured our 2019 baseline to include the contribution of these gas processing facilities. The following chart illustrates our restated baseline and target emissions.

### GHG Emissions Performance\* (000's)



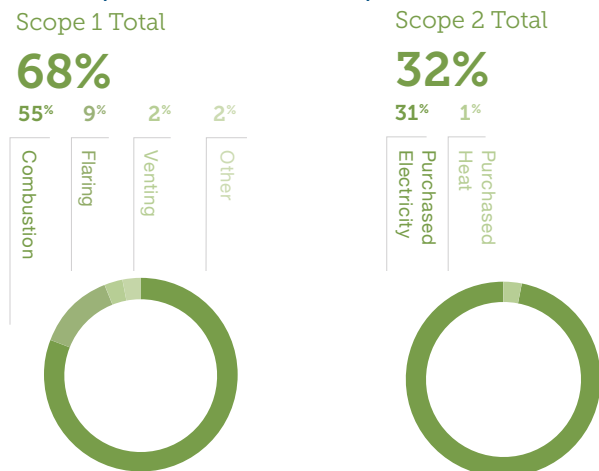
\*2019 baseline scope 1 & 2 GHG emissions have been restated to include an additional 992,840 tonnes of CO<sub>2</sub>e from the incremental assets acquired as part of the PGI Transaction. Emissions data presented in the figure above for 2020 and 2021 has also been updated to reflect the emissions from assets added through the PGI Transaction.

In 2022, we achieved a year over year GHG emissions intensity reduction of 1.6%, with a cumulative reduction of 1.2% against the adjusted 2019 baseline. Since 2019 we have grown our business, bringing on additional processing facilities and pipeline volumes, while remaining committed to reducing our emissions. Contributions to emissions reductions in 2022 include:

- Startup of the Empress Cogeneration facility in October 2022;
- Asset modernization including the optimization of compressors, pumps, and pipeline flow rates and timing; and
- Reducing our fugitive emissions through more rigorous and integrated maintenance and repair practices that enabled us to expedite the identification and repair of leaks.

In 2022, the contribution of scope 2 emissions (as a percentage of total scope 1 and 2 emissions) decreased to 32% as compared to 42% in 2021. This change was primarily as a result of proportionally higher scope 1 emissions attributable to the incremental assets acquired as part of the PGI Transaction. Our absolute scope 2 emissions remained relatively consistent as the additional scope 2 emissions attributable to the PGI assets were offset by a decrease in the Alberta power grid intensity.

### 2022 Scope 1 and 2 Emissions Composition



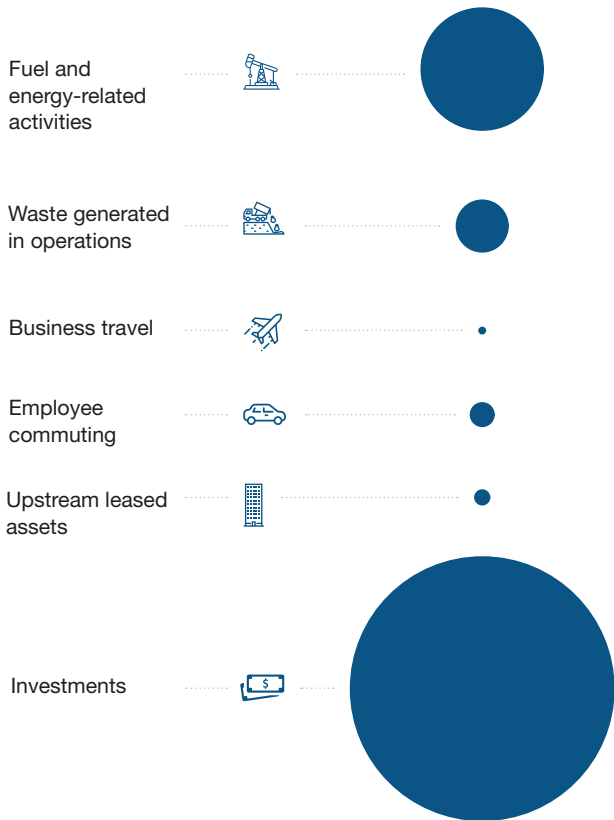
## Scope 3 Emissions

The calculation of scope 3 emissions relies on best available data and includes a number of assumptions and estimations. In 2022, we refined our methodologies to enhance the accuracy of reported metrics and continue to report estimates on six scope 3 categories including:

- Fuel and energy-related activities (not included in scope 1 or 2);
- Waste generated in operations;
- Business travel;
- Employee commuting;
- Upstream leased assets; and
- Investments.



## 2022 Scope 3 Emissions Performance



Implementation of revised calculation methodologies and growth related to the PGI transaction contributed to a 41% increase in previously reported scope 3 categories over 2021. Of the scope 3 categories we have evaluated and consider relevant to our business, the majority of our emissions are the result of Investments, representing 80% of our total reported scope 3 emissions. Our capital decision making incorporates a number of ESG considerations including, amongst other factors, how investments support our climate strategy. Please refer to our scope 3 GHG emissions data and methodology explanations within our [Energy Transition & Climate data table](#).

# Looking Forward

## 2023 and Beyond

We will continue to enhance our GHG emissions quantification and reporting capabilities.

We are implementing an Emissions Data Management project that will enable consolidation of all emissions data, including surveys and equipment, onto one platform. This new system will not only support more timely and efficient reporting but will enable near real-time analytics and insights into our operations.

In 2023, we will also undertake a robust assessment of decarbonization projects and technologies at some of the higher emitting facilities across our operations. This information will help inform our approach to longer-term targets. Through this assessment, we will assess the range of applicable technologies and solutions, their costs, compliance obligations and broader applicability to our entire operations.

Additionally, we continue to work on improving the accuracy and comprehensiveness of the most material categories of scope 3 emissions and may include additional categories in future reporting or revise our reporting to exclude non-material categories.



### Engine Optimization

In 2022, with financial support from Emissions Reduction Alberta's Small Producers Energy Efficiency Deployment (SPEED) program, we received approval to install Air-Fuel Ratio Control systems on four engines within our Alberta gas processing network. These conversions allow for improved fuel consumption on these large gas compressors using an electronic fuel injection system. The air-fuel ratio control system is a novel technology that provides rich-to-lean conversion and engine control optimization. The system should result in an approximately 15% improvement in fuel efficiency, improved runtime, and reductions of both CO<sub>2</sub> and nitrogen oxide ("NO<sub>x</sub>") emissions. The projects will result in a cumulative GHG emissions reduction of approximately 3,400 tCO<sub>2</sub>e per year.

# Employee

## Well-Being & Culture



Cultivating a **positive employee experience and promoting a diverse and inclusive environment where our employees feel engaged, recognized and empowered** is foundational to our ambition of being an employer of choice. Our EDI targets have formalized our commitment to creating a more equitable, diverse and inclusive organization.



**35%**  
 women in executive leadership<sup>7</sup>



Introduced our inaugural  
**Pembina RISE Awards**



### Analyst Corner

2023 Management Information Circular – EDI (page 37)  
 Website - Employee Well-Being and Culture

<sup>7</sup> Our Executive team includes our officer team as well as vice presidents in Canada and the U.S.

## Our Approach

### A thriving business requires an engaged, diverse, and innovative workforce.

We set ourselves apart by creating a differentiated experience for our employees. Our commitment to delivering excellence for our employees means they say we are the ‘employer of choice’ and value our safe, respectful, collaborative and inclusive work culture. More specifically, our approach to employee well-being and culture includes:

#### Employee Engagement

Listening to our employees enables an inclusive and engaging work environment. We strive to create opportunities for our employees to provide critical feedback. We rely on that feedback to adapt our processes in a manner that helps our people to succeed. We host regular employee town halls with our officers and senior leadership, focus groups, and team-specific performance and strategy sessions. In addition, we routinely conduct engagement surveys to hear directly from our employees on what is going well and opportunities for improvement. We use this feedback to develop strategic action plans to address what is important to our employees and improve their overall experience at Pembina.

#### Employee Experience

To attract and retain an engaged workforce we strive to provide employees with positive experiences throughout the employment lifecycle, including supporting employee well-being through our benefits and wellness programs, providing competitive compensation and supporting personal development and career progression through training, tuition reimbursement and mentorship. Leadership development is emphasized at all levels in our organization, and we pride ourselves in creating a work environment where accountabilities are clear, strong performance is expected, and results are recognized.

#### Recognition

Recognizing employee contributions and achievements is vital to fostering a positive work environment and that is why we offer various forms of recognition including a peer-to-peer online recognition program, long-service awards, awards that recognize community involvement and individual performance bonuses. To recognize exemplary employees who live our values, we have also implemented the RISE (Recognize Individuals who Show Excellence) awards.

## RISE Awards

<p><b>‘CEO’ Award</b> Exemplary Leadership with Pembina’s Values</p>	<p><b>‘Keeping us Safe’ Award</b> Commitment to Health &amp; Safety</p>
<p><b>‘Environmental Stewardship’ Award</b> Stewardship &amp; Conservation, Environment &amp; Sustainability</p>	<p><b>‘Driving Success’ Award</b> Efficiencies, Continuous Improvement</p>
<p><b>‘Inclusion Champion’ Award</b> Inspiring Equity, Diversity &amp; Inclusion</p>	<p><b>‘Commercial &amp; Customer Service’ Award</b> Commercial, New business, Customer Service</p>
<p><b>‘Community Spirit’ Award</b> Above and Beyond in the Community</p>	<p><b>‘Teamwork’ Award</b> Recognize a small team for a significant accomplishment</p>

#### Equity Diversity and Inclusion (“EDI”)

We believe our approach to EDI creates a differentiated experience for our employees and all stakeholders. Our strategy advances EDI through community, awareness, and education using multiple methods to support our employees’ understanding of how we can all contribute to a culture of inclusion, including:

- **Inclusion Networks** are employee-led groups designed to build a sense of workplace community and belonging for diverse employees and their allies and to explore important EDI topics and initiatives. Developing an Inclusion Network is a six- to eight-month process that focuses on building trust and developing relationships so that our employees feel empowered to take courageous actions and contribute to building a more inclusive culture. Each Network develops their own strategic goals which align to our values.
- **Conversations for Change** is a company-wide event series featuring panel-style conversations with our employees to explore EDI topics and their impact on the personal and professional lives of our colleagues.
- **Acknowledgement Months** are supported by our Inclusion Networks and anchored by our Conversations for Change panels. We hold events to highlight and celebrate the history and cultures of diverse groups and bring awareness and connection to important EDI topics, including Black History Month, Indigenous History Month and Pride Month.
- **EDI Foundations Education** is an interactive training comprised of five customized learning sessions aimed at increasing our leaders’ understanding of the core concepts of EDI, exploring the dynamics of inclusion and exclusion and creating a culture of allyship.

## Targets



Our approach to EDI includes targets<sup>8,9</sup> that aim to increase representation of women and other underrepresented groups across our company. Our targets are:

35%

Women in the overall workforce

45%

Overall diversity in the workforce

30%

Gender diversity of Board Members

40%

Overall diversity of Board Members

30%

Women in executive leadership

40%

Overall diversity in executive leadership

## 2022 Performance

### Employee Engagement

Two employee engagement surveys were completed in 2022 and administered by an independent third-party. An impressive 93% of employees shared their thoughts and feedback through our initial survey. Voluntary focus groups were conducted post-survey to further understand the feedback received. Over 300 employees from across Pembina raised their hands to participate in the focus groups, allowing us to gain meaningful insights to strengthen employee engagement. A second survey helped us understand how we had improved and identified additional areas of opportunity. In less than a year we were able to significantly improve our overall employee experience score and significantly increase how employees identify with our values. The survey results underscore the pride that Pembina employees have in the work they do, and their understanding of how it contributes to the success of our business. Based on this feedback, we have generated a number of new initiatives to enhance employee experience.

### Employee Experience

As part of our focus on continuously improving our offerings for employees and in response to what we are hearing from our employees, we formalized Pembina's long-standing values and introduced the RISE Awards. We also reinstated long service award celebrations and social clubs, increased funding for employee health and wellness and introduced paid parental leave for our U.S. employees. We have implemented a new flexible work standard and we have begun a journey of increasing transparency of our total rewards programs with enhanced communication and simplification of our short-term incentive plan.



### Recognition

In 2022, we introduced our inaugural Pembina RISE Awards, a comprehensive employee awards celebration that recognizes excellence in leadership, safety, environment, community engagement and customer service, among other categories, in alignment with our values.

More than a quarter of employees across our Canadian and US operations were involved in the nomination, nominee and evaluation process with over 200 nominees across 21 locations.

A total of eight awards were presented. We are especially proud to showcase the Keeping Us Safe Award, given to Cole O'Neill, a High Voltage Commissioning Specialist in Sherwood Park, for his significant acts of courage and leadership in safety. Cole's colleagues shared that he acts as a coach to others in managing safety and promoting our values and safety procedures and is always honest and transparent when testing safety mechanisms to enable successful outcomes.

For the tenth year in row, we are proud to be recognized by the editors of Canada's Top 100 Employers as one of Alberta's Top 75 Employers. In 2022, we were recognized specifically for our support of several charitable initiatives, investing in the education of current and future employees, and for letting our eligible employees share in the company's success through a share purchase plan and year-end performance bonuses.

<sup>8</sup> Employee targets are for 2025 with the exception of our women in executive leadership which is for 2022.

<sup>9</sup> An individual is considered diverse if the individual belongs to one of the four designated groups in the Employment Equity Act (Canada): Indigenous Peoples, persons with disabilities, members of visible minorities and women.

## Building Our Culture of EDI

Through our various EDI trainings, events, and initiatives, our employees attended 18 EDI-related events resulting in over 2,500 attendances in 2022. Progressing EDI takes dedication and time and we built off our momentum from 2021 and carried it through to 2022 with the following results from our initiatives:

### Inclusion Networks

We currently have three active Inclusion Networks, Pride Pembina (LGBTQ2S+), Women’s Inclusion Network and Multicultural Resource Group. In 2022, we initiated development of two new Inclusion Networks, the Indigenous Inclusion Network and the Men’s Inclusion Network, focused on men’s mental health that will both be launched in 2023.

### The Conversations for Change series

In 2022, our employees participated over 990 times in the 2022 Conversations for Change series held on the following topics:

- > Women and Gender
- > Pride and the LGBTQ2S+ Community
- > National Indigenous Peoples Day
- > Black History
- > Understanding the Impact of Male Norms & Mental Health

Feedback from our employees confirms that the series is increasing awareness and empathy around EDI, creating a safe space for openness and transparency, demonstrating behaviours required to support an inclusive culture, and increasing employees’ sense of engagement, belonging and pride.

Pembina continues to surprise me with how much our culture has shifted in the last year and how we are really living our EDI commitment.

*Panel Participant*

I was inspired by the panelists’ ability & willingness to extend grace to those around them on their journeys. It feels so unfair to me that they have to both fight for their own inclusion and educate others. I took this as a call to extend this same grace to others when I see exclusionary behaviors and do more to step into the hard work of educating.

*Panel Participant*

### Acknowledgement Months

We recognized four acknowledgement months throughout 2022 including Black History Month, Pride Month, Disability Awareness Month, and Movember with employees participating over 1,500 times.



### EDI Foundations Education

In 2022, over 130 sessions were held with approximately 80% of our leaders completing all five modules. Feedback obtained from the modules was very positive with 95% of respondents agreeing or strongly agreeing that they progressed their understanding of EDI, that the sessions provided ideas or tools they could apply to their roles within our company and in their personal lives, and that they learned something to support their ability to be an inclusive leader.

In collaboration with our Indigenous employees, Indigenous Inclusion Network and our Indigenous Engagement team, a new Indigenous Inclusion learning session was developed and piloted which will roll out to our leaders in 2023. Indigenous Awareness training was also rolled out to all employees. [Refer to the Indigenous Engagement section](#) of this report for more information.



# 130 EDI sessions

were held with approximately 80% of our leaders completing all five modules



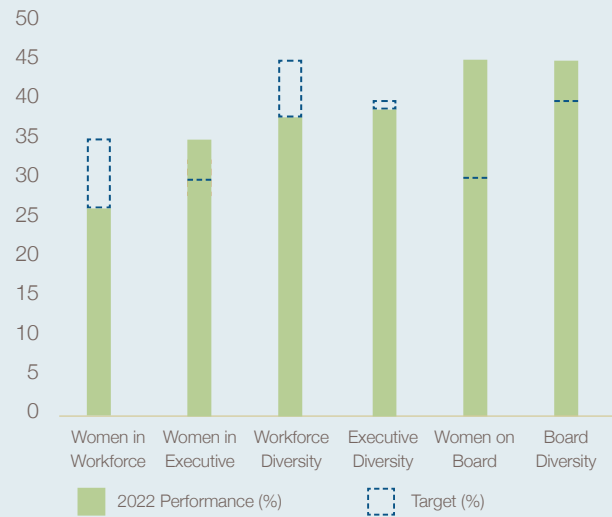
## Targets



In 2022, we made meaningful progress towards achieving our EDI targets and exceeded our Board diversity targets. In the areas of Women in Executive roles and Diversity within Executive roles, we made particularly significant increases.

While reaching all our targets may not always be a linear path, we are confident that our unwavering commitment to our EDI strategy will build an equitable, inclusive and diverse culture.

2022 EDI Performance in Canadian Workforce <sup>10, 11, 12</sup>



<sup>10</sup> Workforce targets represent our permanent Canadian workforce only. As of December 31, 2022, Pembina had 2,411 total permanent Canadian employees.

<sup>11</sup> Board Diversity includes independent directors only. Employee targets are for 2025.

<sup>12</sup> Women in Executive and Executive Diversity metrics are comprised of Pembina's Canadian and U.S. workforce.



# Looking Forward

## 2023 and Beyond



During our annual compensation cycle we increased pay transparency providing all employees with the market position of their base salary and expanded employee and leader compensation program information. We also continue to monitor our performance on pay equity, including base pay, short and long-term incentives, and are committed to continuous improvement. Creating a differentiated employee experience is a strategic priority and we will continue to enhance our programs in pursuit of enhancing our employee experience. In 2023, we will begin formally integrating our values into our performance management approach and expanding our leadership development and team effectiveness offerings.

In 2023, we plan to progress our EDI approach through the following initiatives:

- Launch of the Indigenous Inclusion and Men's Inclusion Networks, which is focused on men's mental health.
- Extending the roll out of the EDI Foundations Series to all employees. Following the completion of the 2022 pilot, an Indigenous Inclusion learning session will be rolled out to all our leaders.
- In service of the successful execution of our culture and inclusion strategy of which delivery of EDI commitments form a key part, we are adding full-time, dedicated staff to our EDI team.
- Launch of the Inclusive PPE Project to provide a safer, more inclusive and equity-based option for all our employees. Refer to the Health and Safety section of this report for more information.
- Develop and roll-out a new culture and inclusion strategy.



# Health & Safety

Working safely is a way of life at Pembina and is at the heart of our values. Our corporate safety culture of “Zero by Choice” seeks to achieve zero harm to people, assets and the environment, and we believe our employees can achieve this by recognizing that “Safety Starts with Me.” This philosophy reflects our belief that all incidents are preventable and that nothing is more important than the safety of our employees, contractors and communities.



~15,000  
Positive Safety  
Recognitions  
submitted



More than  
8,000  
Hazard IDs  
completed



### Analyst Corner

[2023 Management Information Circular – Safety, environment and operational excellence committee \(pages 36, 53\)](#)  
[2022 Annual Information Form – Safety Program \(pages 52-53\)](#)  
[Health, Safety & Environment Policy](#)  
[Website - Health and Safety](#)

## Our Approach

Our Safety Program is governed by our Health, Safety and Environment (“HSE”) Policy and is one of the operational risk management programs that form our OMS. It employs a systematic approach comprised of principles, standards, procedures, guidelines and other supporting documents. To support the Safety Program, we have established [Life Saving Rules](#) and [Safety Culture Expectations](#) that apply to all employees and contractors to ensure critical safety risks are managed effectively.

Our Safety Program is designed to drive continuous improvement and enhance safety performance through measurement, monitoring, risk management, and corrective actions. We use incident reporting, audits and other assurance tools as inputs to the Safety Program to identify continuous improvement opportunities. We have built a strong reporting culture that drives us to investigate and implement learning from incidents and near misses.

We take a comprehensive approach to process safety, including a Management of Change system, to confirm that changes to existing and future facilities are properly recognized, and that we have evaluated, managed and verified that risks arising from these changes remain at acceptable levels. We use process hazard analysis, to identify potential hazards and assess the adequacy of existing or proposed safeguards to manage operational risk.

To promote and measure safety performance, we use a balanced scorecard that includes both leading and lagging metrics. Leading metrics on this scorecard include leadership visibility in the field, positive safety recognitions, contractor inspections, and recognizing personnel who stop work due to unsafe conditions. These metrics are designed to proactively engage all levels of our organization, including our contractors, in positive safety discussions to promote safety awareness and reduce or eliminate preventable incidents. The scorecard also includes traditional lagging metrics, such as recordable injuries, vehicle incidents and product releases classified as Tier 1<sup>13</sup> process safety events. Safety scorecard performance is a component of the formula that determines executive and employee short-term incentive plan payments.

To support a learning culture, an Incident Review Panel meets every other month to review selected incidents to identify and share root causes and lessons learned and to track corrective actions. Participants in the Incident Review Panel include the executive team, operations and project leaders, and safety specialists. The Executive Safety Committee also meets on a quarterly basis to set and evaluate strategies, priorities, performance targets and HSE key metrics.

## 2022 Performance

We are profoundly saddened to share that in 2022 one of our contractors was fatally injured while conducting electrical maintenance at a Pembina site. As a result of our investigation and a broader third-party contractor safety review aimed at identifying opportunities to improve and mature our contractor safety processes, we have implemented a number of targeted actions including:

- Development of a standardized safety evaluation approach as part of our contractor selection process;
- Confirmation and realignment of roles and accountabilities throughout our company regarding managing contractor safety;
- Creation of safety performance dashboards to enable efficient communication and monitoring of safety performance for each contractor company we use;
- Creation of a consistent approach to contractor project and scope kick-off meetings to ensure every contractor we work with is receiving the same communication on our safety protocols, procedures, policies and expectations; and
- Development of contractor safety assurance and inspection tools.



<sup>13</sup> Based upon API 754 criteria

In 2022, our employee Total Recordable Incident Frequency (“TRIF”) decreased by 32%. However, our contractor TRIF increased by 15% due to an increase in injuries compared to 2021. In 2022, the Redwater, Channahon, and Hythe facilities reported zero injuries during their maintenance turnarounds.

We are focused on improving our safety performance through increased leadership presence in the field, a focus on contractor safety and increased emphasis on human factors and human performance in safety. In 2022, our leaders conducted 8,900 leadership engagements. Leadership visibility in the field, where highest hazard work takes place, is critical in supporting safety culture and communicating and validating safety requirements.

**Total Recordable Incident Frequency (“TRIF”)**  
Number of recordable injuries per 200,000 hours or work



We also track a number of leading metrics, including hazard identifications and positive safety recognitions, that promote and instill a culture of safety throughout our organization by recognizing potential hazards before they become a safety incident. In 2022, over 8,000 hazard identifications were completed and approximately 15,000 positive safety recognitions were submitted. Also more than 1,900 contractor safety inspections were conducted in 2022 to encourage proactive identification of potentially unsafe working conditions.

In addition to our leading metrics and a focused effort to continuously improve our safety culture and prevent incidents from occurring, we implemented the following initiatives in 2022:

- Recognition of employees for applying the Stop and Think safety steps, which helps to reinforce a culture of safety first over schedule and budget targets. We are tracking when Stop and Think actions are taken as part of our safety metrics;
- Recognition of employees for the RISE awards, including the Keeping Us Safe award, for exhibiting exemplary examples of our safety first culture. Refer to the Employee Well-Being and Culture section of this report for more information;
- Correlation of employee engagement and safety performance data to create more targeted action leadership engagement plans;
- Creation of an incident learning library to enable our employees to learn from previous incidents and apply their knowledge to new situations;
- Implementation of a Safety Inspections Application, which allows employees and leaders to conduct and record proactive safety engagement;
- Conducted safety stand downs across the company to enable all personnel and leaders to refresh and re-calibrate on Pembina’s Life Saving Rules and Safety Culture Expectations;

- Enhanced collection of information related to Process Safety incidents in the incident reporting system, which allows for improved trending and analysis; and
- Increased risk literacy across our company through alignment of our incident reporting tool with our internal risk matrices and training for key OMS program employees.



More than  
**1,900**  
**contractor safety inspections**  
were conducted in 2022



# Looking Forward

## 2023 and Beyond

We recognize that employee and contractor safety are critical for sustained long-term safety performance. While our employee safety performance remains strong, we continue to focus on enhancing our contractor safety performance including our contractor selection, onboarding, performance assurance, and reporting in 2023 and beyond.

In January 2023, we conducted our first Contractor Safety Summit, bringing more than 80 representatives from our 15 key contractors and our employees together to listen, learn and understand our contractors' safety experiences at Pembina. Survey data from both the event and contractor attendees is currently being used to identify opportunities to improve our safety procedures and culture. We plan to hold Contractor Safety Summits annually going forward.

Additional priorities for 2023 will include:

- Creating a new Vice President of Safety within our organization;
- Leveraging existing and exploring new technologies to support risk management processes;
- Continuing to focus on process safety by using advanced risk identification techniques to reduce operational risk and make our assets safer for people and the environment;
- Advancing predictive analytics and maturing our approach to safety assurance;
- Utilizing employee engagement and safety performance data to create data driven targets for conducting leadership engagements in the field; and
- Continuing to strengthen our leadership capability by refining leadership behaviours and competencies through our broader leadership training and programs.

We have built a strong foundation to support safety as one of our values and we will continually pursue opportunities to mature our culture and improve safety performance.



### Inclusive Personal Protective Equipment (PPE)

In 2023, we rolled out our Inclusive PPE initiative to provide a safer, more inclusive and equity-based option for all our employees. Ill-fitting PPE, such as loose coveralls, can create potential safety issues. Our Inclusive PPE initiative sets a new industry standard for procuring PPE to fit all shapes and sizes, regardless of gender. We are excited to be a leader in this space and to see this project progress in 2023.



# Responsible

## Asset Management



When **we operate our assets safely, reliably and with consideration for the environment**, we contribute to the sustainable success of our employees, communities, customers and investors.

At Pembina we take a lifecycle approach to managing our assets including planning, construction, operation, decommissioning and reclamation activities. We are committed to continuously improving our operations and seek to align our operating practices to leading standards.



Conducted over  
**100**  
emergency  
management  
personnel training  
sessions and  
exercises

Recovered over  
**99%**  
of hydrocarbons  
spilled and remediated  
all impacted sites

This section covers several ways in which we are focused on responsibly managing our assets including, **integrity management, spill prevention and mitigation, waste management, water management, biodiversity and land use and cyber security.**

# Integrity Management



## Analyst Corner

2022 Annual Information Form – Integrity Management (pages 50-51)  
 Health, Safety & Environment Policy  
 Website - Responsible Asset Management



## Our Approach

Maintaining the integrity of our pipelines, facilities, and energy infrastructure is essential to providing energy security and environmental protection.

Taking a lifecycle approach, we design, build and maintain our assets in accordance with various regulatory frameworks, industry best practices and our comprehensive asset management integrity programs, which are components of our OMS. This commitment to continuous improvement meets or exceeds the regulatory requirements in the areas in which we operate. More specifically, our programs include:

### Damage Prevention Program

This program focuses on the development, implementation and management of robust control programs, effective surveillance and monitoring techniques, and the education of our stakeholders and communities. Specifically, we focus on mitigating risks through ongoing ground disturbance education and supervision, pipeline crossing assessments, RoW patrol, land use and encroachment monitoring and depth of cover management.

### Public Awareness Program

This program defines how we create awareness about the presence of our assets in the communities in which we operate, the steps required to prevent damage to our assets and the role of our community stakeholders in recognizing, reporting and responding to pipeline and facility emergencies. We recognize that failures, although infrequent, can occur, which makes it critical that we properly communicate our emergency response practices, share our available resources and incorporate all learnings into our stakeholder education materials.

### Integrity Management Program (“IMP”)

Pembina utilizes comprehensive IMPs for both pipelines and facilities to guide evaluations and risk assessments and determine the necessary testing and integrity work required. These programs include the systems, processes, analysis, and documentation designed to ensure proactive and transparent management of its pipeline systems and facilities, and compliance with applicable

standards and regulations. We dedicate a significant portion of our annual operating budget directly to integrity management activities to maintain safe and reliable operations.

Specific integrity activities for our pipelines and facilities include:

- > In-line inspection (“ILI”)
- > Internal corrosion management
- > Leak detection
- > Crack susceptibility assessments
- > Geotechnical reviews
- > Cathodic protection
- > Pipeline risk assessments
- > Facility repair and maintenance

Proactive integrity management activities extend into pipeline operations with programs including RoW patrols and public awareness to reduce the likelihood of third-party damage, system specific hazard evaluations and risk assessments, geotechnical programs to manage slope instability and water crossings, training and competency management programs for staff and contractors, enhanced emergency response procedures and training exercises, and the use of specialty chemicals to reduce the likelihood of internal corrosion.

Additionally, to ensure quality, ongoing continuous improvement, and compliance with all our integrity programs, we conduct both voluntary and mandatory internal and external assurance activities. If we identify improvement opportunities, we develop and implement a corrective action plan.

## Technology Enabled Pipeline Inspection

The cornerstone of Pembina’s IMP is the use of ILI technology to determine pipeline condition and potential repairs. We have employed ILI since the early 1970s, progressing to newer, higher resolution magnetic flux leakage ILI technology in the late 1990s and have continued to implement technological improvements as they become available. To monitor and identify the need for repairs, Pembina employs specialized ultrasonic detection technology to identify minor defects (both internal and external) with the potential to compromise pipeline integrity to enable timely repairs.

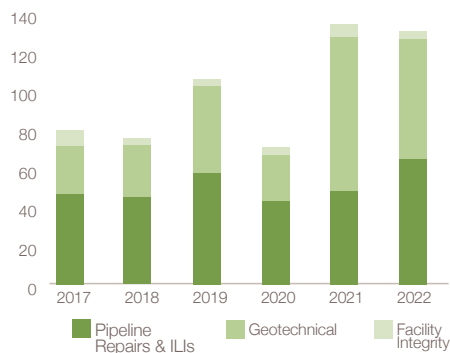
# 2022 Performance

Pembina safely operates approximately 18,000 kms of conventional, transmission and oil sands and heavy oil pipelines across North America. Pipeline inspections, evaluations, and preventative maintenance ensure safe, reliable, and environmentally responsible operations. 2022 performance highlights include:

**\$134 million**  
spent on asset integrity activities in 2022

Pembina Integrity Spend

millions



Inspected more than  
**8,000 km**  
of pipeline with advanced  
in-line technologies

Conducted  
**267**  
integrity digs  
to evaluate potential  
pipeline damage

Completed more than  
**2,200**  
geohazard inspections  
and surveys

Completed  
**3,185**  
facility equipment inspections  
and repairs, including nine facility  
turnarounds

We reviewed and responded to more than 25,600 planned ground disturbance notifications related to our pipelines in 2022, to ensure that construction activities near our pipelines were completed safely

We engaged with more than 100,000 external stakeholders, in proximity of our pipelines, educating them of our damage prevention program and promoting pipeline safety

Summary of total pipelines inspected  
(% of total):



2022	2021
<b>31%</b>	<b>29%</b>

# Looking Forward

## 2023 and Beyond

Pipeline inspections follow an annual inspection plan that is designed to satisfy a range of criteria including regulatory requirements, operating history, maintenance schedules, resource availability and overall risk assessments. As a result, the percentage of pipelines inspected can vary year to year. Since some pipeline systems are much longer than others, total length (and therefore percentage) of pipeline inspected may also vary considerably from year to year.

In 2022, we executed several activities to improve the safety and reduce the environmental impact of our current and future operations including:

- › **Implemented** satellite imagery technology to assist with the monitoring and surveillance of our RoWs to ensure area development does not encroach on our assets;
- › **Upgraded** the technology used to schedule and manage facility inspection and plant turnarounds; and
- › **Advanced** development of standards for the design, construction and operation of our carbon capture pipelines based on industry best practices. These learnings will be applied to the development of ACG. Refer to the Energy Transition and Climate Change section of this report for more information on this project.

**Effective integrity management is essential to our business and our commitment to public safety and environmental protection.**

We will continue to diligently undertake prevention, awareness, mitigation, monitoring, maintenance, and continuous improvement actions and strategies. As part of our commitment to continuous improvement, we are evaluating enhancements to our pipeline risk assessment matrix to ensure that it adequately considers the range of potential hazards and vulnerabilities associated with our diverse asset mix and operating environments.

We will continue to invest in and work with vendors to improve technology to increase detection and inspection capabilities. Lastly, we will focus on the integration of our assets, including pipelines and facilities, that were acquired as part of the PGI Transaction into our various integrity management programs.





# Spill Prevention & Mitigation



## Analyst Corner

2022 Annual Information Form – Operational Risks (pages 87-88)  
 Health, Safety & Environment Policy  
 Website - Responsible Asset Management



## Our Approach

Asset integrity and responsible asset management are critical to ensure the safe operation of our assets and protect our communities and the environment.

Pembina's Environment Management Program provides guidance on environmental protection and spill prevention for all phases in the lifecycle of an asset including: project planning and construction, operation, decommissioning and reclamation.

In the unlikely event of an incident, our Emergency Management Plans outline detailed processes to help execute timely deployment of equipment, resources and trained personnel to support any type of incident, including spills. We regularly conduct Emergency Response Training across the organization to ensure we are prepared for how to respond in the event of an incident. The success of this program requires commitment, training, and discipline to keep our operations running, our communities safe and impact to the environment at a minimum.

## 2022 Performance

As part of our proactive approach to spill prevention, in 2022, we conducted more than 100 emergency management personnel training sessions and exercises, including five spill response equipment deployment sessions, and 17 full-scale emergency response exercises.

To support response coordination in the event of a potential emergency more than 30 Community Awareness & Emergency Response ("CAER") presentations were held with local first responders.



## Prince Rupert Terminal Green Marine Certification

In 2022, the Prince Rupert Terminal received an environmental certification for its marine operations on Watson Island under the Green Marine Program. This voluntary program is designed to promote environmentally responsible marine shipping, and provides a comprehensive framework for marine shippers to benchmark and manage their environmental footprint. Program assessment considers topics such as emissions, protection of aquatic ecosystems, waste management, and spill prevention.



**100** emergency management personnel training sessions and exercises were held

During the year, we had five reportable spills. Two of these spills were considered significant<sup>14</sup>: a 75 barrel (“bbl”) release of sweet crude oil in the Drayton Valley area in January 2022 and a 597 bbl release of synthetic crude oil in the Edmonton area in May 2022. Both spills were fully recovered, and the sites have been remediated in accordance with regulatory requirements. Ongoing monitoring is occurring to ensure the long-term recovery of the sites. The remaining three reportable pipeline incidents include a release of 0.3 bbl of synthetic crude oil, which was fully recovered, and two other incidents involving freshwater pipelines where partial recovery was achieved, and no significant environmental impacts occurred.

Through our ongoing commitment to spill prevention and mitigation, we are pleased to report that more than 99% of total hydrocarbons from reportable releases in 2022 were recovered and all impacted sites have been remediated.

### CN Safe Handling Award

**In 2022, two Pembina entities involved with the shipping of regulated products were recognized by Canadian National Railway (CN) with a silver and gold Safe Handling Award.** These awards recognize customers who load freight cars with dangerous goods and meet strict standards for the safe handling and shipment of products. There are several criteria that must be met to receive the award, including limits on non-accidental releases. Receiving this recognition from our peers in the rail industry serves as validation of our commitment to safe operations.



### Fraser River Exercise

In October of 2022, Pembina held a full-scale emergency response exercise on the Fraser River at MacDonald Beach Park in Richmond, BC.

The exercise was designed to test Pembina’s capability to respond to a potential release of jet fuel into the MacArthur Glen Designed Outlet. The exercise tested Pembina’s emergency plans, procedures, and protocols, and provided an opportunity to evaluate and learn from a coordinated response under emergency conditions in partnership with local authorities.

The exercise included participation from Pembina as well as representatives from Vancouver Airport Authority, Air Canada, City of Richmond, City of Burnaby, and Transport Canada.

## Looking Forward 2023 and Beyond

Despite our efforts to prevent spills and releases to the environment, on January 18, 2023, 1,786 m<sup>3</sup> NGLs were released from the Northern Pipeline System located approximately 30 km southeast of Valleyview, Alberta. Pembina’s Emergency Response Team was activated, and the pipeline was quickly isolated. Public safety and protection of the environment were top priorities. Roadblocks were put in place and residents in the immediate area were evacuated to ensure public safety while the situation was being managed. We worked with the Alberta Energy Regulator to conduct preliminary remediation activities before spring breakup and ensure continued safe operation of the pipeline. We are now planning additional remediation work scheduled for late 2023.

As Pembina grows, we continue to enhance our emergency response capacity. In 2023, we implemented new dedicated Regional Response Teams and an Incident Technical Response Team. The implementation of these new teams will include technical experts from across the company organized within three geographical areas, supported by a dedicated centralized team of subject matter experts responsible for the planning and execution of necessary response activities during a significant emergency. Establishing a dedicated team of responders will enhance training and will enable team members to collaborate more frequently, building relationships, confidence, and trust in preparing and responding to emergency events.

<sup>14</sup> A significant spill is defined as a release of a commodity product that must be reported to an external agency or authority, such as a federal, provincial or state regulator, and that includes one or more of the following: a serious injury or fatality; an unintentional ignition or fire; a liquid release of greater than 8 m<sup>3</sup> (50 barrels); a solids release (mineral concentrates and/or sulphur) of greater than 200 kilograms to land and/or any solids release (including mineral concentrates) to a body of water; or a rupture or breach of a pipe, tank, or containment.

# Waste Management



## Analyst Corner

Health, Safety & Environment Policy  
Website - Responsible Asset Management

## Our Approach

Minimizing waste is an important element of reducing our impact on the environment. We actively identify opportunities to treat, recycle or divert our waste.

We manage hazardous and non-hazardous waste generated throughout various processes in our operations and work to identify additional opportunities to partner with third-party recycling facilities.

Pembina's waste is generated throughout the hydrocarbon processing, transportation and storage asset lifecycles, including during construction, operations, maintenance, and closure of our operations. Non-hazardous waste generated from our operations includes materials consumed in facility operations and maintenance as well as domestic and construction wastes. Hazardous wastes include non-marketable hydrocarbon residuals, wastes generated from cleaning and maintenance of tanks and lines, solids produced by our wastewater treatment processes, and materials generated from site remediation. Pembina operates in jurisdictions within Canada and the US where management of hazardous wastes are strictly regulated and we meet or exceed all regulatory requirements for the safe handling and disposal of hazardous waste.

To enhance life cycle tracking of waste, we participate in a waste receiver assessment program to review and assess the performance of waste receivers. We use the information to guide waste supplier management.

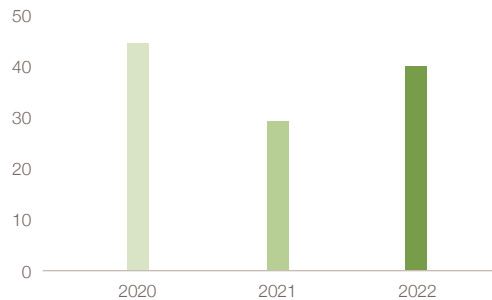
## 2022 Performance

In 2022, we revised our reporting approach for non-hazardous water disposal to better align with our industry peers and reporting standards.

Non-hazardous water disposal volumes are now included as part of our water discharge reporting and no longer included as part of waste reporting. Non-hazardous waste volumes totaled 40,874 cubic meters ("m<sup>3</sup>") in 2022, an increase of 37% year over year. Reported volumes include more than 14,000 m<sup>3</sup> of drilling wastes associated with a large river crossing project completed during the period. Hazardous waste volumes also increased in 2022 to 38,458 m<sup>3</sup>, related to an increase in construction and maintenance activities at Vancouver Wharves compared to 2021.

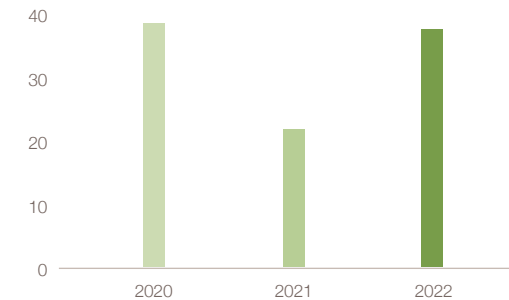
**Total Non-Hazardous Waste**

(000's metric tonnes)



**Total Hazardous Waste**

(000's metric tonnes)

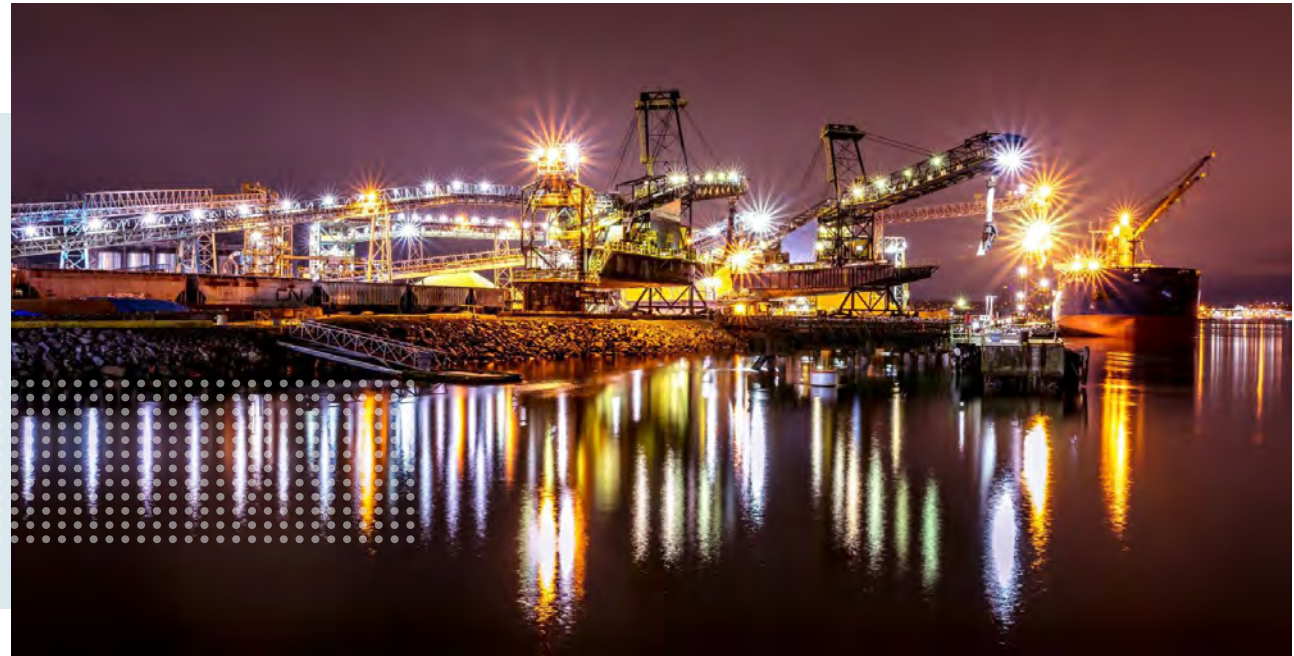


# Looking Forward

## 2023 and Beyond

In late 2022, Pembina implemented a digital waste manifesting pilot project to improve waste data accuracy and tracking.

The pilot will continue in 2023 and we will evaluate next steps for a broader roll-out. We will also continue our broader efforts to minimize waste volumes and evaluate waste recycling and diversion opportunities in collaboration with our industry partners.



### Vancouver Wharves Waste Diversion

In 2022, maintenance on the water treatment system at our Vancouver Wharves facility generated approximately 460 tonnes of hazardous waste. Rather than diverting this material to a disposal site, we partnered with a local biodegradation facility for treatment and reuse as industrial landfill cover.

**As part of the maintenance project, we installed a new engineered liner system adding an additional layer of protection for the local marine ecosystem and mitigating the risk of potential groundwater impacts from the treatment plant.**

# Water Management



## Analyst Corner

*Health, Safety & Environment Policy*  
*Website - Responsible Asset Management*



## Our Approach

Water is a precious and essential resource. Pembina strives to reduce water usage whenever possible and avoid potential impacts to water resources, while returning as much water back into the hydrologic cycle as possible.

We adhere to strict regulations around water withdrawal and discharge, and only when we cannot return the water into the environment, do we send volumes to water treatment or disposal facilities.

At Pembina, the majority of water used in our operations is for:

- > development and maintenance of salt caverns for hydrocarbon storage
- > pipeline and facility construction
- > facility process cooling
- > dust suppression

Diversion of wastewater to disposal facilities results from two primary circumstances. The first circumstance occurs when high salinity brine forms during cavern washing and development and the brine volume exceeds the available storage. The second circumstance occurs when water is removed from the gas provided by upstream producers during gas processing. In both cases, this wastewater contains high salinity and dissolved solids and is disposed of at appropriate subsurface facilities to meet regulatory requirements.

With respect to our water discharge practices, stormwater at process facilities is collected, tested, and discharged to the environment in accordance with jurisdictional surface water quality requirements. In addition, water used at our Channahon and Vancouver Wharves facilities is returned to the environment after appropriate water treatment and testing.

Water re-use is an important part of Pembina's approach to water management. We use water from our stormwater retention ponds for construction and road dust suppression rather than freshwater. Additionally, we work with some upstream customers to reuse produced water from our facilities for upstream drilling. This approach reduces Pembina's water disposal while lowering upstream freshwater use.



## Pipeline Hydrotesting

During construction, Pembina rigorously tests our pipelines to ensure they are safe and performing to design specifications before they are commissioned for operations. One way to do this is through hydrotesting, which involves filling the pipeline with water and pressurizing the pipeline to test for leaks or weaknesses.

Hydrotesting often requires Pembina to withdraw freshwater from nearby sources identified in consultation with local stakeholders and regulators. We obtain water use permits from the relevant authorities which include conditions on volumes, timing, and fish screening practices to minimize impacts to the environment. We then install temporary lines and pumps to withdraw the required amount of freshwater to support pressure testing. During the hydrotesting process, we carefully manage the quality of the water to ensure we maintain water quality discharge standards.

Once the hydrotest is complete, we test the water to ensure that it meets the required standards before it is released back into the source location. We use soil and water testing to ensure we return 100% of the withdrawn water without impacting the local environment. Overall, our process for hydrotesting is carefully planned and executed to ensure that the water is of high quality and is successfully returned to the source.

## 2022 Performance

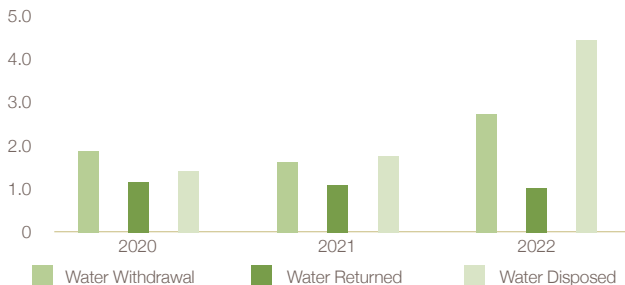
In 2022, Pembina's total water withdrawal was approximately 2.7 million m<sup>3</sup>, including approximately 1.1 million m<sup>3</sup> of water use from facilities acquired through the PGI Transaction. Two of these facilities utilize steam generation equipment that rely on freshwater sources. This addition of PGI assets resulted in a 63% increase in withdrawals compared to 2021. Excluding the PGI acquisition, year over year water use decreased 4%.

Pembina updated its approach for reporting water disposal in 2022. Previously we included produced water disposal volumes as part of our non-hazardous waste reporting but have changed our methodology to include produced water underground discharge as part of overall water disposal volumes to better align with our industry peers and reporting standards. Under the new approach, our water disposal volumes were 4.4 million m<sup>3</sup> in 2022. Reported volumes from 2020 and 2021 have also been restated to reflect this methodology change. Year over year disposal volumes increased by 144% primarily due to the contribution of additional volumes from facilities acquired as part of the PGI Transaction. In 2022, total water disposal volumes were higher than total water withdrawal volumes due to high volumes of produced water removed during gas processing.

Overall, freshwater consumed increased by 87% in 2022 to 2.04 million m<sup>3</sup> compared to 1.1 million m<sup>3</sup> in 2021. The increase is primarily the result of additional reported volumes from PGI facilities. Excluding the PGI Transaction, year over year freshwater consumption decreased by 14%. Water returned to the environment decreased by 14% year over year, resulting from annual variance in cooling requirements at our Channahon Facility as well as year over year changes in precipitation at Vancouver Wharves where rainwater is treated as part of our water treatment system.

### Water Management

(million m<sup>3</sup>)



## Collaborating with Industry Partners on Water Reuse

In 2022, Pembina collaborated with upstream producers on a water re-use initiative near Patterson Creek, Alberta. To replace freshwater use for production well drilling, Pembina provided produced water from three of its gas processing batteries to supply producers' drilling operations in the area. The water transfer avoided more than 360,000 m<sup>3</sup> of freshwater withdrawal for our industry partners, while reducing Pembina's total water disposal volumes.

In addition to minimizing impacts to the natural environment, the initiative reduced costs, emissions, noise, and landowner impacts associated with trucking and treating water. We plan to continue this initiative in 2023 and beyond, including identifying additional opportunities to expand water re-use within our industry.

The water transfer avoided more than **360,000 m<sup>3</sup>** of freshwater

withdrawal for our industry partners, while reducing Pembina's total water disposal volumes.

# Looking Forward

## 2023 and Beyond

With the addition of three gas processing facilities and other pipeline related infrastructure as part of the PGI Transaction, one of our priorities in 2023 is to identify opportunities to reduce freshwater use. Notably, Pembina is undertaking process optimization work at the Kaybob Amalgamated gas plant in Alberta (the "KA Facility") that may reduce facility freshwater demand. The KA Facility is one of PGI's facilities and accounted for nearly 20% of Pembina's total freshwater use in 2022. Additionally, Pembina plans to continue efforts to improve our water data management practices, including water consumption, re-use, and disposal.



# Biodiversity and Land Use



## Analyst Corner

- [2022 Annual Information Form – Abandonment Costs \(page 94\)](#)
- [2022 Annual Report - Abandonment Costs \(page 55\)](#)
- [2022 Annual Report - Decommissioning Provision \(pages 96, 116\)](#)
- [Health, Safety & Environment Policy](#)
- [Website - Responsible Asset Management](#)
- [Website - Sustainability Stories 2022](#)
- [Task Force on Nature-related Financial Disclosures](#)



## Our Approach

Pembina is committed to land conservation and minimizing the impact of our operations on the environment.

We recognize the new Global Biodiversity Framework approved by the UN Biodiversity Conference (COP15) and acknowledge that there is a growing need to take action to protect the abundance and diversity of plants and wildlife, and to reverse nature loss. We are also committed to conserving the social and cultural values of land and aquatic resources for Indigenous Peoples and local communities. We do this through detailed assessment, planning, and ongoing monitoring of the impacts that our projects and operations have on plants, wildlife, and aquatic species as well as through our ongoing efforts to reclaim and restore lands affected by our operations.

As part of our life-cycle approach to land management and biodiversity we focus on the following areas:

**Stakeholder engagement:** We conduct early, meaningful, and ongoing engagement with local communities and other stakeholders to facilitate dialogue throughout the development of our assets, from pre-construction through to final reclamation. As part of our commitment to local communities and Indigenous Peoples, we foster relationships that allow us to learn, build trust, and understand stakeholder perspectives, including addressing wildlife and biodiversity concerns. Our engagement with Indigenous communities recognizes the profound relationships that Indigenous People have with the land on which we operate. Refer to the Indigenous and Community Engagement section of this report for more information.

**Environmental assessment and planning:** During the planning phase for new projects, Pembina conducts baseline assessments on vegetation, wildlife, and aquatic environments. Qualified professionals conduct aerial and on-the-ground wildlife assessments to identify sensitive wildlife features such as bear dens, migratory bird and raptor nests and amphibian habitat. Where watercourse crossings or marine infrastructure are required, aquatic habitat assessments and marine mammal and fish surveys are conducted to inform planning and mitigation or compensation activities.

## Managing Our Impact on Biodiversity

Wildlife Management Plans are implemented across our operations to address risks to species of concern and to outline planned mitigations.

Where wildlife or sensitive habitat features are identified, Pembina uses a mitigation hierarchical approach to limit potential impact to the environment, as follows:

- 1. Avoidance:** steps are taken to design facilities and pipelines in locations that avoid sensitive habitat or direct disturbance to wildlife. Examples include the placement of pipelines or marine infrastructure outside of rare habitats, breeding grounds, or migration routes.
- 2. Minimization:** where habitat or indirect disturbance cannot be avoided, measures are taken to reduce the duration, intensity and/or extent of impacts. Examples include timing restrictions to avoid breeding or nesting seasons or building wildlife corridors into project design.
- 3. Reclamation/restoration:** the aim of restoration is to improve degraded or removed ecosystems following impacts that cannot be completely avoided or minimized. Restoration tries to return an area to the original ecosystem to support the plants and animals that were present before impacts.
- 4. Habitat enhancements/offsets:** offsetting is a non-net loss or net-gain approach to compensate for any residual, adverse impacts after full implementation of the previous three steps of the mitigation hierarchy. Examples include undertaking fish habitat enhancement upstream of river crossings or undertaking land restoration/rehabilitation work on degraded lands outside of Pembina's operating footprint.

**Managing species of concern:** We are committed to protecting sensitive or rare habitats and species and where threatened, at risk, or endangered species are identified we work with regulators, landowners, and stakeholders to avoid or mitigate impacts on these valued resources.

**Habitat restoration and enhancement:** We undertake a robust process to restore lands impacted across the three phases of construction, operations, and decommissioning:

➤ **Construction phase:** Once construction is complete, Pembina begins reclamation work on disturbed lands including RoWs to restore them to their prior land capability. In non-agricultural areas we focus on natural recovery to reduce the potential of introducing invasive plant species into an area. For agricultural lands, we collaborate closely with landowners, with an aim to return the land to production within two growing seasons.

In the years following construction Pembina actively monitors revegetation success and conducts follow-up reclamation where areas of erosion or changes in vegetation growth are identified. At the end of the second growing season a third-party assessment of the RoW is conducted to verify reclamation success and support reporting to regulators where required.

➤ **Operations:** During operations, we undertake periodic vegetation management along RoWs to minimize integrity risk and maintain access. In areas of habitat recovery for species of concern, we adapt our practices to help maximize available habitat and reduce lines-of-sight for predators (e.g., decrease brushing widths).

➤ **Decommissioning:** Upon decommissioning of an asset, we work diligently to return the site to original land equivalency.

## 2022 Performance

### Land Use

As a result of our planned capital growth and safety programs, the work completed by our construction and integrity management teams resulted in 134 acres of new disturbance. These new acres are now part of Pembina's comprehensive reclamation program. Further, Pembina's total pipeline footprint<sup>15</sup> grew by 9% to a total of 73,058 acres due to the construction of the Peace Pipeline expansion and the addition of the ETC pipelines as part of the PGI Transaction.

### Reclamation

In 2022, Pembina completed reclamation on 4,298 acres of pipeline RoWs and are actively reclaiming an additional 5,018 acres. In addition to pipeline reclamation, we also make significant investments to assess, abandon, and reclaim inactive well sites. In 2022, we completed reclamation activities on 11 inactive well sites in Alberta. Since 2013, Pembina has reduced our overall inventory of inactive well sites from 127 to 36. We are also proud that our work returned 29 acres of reclaimed wellsite lands to landowners.



**4,298**  
**acres**  
of pipeline RoWs  
reclaimed



## Reclamation Bonnie Glen Pump Station

In 2022, Pembina completed a long-term remediation project at the decommissioned Bonnie Glen pump station site. The site was contaminated from a 1975 crude oil spill and had ceased operations in the late 1990s prior to Pembina's acquisition of the site in 2008. Following several years of active remediation, Pembina completed reclamation of the site in 2022. The reclaimed area will continue to be monitored for at least two growing seasons to ensure reclamation criteria are achieved and the landowner is satisfied. Completion of this work has restored 7.9 acres of valuable pastureland and wildlife habitat in Central Alberta and will reduce Pembina's overall asset retirement obligation once regulatory approvals and land title transfers are complete.

<sup>15</sup> Pipeline footprint is defined as lands containing Pembina's pipeline RoWs.





## Protecting Fish Habitat

As a result of our integrity program, during the first quarter of 2022, Pembina recognized that there was potential erosion on the banks of the Pine River in British Columbia that could impact the safe operations of our pipeline. Pembina worked with provincial and federal regulators to build a rock training dike to protect the streambank and pipeline. To minimize environmental impacts from construction, we used heavy lift helicopters to support the installation of the large rock dike and avoided the installation of multiple bridges and associated piers minimizing disturbance to habitat and fish in the local area.

We successfully completed the work prior to spring breakup, and we are now actively completing work on a nearby fish habitat enhancement project.

## Habitat Enhancement and Species at Risk

In 2019 Pembina entered a 5-year, \$250,000 partnership with the Wilder Institute to support the construction and operation of the Wildlife Conservation Center, a facility dedicated to conservation breeding and research programs for various at-risk Canadian species. In 2022, the Wilder Institute celebrated the grand opening of the Archibald Biodiversity Centre, a state-of-the-art breeding centre and temporary home for species at risk.

Pembina's support is specifically directed towards the Greater Sage-Grouse Conservation Program. The greater sage-grouse is one of Canada's most endangered birds. The Calgary Zoo, in collaboration with Environment Canada and Alberta Environment and Parks, is leading a reintroduction breeding program for this species, aiming to establish a genetically diverse captive population to then release the birds to supplement the wild population. The greater sage-grouse population in Alberta/Saskatchewan has declined 90% in the past 30 years. Today there are only approximately 200 greater sage-grouse in Canada and are listed as endangered. The population is threatened by loss, fragmentation, and degradation of grassland habitat. Since 2018, with Pembina's support, 187 greater sage-grouse have been released and found a new home in the prairies of southern Alberta and Saskatchewan.



Pembina entered a 5-year, **\$250,000 partnership** with the Calgary based Wilder Institute to support the construction and operation of the Wildlife Conservation Center

# Looking Forward

## 2023 and Beyond

As Pembina continues to align our disclosure practices to the recommendations of the TCFD, we will leverage our governance structures and processes to manage both climate and biodiversity strategy in an integrated manner.

With increasing stakeholder interest in biodiversity and the impacts of our business on the environment, Pembina is actively reviewing the draft recommendations of the Taskforce on Nature-related Financial Disclosures ("TNFD"). We believe that with our environmental assessment and monitoring programs, and our mature environmental risk management processes, we will be able to validate our alignment with TNFD's LEAP framework.

We are actively evaluating more opportunities to reduce our impacts on biodiversity, including investing in projects that restore or enhance sensitive ecosystems where we work. For example, Pembina has announced a three-year commitment to support habitat restoration and biodiversity enhancement projects through its partnership with Project Forest, a non-profit organization focused on rewilding local landscapes to capture carbon naturally. We will continue to identify and build new partnerships that support this commitment.

# Cyber Security & Data Privacy



## Analyst Corner

2023 Management Information Circular - Cyber Security (page 34)  
 2022 Annual Information Form – Cyber Security (page 101)  
 NIST Cybersecurity Framework



## Our Approach

Information technology and data protection are essential to Pembina’s business operation. As a result, cyber security and data privacy are critical business priorities for our company.

Cyber security and data privacy are managed by our Information Services team reporting into our Senior Vice President, Corporate Services Officer with ultimate oversight by the Safety, Environment and Operational Excellence Committee.

Through our Security, Information Management and Privacy Policies we are committed to protecting the availability, confidentiality and integrity of our information. In that context, we manage and maintain the accuracy and security of personal

information in accordance with applicable laws and regulations. We focus on staying abreast of evolving regulations and laws in the jurisdictions in which we operate.

Cyber security is part of our OMS and supported by a robust program for identifying and mitigating cyber security risks and enhancing the skills and capabilities of our people, processes and technology. This program consists of policies, standards, rules and guidelines. Our formal cyber risk identification process detects potential risk through third-party risk assessment, maturity analysis, penetration testing, among other tactics, and assigns corrective action and oversight to the appropriate leader. Our programs align to the National Institute of Standards and Technologies Cyber Security Framework (“NIST CSF”), a recognized best practice framework for managing cyber security.



There are three core components to our cyber security and data privacy approach:

01

### Governance

- › Adherence to cyber best practices and measurement of success; and
- › Routine training and testing of the workforce on cyber risks and appropriate actions.

02

### Risk & Compliance

- › Focus on evolving regulatory requirements and management of our third party(s) and supply chain risks; and
- › Assurance that the architecture, processes and controls are in place within our Operational Technology and Information System assets.

03

### Security Operations

- › Continuous round-the-clock monitoring to identify potential vulnerabilities, irregular or threat activities, as well as global trends and incidents;
- › Automated response capabilities for cyber-attacks; and
- › Ongoing maintenance of cyber technology platforms and incident response activation capabilities.

## 2022 Performance

In 2022, we continued to advance our program across our three core components including:

### Governance

- Continued execution of our five-year plan based on our 2021 third-party NIST CSF assessment. This plan focuses on asset management, identity management, supply chain risk management and incident response to ensure we remain on top of the evolving industry standards and regulations.
- Completion of corporate training initiatives with our employees and contractors. Training included annual general cyber awareness e-modules, annual Operations and Industrial Control Systems specific Cyber Awareness e-module and monthly phishing exercises with mandatory training on failed phishing emails. Multiple education awareness sessions were also held across our workforce that covered various topics, such as “Identity theft” and “How to become a human firewall” with 99% of our employees completing cyber security awareness training.
- Our Board of Directors had an education session on evolving cyber trends, our external and internal risks and our maturity progression against NIST CSF. Details on our Emergency Management Program and procedures in the event of a cyber attack were also discussed.

### Risk & Compliance

- Conducted Incident Response simulations with various business units, service units and our crisis management teams to ensure we are prepared for how to respond in the event of a breach.
- Obtained cyber security insurance as an additional risk mitigation.
- Completed cyber risk assessments and implementation of controls throughout several business units, covering select corporate and operational field assets.

### Security Operations

- Implemented enhanced email security utilizing artificial intelligence and machine learning to assist in identifying malicious incoming emails.
- Established a comprehensive Cyber Threat Intelligence Program to evaluate possible cyber security threats and analyze potential implications for Pembina.

### Cyber Security Risk Oversight

5

Number of times senior leadership formally briefed the Board and/or Board Committees on cyber security matters<sup>16</sup>

5

Number of directors with technology, systems, and data management skills<sup>17</sup>

### Cyber Security Risk Management<sup>18</sup>

Cyber security breach in the last three years

**No material<sup>19</sup> breaches**

Cyber security insurance policy obtained

**Yes**

Cyber security training and compliance program implemented

**Yes**

Time since the most recent cyber security breach

**No material<sup>19</sup> breaches**

# Looking Forward

## 2023 and Beyond

We remain vigilant and committed to ensuring our policies, standards, procedures and controls adapt to the ever-evolving cyber security and data privacy threats and laws.

More specifically, we plan to continue to mature and evolve cyber security within our operational field assets and embed cyber security processes within our business. We will also continue to focus on ongoing education and awareness training for our employees and the integration of assets acquired as part of the PGI Transaction into our policies, standards and controls.



<sup>16</sup> For the period January 1, 2022 to December 31, 2022.

<sup>17</sup> As of the date of this report.

<sup>18</sup> As at December 31, 2022.

<sup>19</sup> In this context, ‘material’ is based on a financial threshold determined by an external auditor.

# Indigenous & Community Engagement

Pembina acknowledges and respects those who have inhabited lands and waters since time immemorial. We recognize the profound relationships that Indigenous Peoples have with the land on which we operate and we are committed to entering into lasting and mutually-beneficial relationships with all Indigenous Peoples affected by our operations. **Our commitment to invest in the communities in which we operate is a cornerstone of Pembina's approach to sustainability.** We understand the important role we play as neighbours and are committed to giving back in ways that improve people's lives and contribute to lasting, positive social change.



Employees gave back more than  
**3,500**  
community volunteer hours



Redesigned supply chain process to embed and integrate  
**Indigenous engagement**



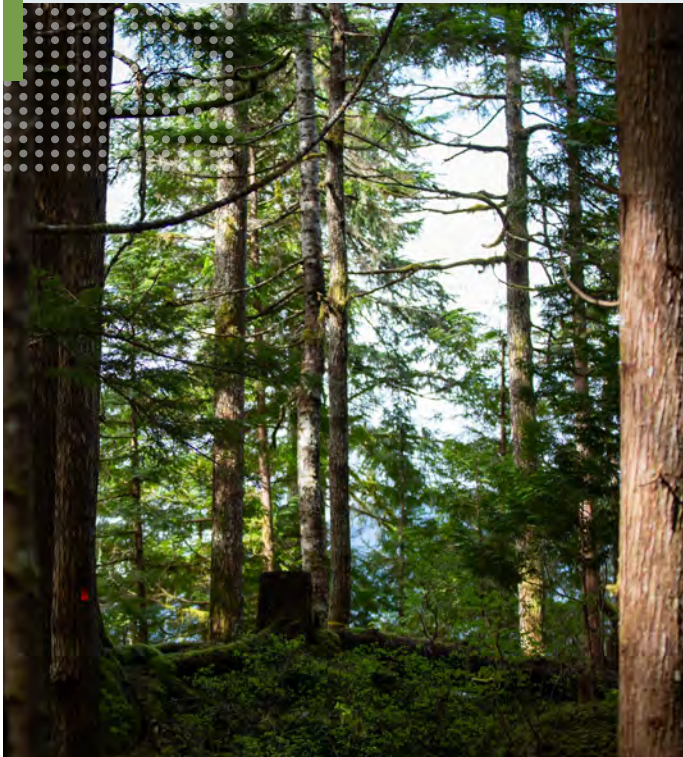
Recipient of  
**United Way President's Award**

# Indigenous Engagement



## Analyst Corner

2023 Management Information Circular (page 36)  
 2022 Annual Information Form – Indigenous Relations (pages 61-63)  
 2022 Annual Information Form – Indigenous Land Claims and Consultation Obligations (pages 99-100)  
 Indigenous & Tribal Relations Policy  
 Website – Indigenous Engagement



## Approach

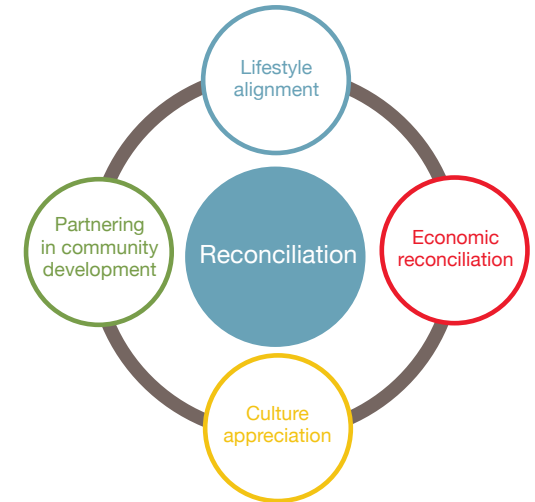
Our Indigenous & Tribal Relations Policy governs how we approach Indigenous engagement and it recognizes and respects the spirit and intent of the United Nations Declaration on the Rights of Indigenous Peoples (“UNDRIP”) as a framework for reconciliation within the context of the Canadian Constitution, existing laws and jurisprudence on Indigenous and treaty rights.

We also recognize that we have a role to play in advancing the Truth and Reconciliation Commission of Canada’s Calls to Action, and in particular, Call to Action Number 92, Business and Reconciliation.

In 2022, we launched our five-year Indigenous Engagement Strategy as our commitment to reconciliation, long-term relationship building with Indigenous communities in our operating areas and expanding Pembina’s social and economic benefits to communities. It outlines Pembina’s path to reconciliation, focuses on four directions and is aligned with the Truth and Reconciliation Commission of Canada’s Call to Action Number 92:

- 1. Lifecycle Alignment** – Building, maintaining and formalizing long-term relationships with Indigenous and Tribal communities near our projects and operations, and embedding Indigenous inclusion and engagement in governance, internal policies, standards and processes for decision making.
- 2. Economic Reconciliation** – Supporting equitable access to jobs, training and education opportunities, and working with Indigenous communities to gain long-term sustainable benefits from economic development projects. This also ensures procurement opportunities are available to Indigenous contractors within Pembina’s asset areas.

## Indigenous Engagement Strategy



We recognize and respect the important role that Indigenous and Tribal People and communities play in the evolution of our ESG strategy.

- 3. Community Development** – Creating long-term community relationships and collaboratively identifying sustainable partnerships based on community needs and opportunities in alignment with Pembina’s community investment focus areas.
- 4. Cultural Appreciation** – Providing Indigenous cultural awareness training and educational opportunities for Pembina senior leadership and employees, while recognizing there are many distinct Indigenous communities and Tribes with unique languages, cultures, traditions, rights, priorities and protocols.

To truly reflect our commitment to reconciliation and long-term relationship building with Indigenous communities, we believe Indigenous considerations and interests should be embedded throughout the E, S and G of our strategy.

## Environment

We have a commitment to environmental stewardship to minimize environmental impacts on water, air, land, and biodiversity through frequent engagement with Indigenous communities across the full lifecycle of operations, including consultation on new development projects. As part of our Management program, we invite neighboring Indigenous communities to attend and participate in full-scale exercises to observe and learn more about our mitigation procedures and to provide feedback on incident response.

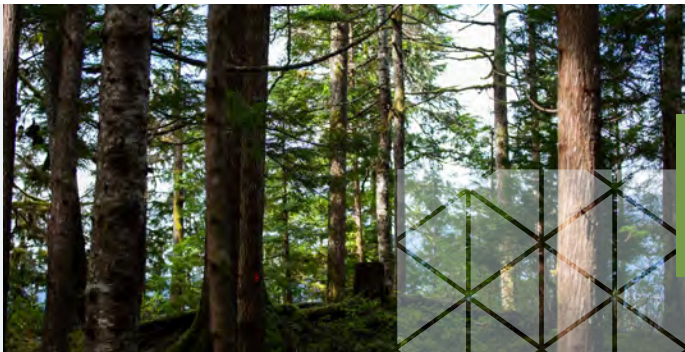
## Social

As part of our Community Investment program, we work alongside Indigenous communities to promote Indigenous values, support spiritual, social, and economic well-being and advance reconciliation and self-determination. Part of creating long-lasting and impactful partnerships includes conducting focused engagement sessions with Indigenous communities to better understand their community priorities, interests, short-term and long-term goals. The information gathered helps to inform our Indigenous Community Investment Strategy and ensure we are funding initiatives that reflect and align with community interests and values.

As part of our commitment to increase Indigenous representation in our workforce, we are implementing strategies and processes for Indigenous prescreening, recruitment, selection, and retention using the principles outlined in the Employment Equity Act (Canada). Our strategies are designed to support Indigenous candidates to work within the communities where they live and provide direct connection to their land, work and home.

Through our operational engagements, we have also heard many Indigenous leaders focus on the need for training and employment and the importance of more workforce opportunities for their community members. To meet this need, we engage specifically with Indigenous Skills and Employment Training (“ISET”) groups across our asset areas.





## Governance

Pembina’s partnerships with the Western Indigenous Pipeline Group (“WIPG”) and the Haisla Nation include meaningful governance rights for all partners.

The ISET Program is a Government of Canada function that builds on:

- > a co-developed training and employment program with Indigenous partners;
- > increased funding;
- > greater flexibility for organizations like Pembina to design programming to meet the needs of the Indigenous Peoples and their communities; and
- > a new distinctions-based strategy that recognizes, respects, and reflects Canada’s Indigenous Peoples, specifically the First Nations, Métis and Inuit, but also addresses urban/non-affiliated service delivery needs.

We dedicate resources to assist with our prescreening process which includes resume building, interview preparation, and relationship building with individual candidates seeking employment opportunities within our company. This initiative is the foundation that underpins successful identification and preparation of Indigenous candidates towards application for employment opportunities within Pembina.

Chinook Pathways is an Indigenous-led partnership between WIPG and Pembina, pursuing equity ownership in the Trans Mountain Pipeline and Expansion upon completion of construction. Chinook Pathways establishes a collaborative ownership framework for Indigenous communities in Trans Mountain. WIPG holds equal governance rights with Pembina including equal representation on the Board of Directors, Management Committee, Employment and Procurement Committee and Environmental and Reconciliation Committee. The Board of Directors and Management Committee of the Partnership consists of three members appointed by each partner, together with a non-voting chair.

Cedar LNG is an Indigenous-majority-owned partnership between the Haisla Nation and Pembina focused on the development of the Cedar LNG Project, a proposed floating liquefied natural gas (“FLNG”) facility in Kitimat, British Columbia, within the traditional territory of the Haisla Nation. The Haisla Nation owns a majority of the Project and holds shared governance rights with Pembina, including the right to appoint an equal number of the Cedar LNG Board of Directors. The Board of Directors of Cedar LNG currently consists of four members appointed by each partner.

Working together, we believe that Chinook Pathways and Cedar LNG present an exciting opportunity to redefine how Indigenous communities and industry can work together to support Economic Reconciliation.



Pembina and WIPG are truly equal partners in both our pursuit of equity ownership and in our governance model. Equal governance means that Chinook Pathways is charting new territory to advance environmental stewardship through an Indigenous lens.”

**Chief David Jimmie, Chairman of the Board and VP of Finance, WIPG**



Governance rights are incredibly important to the Haisla Nation. An equal seat at the table for Indigenous communities is one meaningful example of reconciliation and of what is possible in our shared path forward.”

**Chief Councillor Crystal Smith, Haisla Nation**

## 2022 Performance

Since the launch of our five-year strategy in 2022, we have demonstrated progress across all four directions of our Indigenous Engagement strategy.

To progress Lifecycle Alignment, we documented a new process to better integrate economic development and engagement decisions at the onset of project planning. We also created a new internal framework to support relationship building with Indigenous communities within our operations. This included determining the different components of operational engagement which encompasses community investment, emergency management participation, training for employment, information sharing with elected leaders and other members of the community, among others. To effectively conduct operational engagement, we coordinate with our operations and various other teams to ensure we maintain a consistent and organized approach to relationship building. These developments assist in the governance of building and maintaining Indigenous relationships within critical steps of our business.

To advance Economic Reconciliation, we continue to advance two meaningful and transformational partnerships with both the Haisla Nation on the proposed Cedar LNG Project and with WIPG on Chinook Pathways to pursue ownership of the Trans Mountain Pipeline. Not only do these partnerships advance Economic Reconciliation, but they are also focused on environmental stewardship and community engagement. For more information on our equity partnerships with the Haisla Nation and the WIPG, [please see the Indigenous Engagement section of our website.](#)

Additionally, our supply chain request for proposal process is being improved to include a standalone Indigenous Procurement Plan, enabling us to prioritize Indigenous inclusion and the associated weighting criteria. We are also enhancing our existing Indigenous Business registry, transforming it into a database which will help with Indigenous spend analysis across all divisions. These efforts are measured through our Indigenous engagement metrics introduced in 2021. In 2022, Pembina directed \$58.5 million, or approximately 3% of our capital and operational spend, to 93 Indigenous suppliers, down from 2021 due to decreases in our pipeline capital spend.

The advancement of our Community Development approach is a collaborative effort with our Indigenous Engagement and Community Investment teams. Working together, they ensure strategic alignment, identify potential partnerships and create long-lasting relationships within the lifecycle of our operations. [Please refer to the Community Investment section](#) of this report for additional information on our contributions and partnerships including a highlight on [Spirit North](#), an organization focusing on Indigenous youth health and well-being.

The development of the Cultural Appreciation direction of our strategy is heavily embedded and linked with our EDI strategies. These teams collaborate to ensure our people at all levels are engaged and educated about Indigenous culture. Mandatory Indigenous Awareness training was rolled out in 2022 with a remarkable 97% completion rate. This training was developed in-house through consultation with Indigenous employees and external Indigenous partners and also incorporated employee feedback before it was rolled out to all employees. To enhance engagement, a large visual component was integrated including music, photos and narration by an Indigenous employee. Refer to the Employee Well-Being and Culture section of this report for more information.

We also developed an internal resource hub where our employees can access additional materials on Indigenous awareness, including books, videos, articles and podcasts. Specific territorial Land Acknowledgements were also created for several of our operating areas including Drayton Valley, Sherwood Park, Joffre, Grande Prairie, Calgary, and Redwater, recognizing the Indigenous lands on which our employees, partners, contractors and visitors live, work and play.



### Haisla Nation

Pembina has partnered with Haisla Nation to develop the proposed Cedar LNG Project, which is expected to be the largest Indigenous majority-owned infrastructure project in Canada. On March 15, 2023, a historic milestone was achieved when the project received a positive Decision Statement from the Federal Minister of Environment and Climate Change. Elected Chief Councillor of Haisla Nation Crystal Smith stated on that historic day:

*“Today is about changing the course of history for my Nation and Indigenous Peoples everywhere. We can support Economic Reconciliation and respect our traditions, our culture and our way of life as we build a net zero economy. Pembina is our chosen partner because they recognize the strength Indigenous People bring to shaping our world based on values of sustainability and environment protection. Together we are turning the page of history towards a future where my children and their children and tomorrow’s children can reclaim their rightful place in this world.”*

See the following powerful video celebrating the historic milestone [here](#).



# Looking Forward

## 2023 and Beyond

We will continue to work collaboratively across various business functions to embed Indigenous engagement into everything we do.

In 2023, we plan to continue to progress our five-year Indigenous Engagement Strategy and Path to Reconciliation, including the following initiatives:

- Operational engagement to renew our focus on relationship-building throughout the lifecycle of our assets in communities where we operate.
- Implementation of Indigenous supply chain initiatives including multi-year capacity building partnerships with Indigenous vendors.
- Continuing to advance opportunities for Indigenous awareness and learning through the launch of the Indigenous Inclusion Network and additional training for leadership and employees. Refer to the Employee Well-Being and Culture section of this report for more information.
- Exploring opportunities to work collaboratively with our customers on engagement opportunities with Indigenous communities as future development is planned.
- Continuously improving our five-year strategy through engagement and feedback obtained from various Indigenous and Tribal communities in which we operate.



## Cedar LNG: E,S, and G Integration

### 01 — Environment

Environmental stewardship has played a governing role in decisions on Cedar LNG. Cedar LNG is committed to advancing a best-in-class LNG project that protects the environment, respects Haisla and local values, and meets the highest standards of social and environmental responsibility.

### 02 — Social

Giving back to the community is a fundamental value for Cedar LNG and we, with the Haisla Nation, are committed to building and maintaining strong relationships throughout the region. Through our Community Investment Program, we invested approximately \$234,000 through grants that are available to organizations that deliver programs and services for the benefit of the Haisla Nation, neighbouring Indigenous Nations, and local communities.

### 03 — Governance

The Cedar LNG Board includes equal representatives from Haisla Nation and Pembina. Our varied experiences and aligned values help drive a culturally sensitive approach to business development, decision making, and ultimately how Cedar LNG will successfully operate.



# Community and Stakeholder Relations



## Analyst Corner

2023 Management Information Circular (page 31)  
 2022 Annual Information Form – Community Relations (page 61)  
 Community Relations Policy  
 Website - Community Engagement



## Our Approach

Pembina’s approach to community investment is guided by tailored engagement with each community. This approach enables us to better understand what the people and communities surrounding our projects value and how we can best support them.

We conduct early, meaningful and ongoing engagement to understand community goals and social issues and then identify how partnerships and social investments – financial or otherwise – can support them.

Three key pillars guide our Community Investment Strategy, ensuring a balanced approach to decision making.

These pillars are aligned to our overall corporate strategic priorities and are integrated into all six of our material sustainability focus areas. The three pillars to our Community Investment Strategy are:

### 01 – Strong Indigenous Communities

Our goal is to work alongside Indigenous communities to promote Indigenous values, support spiritual, social and economic well-being, and advance reconciliation and self-determination.

### 02 – Safe, Inclusive, and Connected Communities

Our goal is to ensure communities are safe, inclusive places where all members have equal access to opportunities, services and spaces that foster a strong sense of belonging. Thriving local economies provide everyone with opportunities to succeed.

### 03 – A Sustainable Future

Our goal is for communities, government and industry to work together to protect the natural environment for future generations. Citizens benefit from a sustainability-driven economy that improves energy and environmental outcomes and contributes to local economic prosperity.

Through these three pillars we aspire to create resilient, thriving communities by supporting initiatives that matter to the community and connecting employees to the communities where we work and live.

We support our employees and amplify their charitable efforts through our employee giving program called PATH (“Pembina Actions That Help”), which includes volunteer opportunities and rewards programs, donation matching, and in giving campaigns that support employee-driven EDI initiatives. Giving back is a core part of our culture and we believe that supporting causes that matter to employees and communities creates positive social impact and significant value for all our stakeholders.

## 2022 Performance

In 2022, Pembina continued to strategically advance its Community Investment priorities, with a total investment of \$10.8 million, an increase of 29% compared to 2021.


The increase is largely due to our investments to support Indigenous and Tribal communities, promote safety, equity and inclusion, and encourage a sustainable energy future.

In 2022, we were proud to support 318 organizations across our operating areas. Our contributions and partnership with the following organizations are examples of how we engage:

<p><b>Spirit North</b> (Strong Indigenous Communities)</p>	<p>Spirit North uses a play-based approach to sport and development creating programs that are designed to increase physical, mental, and emotional well-being of Indigenous youth while incorporating the traditions and values of each individual community.</p> <p>Pembina's three-year contribution has enabled Spirit North to reach more than 1,200 students across our operations by assisting communities in building sports clubs, trail development, coaching certification, equipment ownership, and mentorship. This partnership supports our commitment to Indigenous communities and fosters community-owned and led programming while focusing on providing sport as a fundamental element of health and well-being.</p>	<p></p> <p>With Pembina's support, Spirit North has been able to reach and partner with more Indigenous communities to provide land-based sport and play programs than ever before," says Beckie Scott, Spirit North's Founder and CEO. "We feel so fortunate to have Pembina on our team, knowing they share our vision of a happier, healthier future for Indigenous children youth.</p>
<p><b>Skills Canada Alberta</b> (Safe, Inclusive and Connected Communities)</p>	<p>Skills Canada Alberta is a leader in the development of innovative and hands-on learning experiences for youth helping thousands of students to explore career paths in the trade and technology sectors.</p> <p>Pembina's contribution supports Try-A-Trade Take-Out kits for students to test-drive a trade and learn about trades careers at the Girls Exploring Trades and Technology ("GETT") conference. Our contributions support a pipeline of future talent and demonstrates our commitment to safe, inclusive and connected communities.</p>	<p></p> <p>Pembina is a leading partner that allows us to extend our reach to young people in rural and Indigenous communities throughout Alberta," says Chris Browton, Executive Director of Skills Canada. "By supporting hands-on learning opportunities that inspire, develop and elevate students, Pembina is contributing to a talented and engaged future workforce in Alberta's trade and technology industries.</p>
<p><b>Watershed Planning and Advisory Councils</b> (A Sustainable Future)</p>	<p>Pembina's contributions to the Athabasca Watershed Council and the North Saskatchewan Watershed Alliance ("NSWA") enable watershed reporting, watershed management planning and aquatic and shoreline monitoring and support our commitment to contributing to a sustainable future. These organizations bring together stakeholders and Indigenous partners to educate and facilitate informed decision-making and development of innovative solutions to watershed challenges.</p>	<p></p> <p>With the generous support of Pembina...we are now able to advance and elevate our involvement with lake communities and their associated stewardship groups" says Kelsie Norton, Watershed Planning Coordinator with NSWA. "Lake health is foundational for a sustainable economy, whilst supporting a resilient watershed. With this funding we are able to look at available communications and address communication gaps, provide lake monitoring support, and advance collaboration opportunities. Ultimately, we look forward to bringing these vibrant lake communities together to learn about the importance of natural shorelines, biodiversity and showcasing how living softly on the land can provide numerous benefits to humans and wildlife - now and in the future.</p>

In 2022, we celebrated an increase in overall employee PATH participation. Pembina employees worked along-side with our community partners volunteering a total of 3,522 hours throughout 2022, an increase of 43% compared to 2021, reflecting our employees' pride in giving back to communities where they live and work.

In partnership with employee Inclusion Networks, we also provided meaningful employee engagement and donation matching opportunities, including Black History Month, International Women's Day, Pride, National Day of Truth and Reconciliation Day, and Movember. For every dollar directly invested by Pembina in 2022, employees and other organizational stakeholders<sup>20</sup> contributed an additional \$0.39 for a total of \$3 million through the Community Investment program, demonstrating a strong alignment of employee and corporate values.

  
**\$3.4 Million**  
 raised  
 through our 2022  
 United Way Campaign

  
**3,522**  
 volunteering hours  
 an increase of 43% from 2021



### United Way Presidents Award

Recently, we were honoured to receive the United Way Presidents Award in recognition of our longstanding commitment to mobilizing our employees and other organizational stakeholders<sup>20</sup> for lasting social change. Our 2022 United Way Campaign, modeled on the Monopoly game but centered on the causes we were supporting and our business operations, raised \$3.4 million through the efforts of employees, contractors, vendors, our Board of Directors and retirees. This continues a 30-year tradition of giving at Pembina which has raised approximately \$30 million for Calgary and surrounding communities. United Way programs closely align with our commitment to Safe, Inclusive and Connected Communities and Strong Indigenous Communities and help us advance a net positive community benefit in the areas where we live and work.

## Looking Forward 2023 and Beyond

Pembina will continue to build partnerships with organizations that support our three Community Investment program pillars. We are particularly focused on growing opportunities under the Sustainable Future pillar to help sustain the natural environment for future generations. Specifically, we are excited to activate our Sustainable Future focused partnership with Leftovers Foundation whose mission is to reduce food waste and prevent GHG emissions caused when food is left to spoil. In late 2022, we committed \$300,000 over three years to their organization and the Rescue Food programs in Calgary, Edmonton and Red Deer and look forward to seeing the impact of our investment has on reducing food waste and emissions.

From an employee perspective, we remain focused on providing PATH opportunities for our employees to get involved and give back to the causes that mean the most to them. We believe that providing volunteer and giving opportunities creates space for engagement and helps create positive social impact by connecting employees to the communities where they work and live. So far in 2023, we have supported giving and volunteer opportunities including Black History Month, International Women's Day, and Earth Day. We also look forward to supporting our newly formed Inclusion Networks, such as Pride Pembina (LGBTQ2S+) and the to be launched Indigenous Inclusion Network, in donating and volunteer efforts.

<sup>20</sup> In this context, 'other organizational stakeholders' includes retirees, Board members, suppliers, and other individuals that support Pembina's community engagement efforts.

# Data Tables

## & Appendices



### ESG Performance Tables <sup>1</sup>

#### Governance

<b>Total Economic Value Generated and Distributed <sup>2</sup></b>	Units	<b>2022</b>	2021	2020
Direct Economic Value Generated <sup>3, 4</sup>	\$ millions	<b>4,247</b>	3,938	3,444
Direct Economic Value Distributed <sup>3, 5</sup>				
Operating and General & Administrative Expenses <sup>3, 6</sup>	\$ millions	<b>671</b>	502	470
Employee Wages and Benefits <sup>7</sup>	\$ millions	<b>479</b>	440	370
Total Tax Paid <sup>3, 8</sup>	\$ millions	<b>406</b>	435	370
Payments to Providers of Capital <sup>3, 9</sup>	\$ millions	<b>2,427</b>	1,944	1,925
Community Investments <sup>10, 11</sup>	\$ millions	<b>7</b>	6	6
<b>Income Taxes Paid</b>				
Canadian Income Taxes Paid	\$ millions	<b>330</b>	321	295
U.S. Income Taxes Paid <sup>12</sup>	\$ millions	<b>4</b>	34	0
<b>Public Policy</b>				
Political Contributions <sup>13</sup>	\$ millions	<b>0.005</b>	0.005	N/C

- 1 Use of N/C in these tables signifies that the content is a new metric for Pembina and historical values have not been calculated or reported.
- 2 This economic section accounts for all Pembina entities excluding equity accounted investees. "Equity accounted investees" means Pembina's working interest in PGI, Alliance Pipeline, Aux Sable, Ruby Pipeline, CKPC, Veresen Midstream, Grand Valley I Limited Partnership, Fort Corp and Cedar LNG.
- 3 The terms are non-GAAP financial measures as they are financial measures that are not specified, defined or determined in accordance with GAAP. Please refer to the "Non- GAAP and Other Financial Measures" section on page 78-79 of this document for additional information regarding these non-GAAP measures. This report also refers to certain other terms commonly used to satisfy sustainability reporting requirements. These terms are not necessarily used by Pembina in the management of business.
- 4 Direct Economic Value Generated represents net revenue. Together with Direct Economic Value Distributed, these metrics indicate the value created for stakeholders. Values have increased since 2021 primarily due to higher market prices and tolls, and higher volumes on certain pipeline systems. These increases were partially offset by revenue from the field-based gas processing assets contributed to PGI and now reflected in share of profit from equity accounted investees.
- 5 Direct Economic Value Distributed on an accruals basis includes operating and general and administrative costs, employee wages and benefits, payments to providers of capital, total tax paid and community investments. Together with Direct Economic Value Generated, these metrics indicate the value created for stakeholders. Historical 2020 and 2021 values were amended to correct the interest included. Values have increased since 2021 due to the overall growth of the company.
- 6 Operating and General & Administrative Expenses includes operating expenses plus general and administrative expenses less personnel expenses, property taxes, and community investments. This metric is included within Direct Economic Value Distributed. Values have increased since 2021 primarily due to higher power costs due to higher pool prices, and higher integrity costs and consulting fees. These increased costs are partially offset by lower operating expenses associated with the field-based gas processing assets contributed in the PGI Transaction.
- 7 Employee Wages and Benefits includes salaries and wages, share based compensation, short-term incentive plans, pension plans and other employee benefits. This metric is included within Direct Economic Value Distributed.
- 8 Total Tax Paid includes current income taxes and property taxes. This metric is included within Direct Economic Value Distributed.
- 9 Payments to Providers of Capital includes dividends paid, interest paid and repurchase of common share costs. This metric is included within Direct Economic Value Distributed. The increase in 2022 compared to 2021 is due to the repurchase of common shares and higher dividend payments.
- 10 Community Investments include direct cash investments in the reporting period to support initiatives within the communities where we work. This metric is included within Direct Economic Value Distributed.
- 11 In addition to the exclusions in footnote 2, Community Investment also excludes investments made in relation to ACG and Chinook Pathways.
- 12 Current U.S. income taxes paid. Values have decreased from 2021 due to the settlement of audit appeals in 2021 and lower monthly instalments in 2022.
- 13 This figure covers both our Canadian and U.S. assets as well as Pembina subsidiaries and Pembina-operated joint ventures.

## Energy Transition & Climate

Climate Change Management <sup>1, 2, 3</sup>	Units	2022	2021	2020
Total Scope 1 GHG Emissions <sup>4, 5, 6, 7</sup>	Tonnes of carbon dioxide equivalent	<b>2,834,288</b>	2,603,091	2,538,744
Methane (CH <sub>4</sub> ) <sup>8</sup>	Tonnes of carbon dioxide equivalent	<b>159,779</b>	118,482	131,325
Methane GHG Emissions as % Scope 1 GHG	Percentage	<b>6</b>	7	N/C
Scope 1 GHG Covered Under Emissions-Limiting Regulation <sup>9</sup>	Percentage	<b>82</b>	81	83
Total Scope 2 GHG Emissions <sup>10, 11, 12</sup>	Tonnes of carbon dioxide equivalent	<b>1,305,415</b>	1,528,015	1,538,006
Scope 1 & 2 GHG Emissions Intensity <sup>13, 14, 15</sup>	Tonnes of carbon dioxide equivalent per barrel of oil equivalent	<b>0.00379</b>	0.00385	0.00389
Scope 3 GHG Emissions <sup>16, *</sup>				
Fuel and Energy Related Activities <sup>17</sup>	Tonnes of carbon dioxide equivalent	<b>291,341</b>	241,847	N/C
Waste Generated in Operations <sup>18</sup>	Tonnes of carbon dioxide equivalent	<b>50,362</b>	740	N/C
Business Travel <sup>19</sup>	Tonnes of carbon dioxide equivalent	<b>460</b>	179	135
Employee Commuting <sup>20</sup>	Tonnes of carbon dioxide equivalent	<b>9,642</b>	2,975	N/C
Upstream Leased Assets <sup>21</sup>	Tonnes of carbon dioxide equivalent	<b>3,471</b>	2,963	N/C
Investments <sup>22</sup>	Tonnes of carbon dioxide equivalent	<b>1,378,189</b>	984,068	N/C
Energy Use				
Total Electricity Consumption <sup>23</sup>	Gigawatt hours	<b>2,704</b>	2,418	2,309
Air Quality <sup>24</sup>				
NO <sub>x</sub> Emissions <sup>25</sup>	tonnes	<b>4,785</b>	3,189	3,232
SO <sub>x</sub> Emissions <sup>25</sup>	tonnes	<b>2,909</b>	2,389	1,725
Volatile Organic Compounds (VOCs) <sup>26</sup>	tonnes	<b>4,570</b>	5,267	6,218
Particulate Matter (PM10) <sup>27</sup>	tonnes	<b>323</b>	268	N/C

\*In 2022 we have revised our methodology. Historical data for 2020 and 2021 has not been restated.

- 1 Pembina has selected the Operational Control approach to define our organizational boundaries for GHG reporting and includes all material sources and sinks associated with facilities and operations (both corporate and pipeline) that are in direct operational control by Pembina and Pembina subsidiaries.
- 2 Values reported represent gross emissions emitted to the atmosphere before accounting for offsets, credits or other similar mechanisms that have reduced or compensated for emissions. For increased transparency, GHG emissions reported include those considered below reporting thresholds under regulatory reporting regimes.
- 3 Our base year recalculation policy is to recalculate base year emissions for any significant structural changes resulting from major acquisitions, divestments and mergers and meet our significance threshold of  $\pm 15\%$  of Base Year Scope 1+2 emissions. In 2022, Pembina and KKR closed a transaction to create Pembina Gas Infrastructure, adding more than 15% to Base Year Scope 1+2 emissions. As a result, values reported for Total Scope 1 GHG Emissions, Total Scope 2 GHG Emissions and Scope 1 & 2 GHG Emissions Intensity have been updated in 2020 and 2021. Due to data availability, all other metrics in 2020 and 2021 have not been adjusted for the PGI Transaction. Further 2019 GHG re-baseline assurance was performed along with select metrics as part of the 2022 GHG assurance process.
- 4 Scope 1 emission sources in the reported data include emissions from stationary combustion equipment, fugitive emission leaks, as well as flaring, incineration, venting and mobile equipment operated by Pembina. Immaterial sources of emissions such as physical and chemical processing emissions, construction activities and non-routine events such as emissions from spills are excluded from reported emissions.
- 5 Scope 1 emissions are calculated using operational activity data (e.g., fuel consumption data from meters, measured survey data and engineered estimates) multiplied by an operationally derived or the applicable regulated default emission factor. Energy consumption used to quantify the scope 1 emission includes all types of fuels consumed by Pembina operations, including natural gas, diesel, gasoline, propane and jet fuel. Fuel consumption is based on a combination of invoiced amounts provided by third party suppliers, meter readings and system generated reports.
- 6 Pembina participates in the following applicable regulated emissions reporting programs: Environment and Climate Change Canada Greenhouse Gas Emissions Reporting Program, British Columbia Greenhouse Gas Industrial Reporting and Control Act, Alberta Specified Gas Reporting Regulations, Alberta Technology, Innovation and Emission Reduction Regulations, Saskatchewan Management and Reduction of Greenhouse Gases Regulations and Standards, Ontario Greenhouse Gas Emissions Reporting (O Reg. 390/18) and the US Environmental Protection Agency 40 CFR Part 98 Reporting Regulations.
- 7 The increase in scope 1 GHG emissions in 2022 compared to 2021 is primarily due to an increase in fuel usage for stationary combustion.
- 8 To align our reported metrics with our priority reporting frameworks, we have chosen to report methane emissions in metric tonnes of carbon dioxide equivalent. This number has increased due to the assets acquired as part of the PGI Transaction.
- 9 Such as a carbon tax or emission trade system (e.g., Alberta Technology, Innovation and Emission Reduction regulations effective 2020).
- 10 Our scope 2 methodology was updated to use a jurisdictional consumption-based emission factor rather than a generation-based emission factor to account for annually updated electric power, supply and disposition for unallocated energy mix and SF6 emissions. Because these factors from the National Inventory Report (NIR) and the U.S. Environmental Protection Agency's Emissions & Generation Resource Integrated Database (eGRID) also include line losses and metering differences, the emissions from these losses are no longer captured in scope 3 to avoid double-counting.
- 11 Scope 2 emissions are indirect emissions from purchased and imported electricity and heat consumption. Scope 2 emissions are calculated using location-based emission factors from the most recent Environment and Climate Change Canada's National Inventory Report (NIR) for Canadian facilities, U.S. Environmental Protection Agency's Emissions & Generation Resource Integrated Database (eGRID) for US facilities, and Alberta Environment and Parks Technology, Innovation and Emission Reduction (TIER) benchmark emission intensity factor for imported heat medium. Initial preparation has begun to transition to a market-based methodology in the future. Currently, Redwater is the only facility that has a market-based approach. Due to the lack of data availability for contractual energy purchases to calculate facility-specific emission factors for all operations, market-based emissions are considered equal to location-based emissions.
- 12 The decrease in scope 2 GHG emissions in 2022 compared to 2021 is due to the decrease in the AB grid GHG intensity.
- 13 Reported emission intensity values for 2019, 2020 and 2021 have been revised from prior reporting to reflect a methodological change to scope 2 calculation and the assets and associated emissions acquired as part of the PGI Transaction.
- 14 Scope 1 & 2 GHG intensity has decreased 1.6% year over year with a cumulative reduction of 1.2% against the 2019 adjusted baseline. Since 2019 we have grown our business, bringing on additional processing facilities and pipeline volumes, while remaining committed to reducing our emissions.
- 15 Vancouver Wharves is a unique asset within Pembina's portfolio. We are evaluating how best to incorporate such assets into our emissions intensity reporting. For this year, we've taken a conservative approach whereby we include emissions generated at Vancouver Wharves but exclude throughput from the GHG emissions intensity calculations.
- 16 The calculation of scope 3 emissions relies on best available data and is determined using various assumptions and estimated calculations. In 2022, we further refined our methodology to enhance the accuracy of reported metrics while we continue to evaluate additional scope 3 GHG categories for future years.
- 17 Scope 3 emissions are estimated using the volume of fuel consumed and purchased and location-specific upstream emission factors.
- 18 Estimated scope 3 emissions currently includes the emissions from the transportation and processing of waste generated.
- 19 Pembina tracks business travel (transportation of employees for business-related activities in vehicles not owned or operated by Pembina). Scope 3 emissions were estimated based on supplier data, which was estimated to cover approximately 60% of Pembina's business travel.
- 20 In 2022, there was a methodology update to improve our estimates and account for GHG and transportation data from municipalities, which are used to calculate the employee commuting emissions. Field employee commuting emissions are also included as part of this calculation.
- 21 Emissions in this category are limited during this reporting year to those associated with our corporate headquarters in Calgary. The other field offices are considered under operational control and are included as part of scope 1 and 2 emissions.
- 22 Values reported reflect Pembina's 50% equity interest in both Alliance Pipeline Limited Partnership and Alliance Pipeline L.P. as well as 60% interest in PGI, and only includes joint venture assets not operated by Pembina.
- 23 Total Electricity Consumption includes invoiced amounts from providers. This includes floating as well as UFE (Unaccounted for Energy) and Line losses where indicated and invoiced. Assets acquired as part of the PGI Transaction are included in the calculation for 2022 only due to data availability.
- 24 Air quality emissions data are calculated based on the regulatory requirements where we operate and includes emissions at or above regulatory reporting thresholds. This methodology can lead to year-over-year variations as some facilities oscillate between falling above or below the reporting threshold.
- 25 For 2022, the increase of NO<sub>x</sub> and SO<sub>x</sub> emissions is primarily due to the assets acquired as part of the PGI Transaction.
- 26 For 2022, the increase from assets acquired as part of the PGI Transaction is offset by the decrease in flaring emissions in Palermo Plant.
- 27 For 2022, the increase in PM10 emissions is primarily due to the assets acquired as part of the PGI Transaction.



## Employee Well-Being & Culture

Total Employees (US & Canada) <sup>1</sup>	Units	2022	2021	2020
Full-Time Employees <sup>2</sup>	Number	2,602	2,298	2,415
Part-Time Employees <sup>3</sup>	Number	67	51	48
Total Employees <sup>4</sup>	Number	2,669	2,349	2,463
New Hires <sup>5</sup>	Number	630	234	166
Contractors <sup>6,*</sup>	Number	1,371	961	885
<b>Gender Inclusion (Canada) <sup>7</sup></b>				
Women in the Workforce	Number	628	558	597
Women in the Workforce <sup>8</sup>	Percentage	26	27	27
Women in Managerial Positions <sup>9</sup>	Percentage	28	24	N/C
Women in Executive Leadership <sup>10</sup>	Percentage	35	26	N/C
Women on the Board <sup>11</sup>	Percentage	45	40	40
<b>Racial and Ethnic Inclusion (Canada) <sup>12</sup></b>				
Indigenous Employees <sup>13</sup>	Number	115	98	87
Employees that Identify as Racialized <sup>14</sup>	Number	339	293	257
<b>Disability Inclusion (Canada) <sup>15</sup></b>				
Employees with Disabilities <sup>9, 16</sup>	Number	20	15	15
<b>Employee Retention (US &amp; CAN) <sup>17</sup></b>				
Turnover Rate, Total <sup>18</sup>	Percentage	9.0	11.3	10.9
Turnover Rate, Voluntary <sup>19</sup>	Percentage	6.0	4.7	3.1
<b>Age Demographics (US &amp; CAN) <sup>20</sup></b>				
Employees Aged 50+	Percentage	27	26	25
Employees Aged Between 30 and 49	Percentage	63	64	64
Employees Aged Under 30	Percentage	10	10	11

\*In 2022 we have revised our methodology. Historical data for 2020 and 2021 has not been restated.

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| <p>1 Total Employees includes personnel in all locations in Canada and the U.S.</p> <p>2 Includes all full time, permanent employees as of December 31, 2022. Directors are exempt.</p> <p>3 All fixed term and part-time permanent employees as of December 31, 2022.</p> <p>4 All fixed term and permanent employees as of December 31, 2022.</p> <p>5 Includes all fixed term (temporary) and permanent new hire employees in the reporting year. The number of new hires includes the employees that joined Pembina as part of the PGI Transaction.</p> <p>6 There has been a change in methodology year over year. As of December 31, 2022, field services contractors and invoicing contractors have been included in this number. Prior year data excludes field services contractors as they are not included in the organizational chart. Contract workforce increased as the COVID-19 restrictions were lifted and more projects were started or re-started. Value differs from contractors referenced in the 2022 AIF for the applicable year due to expanded definition. This number fluctuates throughout the year based on business requirements.</p> <p>7 Our Gender Inclusion metrics pertain to permanent employees in Canada unless otherwise stated.</p> | <p>8 The increase of women in our workforce was less than the increase of our overall workforce due to the high percentage of field operations roles.</p> <p>9 Restated values for FY21 due to data mapping change.</p> <p>10 Our Executive team includes our officer team as well as vice presidents in Canada and the U.S.</p> <p>11 This data includes board members who are women, represented as a percentage of total independent directors.</p> <p>12 Our Diversity and Inclusion metrics are self-disclosed and pertain to permanent employees in Canada excluding former employees of ETC brought on as part of the PGI Transaction. We are in the process of collecting data to allow us to capture former ETC employees for 2023.</p> <p>13 Number of Indigenous Peoples has increased in 2022. The progression of our EDI strategy in 2022 may have increased the number of Indigenous Peoples hired and/or increased employee self-disclosure.</p> <p>14 Number of Racialized Persons has increased in 2022. The progression of our EDI strategy in 2022 may have increased the number of racialized persons hired and/or increased employee self-disclosure.</p> <p>15 Our Disability Inclusion metrics are self-disclosed and represent permanent employees in Canada excluding former employees of ETC brought on as part of the PGI Transaction. We are in the process of collecting data to allow us to capture former ETC employees for 2023.</p> | <p>16 Number of Persons with Disabilities has increased in 2022. The progression of our EDI strategy in 2022 may have increased the number of persons with disabilities hired and/or increased employee self-disclosure.</p> <p>17 This data represents all permanent employees in Canada and the U.S. excluding former employees of ETC brought on as part of the PGI Transaction. We are in the process of collecting data to allow us to capture former ETC employees for 2023.</p> <p>18 Total turnover decreased due to a stronger post-COVID economy and increased activity. Excludes former employees of ETC brought on as part of the PGI Transaction. We are in the process of collecting data to allow us to capture former ETC employees for 2023.</p> <p>19 Voluntary turnover increased due to stronger post-COVID economy and increased activity. Excludes former employees of ETC brought on as part of the PGI Transaction. We are in the process of collecting data to allow us to capture former ETC employees for 2023.</p> <p>20 This data represents all permanent and fixed term employees in Canada and the U.S.</p> |
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## Health & Safety <sup>1</sup>

Fatalities <sup>2</sup>	Units	2022	2021	2020
Employees (Fatalities)	Number	0	0	0
Contractors (Fatalities) <sup>3</sup>	Number	1	1	0
Total Recordable Injury Frequency (TRIF) <sup>4</sup>				
Employees (TRIF)	Rate	0.334	0.494	0.198
Contractors (TRIF) <sup>5</sup>	Rate	1.285	1.122	0.908
Near Miss Frequency Rate (NMFR) <sup>6</sup>				
Employees Rate (NMFR)	Rate	2.672	3.418	N/C
Contractors Rate (NMFR)	Rate	2.570	2.539	N/C
Preventable Motor Vehicle Incident Frequency (MVI) <sup>7</sup>				
Employees Rate (MVI) <sup>8</sup>	Rate	0.733	0.645	0.211
Contractors Rate (MVI) <sup>9</sup>	Rate	0.735	0.564	0.952

1 Our Safety metrics include our Canadian and U.S. workforce. Data from the assets acquired as part of the PGI Transaction included as of September 1.

2 A Fatality is a death resulting from a work-related injury/illness.

3 For 2022, we are profoundly saddened to report a fatality of a contractor, which occurred at one of our pump stations at Algar. We are undertaking significant efforts to learn from this event and improve the safety of our contractors.

4 TRIF is the number of recordable injuries per 200,000 hours of work.

5 Our contractor TRIF values have increased since 2020, which is a trend Pembina is working to improve.

6 A Near Miss is an incident where no loss was sustained, but given a slight shift in position or time, damage, injury, or other loss could have occurred. Near Miss Frequency Rate (NMFR) is the number of near miss incidents per 200,000 hours of work, tracked as part of our Safety Program. It is an important leading indicator to manage safety incidents.

7 The number of preventable incidents per 1,000,000 kms driven.

8 Our employee MVI values increased compared to 2020 and 2021, which is a trend Pembina is working to improve. Our employee MVI values were lower in 2020 due to decreased employee activity resulting from the COVID-19 pandemic.

9 Our contractor MVI values have fallen compared to 2020 due to improved contractor performance. 58% of contractor preventable vehicle incidents were the result of forward or reverse motion at low speed and not using a spotter.

## Responsible Asset Management <sup>1</sup>

Integrity Management	Units	2022	2021	2020
<b>Pipeline Repairs and In-Line Inspections (ILIs) <sup>2</sup></b>				
Natural Gas Pipelines Inspected <sup>3</sup>	Percentage	6	23	N/C
Hazardous Liquid Pipelines Inspected	Percentage	34	29	N/C
<b>Spill Prevention &amp; Mitigation</b>				
<b>Incidents (Spills, Releases and Significant Failures)</b>				
Reportable Pipeline Incidents <sup>4</sup>	Number	5	9	10
Significant Reportable Pipeline Incidents <sup>5</sup>	Percentage	40	11	N/C
Accident Releases from Rail Transportation <sup>6</sup>	Number	0	0	N/C
Non-Accident Releases (NARs) from Rail Transportation <sup>7</sup>	Number	1	1	N/C
<b>Hydrocarbon Spills</b>				
Hydrocarbon Spills <sup>8</sup>	Number	4	4	N/C
Aggregate Volume of Hydrocarbon Spills <sup>9</sup>	Barrels	933	79	N/C
Volume of Hydrocarbon Spills in Arctic <sup>10</sup>	Barrels	0	0	N/C
Volume of Hydrocarbon Spills in Unusually Sensitive Areas <sup>11</sup>	Barrels	0	0	N/C
Volume of Hydrocarbon Spills Recovered <sup>12</sup>	Barrels	925	79	N/C
<b>Waste Management <sup>13</sup></b>				
<b>Total Waste (Non-Hazardous + Hazardous)</b>				
Total Non-Hazardous Waste <sup>14</sup>	Metric tonnes	40,874	29,809	45,594
Total Hazardous Waste <sup>15</sup>	Metric tonnes	38,457	22,400	39,552
Total Waste Generated <sup>16</sup>	Metric tonnes	79,331	52,209	85,146

Waste Management	Units	2022	2021	2020
<b>Waste to Disposal (e.g., Landfill, Incineration)</b>				
Non-Hazardous Waste (Excluding Produced and Process Water) <sup>14</sup>	Metric tonnes	38,305	27,181	41,981
Non-Hazardous Produced and Process Water Waste <sup>17</sup>	Metric tonnes	0	0	0
Hazardous Waste (Waste Disposal) <sup>18</sup>	Metric tonnes	37,882	22,271	18,142
Total Waste to Disposal <sup>16</sup>	Metric tonnes	76,186	49,452	60,123
<b>Waste Diversion (e.g., Recycled, Treatment)</b>				
Non-Hazardous Waste <sup>19</sup>	Metric tonnes	2,569	2,628	3,613
Hazardous Waste (Waste Diversion) <sup>20</sup>	Metric tonnes	576	129	21,410
Total Waste Diversion <sup>21</sup>	Metric tonnes	3,145	2,757	25,023
<b>Water Management</b>				
Total Water Withdrawal <sup>22</sup>	million m <sup>3</sup>	2,660	1,631	1,883
Total Water Disposed (i.e., Regulated Disposal Facility or Deep Injection Well) <sup>23</sup>	million m <sup>3</sup>	4,381	1,798	1,432
Total Water Returned to the Environment <sup>24</sup>	million m <sup>3</sup>	0,945	1,095	1,168
Total Fresh Water Consumed <sup>25</sup>	million m <sup>3</sup>	2,044	1,096	N/C
<b>Land Use &amp; Restoration <sup>26</sup></b>				
Terrestrial Acreage Disturbed <sup>27</sup>	Acres	73,058	66,966	N/C
Impacted Area Restored <sup>28</sup>	Percentage	6	1	N/C
<b>Biodiversity</b>				
Land Owned, Leased and/or Operated within Areas of Protected Conservation Status or Endangered Species Habitat <sup>29</sup>	Percentage by acreage	0.6	0.9	N/C

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| <p>1 The Operational Control boundary has been selected for reporting of Pembina and Pembina subsidiaries.</p> <p>2 Pipeline inspections follow an annual inspection plan that is designed to satisfy a range of criteria including regulatory requirements, operating history, maintenance schedules, resource availability and overall risk assessments. As a result, the percentage of pipelines inspected can vary year to year.</p> <p>3 Assets acquired as part of the PGI Transaction were mostly gas assets, increasing the number of natural gas pipelines included in our inventory for inspection. As a result, the overall percentage of pipelines inspected decreased. We will focus on the integration of our assets that were acquired as part of the PGI Transaction into our various integrity management programs.</p> <p>4 This includes reportable spills and releases of any substance and significant failures from a pipeline. In 2022 we had five reportable spills two of which were considered significant. Refer to footnote 5 for details on the significant pipeline incidents. The remaining three reportable pipeline incidents include a release of 0.3 bbl of synthetic crude oil, which was fully recovered, and two other incidents involving freshwater pipelines where partial recovery was achieved, and no significant environmental impacts occurred.</p> <p>5 A Significant Incident is defined as a release of a commodity product from a pipeline that must be reported to an external agency or authority, such as a federal, provincial, or state regulator and that includes one or more of the following: a serious injury or fatality; an unintentional ignition or fire; a liquid release of greater than 8m<sup>3</sup> (50 barrels); or a rupture or breach of a pipe, tank or containment. Analyzing the percent significant helps focus our efforts on managing and preventing these incidents. In 2022 we had two significant spills: a 75 bbl release of sweet crude oil in the Drayton Valley area in January 2022 and a 597 bbl release of synthetic crude oil in the Edmonton area in May 2022. Both spills were fully recovered, and the sites have been remediated in accordance with regulatory requirements. Ongoing monitoring is occurring to ensure the long-term recovery of the sites.</p> <p>6 Includes all releases of hazardous material from a derailment, collision or other rail-related accident that is required to be reported to regulatory or governmental agencies. Separating incidents from pipeline and rail operations as well as accident and non-accident releases helps identify the location of our liabilities and focus our mitigation measures.</p> <p>7 Non-Accident Releases (NARs) from Rail Transportation include all unintentional releases of a hazardous material while in transportation, including loading and unloading while in railroad possession that is not caused by a derailment, collision or other rail-related accident. Separating incidents from pipeline and rail operations as well as accident and non-accident releases helps identify the location of our risks and focus our mitigation measures.</p> <p>8 Number of Hydrocarbon Spills provides focus on hydrocarbons versus spills of other materials. A spill is defined as reportable, greater than one barrel in volume, and includes those that reach the environment (soil or water), and excludes those that were contained within impermeable secondary containment.</p> | <p>9 Aggregate Volume of Hydrocarbon Spills provides focus on hydrocarbons versus spills of other materials. A spill is defined as reportable, greater than one barrel in volume, includes those that reach the environment (soil or water) and excludes those that were contained within impermeable secondary containment. 2022 total spill volumes were significantly higher than 2021 due to two significant pipeline releases, as well as a rail car loading incident at Redwater. These spills were remediated in 2022 and 99% of the total volume was recovered, see footnote 12 for further details.</p> <p>10 Volume of Hydrocarbon Spills in Arctic is not applicable to Pembina's operations but is an important metric for industry to determine the impacts on a sensitive ecosystem.</p> <p>11 Volumes of Hydrocarbon Spills in Unusually Sensitive Areas determines if any hydrocarbon spills occurred in a drinking water or ecological resource area or specific species habitat. A spill is defined as reportable, greater than one barrel in volume, includes those that reach the environment (soil or water), and excludes those that were contained within impermeable secondary containment. Unusually Sensitive Areas is a SASB definition that is currently applicable to U.S. assets and operations only.</p> <p>12 Volume of Hydrocarbon Spills Recovered determines the volume of a hydrocarbon spill that was removed from the environment. An 8 barrel natural gas liquids release to soil and air was not recovered, as it ignited upon release from a flare stack. Released hydrocarbon liquids reported were 100% recovered.</p> <p>13 Waste data are collected for both solid and liquid sources. Liquid waste is converted from m<sup>3</sup> to metric tonnes at a 1:1 conversion for disposal volumes with unknown densities. The Redwater Complex on-site injection well composition is known and was used to estimate an average conversion factor of 1.22 metric tonnes per m<sup>3</sup> which represents 40% of the waste generated in 2022.</p> <p>14 In 2022 there was a change in methodology to consolidate wastewater disposal data within the company's water data rather than waste metrics. 2020 and 2021 data has been restated to reflect this methodology change. In 2022, Non-Hazardous Waste (Excluding Produced and Process Water) increased primarily due to drilling waste from a large pipeline crossing project.</p> <p>15 Increase in Total Hazardous Waste in 2022 compared to 2021 is due to resumed maintenance activity at Vancouver Wharves, consistent with 2020 activity levels. In 2021 Total Hazardous Waste decreased due to a reduction of maintenance activities and construction at Vancouver Wharves. 2020 and 2021 data has been restated to reflect identified data exceptions.</p> <p>16 2020 and 2021 data has been restated to reflect methodology changes and identified data exceptions.</p> <p>17 In 2022 there was a change in methodology to consolidate water data to include produced water volumes rather than within the waste metrics. As a result of this change, Non-Hazardous Produced and Process Water Waste has been incorporated into our Total Water Disposed metric. 2020 and 2021 data has been restated to reflect this methodology change.</p> <p>18 Increase in Hazardous Waste (Waste Disposal) in 2022 compared to 2021 is due to resumed maintenance activity at Vancouver Wharves. In 2021 Total Hazardous Waste decreased due to a reduction of maintenance activities and construction at Vancouver Wharves. Refer</p> | <p>to footnotes 15 and 20. 2020 and 2021 data has been restated to reflect identified data exceptions.</p> <p>19 2021 data has been restated to reflect identified data exceptions.</p> <p>20 The increase in Hazardous Waste (Waste Diversion) from 2021 to 2022 was the result of 460 metric tonnes of material generated from maintenance at the Vancouver Wharves water treatment system. The waste was diverted to a biodegradation facility. Total Hazardous Waste volumes at Vancouver Wharves in 2022 were comparable with 2020, however the allocation between Hazardous Waste (Waste Diversion) versus Hazardous Waste (Waste Disposed) differed. In 2020 more hazardous waste was diverted compared to 2022 where more hazardous waste was sent to disposal. Refer to footnotes 15 and 18. 2020 data has been restated to reflect identified data exceptions.</p> <p>21 2020 and 2021 data has been restated to reflect identified data exceptions.</p> <p>22 The increase in Total Water Withdrawal relates to the addition of gas processing facilities as part of the PGI Transaction. Two of these facilities rely on steam systems for heat transfer and powering equipment. Without these additional gas processing facilities this becomes a 4% decrease in water withdrawal. Third-party water volumes are excluded with the exception of Vancouver Wharves due to measurement constraints.</p> <p>23 In 2022 there was a change in methodology to consolidate water data to include produced water volumes here rather than within the waste metrics. 2020 and 2021 data has been restated to reflect this methodology change. The increase in Total Water Disposed in 2022 is primarily due to the addition of gas processing facilities as part of the PGI Transaction where produced water volumes are sent for underground disposal.</p> <p>24 Year over year variance in water returns are impacted by cooling requirements at our Channahon Facility as well as changes in annual precipitation at Vancouver Wharves where rainwater is treated as part of our water treatment system. 2020 and 2021 data has been restated to reflect identified data exceptions.</p> <p>25 In 2022, we revised our methodology to remove treated rainwater from our return volumes since these volumes are not consumed or used within our processes. 2021 data has been restated to reflect this methodology change. The increase in Total Fresh Water Consumed in 2022 is due to the addition of gas processing facilities as part of the PGI Transaction.</p> <p>26 The land base for Pembina operated assets between 2021 and 2022 increased as a result of the addition of PGI assets. Additionally, there was a change to the reclamation status of lands associated with the 2017 Phase 3 Peace Expansion Program.</p> <p>27 Increase in footprint is a result of the addition of pipeline rights-of-way associated with the PGI Transaction.</p> <p>28 Increase in 2022 from 2021 is a result of two significant projects associated with the Phase 3 Peace Expansion Program achieving revegetation status.</p> <p>29 The calculation includes disturbed lands that overlap with parks and protected area and lands identified as habitat for endangered species (e.g., Ord's Kangaroo Rat), both rely on publicly available information.</p> |
|--|---|--|

## Indigenous & Community Engagement

Indigenous Engagement <sup>1</sup>	Units	2022	2021	2020
Indigenous Spending <sup>2</sup>	\$ millions	58.5	101.2	N/C
Indigenous Communities Engaged for Services <sup>3</sup>	Number	36	34	N/C
Indigenous Suppliers Utilized <sup>4</sup>	Number	93	100	N/C
Community and Stakeholder Relations				
Community Investment				
Cash Investments <sup>5,6</sup>	\$ millions	6.9	5.6	5.6
In-Kind investments <sup>6</sup>	\$ millions	0.033	0.039	0.075
Organizational Stakeholder Giving <sup>7</sup>	\$ millions	3.0	2.1	3.1
Employee Time During Work Hours <sup>8</sup>	\$ millions	0.21	0.15	0.11
Other Community Investment <sup>9</sup>	\$ millions	0.69	0.49	0.63
Total Investments <sup>10,11</sup>	\$ millions	10.8	8.4	9.5
Employee Volunteering				
Employee and Contractor Volunteering (During Work Hours) <sup>12</sup>	Hours	3,522	2,456	1,810
Employee Volunteering (During Work Hours) <sup>13</sup>	Hours	1.3	1.0	0.7

1 Our Indigenous Engagement metrics include Canadian operations only.

2 Indigenous Spending accounts for direct and indirect procurement costs with an Indigenous business based on the proportion of ownership. An Indigenous business is owned by a participating First Nation, Metis, Inuit Community/Settlement or their members including a strategic partnership, corporation, joint venture, limited partnership, other entity or a combination of them. The decrease in Indigenous Spending from 2021 relates to higher construction activity, specifically the Phase VII Peace Pipeline Expansion which included significant participation from Indigenous owned businesses.

3 The number of Indigenous communities who have been engaged to provide services for Pembina.

4 Includes the number of Indigenous suppliers engaged to provide services for Pembina. An Indigenous business is owned by a participating First Nation, Metis, Inuit Community/Settlement or their members including a strategic partnership, corporation, joint venture, limited partnership, other entity or a combination of them.

5 Includes direct cash investment to support community engagement activities.

6 Excludes Joint Ventures (ACG, Aux Sable, Cedar LNG, Chinook Pathways, PGI).

7 Organizational Stakeholder Giving includes donations by permanent and fixed term employees, retirees, Board members, and other individuals that support Pembina's community engagement efforts.

8 Employee Time During Work Hours includes all permanent and fixed term volunteer hours that support community engagement. A dollar value was determined using an average Pembina employee salary.

9 Other Community Investments include costs associated with running the community investment function or managing contributions to the community. This would include staff salaries, overhead costs, research, travel and meals, communications, subscriptions, membership fees, etc. This number may fluctuate year-over-year based on needs.

10 Total Investments is the total value of Pembina's investments in the community. This includes cash investments, in-kind giving, volunteering during paid working hours, program management costs, and community contributions from outside sources that can be directly linked to our involvement.

11 Excludes Joint Ventures (ACG, Aux Sable, Cedar LNG, Chinook Pathways, PGI) with exception of employee giving, employee volunteer hours, and Program Management.

12 Employee and Contractor Volunteering (During Work Hours) includes all permanent and fixed term employee volunteer hours that support community engagement.

13 Employee Volunteering (During Work Hours) includes all permanent and fixed term employee volunteer hours that support community engagement.

## SASB Content Index

The table shown below demonstrates the relationship between Pembina's reporting and SASB Oil & Gas – Midstream Sustainability Accounting Standard (October 2018).

Disclosure	SASB Standard Number	Sustainability Report Reference
<b>Greenhouse Gas Emissions</b>		
Total Scope 1 GHG Emissions	EM-MD-110a.1	Data Tables - Energy Transition and Climate
Methane GHG Emissions as % Scope 1 GHG	EM-MD-110a.1	Data Tables - Energy Transition and Climate
Scope 1 GHG under Emissions-Limiting Regulation	EM-MD-110a.1	Data Tables - Energy Transition and Climate
Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	EM-MD-110a.2	GHG Emissions section
<b>Air Quality</b>		
NO <sub>x</sub> Emissions	EM-MD-120a.1	Data Tables - Energy Transition and Climate
SO <sub>x</sub> Emissions	EM-MD-120a.1	Data Tables - Energy Transition and Climate
Volatile Organic Compounds (VOCs)	EM-MD-120a.1	Data Tables - Energy Transition and Climate
Particulate Matter (PM10)	EM-MD-120a.1	Data Tables - Energy Transition and Climate
<b>Ecological Impacts</b>		
Description of environmental management polices and practices for active operations	EM-MD-160a.1	Responsible Asset Management sections
Land Owned, Leased and/or Operated within Areas of Protected Conservation Status or Endangered Species Habitat	EM-MD-160a.2	Data Tables - Responsible Asset Management
Terrestrial Acreage Disturbed	EM-MD-160a.3	Data Tables - Responsible Asset Management
Impacted Area Restored	EM-MD-160a.3	Data Tables - Responsible Asset Management
Hydrocarbon Spills	EM-MD-160a.4	Data Tables - Responsible Asset Management
Aggregate Volume of Hydrocarbon Spills	EM-MD-160a.4	Data Tables - Responsible Asset Management
Volume of Hydrocarbon Spills in Arctic	EM-MD-160a.4	Data Tables - Responsible Asset Management
Volume of Hydrocarbon Spills in Unusually Sensitive Areas	EM-MD-160a.4	Data Tables - Responsible Asset Management
Volume of Hydrocarbon Spills Recovered	EM-MD-160a.4	Data Tables - Responsible Asset Management
<b>Operational, Safety, Emergency Preparedness &amp; Response</b>		
Number of Reportable Pipeline Incidents	EM-MD-540a.1	Data Tables - Responsible Asset Management
Percentage Significant	EM-MD-540a.1	Data Tables - Responsible Asset Management
Natural Gas Pipelines Inspected	EM-MD-540a.2	Data Tables - Responsible Asset Management
Hazardous Liquid Pipelines Inspected	EM-MD-540a.2	Data Tables - Responsible Asset Management
Accident Releases from Rail Transportation	EM-MD-540a.3	Data Tables - Responsible Asset Management
Non-Accident Releases (NARs) from Rail Transportation	EM-MD-540a.3	Data Tables - Responsible Asset Management
Discussion of management systems used to integrate a culture of safety and emergency preparedness throughout the value chain and throughout project lifecycles	EM-MD-540a.4	Governance and Responsible Asset Management sections



## GRI Content Index

The table shown below demonstrates the relationship between Pembina's reporting and reference to GRI metrics and disclosures.

Disclosure Title	Disclosure Number	Page
<b>Disclosures for All Organizations</b>		
<b>Organizational Details, Activities, Strategy</b>		
Organizational details	2-1	About Pembina (9), Our Operations (11) 2022 Annual Information Form (22), 2022 Annual Report (85)
Activities, value chain and other business relationships	2-6*	Our Operations (11) Alberta Carbon Grid project (22) Cedar LNG project (22) WIPG (55) Haisla Nation (55)
Employees	2-7	Employee Well-Being and Culture (27-32) Employee Well-Being & Culture Data Table (65-66)
Workers who are not employees	2-8*	Employee Well-Being & Culture Data Table (65-66)
CEO Message	2-22	Message from our President and CEO (5) 2023 Information Circular (1-2)
Policy Commitments	2-23*	2023 Information Circular (30-32)
Management of material topics	3-3	Management's Role (15)
<b>Governance and Ethics</b>		
Governance structure and composition	2-9*	The Board's Role (14) Governance - 2022 Performance (18) 2023 Information Circular (16-27, 40-46, 47-53)
Nomination and selection of the highest governance body	2-10*	2023 Information Circular (15-27, 41)
Chair of the highest governance body	2-11	2023 Information Circular (16)
Role of the highest governance body in overseeing the management of impacts	2-12*	About Pembina (9) The Board's Role (14) 2023 Information Circular (1-2, 35)
Delegation of responsibility for managing impacts	2-13*	The Board's Role (14), Management's Role (15) 2023 Information Circular (35)
Role of the highest governance body in sustainability reporting	2-14*	2023 Information Circular (50)
Conflicts of interest	2-15*	2023 Information Circular (32)
Communication of critical concerns	2-16*	Annual Information Form (60)
Collective knowledge of the highest governance body	2-17	2023 Information Circular (45)
Evaluation of the performance of the highest governance body	2-18	2023 Information Circular (46)
Remuneration policies	2-19	2023 Information Circular (54-56, 62-80)
Process to determine remuneration	2-20	2023 Information Circular (14, 54-56, 62-80)
Mechanisms for seeking advice and raising concerns	2-26*	Annual Information Form (59-60)

\*Partially meets the disclosures suggested by the GRI Standards

Disclosure Title	Disclosure Number	Page
<b>Stakeholder Engagement</b>		
Approach to stakeholder engagement	2-29	Employee Well-Being & Culture (27-33) Health & Safety (34-37) Integrity Management (38-40) Biodiversity & Land Use (47-49) Indigenous & Community Engagement (53-61)
Collective bargaining agreements	2-30*	Annual Information Form (63)
<b>Reporting Practices and Disclosures on Material Topics</b>		
Entities included in sustainability reporting	2-2*	Reading This Report (6)
Reporting period, frequency and contact point	2-3*	Reading This Report (6) Back cover 2022 Annual Report (85)
Restatement of information from previous reports	2-4	Energy Transition and Climate Data Table (63-64)
External assurance	2-5*	Website - ESG Data and Reports
Compliance with laws and regulations	2-27*	Annual Information Form (105)
Membership associations	2-28	2022 CDP Climate Submission (C12.3b)
Process to determine material topics	3-1	Sustainability Focus Areas (12)
Material topics	3-2	Sustainability Focus Areas (12)
<b>Topic Specific Disclosures</b>		
<b>Economic Performance</b>		
Direct economic value generated and distributed	201-1	Governance Data Table (61-62) Non-GAAP and Other Financial Measures (78-79)
Financial implications and other risks and opportunities due to climate change	201-2*	2022 CDP Climate Submission (C2 Risks and opportunities)
Defined benefit plan obligations and other retirement plans	201-3*	2022 Annual Report (125-127)
<b>Indirect Economic Impacts</b>		
Infrastructure investments and services supported	203-1*	GHG Emissions (24-26) Indigenous Engagement (53-57) Community and Stakeholder Relations (58-60)
<b>Procurement Practices</b>		
Proportion of spending on local suppliers	204-1*	Indigenous and Community Engagement Data Table (71)
<b>Energy</b>		
Energy consumption within the organization	302-1*	Energy Transition and Climate Data Table (63-64)
Energy consumption outside of the organization	302-2*	Energy Transition and Climate Data Table (63-64)
<b>Water and Effluents</b>		
Water Withdrawal	303-3*	Responsible Asset Management Data Table (68-70)
Water Discharge	303-4*	Responsible Asset Management Data Table (68-70)
Water consumption	303-5*	Responsible Asset Management Data Table (68-70)

\*Partially meets the disclosures suggested by the GRI Standards

Disclosure Title	Disclosure Number	Page
<b>Biodiversity</b>		
Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	304-1*	Responsible Asset Management Data Table (68-70)
Significant impacts of activities, products and services on biodiversity	304-2*	Biodiversity and Land Use (47-49) Responsible Asset Management Data Table (68-70)
Habitats protected or restored	304-3*	Responsible Asset Management Data Table (68-70)
<b>Emissions</b>		
Direct (Scope 1) GHG emissions	305-1	Energy Transition and Climate Data Table (63-64)
Energy indirect (Scope 2) GHG emissions	305-2	Energy Transition and Climate Data Table (63-64)
Other indirect (Scope 3) GHG emissions	305-3*	Energy Transition and Climate Data Table (63-64)
GHG emissions intensity	305-4*	Energy Transition and Climate Data Table (63-64)
Reduction of GHG emissions	305-5*	GHG Emissions (24-26) Energy Transition and Climate Data Table (63-64)
NO <sub>x</sub> /SO <sub>x</sub> and other significant air emissions	305-7	Energy Transition and Climate Data Table (63-64)
<b>Waste</b>		
Management of significant waste related impacts	306-2*	Waste (43-44)
Waste Generated	306-3*	Responsible Asset Management Data Table (68-70)
Waste diverted from disposal	306-4*	Responsible Asset Management Data Table (68-70)
Waste directed to disposal	306-5*	Responsible Asset Management Data Table (68-70)
<b>Employment</b>		
New Employee Hires and turnover	401-1*	Employee Well-Being & Culture Data Table (65-66)
<b>Occupational Health and Safety</b>		
Occupational health and safety (OHS) management system	403-1*	Health and Safety (33-36)
Hazard identification, risk assessment, and incident investigation	403-2*	Health and Safety (33-36)
Worker participation, consultation, and communication on OHS	403-4*	Health and Safety (33-36)
Prevention and mitigation of OHS impacts directly linked by business relationships	403-7	Health and Safety (33-36)
Work-related injuries	403-9*	Health and Safety (33-36) Health and Safety Data Tables (67)
<b>Diversity and Equal Opportunity</b>		
Diversity of governance bodies and employees	405-1	Employee Well-Being & Culture Data Table (65-66) 2023 Information Circular (15-27)
<b>Local Communities</b>		
Operations with local community engagement, impact assessments, and development programs	413-1*	Biodiversity and Land Use (47-49) Indigenous Engagement (53-57) Community and Stakeholder Relations (58-60)
<b>Public Policy</b>		
Political contributions	415-1*	Governance Data Table (61-62)
<b>Customer Privacy</b>		
Substantiated complaints concerning breaches of customer privacy and losses of customer data	418-1*	Cyber Security & Data Privacy (50-51)

\*Partially meets the disclosures suggested by the GRI Standards

## TCFD Content Index

The table shown below demonstrates Pembina's alignment to the TCFD recommendations.

Category	Disclosure	Disclosure Reference and Page Number
<b>Governance</b>		
Governance (a)	Board oversight of climate-related risks and opportunities	The Board's Role (14)
Governance (b)	Management's role in assessing and managing climate-related risks and opportunities	Management's Role (15)
<b>Strategy</b>		
Strategy (a)	Identification of climate-related risks and opportunities over the short, medium, and long term	2022 CDP Climate Change Submission (C2. Risks and Opportunities)
Strategy (b)	Impact of climate-related risks and opportunities on the business, strategy, and financial planning	2022 CDP Climate Change Submission (C3. Business Strategy)
Strategy (c)	Scenario analysis and strategy resilience	About Pembina (9)
<b>Risk Management</b>		
Risk Management (a)	Processes for identifying and assessing climate-related risks	Governance - Enterprise Risk Management (16)
Risk Management (b)	Processes for managing climate-related risks	Governance - Enterprise Risk Management (16)
Risk Management (c)	Integration of processes for identifying, assessing, and managing climate-related risks into the organization's overall risk management	2022 CDP Climate Change Submission (C2. Risks and Opportunities)
<b>Metrics and Targets</b>		
Metrics and Targets (a)	Metrics used to assess climate-related risks and opportunities	Energy Transition and Climate Data Table (63)
Metrics and Targets (b)	Disclosure of GHG emissions	Energy Transition and Climate Data Table (63)
Metrics and Targets (c)	Targets used to manage climate-related risks and opportunities	GHG Emissions (24-26)

## Definitions

For capitalized terms used herein that are not otherwise defined, refer to Pembina’s Annual Information Form for the year ended December 31, 2022 filed at [www.sedar.com](http://www.sedar.com) (filed with the U.S. Securities and Exchange Commission at [www.sec.gov](http://www.sec.gov) under Form 40-F) and on Pembina’s website at [www.pembina.com](http://www.pembina.com).

## Hyperlinking

Throughout this report we have provided external links, which provide additional context and further information for interested readers. These hyperlinks may change over time, and Pembina does not undertake any obligation to update such hyperlinks, except as required by applicable laws.

In addition, this report may contain links to other websites (“third-party websites”). Pembina does not assume responsibility or any liability for the accuracy or appropriateness of the information, data, opinions, advice or statements contained on third-party websites. In providing links to the other sites, Pembina is in no way acting as a publisher or disseminator of the material contained on the third-party websites and does not seek to monitor or control such third-party websites. A link to a third-party website should not be construed to mean that Pembina is affiliated or associated with the entity to which the website is linked. Pembina does not recommend or endorse any of the content on any third-party website, including, without limitation, any hyperlinks contained within third-party websites.

## Forward-looking Statements

This report contains certain forward-looking statements and forward-looking information (collectively, “forward-looking statements”), including forward-looking statements within the meaning of the “safe harbor” provisions of applicable securities legislation, that are based on Pembina’s current expectations, estimates, projections and assumptions in light of its experience and its perception of historical trends. In some cases, forward-looking statements can be identified by terminology such as “continue”, “anticipate”, “schedule”, “will”, “expects”, “estimate”, “potential”, “planned”, “future”, “outlook”, “strategy”, “protect”, “trend”, “commit”, “maintain”, “focus”, “ongoing”, “believe” and similar expressions suggesting future events or future performance.

In particular, this document contains forward-looking statements pertaining to, without limitation, the following: Pembina’s corporate strategy, priorities and expected performance, including plans and strategies to improve Pembina’s ESG performance; ESG goals and targets, including those related to GHG emissions reduction and EDI; the impact certain ESG initiatives are expected to have on Pembina’s business; energy transition and low carbon energy, including Pembina’s initiatives and approach thereto; anticipated environmental, community and economic benefits of certain growth projects, including the Cedar LNG project and the ACG; the Cedar LNG project, including the size, ownership and emissions thereof and timing for a final investment decision; ACG, including its anticipated capacity, environmental impact, long-term operating goals and the expected benefits thereof for Pembina and TC Energy Stakeholders; the expansion of Pembina’s value chain to incorporate various carbon capture and storage opportunities; the Garden Plain Wind Farm and Wild Rose 2 Wind Farm, including expected start-up dates and details thereof; plans to continue further alignment with the TCFD reporting standards; GHG emissions reporting, including the enhancement thereof; plans to complete an assessment of decarbonization projects and technologies at some of Pembina’s higher emitting facilities; expectations regarding the installation of air-fuel ratio control systems, including benefits thereof; Pembina’s EDI approach for

2023 and beyond, including the launch of new Inclusion Networks, hiring more staff dedicated to EDI initiatives, launch of the PPE Project and the roll-out of Indigenous inclusion training and a new culture and inclusion strategy; Pembina’s continued focus on safety, including enhancing contractor safety performance and other health and safety priorities for 2023; strategies to protect the integrity of energy infrastructure; remediation work related to the Northern Pipeline System incident; plans to enhance Pembina’s emergency response capacity; waste management processes and programs; plans regarding a water re-use initiative, reduction of freshwater use, and efforts to improve water data management practices; reclamation activities, including expectations relating thereto; belief that Pembina’s environmental programs and processes will be able to validate alignment with TNFD’s LEAP framework; plans to build partnerships to advance ESG priorities; commitment that Pembina’s policies, standards and procedures will adapt to cyber security and data privacy threat and laws; the incorporation of ESG processes and metrics into Pembina’s supply chain processes; strategies for Indigenous engagement, inclusion and reconciliation, including plans and initiatives to progress Pembina’s five-year Indigenous Engagement Strategy and Path; and plans to further develop continued community investment and engagement efforts.

The forward-looking statements are based on certain assumptions that Pembina has made in respect thereof as at the date of this report regarding, among other things: Pembina’s ability to achieve its ESG targets, including those related to GHG emissions reduction and EDI; energy transition, including the drivers and pace thereof; the availability of individuals with the skills required for Pembina’s business and in the geographic locations in which Pembina operates necessary to achieve Pembina’s GHG and EDI targets; that current technologies are sufficient to achieve reductions in GHG emissions targets; the availability of data, samples and information necessary to evaluate targets, goals, programs and strategies; the willingness of Indigenous stakeholders to engage in consultation and reconciliation efforts; successful collaboration with others to advance ESG goals; broad compliance with Pembina’s plans, strategies, programs and goals across its reporting and monitoring systems among its employees, stakeholders and service providers; oil and gas industry

exploration and development activity levels and the geographic region of such activity; that Pembina's future results of operations will be consistent with past performance and management expectations in relation thereto; the resiliency of Pembina's assets and growth opportunities under climate change scenarios; the success of Pembina's operations and growth projects; that projects will be completed and sanctioned as expected; that any required commercial agreements for projects can be reached; that counterparties to agreements will continue to perform their obligations in a timely manner; prevailing regulatory, tax and environmental laws and regulations; that all required regulatory and environmental approvals can be obtained on the necessary terms and in a timely manner; that there are no unforeseen material construction or other costs related current projects or operations; that there are no unforeseen events preventing the performance of contracts or the completion of the relevant facilities; the continued availability of capital at attractive prices to fund future capital requirements relating to existing assets and projects; the ability of Pembina to maintain current credit ratings; prevailing commodity prices, interest rates, carbon prices, tax rates and exchange rates; and certain other assumptions in respect of Pembina's forward-looking statements detailed in Pembina's Management Discussion and Analysis and Annual Information Form for the year ended December 31, 2022 and from time to time in Pembina's public disclosure documents available at [www.sedar.com](http://www.sedar.com), [www.sec.gov](http://www.sec.gov), and through Pembina's website at [www.pembina.com](http://www.pembina.com).

Although Pembina believes the expectations and material factors and assumptions reflected in these forward-looking statements are reasonable as of the date hereof, there can be no assurance that these expectations, factors and assumptions will prove to be correct. These forward-looking statements are not guarantees of future performance and are subject to a number of known and unknown risks and uncertainties including, but not limited to: the failure to realize the anticipated benefits and synergies of projects and transactions; material cost-overruns in respect of projects or a material delay to the expected operational date for projects; expectations and assumptions concerning, among other things: customer demand for Pembina's services;

commodity prices, interest rates, inflation and foreign exchange rates; the regulatory environment and decisions, and Indigenous and landowner consultation requirements; reliance on third parties to successfully operate and maintain certain assets; labour and material shortages; reliance on key relationship and agreements and the outcome of stakeholder engagement; the strength and operations of the oil and natural gas industry and related commodity prices; non-performance or default by counterparties to agreement which Pembina or one or more of its subsidiaries has entered into in respect of its business; actions by joint venture partners or other partners which hold interests in certain of Pembina's assets; actions by governmental and regulatory authorities, including changes in climate change initiatives, regulatory processes or increased environmental regulation; changes in the political environment, in North America and elsewhere, and public opinion; fluctuations in operating results; adverse, general economic and market conditions in Canada, North America and worldwide; constraints on, or the unavailability of adequate infrastructure and technology; ability to access sources of debt and equity capital; changes in credit ratings; litigation; technology and security risks including cyber-security risks; natural catastrophes and changes in weather patterns; and certain other risks and uncertainties detailed in Pembina's Management Discussion and Analysis and Annual Information Form for the year ended December 31, 2022 and from time to time in Pembina's public disclosure documents available at [www.sedar.com](http://www.sedar.com), [www.sec.gov](http://www.sec.gov) and through Pembina's website at [www.pembina.com](http://www.pembina.com).

This list of risk factors should not be construed as exhaustive. Readers are cautioned that events or circumstances could cause results to differ materially from those predicted, forecasted or projected. The forward-looking statements contained in this document speak only as of the date of this document. Pembina does not undertake any obligation to publicly update or revise any forward-looking statements or information contained herein, except as required by applicable laws. The forward-looking statements contained in this document are expressly qualified by this cautionary statement.

## Non-GAAP and Other Financial Measures

Throughout this document, Pembina has disclosed certain financial measures that are not specified, defined or determined in accordance with GAAP and which are not disclosed in Pembina's financial statements. Non-GAAP financial measures either exclude an amount that is included in, or include an amount that is excluded from, the composition of the most directly comparable financial measure specified, defined and determined in accordance with GAAP. These non-GAAP financial measures, together with financial measures specified, defined and determined in accordance with GAAP, are used by management to evaluate the performance and cash flows of Pembina and its businesses and to provide additional useful information respecting Pembina's financial performance and cash flows to investors and analysts.

In this document, Pembina has disclosed the following non-GAAP financial measures: direct economic value generated, direct economic value distributed, operating and general and administrative expenses, total tax paid and payments to providers of capital.

Non-GAAP financial measures disclosed in this document do not have any standardized meaning under International Financial Reporting Standards ("IFRS") and may not be comparable to similar financial measures disclosed by other issuers. The financial measures should not, therefore, be considered in isolation or as a substitute for, or superior to, measures of Pembina's financial performance, or cash flows specified, defined or determined in accordance with IFRS, including revenue, general and administrative expenses and taxes paid.

Except as otherwise described herein, these non-GAAP financial measures are calculated on a consistent basis from period to period. Specific reconciling items may only be relevant in certain periods.

Below is a description of each non-GAAP financial measure disclosed in this document, together with, as applicable, disclosure of: the most directly comparable financial measure that is specified, defined and determined in accordance with GAAP to which each non-GAAP financial measure relates; a quantitative reconciliation of each non-GAAP financial measure to such directly comparable GAAP financial measure; an explanation of the composition of each non-GAAP financial measure; an explanation of how each non-GAAP financial measure provides useful information to investors and the additional purposes, if any, for which management uses each non-GAAP financial measure; and an explanation of the reason for any change in the label or composition of each non-GAAP financial measure from what was previously disclosed.

## Direct Economic Value Generated

Direct Economic Value Generated is a non-GAAP financial measure which is defined as total revenue less cost of goods sold, including product purchases. Management believes that disclosing to standardized GRI metrics is a useful tool for stakeholders, and Direct Economic Value Generated is included on the GRI recommended list of metrics to disclose. Management utilizes Direct Economic Value Generated to aggregate revenue generated by each of Pembina's divisions and to set comparable objectives. The most directly comparable financial measure to Direct Economic Value Generated that is specified, defined and determined in accordance with GAAP and disclosed in Pembina's financial statements is revenue.

(\$ millions)	2022	2021	2020
Revenue	11,611	8,627	5,953
Cost of goods sold, including product purchases	(7,364)	(4,689)	(2,509)
<b>Direct Economic Value Generated</b>	<b>4,247</b>	<b>3,938</b>	<b>3,444</b>

## Operating and General & Administrative Expenses

Operating and general and administrative expenses is a non-GAAP financial measure that is defined as general and administrative expenses, plus operating expenses, less corporate depreciation, employee costs, property taxes paid and community investments. Management believes that disclosing to standardized GRI metrics is a useful tool for stakeholders, and operating and general & administrative expenses is included on the GRI recommended list of metrics to disclose. The most directly comparable financial measure that is specified, defined and determined in accordance with GAAP and disclosed in Pembina's financial statements is general and administrative expenses.

(\$ millions)	2022	2021	2020
General and administrative expenses	399	306	246
Operating expenses	869	761	712
Corporate depreciation	(39)	(39)	(38)
Employee wages and benefits	(479)	(440)	(370)
Property taxes paid	(72)	(80)	(75)
Community investments	(7)	(6)	(6)
<b>Operating and General &amp; Administrative Expenses</b>	<b>671</b>	<b>502</b>	<b>470</b>

## Total Tax Paid

Total tax paid is a non-GAAP financial measure that is defined as the sum of income taxes and property taxes paid. Management believes that disclosing to standardized GRI metrics is a useful tool for stakeholders, and total tax paid is included on the GRI recommended list of metrics to disclose. The most directly comparable financial measure that is specified, defined and determined in accordance with GAAP and disclosed in the Pembina's financial statements is taxes paid.

(\$ millions)	2022	2021	2020
Taxes paid	334	355	295
Property taxes paid	72	80	75
<b>Total Tax Paid</b>	<b>406</b>	<b>435</b>	<b>370</b>

## Payments to Providers of Capital

Payments to providers of capital is a non-GAAP financial measure that is defined as dividends paid plus the repurchase of common shares and interest paid. Management believes that disclosing to standardized GRI metrics is a useful tool for stakeholders, and payments to providers of capital is included on the GRI recommended list of metrics to disclose. The most directly comparable financial measure that is specified, defined and determined in accordance with GAAP and disclosed in the Pembina's financial statements is dividends paid.

(\$ millions)	2022	2021	2020
Dividends paid	1,651	1,521	1,530
Repurchase of common shares	333	17	N/C
Net interest paid	443	406	395
<b>Payments to Providers of Capital</b>	<b>2,427</b>	<b>1,944</b>	<b>1,925</b>



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