

A photograph of a person from behind, looking out of a window. The person's hands are resting on the window frame, and they are silhouetted against the bright light of a setting or rising sun. The window has sheer, multi-colored curtains. In the background, through the window, a city skyline is visible.

Tomorrow is on

2022 Sustainability Report

Tomorrow is on

**Enbridge delivers the
energy that fuels people's
quality of life—meeting
the needs of today,
while bridging to a more
sustainable, reliable and
affordable energy future.**



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A symbol of reconciliation

Over the years, Enbridge has been honored with blankets gifted from Indigenous groups.¹ These blankets served as a source of inspiration for the design of the 2022 Indigenous Update Report and the symbol above. We honor these gifts and their importance to the fabric of our culture, and our dedication to continued learning and inclusion of Indigenous culture, heritage and teachings in our everyday lives. In this report, clicking on the blanket icon adjacent to a description of a commitment in our Indigenous Reconciliation Action Plan (IRAP) takes you to the full slate of commitments, targets and timelines on [pages 75–78](#).

Enbridge has committed through our Indigenous Reconciliation Action Plan to report and disclose progress on IRAP commitments in our Sustainability Report (IRAP Focus 5.1).

¹ In this report we use the term "Indigenous groups" when referring to Indigenous nations, governments or groups in Canada and/or Native American Tribes and Tribal associations in the United States. We have the utmost respect for the unique rights and individual names of Indigenous groups across North America. This collective term is used solely for the purpose of the readability of the report and is not meant disrespectfully.

Note to users

This document contains references to Enbridge's [website](#). These references are for readers' convenience only. This document also has links to websites owned and operated by third parties. When clicking on those links, users will leave our website. These links are provided for additional information and convenience only. Enbridge is not responsible for third-party websites or their content. Enbridge is not incorporating by reference any information posted on [enbridge.com](#) or any third-party website. The terms "we," "our," "us," "Company" and "Enbridge" as used in this document refer collectively to Enbridge Inc., its subsidiaries, and the joint ventures which it operates, unless the context suggests otherwise. These terms are used for convenience only and are not intended as a precise description of any separate legal entity within Enbridge. Unless otherwise specified, all dollar amounts are expressed in Canadian dollars; all references to "dollars," "\$" or "C\$" are to Canadian dollars and all references to "US\$" are to United States dollars. All amounts are provided on a before-tax basis, unless otherwise stated.



Learn more

The content in this report is focused on our performance in 2022. You can access more information on how we manage key topics by clicking the "Learn more" links in boxes like this one found throughout the report.

About this report

This report, and our suite of related publications, represent Enbridge's ongoing commitment to transparency and to the disclosure of ESG factors and performance relevant to our business and our stakeholders. We remain accountable by engaging with all our stakeholders, addressing key topics and providing a balanced view of our performance.

This year's report also offers significantly expanded reporting on methane, including the nature of our emissions and the current status of our monitoring and mitigation efforts (see [pages 20–26](#)).

In conjunction with this report, we have updated and enhanced our [Climate Lobbying Report](#). The expanded report provides greater transparency about our how our lobbying activities align with the goals of the Paris Agreement, describes our approach to climate lobbying, and provides a clear framework that addresses any misalignment between the climate positions of trade associations we are members of and the goals of the Paris Agreement.

The content in this report is focused on our performance over the past year. This year's document marks our first phase of reporting against the commitments in our 2022 Indigenous Reconciliation Action Plan (IRAP) (see [pages 75–78](#)).

For more information on how we manage key topics, we have included links to Management Approach narratives on the relevant pages of this report.

Reporting standards

This report was developed in accordance with Global Reporting Initiative (GRI) Universal Standards and GRI 11 Oil and Gas Sector Standard. We also disclose sustainability data using the Sustainability Accounting Standards Board (SASB) standards for Oil and Gas – Midstream, and Gas Utilities & Distributors.

We provide relevant updates on our response to the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in the accompanying [2022 ESG Datasheet](#). See the [Content Indices](#) for our mapping to these sustainability frameworks and standards.

In 2003, we became a signatory to the United Nations Global Compact, including the “Precautionary Approach,” and committed to following its principles. We continue to assess our contribution to the United Nations Sustainable Development Goals (SDGs) and you can find more information about our progress on [page 14](#).

Reporting boundaries

The scope of this report includes Enbridge Inc., its subsidiaries, and joint ventures that are operated by Enbridge. For more information about our reporting methodology, see page 42 of the [2022 ESG Datasheet](#). This report focuses on performance and activities from January 1 to December 31, 2022, as well as significant events early in 2023. Data exclusions or additions are noted throughout the report.

Assurance

As part of Enbridge's continued commitment to standardize our reporting methodology, we engage a third party to conduct limited assurance on select environmental key performance indicators (KPIs). The select KPIs include Enbridge's workforce diversity and inclusion results, total Scope 1 greenhouse gas (GHG) emissions, Scope 2 GHG emissions, selected Scope 3 GHG emission categories, total energy consumption (fuel and electricity), methane and GHG emissions intensity. To read the complete assurance statement, see page 46 of our [2022 ESG Datasheet](#).

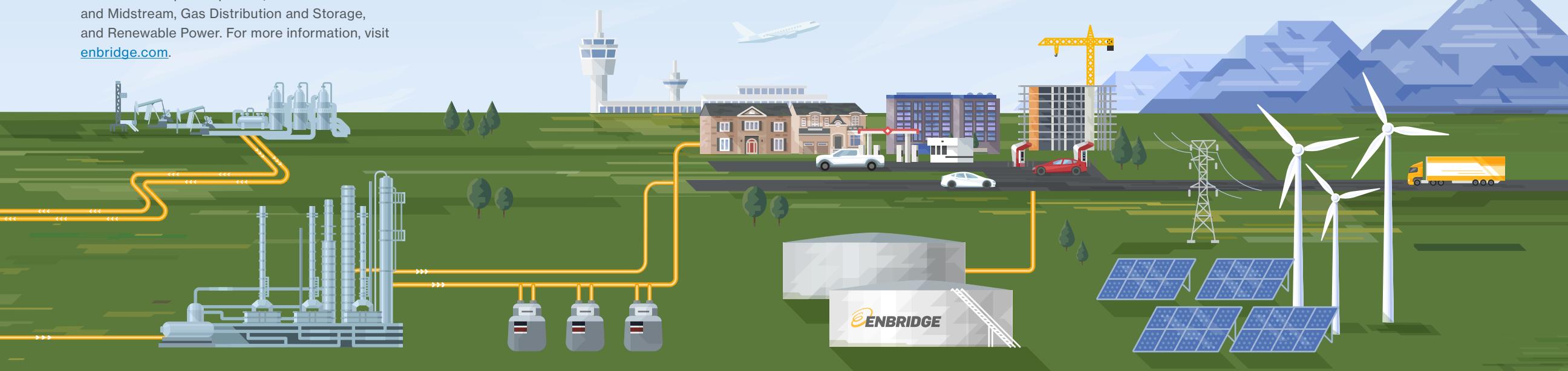
Forward-looking information

This Sustainability Report contains forward-looking information, or forward-looking statements. Please see “Forward-looking information” on [page 82](#) of this report.

Our purpose

An overview of our energy infrastructure and value chain

Enbridge is a leading North American energy infrastructure company. We safely connect millions of people around the world to the energy they rely on every day through our four core businesses: Liquids Pipelines, Gas Transmission and Midstream, Gas Distribution and Storage, and Renewable Power. For more information, visit enbridge.com.



LIQUIDS PIPELINES (LP)

Crude oil is refined into gas, diesel, jet fuel and asphalt, as well as propane and other home heating fuels. It's used as a feedstock in the petrochemical industry to create plastics, vinyl, textiles, electronics, antibiotics and thousands of consumer products.

11,000
employees

Enbridge has 11,000 employees, mostly in Canada and the U.S. We also support economic opportunity for thousands more people through partnerships, community investments and more than \$11 billion in procurement (guided by diversity and economic inclusion policies) annually from more than 10,000 suppliers.

118,763

kilometers of gas transmission
and midstream pipelines

Enbridge transports about 20% of the natural gas consumed in the U.S. and transports crude oil sufficient to meet about 30% of North American demand. We're also North America's largest gas utility by volume and third largest by customer count.

966,000
homes

Today, we produce enough renewable energy to power about 966,000 homes – and with billions of dollars of new investment underway, renewables represent a growing share of our capacity.

GAS TRANSMISSION AND MIDSTREAM (GTM)

Natural gas heats homes, businesses, hospitals and schools. It's made into consumer products, medications, vitamins, fertilizers, surgical masks, fabrics, chemicals and plastics. It's steadily replacing coal as a cleaner fuel for power generation and is an increasingly popular fuel for heavy-duty transportation.

GAS DISTRIBUTION AND STORAGE (GDS)

Enbridge Gas Inc. (EGI) and its affiliates deliver safe, reliable service to about 15 million people in Ontario and Quebec through 3.9 million residential, commercial, institutional and industrial meter connections.

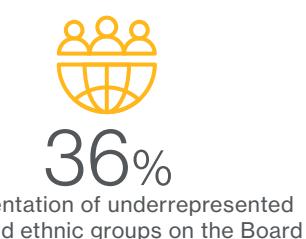
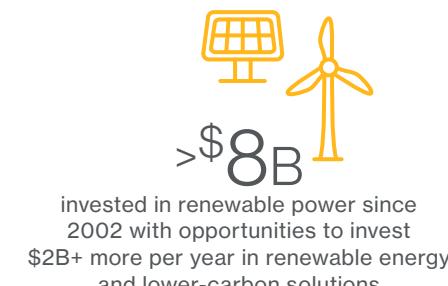
RENEWABLE POWER

Renewable energy harnesses the power of sun, wind, organics and other sources, converting it to electricity that lights up cities, powers vehicles and heats and cools buildings. Renewables are expected to be the world's fastest-growing source of electricity generation through to 2050.

2022 highlights



Indigenous groups across Canada and the United States consulted on Indigenous Reconciliation Action Plan



CEO and Board Chair message

Energy underpins every aspect of our economy and society. At Enbridge, our mission is to deliver energy – safely, reliably, 24/7, every day of the year. And as energy sources and uses evolve our businesses remain well positioned to continue delivering.

Our focus is on what's next, as we continue to meet the needs of our customers, host communities, investors, governments and civil society today.

Energy security and affordability

The world faces an urgent imperative to reduce greenhouse gas (GHG) emissions and transition to a lower-carbon economy. At the same time, energy demand is rising – and world events in 2022 have been a powerful reminder that energy reliability, affordability and access remain critical considerations, alongside sustainability.

Enbridge has been working with partners and policymakers to ease global supply constraints, emphasizing our both/and approach to advancing an energy strategy that accelerates investments in renewables and lower-carbon energy technologies, while also sustaining and expanding energy infrastructure that connects North American liquids and natural gas supplies to overseas markets in desperate need of affordable, reliable energy and feedstocks.

Our approach to energy transitions

Enbridge is taking a practical approach to the energy transitions happening in North America and around world by providing the energy needed today while simultaneously advancing solutions for tomorrow.

We're bridging to a cleaner energy future by innovating across our value chain. Every part of our business is now systematically engaged in our work to meet our GHG targets. By investing in our conventional business, we are ensuring reliability, lowering our emissions, meeting our customers' needs and through expanding North American export

infrastructure we are playing a key role in lowering global emissions. We are also ramping up our efforts in lower-carbon solutions that complement our existing assets, including investing in renewables, carbon capture, hydrogen and renewable natural gas.

ESG embedded in our business

At Enbridge, the environmental, social and governance (ESG) framework has proven a useful tool to track, manage and convey to investors and other stakeholders our progress against key elements of potential business risk and opportunity. In 2020, we set ambitious goals across all aspects of E, S and G with clear pathways to achieving them. In this, our 22nd Sustainability Report, we are pleased to share progress on these goals. We have established specific plans within and across businesses and importantly, aligned our executive compensation and financing costs to ESG performance strategies advancing throughout the Company that position Enbridge to grow sustainably for many decades to come.

In 2022, we made significant progress on advancing low-carbon business opportunities, including our first-in-North America hydrogen-blending pilot project in Ontario, a second, larger hydrogen-blending project in Quebec and our proposed Wabamun Carbon Hub in Alberta, which is being advanced in partnership with First Nations and Métis nations in Alberta. We also placed into service the 480-MW Saint-Nazaire Project, France's first commercial-scale offshore wind facility, and acquired Tri Global Energy to accelerate our renewables growth and expand our onshore development expertise.

Advancing inclusion and opportunity

At Enbridge, we intend to play an active and constructive role in fostering Indigenous engagement, inclusion and awareness across our host communities and throughout our company. In 2022, we published our Indigenous Reconciliation Action Plan, which continues our long-held commitment to strengthening relationships with Indigenous communities across North America and advancing

reconciliation. This report outlines progress against those commitments as well as some recent business partnerships with Indigenous peoples, including our landmark Athabasca Indigenous Investments equity partnership with 23 First Nation and Métis communities, signed last fall.

We both feel incredibly honored to be leading Enbridge into the next phase of growth – and to be leading this high-performance team who share our passion for the business and our mission to be the first-choice energy delivery company for our customers, communities, investors, stakeholders and employees.

Tomorrow is on at Enbridge.

Sincerely,



Gregory L. Ebel
President & Chief
Executive Officer



Pamela L. Carter
Chair, Board of Directors



Our approach

Enbridge believes the best way to create long-term value for stakeholders is to put sustainability at the heart of our corporate strategy. That's why sustainability considerations shape our investment decisions, guide our workplace practices and set the foundation for how we engage partners, suppliers and communities.



CSO and Committee Chair Q&A

Q (Pete): This is our 22nd Sustainability Report, so we've been at this for a while. Over these last two decades, the quality of our disclosures, our active management of a broader set of issues and the policies that guide our actions have all evolved. How does the Board think about sustainability and the value of environmental, social and governance (ESG) reporting?

A (Susan): Sustainability is very much integrated as part of Enbridge's strategy and how the Board approaches our governance responsibilities. The Company operates long-lived, capital intensive assets across thousands of communities, so taking a lifecycle approach to operations and to engaging with host communities and the public to reduce impacts makes good business sense. Our Sustainability Report has proven a useful tool to highlight priority issues across ESG dimensions, and to track progress against the goals we've set as an organization.

Q (Pete): We talk a lot about continuous improvement at Enbridge. In the context of sustainability and this year's Report how is that top of mind with the Board?

A (Susan): I'm pleased that Enbridge continues to be a leader in ESG disclosure and performance – this year's Report highlights progress against the Company's ESG goals announced in late 2020. Importantly, this year's Report also includes an update on the Company's Scope 3 emissions engagement with key suppliers; a deeper look at our efforts to drive down methane emissions from operations; and more detail around direct and indirect climate lobbying and the steps taken to ensure alignment with our net-zero ambitions and the goals of the Paris Agreement.

Q (Pete): Enbridge has a long-held commitment to strengthening our relationships with Indigenous communities across North America. How does the Board consider reconciliation and Indigenous cultural awareness and understanding?

A (Susan): Indigenous engagement, partnership and understanding is top-of-mind for the Board. The publication of the [Indigenous](#)

[Reconciliation Action Plan](#) in September 2022 was an important step in advancing Enbridge's reconciliation journey. The plan is a roadmap for meaningful engagement, capacity building and partnership among Indigenous communities across Enbridge's operations. Early progress is encouraging and this year's report includes an update on our commitments.

And we are very focused on building impactful Indigenous partnerships, including our landmark Athabasca Oil Sands Pipeline Equity Partnership with 23 Indigenous communities and our proposed Open Access Wabamun Caron Hub in partnership with four Indigenous communities. We look forward to advancing additional Indigenous partnerships.

Having a deeper understanding of Indigenous culture and history is very important to our business. Last year, as part of our ESG goals, all our employees completed Indigenous cultural awareness training. And the learning extends to the Board as well.

Earlier this year the Board met with several Indigenous leaders from across Canada and the U.S. We appreciated the opportunity to directly hear Indigenous perspectives, to better understand the challenges their communities face and to discuss opportunities to work together. By listening and learning together we can do better.

Q (Pete): Stakeholders are often focused on very specific elements of ESG and not always aligned on what needs to be prioritized. How does the Board balance priorities and keep an eye on emerging trends?

A (Susan): Fully integrating sustainability and the Company's ESG goals into the long-range business strategy certainly helps, but prioritization for any business is an important balance. Feedback – which comes in many forms – helps to ensure we remain properly calibrated with a sustainable approach to managing risks and securing opportunities. We hear often from a variety of stakeholders and we solicit input on the Company's performance and policies.

In 2022 we updated three key policies that guide performance: our [Sustainability Policy](#), [Indigenous Peoples Policy](#) and our [Climate Policy](#). The changes made reflect input from our stakeholders and highlight Enbridge's commitments to further integrating ESG into all aspects of the business.

As we look forward, reporting frameworks and the expectations of stakeholders are continuing to evolve. It will remain a priority for the Board and for Enbridge to clearly articulate our approach, to detail our performance and to continue to demonstrate leadership.



Pete Sheffield



Susan M. Cunningham



Our business strategy and ESG approach

Integrating sustainability performance with business success

In 2022, sustainability has continued to be a key enabler of our overall corporate strategy. This year, we continued to execute our two-pronged growth strategy, investing in both conventional and lower-carbon energy to advance the energy transition and to deliver reliable and affordable energy to our customers.

Enbridge has worked to enhance the value of our existing energy infrastructure assets by identifying opportunities to increase revenue and improve efficiency.

At the same time, we have extended our investments in renewables and lower-carbon fuels, solidifying our position as one of North America's largest renewable energy developers.

We're working to be a differentiated service provider of lower-carbon options and solutions for our customers by modernizing and decarbonizing our system, and advancing lower-carbon platforms, including renewables, hydrogen, carbon capture and storage (CCS), and renewable natural gas (RNG).

We also continue to build our internal capabilities to support our strategy – from tying individual compensation to performance against our ESG objectives to deepening our specialized technical expertise related to new energy technologies that will help to drive the energy transition.

Organizational alignment

Robust Board and committee oversight

Board committees responsible for specific areas of ESG oversight

ESG goals embedded in business plans

Multi-year business plans incorporate well-defined ESG goals and actions

Direct link to enterprise compensation

Multi-year ESG goals embedded in annual incentive programs

Transparent reporting and disclosure

Reporting aligned with global standards



Learn more

[Our Strategic Plan](#)

[2023 Management Information Circular](#)

Strategy and corporate performance

We aspire to be the first choice for energy delivery in North America and beyond by following a comprehensive approach to decision-making, analysis of energy fundamentals and competitor positioning, and evolving customer needs.

We reconfirmed our strategy of pursuing growth in our core businesses and investing in adjacent lower-carbon platforms, while understanding that a practical approach to energy transition is required. We continue to believe our strategy is the right one, which is demonstrated by maintaining our highly resilient business model; providing reliable, affordable and lower-emission energy; and accelerating our adjacent lower-carbon platforms.

Sustainability-linked financing also plays a critical role in supporting the transition to a lower-emissions economy and the advancement of clean technology and innovation while ensuring we meet our GHG emissions reduction goals. Enbridge is the second largest sustainability-linked bond (SLB) issuer in North America and Europe, having issued approximately \$7.4 billion in sustainability-linked financing to date, with terms that allow us to reduce our borrowing costs if we achieve our interim emissions intensity reduction target and other ESG goals.

Stakeholder engagement

Consistent engagement with our stakeholders is critical for demonstrating transparency, facilitating open and informed dialogue, and sharing our story. We also engage with governments, rights holders such as Indigenous groups and landowners, and communities living near our projects and operations in Canada and the U.S. Examples of our 2022 stakeholder engagement activities are listed below.

Employees and contractors	Customers and suppliers	Investors	Indigenous Groups	Landowners and local communities	Industry groups	Government and regulators
Ongoing engagement includes:						
<ul style="list-style-type: none"> Supervisory communications Townhalls, employee forums, webcasts and podcasts Employee bulletins and newsletters Employee focus groups and surveys Intranet and internal social media channel Employee resource groups Safety toolbox talks, training Values moments Stand Up for Safety sessions Career development plans 	<ul style="list-style-type: none"> Selection and contracting processes Customer surveys Face-to-face meetings Supplier relationship management meetings Annual customer meetings On-site visits 	<ul style="list-style-type: none"> Annual meeting of shareholders Investor conferences and non-deal roadshows Canadian and U.S. regulatory filings Analyst meetings and conference calls Ongoing investor engagement and presentations Quarterly earnings calls and business updates 	<ul style="list-style-type: none"> Meetings and presentations with leadership and their staff Open houses and community meetings Investments in community priorities through our corporate citizen program Site visits and participation in environmental assessment work Development of Traditional Land Use or cultural surveys Participation in cultural ceremonies and community events Participation in emergency response exercises and contributing to community emergency response readiness Discussion on participation in procurement and employment opportunities Letters, fact sheets and newsletters 	<ul style="list-style-type: none"> Townhalls and open houses Landowner and landowner association meetings Community meetings and events Corporate citizenship programs Facility tours Grievance process Contributing to local emergency response readiness Letters, factsheets and newsletters Local government delegations and presentations 	<ul style="list-style-type: none"> Committee participation Board positions on relevant trade groups Advocacy activities Conference and speaking opportunities Support industry groups with data gathering and analytics to solidify beneficial public policy 	<ul style="list-style-type: none"> Trade association and industry representation Facility and asset tours Conferences and panels Multi-stakeholder initiatives Face-to-face meetings White papers and research contributions
Select detail on our 2022 engagements:						
<ul style="list-style-type: none"> Employee volunteering, including through Enbridge Fueling Futures First inclusion survey 	<ul style="list-style-type: none"> Supplier diversity, including new Tier 2 Spend policy Demand Side Management programs First Enbridge Supplier ESG Summit 	<ul style="list-style-type: none"> Business results, initiatives, strategy and capital structure ESG goals, policies and performance Preparation for mandatory sustainability disclosures 	<ul style="list-style-type: none"> Regular in-person one-on-one meetings/engagements Athabasca Indigenous Investments economic partnership Wabamun Hub approval Increased engagement with the Board and senior management 	<ul style="list-style-type: none"> Line 5 information center In-person engagement Presentations to local and state public officials Tennessee Valley Authority virtual open house 	<ul style="list-style-type: none"> High-ESG natural gas exports Voluntary carbon markets Participation in industry and issue conferences and gatherings, including New York Climate Week, COP27 and others 	<ul style="list-style-type: none"> Major projects engagement Fuel blending and other energy transition issues Cross-border regulatory and permitting certainty

Sustainability topics¹

Responding to stakeholder priorities in our ESG reporting

In keeping with leading practices recommended by the GRI, in 2021, Enbridge carried out a robust double materiality assessment to gain insight into the issues of greatest importance to our stakeholders. This assessment also took stock of the reporting practices of our competitors. The process involved three stages, outlined below. In addition to carrying out a formal materiality assessment every two years, we continuously monitor our environment for emerging issues that may affect our business, including our sustainability program and ESG reporting practices.

Our prioritization process



Identification:

We scanned reporting practices across our industry, reviewing peer companies and relevant ESG frameworks in order to understand the evolution of material topics in our areas of work. As part of this process, we shortlisted 22 ESG topics relevant to Enbridge's current business and operating environment.



Prioritization:

Using the preliminary shortlist of 22 topics identified in the "Identification" phase, we fielded a survey that invited stakeholders to rate the significance of each topic. Approximately 150 stakeholders responded to the surveys and a subset of them participated in follow-up interviews in which we discussed the topics in greater depth. We analyzed the survey and interview results, alongside further benchmarking, and ultimately prioritized each topic according to its level of significance to our stakeholders and its overall impact on Enbridge's ability to deliver on its strategy.



Validation:

From the original list of 22 ESG topics, we engaged internal subject matter experts and undertook a series of working sessions to isolate nine primary topics for particularly focused reporting (see lists at right).

Priority topics

The assessment process yielded a set of *priority topics* and other *significant topics*, outlined below. Priority topics are discussed in this report and in the Management Approach narratives. Other significant topics are also addressed, although not to the same extent as the priority topics.

! PRIORITY TOPICS

- Asset integrity and reliability
- Climate change and energy transition
- Community relations
- Cybersecurity
- Emergency preparedness and response
- Enterprise risk management
- Greenhouse gas emissions
- Health and safety
- Indigenous relations

+ OTHER SIGNIFICANT TOPICS

- Air quality
- Competitive behavior
- Diversity, equity and inclusion
- Energy affordability
- Innovation
- Land use and biodiversity
- Materials and waste
- Regulatory compliance
- Water management

¹ References to the terms "material", "materiality assessments" and similar terms throughout this report are used specifically to identify the sustainability topics of greatest importance to our stakeholders and do not correspond to the concept of materiality under Canadian or U.S. securities laws.

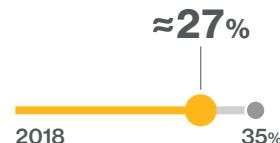
ESG dashboard

ESG goals dashboard

Set in November 2020, our ESG goals express our ambition to be a North American leader and ensure we're positioned to grow sustainably for decades to come. The progress we made in 2022 is captured in this ESG dashboard.

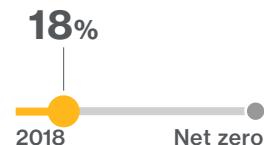
Environment

GHG emissions



Goal:
Reduce GHG emissions intensity by 35% by 2030

Status:
Down ≈27% from 2018 baseline

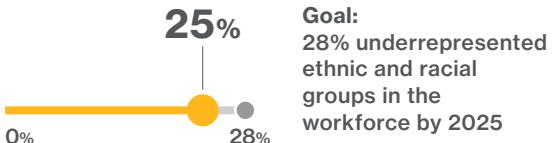


Goal:
Net-zero GHG emissions by 2050 (absolute emissions)

Status:
Continued progress toward net-zero goal from 2018 baseline

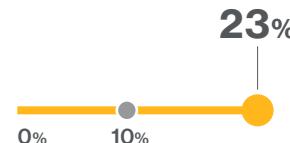
Social

Workforce diversity



Goal:
28% underrepresented ethnic and racial groups in the workforce by 2025

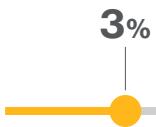
Safety



Goal:
10% improvement over three-year average total recordable incident frequency (TRIF) rate for employees and contractors

Diversity, equity and inclusion

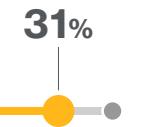
Goal: By 2025, increase workforce representation to:



6% people with disabilities

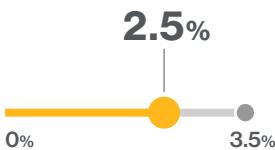


7% veterans (U.S.)



40% women

Indigenous inclusion



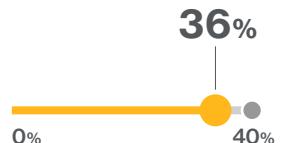
Goal:
3.5% representation within our workforce of Indigenous peoples by 2025



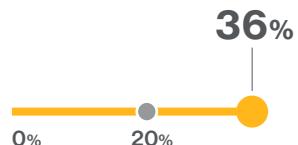
Goal:
100% of our workforce to complete Indigenous cultural awareness training by end of 2022

Governance

Board diversity



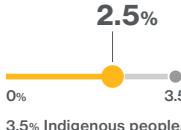
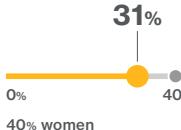
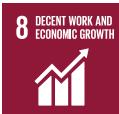
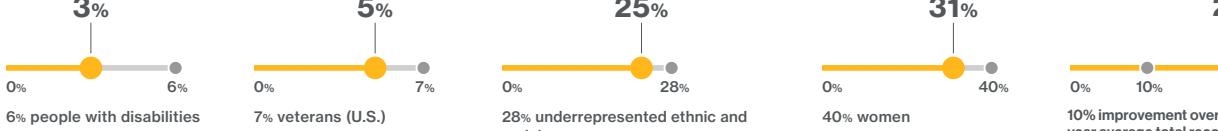
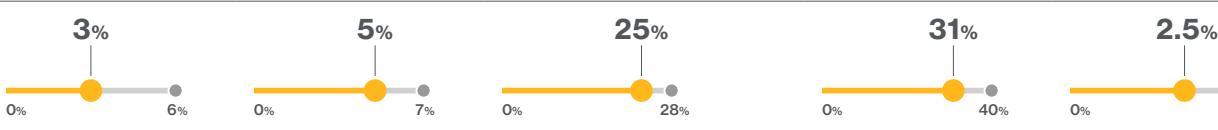
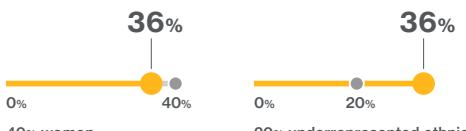
Goal:
40% women on the Board by 2025



Goal:
20% underrepresented ethnic and racial representation on the Board by 2025

United Nations Sustainable Development Goals

The UN Sustainable Development Goals (SDGs) are 17 goals that provide a framework for a more sustainable world by 2030. With less than a decade left to achieve the SDGs, decisive action is needed across businesses and societies to put the world on a more sustainable path. We continue to ensure the SDGs most relevant to our business are mapped to our ESG goals to determine where we can continue to make the greatest contributions. We indicate throughout our report where the initiatives we report on align with the SDGs.

SDG	Our ESG goal	Our progress	Relevant topics
 4 QUALITY EDUCATION	3.5% representation within our workforce of Indigenous peoples by 2025	 <p>2.5%</p> <p>3.5% Indigenous peoples</p>	Indigenous engagement and inclusion
 5 GENDER EQUALITY	Build an inclusive environment – 40% women	 <p>31%</p> <p>40% women</p>	Diversity, equity and inclusion
 8 DECENT WORK AND ECONOMIC GROWTH	Build an inclusive environment (6% people with disabilities; 7% veterans (U.S.); 28% underrepresented ethnic and racial groups; 40% women) 10% improvement over three-year average total recordable incident frequency (TRIF) rate for employees and contractors	 <p>3%</p> <p>5%</p> <p>25%</p> <p>31%</p> <p>23%</p> <p>6% people with disabilities 7% veterans (U.S.) 28% underrepresented ethnic and racial groups 40% women 10% improvement over three-year average total recordable incident frequency (TRIF) rate for employees and contractors</p>	Diversity, equity and inclusion Safety
 10 REDUCED INEQUALITIES	Build an inclusive environment (6% people with disabilities; 7% veterans (U.S.); 28% underrepresented ethnic and racial groups; 40% women) 3.5% representation within our workforce of Indigenous peoples by 2025	 <p>3%</p> <p>5%</p> <p>25%</p> <p>31%</p> <p>2.5%</p> <p>6% people with disabilities 7% veterans (U.S.) 28% underrepresented ethnic and racial groups in the workforce by 2025 40% women 3.5% Indigenous peoples</p>	Diversity, equity and inclusion Indigenous engagement and inclusion
 13 CLIMATE ACTION	Net-zero emissions Reduce emissions intensity by 35% by 2030	 <p>≈27%</p> <p>2018 35%</p> <p>35% GHG emissions intensity reduction</p>	Climate change and the energy transition Political advocacy and accountability
 16 PEACE, JUSTICE AND STRONG INSTITUTIONS	Representation on the Board of 40% women and 20% underrepresented ethnic and racial groups	 <p>36%</p> <p>40% women</p> <p>36%</p> <p>20% underrepresented ethnic and racial groups</p>	Corporate and ESG governance

Environment

Across every area of our business, we're responding to the urgent need for climate action. By investing heavily in renewable and lower-carbon energies and lowering operational emissions associated with conventional fuels, we're steadily reducing our own environmental impact while helping to accelerate the world's progress toward a net-zero future.

Relevant SDGs: [6](#) [7](#) [9](#) [13](#) [15](#)



Climate change and the energy transition

Advancing our two-pronged growth strategy to meet growing demand and accelerate the energy transition

The world faces an urgent imperative to reduce greenhouse gas emissions and transition to a lower-carbon economy. As one of the largest renewable energy companies in Canada and an innovator in delivering lower-carbon fuels, Enbridge is working hard to bring that economy to life. Our focused plan is embedded in our operations and capital allocation framework and aims to achieve our targets while ensuring resiliency through the transition. Therefore, every capital investment we consider is analyzed against our two-pronged growth strategy to include a path to achieve net zero – or we won't participate.

At the same time, energy demand is rising – and world events in 2022 have been a powerful reminder that energy reliability, security and affordability remain critical considerations, while reducing global greenhouse gas (GHG) emissions. We believe that conventional fuels – and associated infrastructure operated as efficiently as possible – are essential to meeting societies' energy needs today, even as we move toward a net-zero future.

To ensure the reliability and affordability of energy today while accelerating the energy transition, we're innovating across the entire energy value chain. We're introducing cleaner fuels into the energy mix, reducing the emissions of existing processes, turning promising technologies into scalable solutions, re-purposing existing infrastructure (for example, blending hydrogen into natural gas distribution networks) and continuing to invest in new, lower-carbon infrastructure, including renewables.

Our targets for reducing our GHG emissions were set in 2020, making us the first midstream company in Canada – and North America's largest energy infrastructure company – to commit to operating on a net-zero basis by 2050. We also committed to reducing the intensity of GHG emissions from our operations by 35% by 2030.

These targets were informed by using guidance and methodology recommended by the Science Based Targets initiative (SBTi), which drives ambitious climate action in the private sector. They're aligned with the goals of the Paris Agreement to keep global temperatures well below 2 C above pre-industrial times while pursuing means to limit the increase to 1.5 C. We continue to work with experts – including SBTi, the Institutional Investors Group on Climate Change, and Climate Action 100+ – to develop appropriate standards for our sector.

Every part of our business is now systematically engaged in our work to meet our GHG targets. Our LP, GDS and GTM groups are enhancing the efficiency of their infrastructure, procuring low- or zero-carbon emission power for their operations and adopting innovative technologies to minimize their GHG emissions. Our Renewables business is growing quickly, with \$4 billion in new investments planned through 2025. We continue to build partnerships, invest in new technologies, advocate for policy change, and acquire promising energy innovators – all to accelerate the energy transition while reinforcing our status as a responsible, differentiated energy provider in North America and internationally.

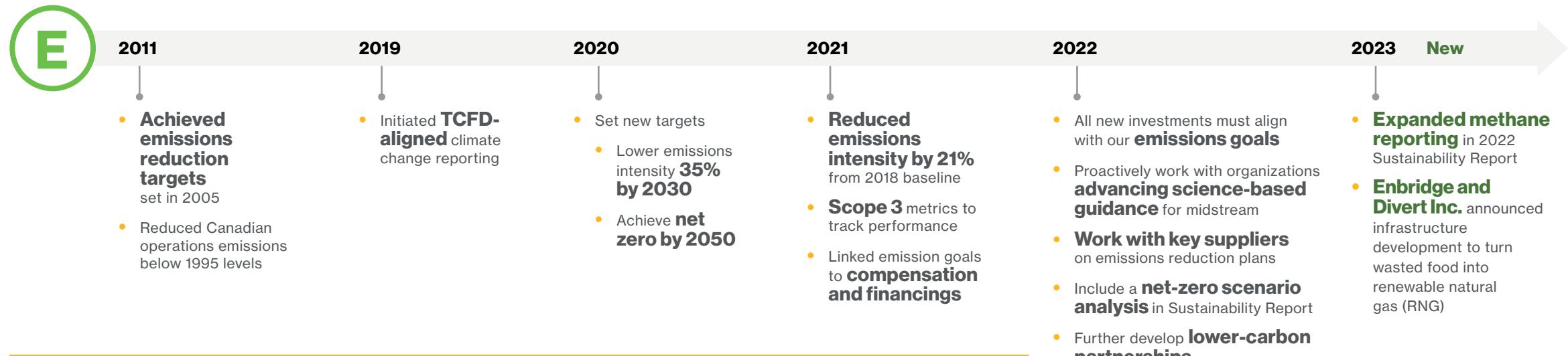


Learn more

The current update to our Task Force on Climate-related Financial Disclosures (TCFD) provides insight into how we see the transition to a lower-emissions economy and our role within that transition. Our disclosure has been updated to reflect updates from our business units – Liquids Pipelines (LP), Gas Transmission and Midstream (GTM), Gas Distribution and Storage (GDS) and Renewables; in particular, identifying physical and transition risks, and associated mitigation and management measures, for each business unit. See our [2022 ESG Datasheet](#) for details.

Emissions leadership in our sector

More than a decade of progress on lower-carbon operations



At Enbridge, we believe that we'll play a key role in bridging to a cleaner energy future and this focus drives our strategy. We are hard at work finding and applying new technologies to reduce our own emissions while also building new energy business platforms for the future.

Michelle George,
Vice President, New Energy Technologies

Increasing global energy demand

Global demand for energy has increased steadily over time, driven by megatrends, including worldwide population growth and urbanization.

The megatrends driving increased energy demand are expected to continue. [According to the United Nations](#), the world's population, which stood at 8 billion in 2022, could grow by 1.7 billion by 2050. Alongside population growth, urbanization and improved global health – both ongoing trends – tend to increase the demand for energy.

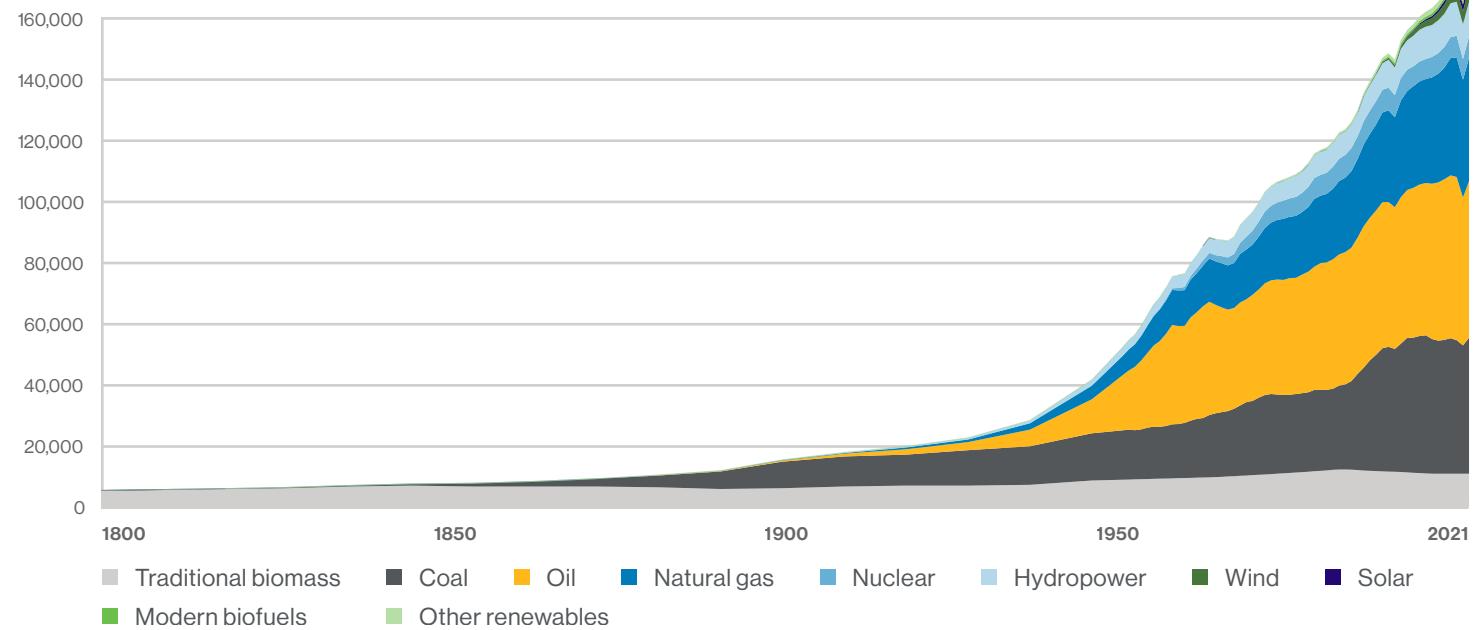
With these factors continuing to push the world's energy needs upward, the latest [International Energy Agency \(IEA\) World Energy Outlook \(Stated Policy Scenario\)](#) forecasts that energy demand will reach 206,000 TWh by 2050. While demand forecasts have been moderated slightly in view of high inflation and other factors, most analysis points to continued growth in the world's need for energy.

Although natural gas is a conventional fuel, there is growing recognition of the valuable role this fuel can play in the energy transition. The European Union's Green Taxonomy and the IEA's scenario analysis each foresee a role for natural gas as society moves away from conventional fuels and toward low-carbon or zero-carbon energy solutions. See our TCFD report for information on IEA natural gas forecast.

The potential for natural gas to enable progress in the energy transition includes the following:

- First, in markets where coal remains a dominant fuel source, switching to natural gas can deliver substantial reductions in GHG emissions relatively quickly. In the U.S., between 2010 and 2018, the roughly 100 power plants that switched from coal to natural gas delivered a reduction of about 255 million tonnes of CO₂e annually. Indeed, the single biggest contributor to reducing GHG emissions in the U.S. electricity sector in recent years has been coal-to-gas fuel switching. There are opportunities to replicate this success in other jurisdictions, especially in some of the world's

Historical global primary energy consumption by source (TWh) (see chart [here](#))



most populous countries where coal remains an important fuel source, notably China and India. As natural gas becomes more widely available and cost-effective in many parts of the world, analysts see the potential to reduce up to 50% of GHG emissions from the electricity sector for many regions through fuel switching.

- Second, natural gas can complement the intermittency of energy sources like solar and wind. In some cases, the supply of renewable energy varies according to weather and time of the

day. Natural gas can help to balance this variability by providing a reliable source of supplemental power when renewable energy or other energy sources are insufficient to meet demand. Natural gas provides flexibility in energy systems, enabling power plants to quickly ramp up or down as demands change.

- Third, natural gas systems can be decarbonized using various approaches such as CCS at compressor stations, hydrogen blending, etc.

The North American natural gas advantage

We believe North American natural gas and liquefied natural gas (LNG) are a key part of the global energy solution. Compared to natural gas produced in other regions, fuel from North American sources stands out on affordability and ESG performance. This cost advantage is expected to be longstanding. The abundant low-cost reserves and improved well production enables North America to continue supplying affordable gas to meet the world's natural gas demand. In 2022, the U.S. had more LNG export capacity than any other country and led the world in LNG exports. Enbridge's Texas Eastern natural gas pipeline is already connected to four LNG facilities on the U.S. Gulf Coast, and we are contracted for more. In addition to offering cost advantages, North American natural gas excels on ESG dimensions, particularly on emissions performance.

Canadian LNG has some of the lowest emissions intensity in the world, producing about 60% fewer GHG emissions per unit of volume than the global average, and our Woodfibre LNG project is expected to deliver exceptionally low emissions intensity, producing about 90% fewer emissions relative to global competitors. This relatively strong emissions performance is driven by a range of factors, including Canada's abundance of hydroelectricity, cooler temperatures, and Canada's geographic proximity to key markets, notably East Asia.

Expanding global access to natural gas through LNG will play a critical role in North America's energy future and will help to reduce the world's GHG emissions through the displacement of coal-fired power generation, creating strong alignment with our ESG goals.

Cynthia Hansen,
 Executive Vice President and President, Gas Transmission
 and Midstream



Artist's rendition of the Woodfibre LNG project, which is expected to enter service in 2027. Pacific Energy, our partner in this initiative, has worked over the past decade to establish excellent relationships in the community. The Squamish First Nation is participating in the project as a partner and environmental regulator; the project also includes a long-term benefits agreement and an option for the Nation to acquire an equity interest.

Methane

In order for natural gas to contribute to the energy transition effectively, it's vital that the industry continue to advance its current work to mitigate methane emissions associated with natural gas production and transmission. Methane is a primary component in natural gas and a contributor to climate change. As one of North America's largest energy infrastructure companies, Enbridge moves about 20% of all natural gas consumed in the U.S. and operates North America's third-largest natural gas utility by customer count, delivering service to about 15 million people in Ontario and Quebec. We believe natural gas has a critical role to play in the transition to a low-carbon economy – both by replacing emissions intensive fuels such as coal and as a reliability-enhancing complement to renewable energy sources such as wind and solar.

While natural gas is inherently much cleaner than other fuels such as coal, Enbridge and others across the industry are pursuing opportunities to reduce greenhouse gas (GHG) emissions from natural gas even further. By continuing to adopt innovations and enhance the infrastructure, technology and monitoring instruments we use, natural gas providers can help society achieve the greatest possible benefit from this important fuel while minimizing contributions to climate change.

As part of our commitment to reducing GHG emissions and supporting the transition to a low-carbon economy, Enbridge is working to reduce methane emissions across our operations. In 2022, our methane emissions were about 23% lower than they were in 2018, our baseline year.

This section of our 2022 Sustainability Report presents an overview of how and why our operations release methane emissions, describes our efforts to mitigate these emissions, and shares our perspective on regulations and industry initiatives to reduce the amount of methane released into the atmosphere through oil and gas operations.

Methane 101

What is methane?

Methane, the main component in natural gas, is odorless, colorless, lighter than air and slightly soluble in water. Easily ignited, methane generates carbon dioxide (CO₂) and water when it's burned. In addition to being a potent GHG, methane is the primary contributor to ground-level ozone.

Why is reducing methane emissions so important to climate change mitigation?

Analysis from the United Nations Environment Program (UNEP) concludes that a 45% reduction in global methane emissions by 2030 is essential to limiting global warming to 1.5 degrees.

Methane breaks down in the atmosphere more quickly than CO₂, meaning its effects are less persistent than those of CO₂. However, for as long as methane remains in the atmosphere its effects are powerful: during an initial 20-year period after release, methane has more than 80 times the warming power of CO₂. This powerful warming effect causes experts to believe that cutting methane emissions is critical to mitigating climate change.

According to the [IEA Methane Tracker](#), methane has been responsible for about 30% of the global warming that has occurred since pre-industrial times. Although some methane emissions occur naturally, a large share of today's methane emissions come from human activities, including the production and use of fossil fuels (see graphic).

Sources of methane emissions

Some methane emissions occur naturally, arising from sources such as wetlands. But most methane emissions released over the past two centuries have been produced by human activity (~60%), including agriculture and the production of energy from coal and fossil fuels.



NATURAL SOURCES

- Natural wetlands
- Natural processes in soil
- Chemical reactions in the atmosphere

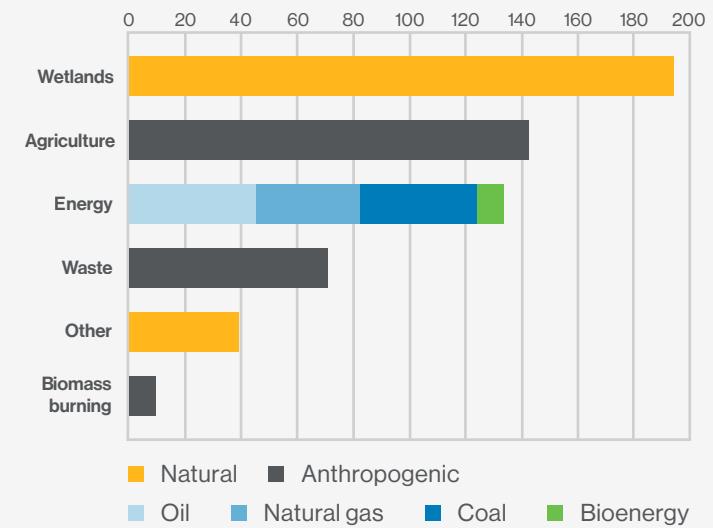


HUMAN SOURCES

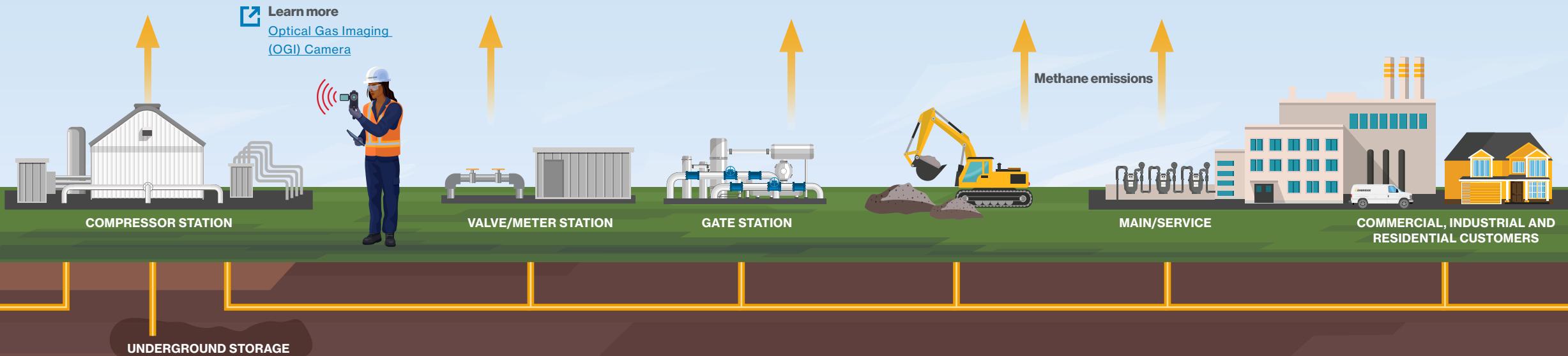
- Agriculture
- Energy and industry
- Waste from homes and businesses

Sources of methane emissions

(million tonnes) (see chart [here](#))



 [Learn more](#)
[Light Detection and Ranging \(LiDAR\)](#)
[Emissions Detecting Spectrometer](#)



Safety operations

To perform maintenance on natural gas pipelines, crews sometimes need to depressurize segments of pipe, resulting in “blowdowns.” In the past, maintenance often meant releasing natural gas into the atmosphere. Enbridge has been expanding our use of equipment and procedures that let us minimize or prevent blowdowns. We've already reduced emissions from this source substantially and our goal is to continue to mitigate or avoid methane emissions during planned maintenance.

Equipment design

Some equipment vents a relatively small volume of methane as part of its normal operations. We have maintenance practices in place to minimize such emissions. In addition, we're using a combination of equipment replacements and retrofits to further reduce methane emissions from equipment originally designed to vent.

Inefficiencies

As infrastructure ages, it can become less efficient, gradually releasing small quantities of methane. To mitigate emissions from this source, we monitor our infrastructure proactively with approved detection methods and respond as quickly as possible to any leaks we identify. Our asset risk group uses analytics to identify equipment that may be at elevated risk of failure so we can replace it before emissions occur. See page 23 for a discussion of our leak detection and repair progress in this area.

Third-party damage

We have safety procedures to protect pipeline integrity when Enbridge teams perform work near our pipeline infrastructure. However, on occasion, underground pipes are damaged through third-party digging – when people excavating in the area have not identified the location of key pipeline infrastructure. (Emissions from this source account for a very small proportion of our total methane emissions.) We take many steps to educate customers, suppliers, neighbors, and the general public about this risk. See page 37 for more information.

Enbridge's work to reduce methane emissions from our operations

Enbridge has a comprehensive plan to reduce our GHG emissions intensity by 35% by 2030 and achieve net-zero emissions by 2050 (see [pages 16–19](#)). Reducing our methane emissions is one aspect of our work to meet those overall targets. Below we describe a few examples of our efforts.

Modernization and innovation: examples from across our operations

We're working to mitigate or eliminate emissions from all the causes laid out on [page 21](#). Here are a few recent cases of effective approaches:

We have been working to mitigate vented methane releases during equipment maintenance and project construction, including expanded use of blowdown recovery system to capture the gas from planned blowdowns and return gas from depressurized equipment back into the system (see [page 21](#) for information on blowdowns). In 2022, Gas Transmission and Midstream (GTM) used mobile recompression units 40 times, avoiding over 200,000 tonnes of CO₂e relative to traditional pipeline integrity practices. Currently, Gas Distribution and Storage (GDS) has blowdown recovery compressors located at its compressor stations along the Dawn-Parkway system in southwestern Ontario.

Another example of avoiding and reducing emissions happened in GTM when we needed to replace three large pipelines in Tennessee in 2022. The increasing proximity of residential development to our right-of-way meant that the infrastructure had become subject to elevated safety standards. During the construction phase of the pipeline replacement, the work could have led to substantial methane emissions by necessitating extensive blowdown.

By using stopple bypass technologies and recompression operations, Enbridge was able to replace the three pipelines while keeping its blowdown emissions near zero, saving 9,760 tonnes of CO₂e. GTM also increased the use of AtlasWrap, an engineered, high-stiffness carbon fiber material that lets us reinforce the operational strength of pipelines. Using mitigation measures like recompression, stopples, and AtlasWrap enables Enbridge to perform maintenance while minimizing or eliminating the amount of natural gas blown down in the pipeline section when repairs are needed.

Enhancing data quality with measured data specific to our operations

Gaining a clear picture of how and where methane emissions happen is an essential part of emissions reduction efforts, because accurate detection and measurement help industries target their mitigation efforts at the most important sources.

Developing high-quality measurement and monitoring tools and programs is a complex technical challenge. Enbridge continues to monitor the development of methane detection and monitoring technologies and engage in active discussions in this area with vendors and technology providers. We are receptive to partnerships focused on the development, piloting and deployment of enhanced tools, as well as to research collaborations that lay the foundations for such tools. As we explore innovations that will give us an even more precise understanding of our emissions, we continue to engage with industry bodies and regulators to keep pace with leading practices that rely on today's approved tools. Given the limitations of current technologies, Enbridge, like other natural gas companies, relies in many areas on engineering estimates and calculations designed to support evidence-based decision-making in the near term.

One recent noteworthy initiative in our pursuit of enhanced emissions monitoring was our voluntary survey of methane emissions from dry gas seals across our U.S. gas transmission operations. Dry gas seals are pieces of mechanical equipment associated with centrifugal compressor systems. The Environmental Protection Agency (EPA) does not currently require reporting of methane emissions from dry gas seals but in 2021, Enbridge took a first step toward estimating our emissions from these sources by applying Canadian emissions factors to our U.S. infrastructure. More recently, our GTM business unit went even further, beyond the U.S. regulatory requirements, carrying out a comprehensive dry gas seal measurement survey and reporting emissions from these sources.

Although our work to develop a comprehensive and precise understanding of methane emissions across our operations is active and ongoing, the rigor and quality of our current measurements have enabled us to obtain limited assurance on our methane data from third-party auditors since 2021. See the [2022 ESG Datasheet](#) for our limited assurance statement.

Measurement and monitoring: challenges and approaches

Enbridge operates natural gas infrastructure with thousands of compressor stations and meter/valve stations across vast distances in Canada and the U.S. Some of this equipment is in remote locations and difficult to access. We invest heavily in our capacity to detect and respond as quickly as possible to any issues that may emerge across these systems, including tiny leaks. Each of our business units has developed leak detection and repair protocols specific to its systems and equipment in order to identify and limit unplanned methane emissions. We use various technologies to detect our methane emissions, including Optical Gas Imaging cameras, handheld “sniffer” gas detectors, and AVO (audio, visual and olfactory) inspections.

Enbridge continues to explore and adopt new technologies to help us detect and address methane leaks, especially in remote locations. Currently, no single technology offers a perfect solution for monitoring emissions across large areas like those in Canada and the U.S. – but we continue to partner and innovate in pursuit of enhanced tools and approaches.

The table on the right offers an overview of some of the tools we have deployed or are in the process of evaluating.

Summary of detection, monitoring and measurement tools

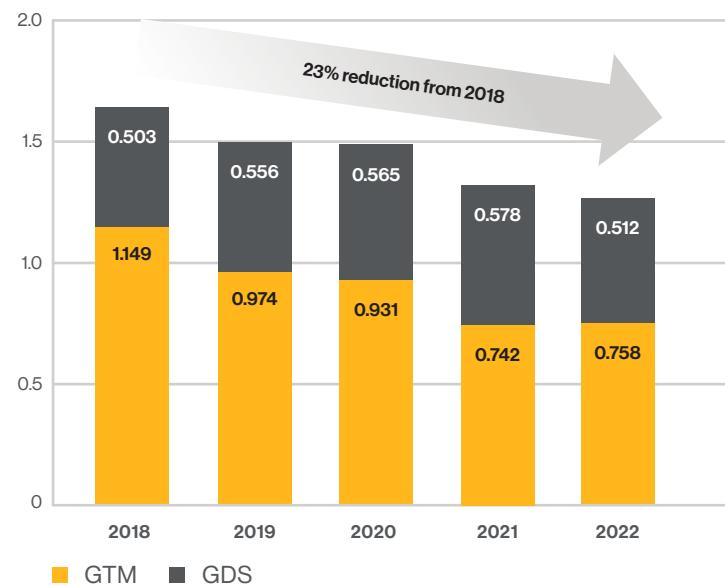
Detection method	Optical Gas Imaging (OGI) Camera	Light Detection and Ranging (LiDAR)	Emissions Detecting Spectrometer
			
<p>Description</p> <ul style="list-style-type: none"> Highly specialized version of an infrared or thermal imaging camera Hand-held or mounted for stationary use or by drone Approved by regulators Sensitivity of 60 g/hour methane <p>Benefits</p> <ul style="list-style-type: none"> Ability to pinpoint leak source Operators can quickly determine leak location; in many cases, this rapid pinpointing of location allows repair of leaks during a survey 	<ul style="list-style-type: none"> Mounted to aircraft or drones Images gas using wavelengths of specific colors; as light is absorbed differently by the target gas, the technology can convert the visual variations to gas concentrations 	<ul style="list-style-type: none"> Ability to detect most methane emissions Access to remote areas Ability to cover large areas 	<ul style="list-style-type: none"> Mounted to satellites or aircraft Reported sensitivity of 100 kg/hour from satellite or 10-35 kg/hour from aircraft

We are committed to improving our emissions, and our gas transmission team is focused on and incentivized to reduce methane that could be vented to the atmosphere. Our compensation is tied to performance, including annual goals to reduce both the intensity and the number of events where methane could be emitted. In 2022, our Enbridge gas transmission team mitigated or avoided over 65% of gas volumes from pipeline blowdowns—the emissions savings from that are equivalent to CO₂ emissions from over 35,000 homes' annual energy use!

Erin Petkovich,
 Director, Low Carbon Strategy

Our methane performance summary

Methane emissions (million tonnes CO₂e)



2022 methane breakdown by BUs and by sources

Methane source	GTM	GDS
Stationary Combustion, tCO ₂ e	18,777	8,931
Flare, tCO ₂ e	779	216
Vented, tCO ₂ e	649,548	102,245
Fugitive, tCO ₂ e	88,420	400,299
Total, tCO ₂ e	757,524	511,691

Policymakers and industry: North American efforts to reduce methane emissions

In North America, there is broad agreement among the oil and gas industry and policymakers about the importance of reducing the industry's methane emissions. Voluntary efforts to reduce methane emissions have been growing in North America, including in the oil and gas sector, for well over a decade. These voluntary efforts have focused on shared measurement and reporting standards in support of overall emissions reduction initiatives. At the same time, regulators in both Canada and the U.S. have proposed stringent rules – a trend that is ongoing and expected to result in increasingly exacting regulations in the years ahead.

Public policy

Enbridge supports efficient, effective methane regulation on both sides of the Canada-U.S. border. We believe the most effective path to achieving meaningful reductions in emissions is to focus on practical, cost-effective regulations that target the sources of the highest methane emissions.

In Canada, Enbridge adheres to federal Methane Emissions Reduction policies. These policies stipulate that leak detection surveys occur on a regular basis and that detected leaks be repaired within a specified time. Canada's methane regulations also include equipment-level emission limits for pneumatic devices and compressor seals/rod packing. The federal government recently released a proposed framework document for amendments to the methane regulations that would expand requirements regarding vented and fugitive emissions related to the oil and gas sector in Canada. Enbridge has informed the development of Canada's methane regulations by providing feedback to governments through direct submissions and by participating in advocacy convened by industry groups such as the Canadian Gas Association.

In the U.S., methane regulations are also expected to become more stringent. Drafts and proposals from the Environmental Protection Agency (EPA) in 2021 and 2022 have included measures such as:

- requiring compressor stations to monitor and repair leaks at least monthly



- requiring a transition to zero-emission pneumatic controllers
- new standards for new and existing dry seal compressors (previously unregulated)

Forthcoming regulations are expected to support innovation in advanced methane detection technologies, to permit flexibility in the tools firms use to monitor and detect emissions, and to require pipeline operators to minimize methane emissions across their pipeline systems.

To inform regulators like the EPA on proposed rules, Enbridge participates in the Interstate Natural Gas Association of America's (INGAA) GHG committee and in the American Petroleum Institute's (API) Climate Policy Subcommittee. To shape technically sound regulations that achieve reductions in methane emissions, Enbridge has informed comments from industry groups on several federal methane rules. As we participate in these processes, our goal is to share insight from our own emissions measurement practice and to identify ways to ensure that emissions inventories in the oil and gas sector are comprehensive. These steps will help to ensure that the industry's emissions reduction efforts are as effective as possible.

Voluntary efforts

Canada and the U.S. are both signatories to the Global Methane Pledge (GMP), an initiative launched at COP26 in 2021, through which countries commit to taking voluntary action to reduce global methane emissions by at least 30% by 2030, relative to a 2020 baseline. Since signing the GMP, Canada's federal government has deepened its commitment, announcing the goal of reducing oil and gas methane emissions by at least 75% by 2030 relative to a 2011 baseline.

Enbridge is a member of the ONE Future coalition – a group of more than 55 natural gas companies that collectively represent more than 20% of the natural gas value chain in the U.S. Formed in 2016, this group set out to reduce member companies' methane emissions intensity to less than 1% – meaning that for a given volume of natural gas, at least 99% should move from the rig to the burner tip while less than 1% is lost in the process of delivering it. With respect to transmission and storage specifically, the dimensions relevant to Enbridge's work, the intensity target is 0.3%. Enbridge joined the ONE Future coalition in 2019, and our emissions relative to our overall value chain have consistently been within ONE Future's target. In 2021, our methane intensity was 0.028%, based on Pipeline and Hazardous Materials Safety Administration (PHMSA) throughput.

We sponsor and support Veritas, GTI Energy's Methane Emissions Measurement and Verification Initiative, a gas measurement and verification protocol. This initiative brings together a wide range of stakeholders, including scientists, environmental organizations and industry groups, to develop a consistent and credible approach to quantifying and verifying methane emissions.

We are a member of API's The Environmental Partnership (TEP), a group of about 100 U.S.-based oil and natural gas companies (representing more than 70% of the U.S. onshore oil and natural gas industry) focused on identifying and adopting solutions to enhance environmental performance that "are technically feasible, commercially proven and will result in significant emissions reductions." TEP operates six distinct environmental performance programs, advancing goals such as reducing flaring and replacing gas-driven pneumatic controllers with low-emissions or zero-emissions devices. Among other activities, Enbridge participates in TEP's Methane Measurement and Monitoring Working Group.

Enbridge is also actively exploring the possibility of joining the Oil & Gas Methane Partnership 2.0 (OGMP 2.0). OGMP is a voluntary multi-stakeholder initiative launched in 2015 and designed to help oil and gas companies reduce methane emissions, starting with the development of a measurement-based reporting framework for the oil and gas sector. Companies that join this voluntary initiative commit to reporting on all material sources of methane across their value chain, including assets they operate and those they don't operate. The OGMP's methodology was designed in 2014 in partnership with industry, government, and civil society as part of the UNEP-led Climate and Clean Air Coalition's (CCAC's) Mineral Methane Initiative (MMI). Since the OGMP was launched, the methane landscape has changed considerably, with growing numbers of industry players recognizing the importance and urgency of mitigating methane emissions. Created in November 2020, OGMP 2.0 is an even more ambitious and comprehensive reporting framework than the 2014 version that directly connects reporting activity to strategic mitigation actions. The partnership has developed an aspirational goal of reducing methane emissions by 45% by 2025, relative to a 2015 baseline. The coalition aims to go further by 2030, reducing emissions by 60% to 75%.

The OGMP's reporting framework lays out five levels of reporting quality – with 1 being the least detailed and company-specific and 5 being the most detailed, comprehensive and specific (for example, measured data directly from a company's infrastructure). Part of the commitment companies make in joining the OGMP is to achieve "Gold Standard" methane reporting within three years: achieving level 4 or 5 across all reporting categories. Enbridge has engaged with the OGMP to discuss some of the technical considerations that are unique to our midstream operations. We have also begun to use the OGMP's five-level framework to evaluate the current state of our methane emissions measurement and reporting. As part of this evaluation process, Enbridge conducted a self-assessment to evaluate our current reporting approach against OGMP 2.0 methodology.

Methane source breakdown and rated against OGMP 2.0 five-level quantification methods

Methane emission sources	Method	Enbridge (self-assessed OGMP level score)
CH ₄ – Combustion – Stationary – Operations	Source-specific measurement using field data and emission factors	3
CH ₄ – Flaring	Source-specific emissions factors	3
CH ₄ – Vented	Source-specific emissions factors or measured/ engineering-estimated emissions at source level	3 and 4
CH ₄ – Fugitives	Source-specific emissions factors or measured/ engineering-estimated emissions at source level	3 and 4



[Learn more](#)

[One Future](#)

[OGMP](#)

Enbridge's work to reduce methane emissions outside our operations

In addition to mitigating methane emissions from our conventional natural gas operations, Enbridge is making investments in renewable natural gas (RNG) – and thus helping to address other important sources of methane emissions outside of the natural gas value chain, including landfills and agriculture. In Ilderton, Ontario, we've embarked on an [innovative partnership](#) with a facility that transforms on-farm and community-based organic waste into RNG, a carbon-neutral fuel. To create RNG, producers capture "biogas" emissions from organic waste, landfills and wastewater treatment plants, and then upgrade the gas into pipeline-quality fuel. Enbridge is connecting the RNG production facility in Ilderton to the energy grid, blending the facility's fuel into Enbridge's existing storage and distribution network using an innovative RNG injection station. This arrangement will enable more homes, businesses and vehicle fleets to access RNG – diverting more than 60,000 tonnes of community-based organic waste each year and eliminating more than 11,000 tonnes of GHG emissions annually.

South of the Canada-U.S. border, Enbridge has launched a partnership with Vanguard Renewables that will also help to support adoption of RNG. Under the partnership, Vanguard, a leading developer of RNG infrastructure, will build and operate digesters used to convert food and farm waste into RNG, while Enbridge will invest in the upgrading equipment that will turn RNG into pipeline-quality natural gas. In addition to investing in new RNG infrastructure at eight sites across the U.S. (a total investment of about \$75 million), Enbridge will also help transport and sell the upgraded natural gas to large multinational companies with aggressive decarbonization goals.



Enbridge and Divert Inc. have unveiled plans to join forces and develop more facilities that turn wasted food into renewable natural gas. It's a historic collaboration for Enbridge that aims to help tackle both important issues – wasted food and GHG emissions.



Learn more

[Wasted food becomes carbon-neutral fuel](#)

Pathways to net zero

Key strategies for meeting our emissions reduction targets

Enbridge continues to advance progress towards our emissions reduction goals. To maintain strong progress and ensure that the assumptions and analysis underpinning our plans are rigorous, we refine our models and projections over time, remaining aware of contextual factors that shape our business environment, from technological advances to policy changes.

In 2022, we fully integrated our emissions reduction goals within our business unit budgeting and long-range forecasting. As a result, our slate of emissions reduction projects are now prioritized from 2023 through 2026.

We use a marginal abatement cost curve to guide our investment in emissions reduction initiatives, assessing which projects will most efficiently deliver the results required to meet our 2030 emissions intensity reduction target. Enbridge leaders agreed in 2021 on the principles and frameworks that would guide our capital allocation choices. In 2022, our business units took further steps to implement these approaches and align employee and executive compensation around executing on these GHG emissions reduction projects each year.

The pathways shown remain the most current forecast of our route to net zero; carbon offsets and credits are still estimated to represent about one-quarter of our net-zero strategy. We are in the process of updating the models and forecasts that underpin these four pathways and expect to complete this analysis throughout 2023.

Our net-zero strategy focuses on four key pathways:

- Modernization and innovation to increase efficiency and reduce the operational emissions of existing infrastructure
- Decarbonizing the energy we use by procuring low-carbon power and self-powering our assets with renewable energy
- Investing in renewables and lower-carbon infrastructure
- Balancing residual emissions through selective investments of carbon offset credits generated by nature-based solutions

Pathways to 35% emissions intensity by 2030 (Scope 1 and 2)

Environmental target

Reduce emissions intensity

35% 
by 2030

Reduction pathways

	Modernization and innovation	30%
	Procurement and low-carbon power	45%
	Self-powering our assets	15%
	Investing in renewables and low-carbon infrastructure	10%

Pathways to net-zero emissions by 2050 (Scope 1 and 2)

Environmental target

Net zero emissions by 2050 

Reduction pathways

	Modernization and innovation	20%
	Procurement and low-carbon power	15%
	Self-powering our assets	10%
	Investing in renewables and low-carbon infrastructure	30%
	Offsets and carbon credits	25%

Investing in tomorrow's energy

We achieved substantial progress on the four key pathways that ground our net-zero strategy. We presented an overview of the relative contribution we expect each pathway will make, and in this section, we describe the specific activities and investments that are delivering emissions reductions in each area.

Modernization and innovation

We continue to modernize our existing assets and use innovative practices to enhance efficiency and reduce GHG emissions across our operations.

In 2022, our GTM business advanced its modernization program, replacing older compressor units in the gas transmission system with newer, more efficient equipment. In October, we put a new compressor into service at our Bechtelsville, PA station. We expect to complete two further replacements in 2023, and an additional six through the end of 2026. In addition to enhancing the reliability of the system overall, each replaced compressor is expected to deliver GHG emissions reduction of about 25% relative to the older models. Moreover, newer compressors can be operated by advanced controls that give us more flexibility in how we allocate compression power – meaning that they're more efficient individually and give us more opportunities to optimize the efficiency of the wider system.

Our LP business unit continues to deepen its focus on reducing electricity consumption by optimizing system operations and upgrading equipment. Over the past few years, we have demonstrated the efficacy of allocating larger volumes of crude oil to more energy efficient pipelines and rightsizing pumps and equipment based on flow rates to improve efficiency. We also use a drag-reducing agent to reduce pipeline fluid friction; this allows us to move fluid through pipelines using less energy, and in some cases even bypass some pump stations altogether. We are also expanding the application of an energy optimization system that uses machine learning to fine-tune the pump combinations, the operation of variable-frequency drives on pumping units, and improving overall coordination – all to achieve maximum efficiency across our system. Having established the efficacy of these strategies on parts of the system, we worked to apply them more broadly across our system, scaling the efficiency gains. These LP initiatives are estimated to reduce over 100,000 tonnes of CO₂e emissions annually.



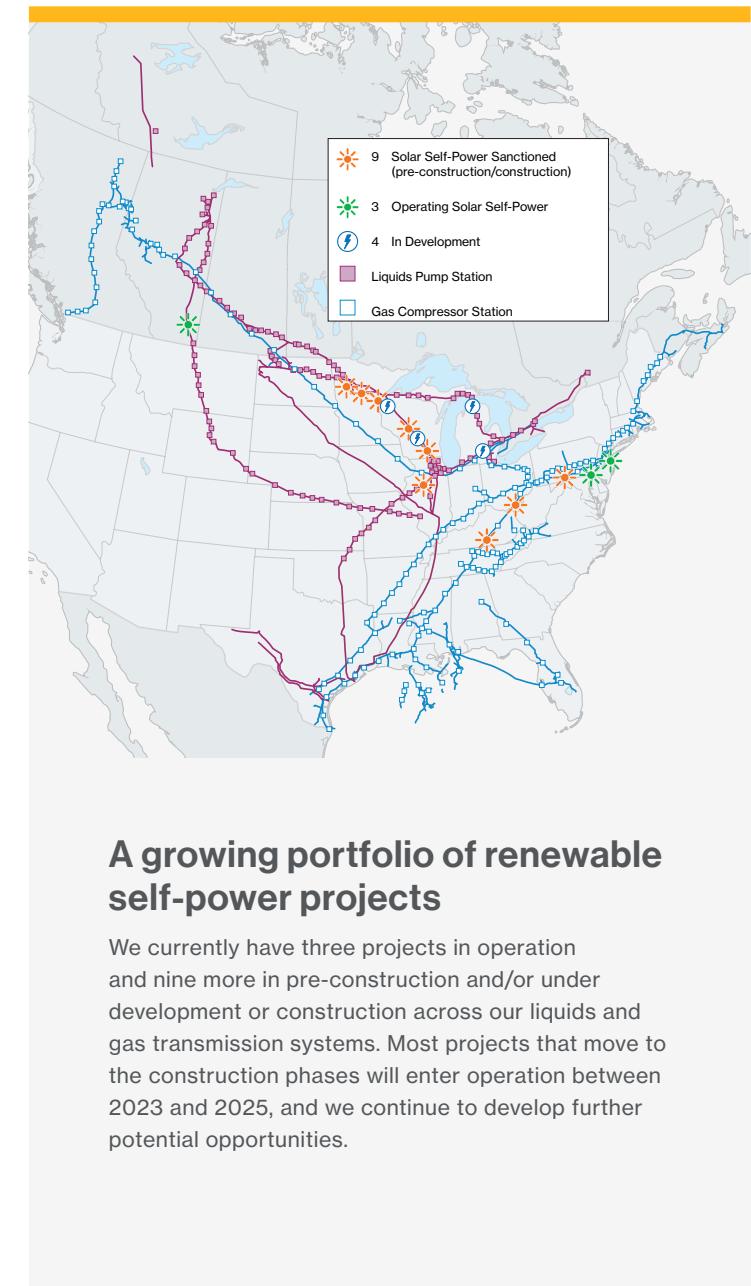
Procurement of low-carbon electricity

We look for opportunities to increase power supply from less emissions intensive sources, including renewables. This requires us to engage actively with utility providers across multiple jurisdictions, signaling our interest in low-carbon alternatives and encouraging them to make the changes necessary to green their grids – whether that means shifting from coal-fired power to natural gas, or making other adjustments to increase the availability of renewables in their power mix.

We are working collaboratively with our utilities on opportunities to accelerate the pace of decarbonization to achieve both our and their emissions reduction goals, including procuring low- and zero-carbon electricity. As an example, in 2022, in Illinois, we secured a zero-emission source for our operations throughout that state.

Self-power

As we provide conventional and lower-carbon energy to consumers, we're seeking innovative and efficient ways to power our assets and operations. To date, we have entered three solar projects into operation and are advancing nine others in the United States to develop low-emission electricity for our pump and compressor stations. Collectively, these 12 projects (either in operation or pre-construction) will provide more than 102 megawatts of clean energy capacity, from Wisconsin to Alberta to Kentucky to Minnesota. That's the equivalent of powering 23,700 households with low-emission electricity.



Enbridge is committed to collaborating with our utilities to procure low-emission power and to accelerating that pace of decarbonization through various initiatives, including advancing solar self-power projects.

April Moon,
Vice President, LP Asset Performance, Power and Emissions

New Energy Technologies group

A specialized team to lead our work in renewables and low-carbon fuels

Enbridge's investments in renewable energy and low-carbon fuels extend back more than two decades. We've explored these energies both to provide them to customers and to power our own equipment and operations.

In late 2021, we created a new team to help facilitate collaboration across our business units in new energy technology. The New Energy Technologies (NET) group now acts as a center of technical and business expertise, ensuring that our business units and organizational divisions benefit from each other's learning and investments. Throughout 2022, NET has been participating actively in conversations with industry partners as well as policymakers, sharing our perspective and technical knowledge.

Michelle George, Vice President, New Energy Technologies, appeared on several panel discussions on emissions reduction opportunities with new energy technologies. For example, in the fall of 2022, she appeared on a panel at Climate Week NYC to discuss the emissions reduction potential of hydrogen blending in existing natural gas infrastructure. She also appeared at the Energy Disruptors Summit, contributing to a panel on hydrogen as a tool for decarbonization. Enbridge continues to develop new energy technologies, extending our record of leadership in areas such as renewable natural gas and hydrogen (see sidebar). We see this area of work as a vital complement to our growing portfolio of wind and solar projects.

Ms. George is a strong advocate for finding ways to leverage existing transportation and transmission infrastructure which is vital to achieving a cost-effective energy transition. Among many other efforts, Enbridge is currently undertaking a systematic review of our infrastructure to explore where the blending of low-carbon fuels is most immediately feasible, and where it would require upgrades and adaptations.

Low-carbon energies

In addition to building our wind, offshore wind and solar portfolio, we continue to develop new energy technologies, extending our record of leadership in areas such as renewable natural gas and hydrogen (see sidebar).

Carbon capture and storage

The International Energy Agency calls carbon capture and storage (CCS) one of the world's most critical decarbonization strategies. Work has begun on the Open Access Wabamun Carbon Hub near Edmonton, Alberta, a major CCS project co-developed and co-owned with Indigenous partners. We're also pursuing CCS activity at our Enbridge Ingleside Energy Center (EIEC) (see [page 32](#)), acquired in 2021, and preparing to explore opportunities in Ontario, where recent legal changes have opened up the possibilities for CCS.

A hydrogen-powered operations center

Extending our record of innovation in Ontario by shrinking the carbon footprint of a 120,000-square-foot facility

In Ontario, building heat is the second largest source of GHG emissions. A [first-of-its-kind in North America pilot project](#) at our gas utility's Technology Operations Centre (TOC) in Markham, ON seeks to demonstrate a promising strategy to reduce this source of emissions.

Enbridge is working with 2G Energy and CEM Engineering to install a combined heat and power (CHP) system that can use emissions-free hydrogen to heat and power the 120,000-square-foot facility, where nearly 200 Enbridge employees work. The CHP, provided by 2G Energy, will be able to operate with a range of blending ratios – from a minimum of 25% hydrogen (with 75% natural gas) up to a maximum of 100% hydrogen.

GDS has been producing hydrogen at the Markham facility to blend with its utility natural gas supply since 2018 – the first utility-scale initiative of its kind in North America.

I commend Enbridge Gas on continuing to work on innovative solutions that are helping to transform its natural gas grid and support our work on building a clean, affordable and reliable energy future for our province.

Todd Smith,
Ontario Minister of Energy

Renewables

Enbridge purchased our first solar facility in 2008, and we've been investing in renewable energy ever since – both to meet the growing demand for clean electricity and to reduce the carbon emissions of our operations. Today, our portfolio of renewable energy assets helps to avoid more than 2 million tonnes of CO₂e emissions annually.

Enbridge dramatically expanded its presence in the North American renewable energy market with the acquisition of [Dallas-based Tri Global Energy LLC \(TGE\)](#), the third largest onshore wind developer in the U.S., with a development portfolio of wind and solar projects representing more than 7 GW of renewable generation capacity. Through this acquisition, Enbridge's growing renewables business secures 3.9 GW of advanced-development projects and 3 GW of earlier-stage projects.

We continue to grow our in-house capacity to build and operate renewable energy, reinforcing our position as one of North America's leading developers. We're investing in the talent and technical capabilities we need to assume full operational control of a larger share of our renewable energy infrastructure, including some projects currently under development. As we expand our capacity to operate every aspect of these systems, we're able to enhance our operational efficiency – further extending the environmental benefits of the assets while improving our business performance.

Our renewable power generation capacity in Europe is also growing significantly. The new 480-MW [offshore wind farm at Saint-Nazaire](#), which became operational in 2022, expands our total net renewable operating generating capacity to 1.9 GW. One of the three wind energy projects Enbridge has under construction is Provence Grand Large, a floating wind project off the southern coast of France. This floating asset may hold important lessons for the future of renewable power generation in North America, since a key challenge to wind power along much of the continent's coastline is that seafloors drop off quickly. It's economically impractical to install turbines in the nearby deep coastal waters.

Our renewable and low-carbon energy portfolio

	Wind	Solar and other	RNG/H ₂
Capacity and equivalent homes powered by renewables	4.9 GW (2 GW net) 915,000 homes	312 MW (206 MW net) 52,000 homes	RNG: 1,400 GJ (Q1 2023) H ₂ : 283,000 kg
Investment since 2002	\$7.6 billion	\$0.985 billion	\$0.1 billion
Projects	20 operating 3 under construction	14 operating 9 under construction	4 operating 5 under construction



Enbridge has a 25.5% ownership stake in the Saint-Nazaire Offshore Wind Project, which entered service in November 2022. The 480-MW wind farm features 80 GE Haliade 160-6 MW turbines which can collectively generate electricity to power an equivalent of about 400,000 homes, or 20% of the Loire-Atlantique region's electricity consumption.

At Enbridge, we're proud about the arrival of the Company's first commercial-scale offshore wind project in France and about our role as a leader of the global energy transition.

Matthew Akman,
Executive Vice President, Corporate Strategy and President, Power

CASE STUDY

Enbridge Ingleside Energy Center

A premier shipping facility meets today's energy needs while advancing our vision for a net-zero future

In September 2021, Enbridge announced the acquisition of a 100% operating interest in the Enbridge Ingleside Energy Center (EIEC), a state-of-the-art shipping facility near Corpus Christi, Texas. The facility is North America's largest crude export terminal, and loaded 25% of all U.S. Gulf Coast crude exports in 2020. Building on this investment in conventional energy export capacity, in 2022, Enbridge advanced steps to align this important facility with our ambitions for a net-zero future.

Investing for the transition

EIEC is an example of how we're evaluating investments with a view to both emissions reduction and tomorrow's energy markets. Before acquiring the facility, we considered its resiliency to a range of energy transition scenarios, taking into account the EIEC's potential to produce and ship lower-carbon fuels – and to achieve net-zero operational emissions. While the facility's primary function today is grounded in global demand for conventional fuel, we invested based on our confidence that the EIEC could evolve alongside our own strategic priorities as well as changes in global energy needs.

Seizing the low-carbon opportunity at Ingleside

In May 2022, just eight months after the acquisition of Ingleside, we announced the development of an ultra-low carbon, utility-scale energy production facility to supply hydrogen and ammonia to U.S. and global markets. Although some carbon dioxide is generated in these production processes, newly developed carbon capture infrastructure, including at facilities owned and operated by Enbridge, will sequester 95% of emissions. This sequestration capacity, combined with the fact that hydrogen and ammonia have zero CO₂ emissions at the point of use, makes this EIEC energy supply highly sustainable.

Bringing sustainable power and efficiency to the shipping facility

Built in 2018 to industry-leading environmental standards to minimize its own carbon emissions, the EIEC is an advanced crude export terminal, capable of servicing very large crude carriers (VLCCs) efficiently and cost-effectively. In keeping with Enbridge's program of lowering emissions across every part of our operations – including in the transport of conventional fuels – we are working to build a solar power project capacity at the site, making it one of the most sustainable export facilities in North America. We expect to be able to generate up to 60 MW of renewable power on the available land around the terminal, exceeding the facility's own power needs and creating the opportunity to offer renewable power to nearby industrial and refining facilities, while achieving a robust return on our investments.



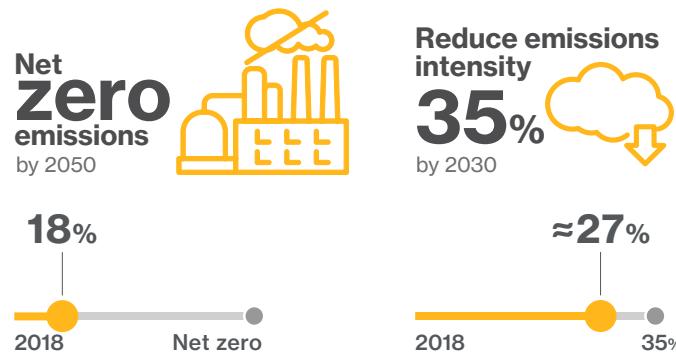
Enbridge Ingleside Energy Center is a good example of how Enbridge is leveraging existing conventional energy assets and capabilities to extend growth and capitalize on low-carbon opportunities in the energy transition.

Colin Gruending,
Enbridge Executive Vice President and President, Liquids Pipelines

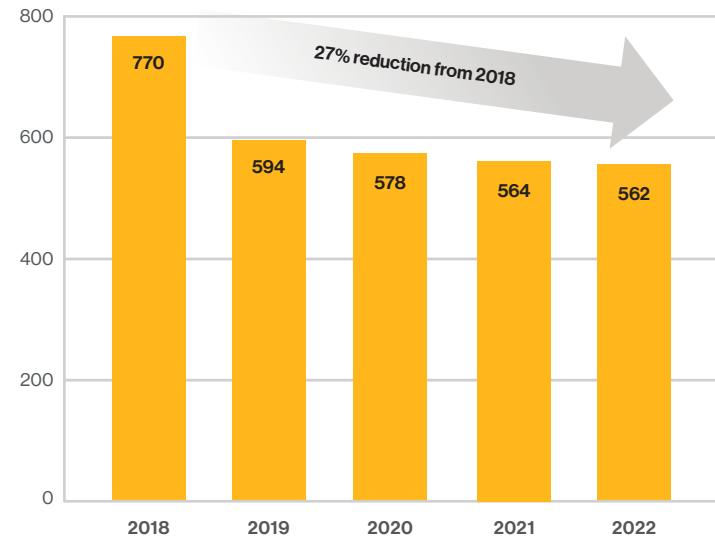
2022 GHG emissions performance

Enbridge continues to advance toward our goals, set in 2020, of reducing GHG emissions intensity by 35% by 2030 and achieving net-zero emissions by 2050. Since we set those goals, we have reduced our emissions intensity by approximately 27% and our absolute emissions by 18%, and we remain on pace to reach our targets.

Our ESG goals



Enbridge GHG emissions intensity (tCO₂e/PJ)



GHG emissions intensity target

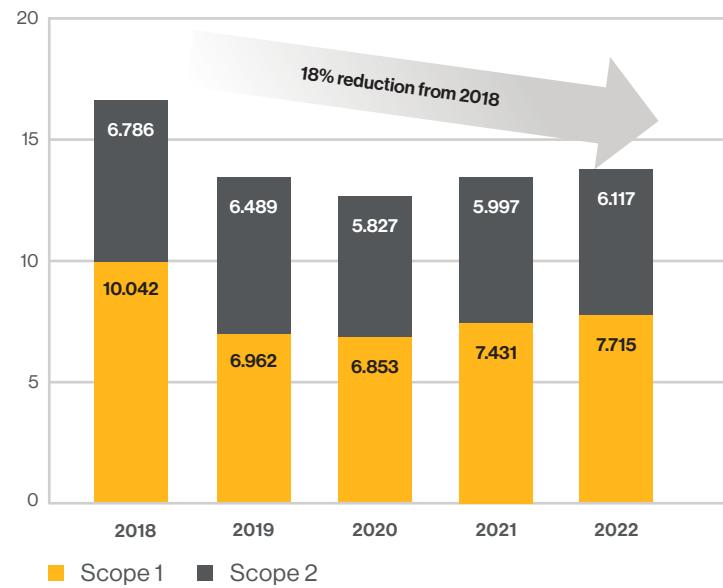
In 2020, we announced new ESG targets, including a goal to reduce GHG emissions intensity 35% by 2030. Since 2018, our base year, Enbridge has reduced emissions intensity by 27%. In 2022, despite an increase in energy consumed, emissions intensity decreased slightly – primarily through improved system efficiency and lower intensity of consumed power. While challenging, we remain confident in our plan and are focused on delivering in-year emissions intensity reductions. This intensity metric aggregates emissions and throughput for each business unit on the basis of tonnes of carbon dioxide equivalent per energy delivered in petajoules (PJ).



Learn more

See our [2022 ESG Datasheet](#) for more details on our emissions intensity metric.

Scope 1 and Scope 2 emissions (million tonnes CO₂e)



Scope 1 GHG emissions result directly from our operations. They include, for example, emissions from combustion in compressors, boilers or vehicles, as well as emissions from processing equipment (i.e. fugitive and venting emissions). Our GTM and GDS business units have primarily Scope 1 emissions because they use natural gas powered compressors to deliver gas into and through pipelines. Overall, company-wide Scope 1 emissions decreased significantly since 2018, yet observed a slight rebound in 2021 and 2022 primarily due to the end of pandemic restrictions and increased natural gas throughput.

Scope 2 GHG emissions result from the electricity we consume. Our LP business has primarily Scope 2 emissions because it uses electric pump stations to push crude oil through its pipelines. Similar to Scope 1, company-wide Scope 2 emissions have decreased since 2018, yet rebounded slightly in 2021 and 2022. The higher emissions were primarily due to increased throughput and power demands within LP, which were partially offset by lower intensity of consumed electricity.

Scope 3 GHG emissions are indirect emissions that occur in the value chain. Enbridge continues to lead our sector in tracking and reporting on Scope 3 emissions. Despite very limited guidance defining parameters for the midstream sector, we have tracked and reported on Scope 3 emissions since 2009, and we continue to enhance our approach every year. We report on selected Scope 3 emissions, including utility customers' natural gas consumption, our employee business air travel and electricity grid transmission and distribution loss (grid loss).

In 2022, our grid loss related Scope 3 emissions were higher than 2021—the result of higher electricity consumption. Our Scope 3 GHG emissions from employee business air travel increased significantly compared to 2022 due to the end of pandemic-related travel restrictions. Our Scope 3 customers' natural gas consumption increased from 2021, due to increased customer sales at GDS.

Scope 3 emissions (tCO₂e)

	2020	2021	2022
Transmission and distribution loss			
Total	176,000	188,000	297,000
Employee business air travel			
Total	1,400	600	3,600
Our customers' natural gas consumption			
GDS	47,300,000	48,300,000	53,800,000

Helping consumers reduce energy usage and managing Scope 3 emissions

GDS provides natural gas to more than 15 million people in Ontario and Quebec, through 3.9 million residential, commercial, institutional and industrial meter connections. We engage with municipalities, businesses, individual consumers and consumer advocacy groups on a range of related issues, including affordability and emissions reduction.

Only about 1% of the emissions associated with our gas utility come from our operations, while the other 99% are created when customers use the natural gas we provide. For more than 25 years, our demand-side management (DSM) programs have been helping consumers adopt strategies to use less energy, save money and minimize environmental impact.

In addition to helping consumers use less energy through equipment upgrades, behavior changes and other strategies, we continue to explore and scale solutions that enable us to provide consumers with lower-emission energy sources.

Pairing lower-carbon fuels with existing infrastructure.

We're working on blending fuels like hydrogen and renewable natural gas with conventional natural gas in the existing delivery infrastructure. For example, in January 2022, we announced with our partner Cummins that the [first hydrogen blending initiative](#) in North America was operational and serving the southern Ontario city of Markham. This network can deliver blended gas – clean hydrogen injected into the existing natural gas distribution network – to about 3,600 customers. By delivering these blended fuels directly to customers' homes, we help to reduce emissions without the need for major changes (such as furnace replacement) at the household level. The success of this project will enable us to validate and pursue larger-scale hydrogen-blending activities in other parts of our distribution system.

Smart hybrid heating solutions for savings and efficiency.

Advanced controls for home heating and cooling appliances also hold promise for boosting energy efficiency. These controls respond to changes in ambient temperature and on the energy grid, adjusting the energy sources they draw on for heating and cooling. In 2022, we launched [a pilot project](#) in four Ontario communities to help homeowners reduce energy costs and environmental impact by using smart controls and air-source heat pumps in combination with conventional natural gas heating appliances to maintain thermal comfort with less energy.

Strategies and incentives for reducing energy use.

We [offer a range of ways](#) for households and businesses to boost energy efficiency using equipment upgrades, behavior changes and home adaptations – from simple fixes like improving seals around windows and doors to insulating basements and attics. In 2022, we were proud to become the delivery agent for the federal government's Greener Homes Grant. This role enables us to extend the practices that have proved highly effective for our customers in Ontario for more than two decades.



Demand-side management: cumulative impact

For more than 25 years, Enbridge has offered demand-side management programs to help our gas utility customers reduce their energy costs as well as their environmental impact. A few notable results:^{*}



30+ B

lifetime cubic meters
in natural gas savings



60 M

tonnes of greenhouse
gas emissions avoided

* Figures represent cumulative results of our DSM programs, operating since 1995.

Upstream emissions intensity

Understanding the emissions intensity of the energy we deliver

This metric represents the average upstream emissions intensity of the commodities we transport on Enbridge's pipeline systems; it is intended to reflect the changing emissions intensity profile of producers and the emissions impact of our own assets over time.

In 2022, the emissions intensity of the energy we delivered decreased by 1.2%, which was primarily driven by changing the commodity type mix transported through our system in 2022.

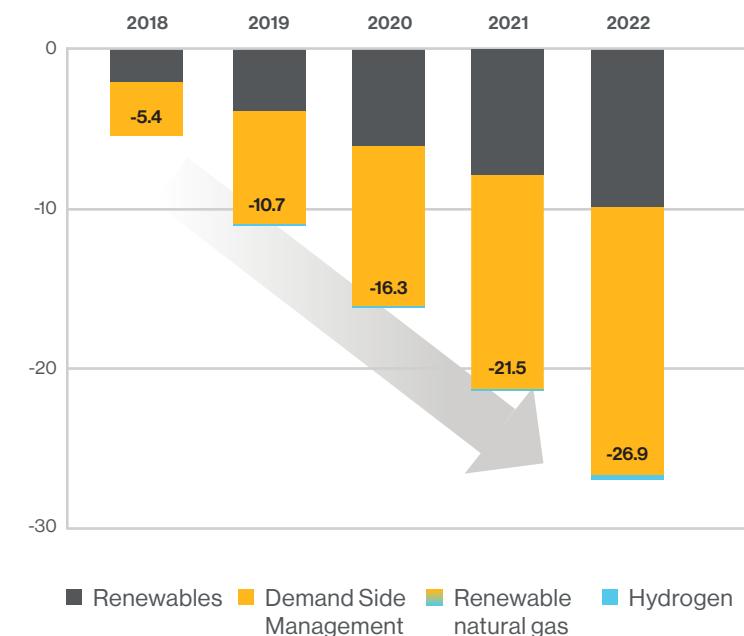
The quality of the data in this area is improving over time – an important evolution, especially as consumers are increasingly seeking lower-emissions fuel and need valid, reliable information in order to differentiate product from various sources according to environmental criteria. In addition to becoming more detailed, the data in this area is becoming more timely because publicly available sources used to model upstream emissions are being updated more regularly. It's our expectation that as we gain a clearer picture of producers' profiles and our own assets' performance, our upstream emissions intensity results will decline further. We will continue to report as thoroughly as possible in this area, and will continue to encourage producers and other data providers to generate and report more detailed and up-to-date data.

	2020	2021	2022
Enbridge upstream emissions intensity (kgCO ₂ e/GJ)	12.78	12.98	12.83

Enbridge's contribution to avoidance of third-party emissions

As an energy infrastructure company, our work is associated with emissions that others ultimately generate – for example, consumers who burn the fuel we deliver to them. Many of our emissions reduction activities are designed to reduce these third-party emissions by, for instance, delivering lower-carbon fuels to consumers. We are focused on delivering existing – and developing new – lower-carbon forms of energy. Investment in LNG facilities, renewable energy and new energy technologies helps to reduce emissions outside of our traditional value chain while building optionality and new low-carbon platforms to advance the energy transition. This metric tracks how Enbridge's investments in low-carbon projects, including wind and solar investments, demand-side management (DSM), hydrogen and RNG, help to advance the energy transition and support customer efforts to reduce their GHG emissions. The chart illustrates that our investments have reduced over 5 million tCO₂e per year since 2018.

Contribution to lower third-party emissions (cumulative million tonnes CO₂e)



Operational management

Safeguarding asset integrity and reliability

Enbridge continues to uphold safety as a core value and topmost priority across our business. In our training, management and internal communications practices we aim to foster a culture of safety and reliability – recognizing that there's an inextricable link between the safety of our workers and communities, and the reliability and integrity of our assets.

Enbridge is a strong advocate of the value that high resolution inline inspection (ILI) tools can provide for the early identification of deterioration like corrosion and cracking. Enbridge has invested, and continues to invest heavily, in the research and development of higher-resolution ILI tools, assessment techniques and reliability models that define risk to the public or environment.

Slope inspections, stream-monitoring and LiDAR-equipped aerial surveillance provide advanced warning of natural hazards along the pipeline path. Stringent reliability targets are applied to make sure that our maintenance programs reduce the likelihood of a rupture or major leak to a remote possibility. Enbridge applies this proactive assessment and maintenance approach to every segment of every transmission pipeline, far exceeding regulatory minimum standards. Lessons from near misses and incidents, including incidents experienced by other pipeline companies, are shared within the Company, reviewed on a recurring basis and fed into the ongoing improvement and quality controls for our procedures and practices.



Learn more

[Management approach: Asset integrity and reliability](#)

[Infographic: Proving Safety](#)

The threat of extreme weather events can have catastrophic and far-reaching impacts on the reliability of our system. Enbridge provides gas transmission and distribution to millions of homes and businesses. In December 2022, GTM and GDS maintained service during a historic winter storm, which impacted customers and assets in Canada and the northeast United States. While Enbridge was able to keep the gas flowing to power plants and customers through its system flexibility, storage capacity and emergency response efforts, Enbridge examines these events and uses the lessons to drive targeted investments in winterization and equipment reliability.

We also continued our efforts to prevent excavation damage to buried pipelines by delivering extensive public and municipal education and outreach programs. Among other measures, we continued to maintain and promote a safe excavation [online portal](#) launched in 2021 that aims to raise awareness of the importance of safe digging and provides related resources. The Ontario government passed Bill 93 in 2022, which aims to modernize the locate industry with a focus on underground asset safety and improve the timely delivery of locates for excavations across the province. Enbridge, an industry leader, is working collaboratively with all key stakeholders to ensure legislation and associated regulations are adopted effectively to modernize damage prevention for utilities.

Our ESG goals

Continuous improvement toward a goal of



Workers launch an inline inspection (ILI) tool along Enbridge's Mainline crude oil and liquids pipeline network at Enbridge's Hardisty Terminal in Hardisty, Alberta. ILI tools move through our pipeline network and use advanced sensors.

Pipeline system safety events

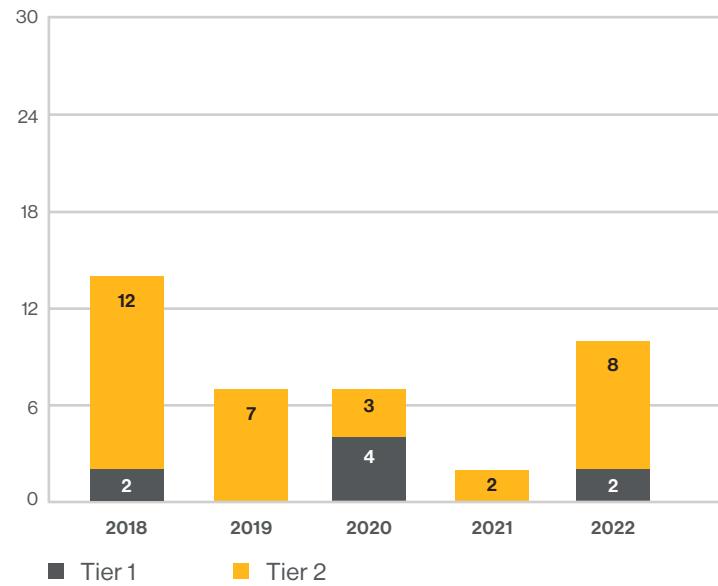
We remain committed to our goal of zero incidents across our pipeline system. While we continue to progress towards our goal, in 2022 Enbridge recorded an increase in process safety events compared to our strong performance in 2021. This increase in the number of events includes one Tier 1 off-property release of crude oil at a facility. We take every process safety event seriously and conduct thorough investigations into their causes and contributing factors.

Enbridge leadership places a strong emphasis on incident learning and prevention. We delved into incidents, near misses and abnormal events to identify any trends and systemic or organizational factors that could lead to leaks or system shutdowns elsewhere across our pipeline system. Additionally, we concluded a multi-year program with an independent third party to complete a verification of the integrity management program.

The result of these deep dives into process safety has resulted in preventative actions that we have taken to reduce risk and improve operational resiliency, in addition to the digs and maintenance activities that we already undertake.

We want to highlight the significant number of natural gas delivery points on our utilities networks and the small leaks we detect each year. These leaks are typically below ground or outside and are not hazardous due to our system's low delivery pressure, small line capacity and odorization that serves as a warning sign. Despite their low hazard level, it is important to note that these small leaks still account for a significant number of releases. However, the majority of these releases fall below our reportable (Tier 2) process safety event criteria.

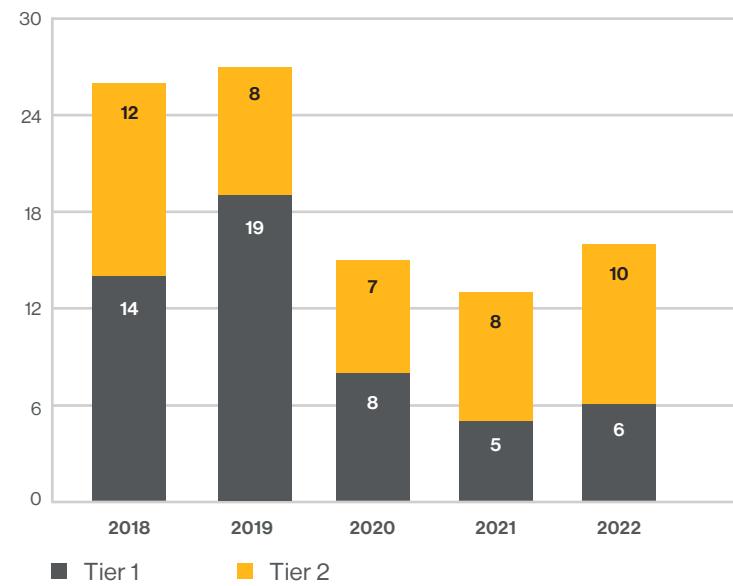
Number of process safety events for liquids systems



Third-party damage to our pipeline assets is a common cause of these leaks. To prevent third-party damage, Enbridge has implemented an extensive public education program to promote pipeline safety awareness and safe digging practices. We actively liaise with the excavating community, adopt best practices and identify opportunities through the advancement of technologies to foster a proactive approach to reducing damages. Enbridge is also a proud supporter and member of One Call and locate services, working together to drive excavation safety.

We remain steadfast in our commitment to maintain the safety of our pipeline system and will continue to learn from our experiences to further reduce incidents and improve safety across our operations.

Number of process safety events for natural gas



	2020	2021	2022
Damages per 1,000 third-party locate requests (natural gas distribution network)	2.24	1.92	2.32

Emergency preparedness and response

While we plan for safe, reliable, incident-free operations, potential threats to our business can come in many forms – from pandemics and natural disasters to emergencies involving workers or damage to facilities. As an operator of critical energy infrastructure, we must maintain a state of constant readiness for any of these possibilities.

Emergency preparedness requires a systematic approach to identify potential hazards and plan mitigation strategies to ensure that our response is rapid and protects the safety of responders, the community and the environment. Our emergency management programs are built on the “Plan-Do-Check-Act” cycle, designed to drive continuous improvement. The same approach applies to management reviews of our emergency management programs with senior business unit leaders.

Our training and qualifications – for both our employees and contractors – ensure that crews are prepared and equipped to provide a safe, rapid and effective response should an emergency arise. We purposefully include Indigenous partners and communities in major exercises and we plan to further advance this practice in the years ahead in support of commitments we’ve made through our Indigenous Reconciliation Action Plan.

Each business unit maintains its own emergency management program. We also operate the Enbridge Enterprise Emergency Response Team (E3RT), a cross-business unit group trained to respond to large-scale events in Canada and the U.S. Depending on the nature and scale of an emergency, a range of responses may be required. We partner proactively with local first responders, emergency management groups, industry associations and provincial/state and federal agencies to ensure our preparations are sound and the coordination will be effective in the event of an incident.

In 2022, we conducted 210 exercises and emergency response drills based on real-life scenarios to hone our skills and capabilities. In June 2022, we carried out an exercise to simulate a pipeline incident at a site in the North Saskatchewan River about 230 kilometers east of Edmonton, AB. About 100 Enbridge employees and contractors participated in the simulation, half at the command post and half on the river, where teams deployed oil containment booms on the river. (No contaminants were used in the simulation.)

The exercise served as an opportunity to engage and inform local communities. The day before the simulation, Enbridge hosted a luncheon and invited local Indigenous leaders, municipal officials and the public to gather at the site to learn about the exercise and the related equipment and ask questions. The Elk Point Fire Department and RCMP also participated in the equipment demonstrations – a sign of our strong working relationships with local first responders.

Enbridge continued to focus on community safety through Safe Community grants in support of first responders. The 2022 program included a \$16,500 Enbridge Fueling Futures donation to the [fire department in Shermans Dale, Pennsylvania](#), where funds supported the replacement of all the fire station’s lights with safe, energy efficient LEDs. Among other benefits, the lighting upgrade will provide excellent visibility in the areas where fire fighters suit up before heading out to emergency calls. Two Enbridge employees volunteered to join the Shermans Dale fire fighters in completing the installation.



Complementing our other emergency preparedness activities, Focus 4.2 of our IRAP commits us to continuing to share materials and engage in regular communications with Indigenous groups to support awareness and preparedness.



Learn more

[Management approach: Emergency preparedness and response](#)

[Emergency response plans](#)

Enbridge Enterprise Emergency Response Team (E3RT) exercises bring people together to help manage our top operational risks and test our readiness. They also give our team a framework for real-world scenarios and how to work together effectively on an incident response.

David Bryson,
SVP and Chief Operations Officer, Gas Transmission and Midstream

Biodiversity, land and water use

Enbridge works across many different landscapes – some densely populated, some remote – to create and operate the energy infrastructure that communities rely on. Every place we work is ecologically and culturally important. We also invest in programs that promote environmental stewardship and conservation, and work closely with local and Indigenous communities and other stakeholders to promote shared environmental values and priorities.

Each business unit must implement an integrated management system and an environmental protection program (EPP) that meet Enbridge's requirements and ensure regulatory and permit compliance. The goal of the EPP is to anticipate, prevent, manage and mitigate environmental risk and conditions that could adversely affect the environment.

Biodiversity and land use

Biodiversity is the variety of life on earth, connecting us to nature through food, water and air. By safeguarding and respecting biodiversity, we help ecosystems essential to sustainable human development thrive and benefit us all. Our EPPs include wildlife management plans to support responsible project development and operations and to identify and monitor any potential adverse impacts.

Our engineering and technical services teams integrate biodiversity considerations into the design, construction, maintenance and operation of our assets in order to balance the protection of land, plant sensitivities and animal life with business requirements. For example, we use pre-existing rights-of-way where possible and carry out environmental and cultural assessments to identify sensitive areas.

Through Enbridge Fueling Futures, we make investments in conservation and research projects focused on biodiversity, such as the RGV Reef study, which was launched in 2022 (see [page 58](#)). We also provide funding and create opportunities for employees to support activities like tree planting and habitat restoration.

We work with landowners and local and Indigenous communities that may potentially be affected by our projects and operations to meaningfully address their environmental priorities and concerns. Enbridge respects designated protected areas located near or adjacent to our operations, and we operate in accordance with all associated conservation management requirements and objectives, forging strong relationships with landowners and engaging directly with them to support their land use objectives – from agriculture to conservation to commercial activity.

Overarching policies and compliance

Our commitment to environmental protection is articulated in our [Safety and Reliability Policy](#). Our EPPs are part of an Integrated Management System that encompasses safety, security and protection of the environment, and define environmental management accountabilities and responsibilities in our organization. We continually monitor our environmental performance and conduct regular internal audits of our EPPs to assess and enhance our environmental management practices.

Enbridge completes all necessary impact assessments for our projects – including environmental, species at risk, siting, noise and cultural – and we develop avoidance and/or mitigation measures that aim to protect and maintain wildlife and environmentally sensitive areas, and reduce land and habitat disturbances.

Biodiversity has been identified as a critical global risk, and Enbridge is closely monitoring the development of new frameworks and recommended disclosures, including the Global Biodiversity Framework (GBF) and the Taskforce on Nature-related Financial Disclosures (TNFD). We are currently working with the Wildlife Habitat Council to assess our biodiversity performance against these developing frameworks and plan to report the outcomes in our next Sustainability Report.



Combining renewable energy with landscape restoration

We work to balance the protection of land, plant and animal life – all while respecting cultural priorities and community needs. One example of this multi-faceted approach is a large-scale land restoration project at Sarnia Solar, our longest-operating solar facility, purchased in 2008. A 200-acre area adjacent to the site's 1.3 million solar panels was unsuitable for other human uses because of the adjacent energy-generating activity – so we worked with conservation nonprofit Return the Landscape to create the second largest grassland meadow in southern Ontario, a haven for bees, monarch butterflies, and many other species of wildlife.

Water

Drawing water for safety operations

Enbridge's main reason for drawing water is hydrostatic pressure testing, a practice critical to ensuring the integrity of our assets. Hydrostatic testing involves filling sections of pipe with water at high pressure and maintaining the pressure for a prescribed period to confirm the integrity of the pipeline. In order to carry out this testing across new and existing pipelines and related infrastructure, we require large volumes of water each year. The exact volume of water we use fluctuates from year to year depending on our testing needs, which vary according to the number of projects under construction and our overall integrity management requirements.

We use recycled water as much as possible to meet our hydrostatic testing needs sustainably. This water does not need to be "good quality freshwater" and can be delivered by a third-party water supplier, rented or reused from a previously tested section of pipeline. A negligible volume of water is consumed through hydrostatic testing; on average, more than 99% of the water used this way is returned to its natural environment – and our teams use detailed procedures to evaluate water quality prior to release or disposal. If the water can't be safely returned to the environment, we dispose of it using approved methods. We expect that recycled water will remain central to Enbridge's approach to meeting our hydrostatic testing needs related to our safety requirements.

Water risk assessments and mitigation

Enbridge uses a combination of approaches to identify, assess and mitigate potential water risks across our operations. We take a lifecycle approach to managing the safety and design of our assets, and assess water risks as part of an established enterprise risk management framework. Water-related issues are addressed and managed through our policies and management systems for Safety and Operational Reliability. Our key priority is to achieve zero spills or leaks of any of the hydrocarbons we transport. We invest in preventing off-property spills and leaks – including in or near watercourses and environmentally sensitive areas – because such releases can impact the environment, damage property and threaten the safety of workers and the public.

During project planning and operations, our business segments use multiple regional government databases to conduct risk assessments. These databases help identify higher-risk environmental features such as municipal water intake locations and recharge areas for municipal drinking water supplies. They also offer insight into subsurface conditions, the depth of groundwater in various locations and the proximity of regulated areas (such as floodplains and fill line areas) to our project footprint – all important to determining permitting requirements and mitigating water risks.

We believe pipelines are the safest and most reliable way to transport the oil and natural gas that fuel our economy and enable modern society. However, potential risks to local water sources may arise from spills or releases of oil and gas. The Liquids Pipelines business unit uses several risk mapping tools – OilMap, OilMapLand, SiMAP and OilMap Deep – to assess the potential flow and downstream impact of a crude oil release. These tools enable us to model, for instance, the distance a plume of crude oil could travel over a 24-hour period and potential impacts to a water body from a submerged pipeline leak. To identify the potential impact of oil dispersion in open water – specifically with respect to drinking water intakes and shorelines – we assess where oil could be expected to travel based on factors such as water currents and wind direction.

All liquids lines in the U.S. are modeled annually in support of our High Consequence Area analysis and once every three years in Canada. We also use OilMap on an *ad hoc* basis to assess the impact of new pipeline projects and replacement projects and to assess specific risk scenarios. Enbridge worked with the former Canadian Energy Pipeline Association (CEPA), the Canadian Association of Petroleum Producers (CAPP) and the Canadian Gas Association (CGA) to develop the Pipeline Watercourse Management Recommended Practices for Operating Pipelines; this resource compiles and presents the latest industry practices relating to the management of hydrotechnical hazards at operating pipeline crossings and encroachments, namely watercourses.



Our approach to land, water and biodiversity is connected to Focus 4.1 of Enbridge's IRAP, which focuses on Indigenous inclusion and traditional knowledge, and in particular Indigenous participation in environmental field work and review processes.



Learn more

- [Safety and Reliability Policy](#)
- [Sustainability Policy](#)
- [Climate Policy](#)
- [Indigenous Peoples Policy](#)
- [Enbridge Fueling Futures](#)
- [Supplier Code of Conduct](#)

Q&A

A Q&A with Wildlife Habitat Council (WHC) President Margaret O'Gorman

Business and Biodiversity advocate discusses how businesses are integrating nature into their sustainability programs—and how Enbridge's approach has evolved over time

How has the biodiversity landscape changed over the last several years?

In the past, the way many businesses engaged with nature was reactive. Now, it's becoming more strategic. There's a growing awareness that having a thoughtful approach to nature is a sound business practice for a number of reasons. Land-based businesses can reduce costs by working in harmony with local ecosystems. Engaging with nature presents opportunities to engage employees in meaningful ways. And good stewardship of land helps build social licence to operate. Over the last decade, more corporations have come to recognize that supporting biodiversity and healthy ecosystems is just good business.

Are businesses aware of that full range of benefits when they first begin to work with you?

Increasingly, they are. Many are also finding that a wider range of external stakeholders – not only customers but also financial institutions and sustainability-focused ratings agencies – are interested in how they're performing and reporting in this area. Frameworks like the Taskforce on Nature-related Financial Disclosures (TNFD) and the Science Based Targets Network (SBTN) are gaining traction. Regulation isn't imminent in all jurisdictions yet, but there's certainly movement in that direction. Businesses like Enbridge, which has been active on biodiversity projects for many years, are ahead of the curve and well prepared for these changing expectations.

Can you talk a little about the origins of Enbridge's biodiversity work with WHC?

WHC certifies environmental stewardship projects that meet a suite of ecological and social criteria through its WHC Conservation Certification® program. The Big Sandy Pipeline in Eastern Kentucky was Enbridge's first program to achieve WHC Conservation Certification, and has been certified since 2008. It focuses on important grassland management within the right-of-way (ROW) of the pipeline. Grasslands are important but declining ecosystems in North America as they provide critical nesting and foraging habitat for species like the bobolink and the grassland sparrow. Enbridge has been actively maintaining the grassland since its establishment, focused on reducing and eradicating invasive species, and increasing the connections of the habitat to the local wildlife management area.

Is an infrastructure ROW like that an unusual place for rare or declining species to thrive?

It doesn't have to be. ROWs if managed appropriately can support healthy biodiversity and even contribute to species restoration efforts. Big Sandy is a case of Enbridge committing to managing its ROW with biodiversity in mind. To advance similar efforts in different parts of the Company, WHC worked with Enbridge to develop an environmental guide to help employees identify and act on opportunities to support biodiversity in their areas. An important part of this resource is reminding people that initiatives that support biodiversity often work best – and are most meaningful – when they connect to other efforts, such as community investment and employee engagement.

What's the focus of Enbridge's relationship with WHC today?

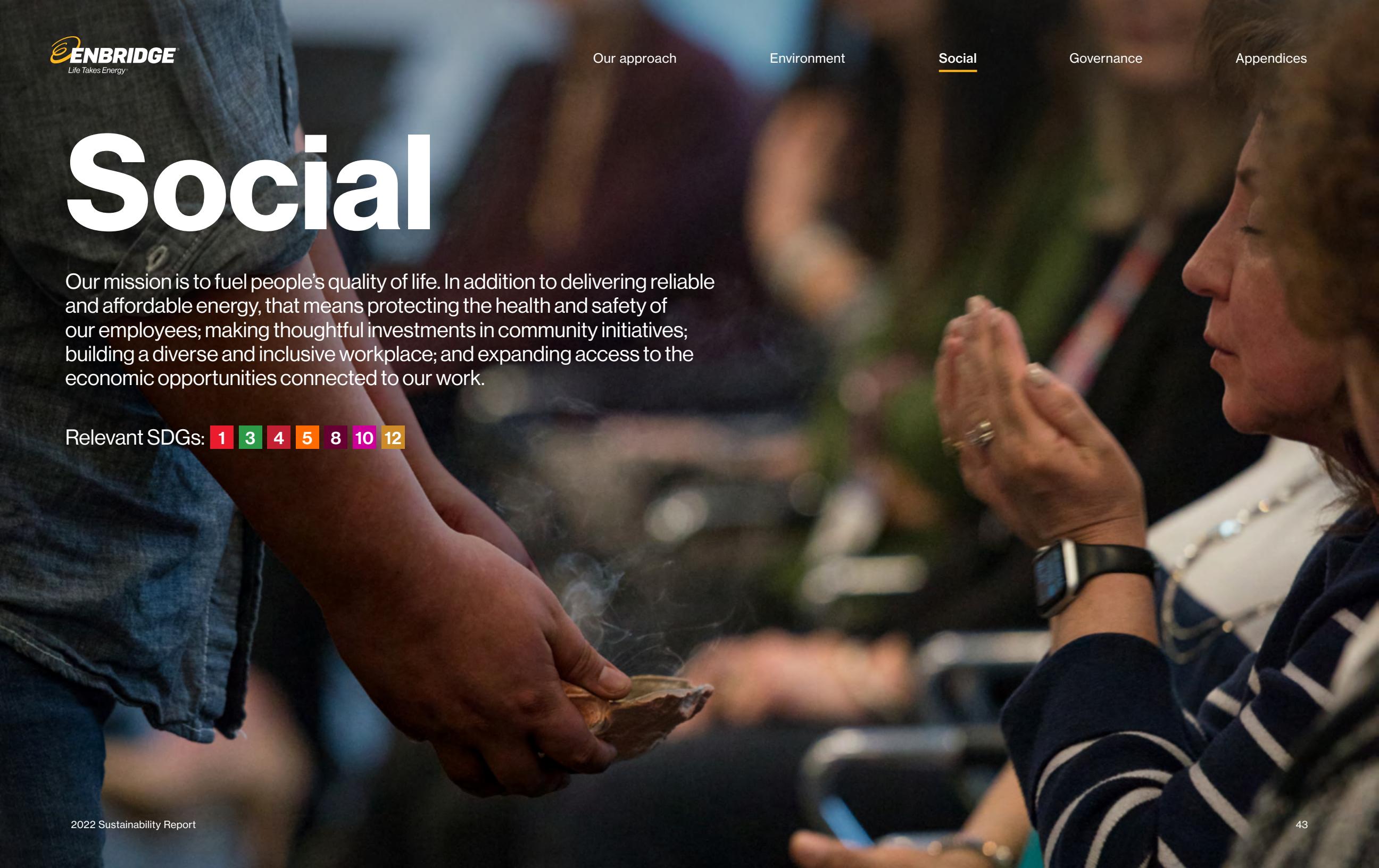
We're focused on continuing to promote projects that uplift biodiversity while also adapting to the changes I mentioned earlier with respect to frameworks and reporting. The goal for companies is to share biodiversity work in a way that is material and credible, and adapted to the changing reporting environment. For a company like Enbridge, this is a complex task for a few reasons. First, its operations are land-based and spread over large areas. Second, it has different kinds of business activities with different impacts and uplift opportunities. Third, it needs to demonstrate compliance but also needs effective ways to share the projects on which it goes well beyond compliance. To capture all this in a single reporting framework – one that's efficient and legible – takes work. The challenge is that biodiversity is a global problem with a hyper-local solution. In contrast to GHG emissions, which are easily computable, habitat and nature offer significant challenges for measurement. It's difficult to create a standard corporate metric for protecting and enhancing a local ecosystem.



Learn more

[Wildlife Habitat Council](#)

Social

A close-up, low-angle shot of a person's hands holding a small, open shell over a lit candle, with smoke rising. In the background, a woman in a striped shirt is visible, looking down at her phone. This imagery represents community engagement and well-being.

Our mission is to fuel people's quality of life. In addition to delivering reliable and affordable energy, that means protecting the health and safety of our employees; making thoughtful investments in community initiatives; building a diverse and inclusive workplace; and expanding access to the economic opportunities connected to our work.

Relevant SDGs: **1 3 4 5 8 10 12**

Employee and contractor safety

Keeping teams safe through every day

Our mission is fueling quality of life, and operating safely is essential to that work. It's our duty to keep the public, the members of our team and the environment safe. Safety is one of Enbridge's four core values, and performance metrics related to safety are tied to each Enbridge employee's incentive compensation.

2022 highlights

In 2022 our performance was on par with the record-setting result in 2021, contributing to a 23% improvement in employee and contractor injuries over a three-year average, and moving us closer to our goal of zero injuries.

This year, we streamlined and simplified our safety training tools and systems, with the goal of making them even clearer and more effective. Both our safety management and our environment programs underwent review and improvement. We also implemented a Supplier and Contractor Safety Management Specification to streamline and improve our processes for contractor selection, and spent more time in the field verifying the effectiveness of our contractor management processes. We also continue to shift our safety learning culture toward on-the-job and apprenticeship-based qualifications. We believe these experiential approaches are important complements to traditional course-based learning, supporting knowledge retention and mobilization.

We also revised our incident investigation approach, making it even more thorough – and intensifying our focus on prevention by devoting increased attention to studying potential events, or near misses. We share and discuss incident (and near-incident) case studies, highlighting all the factors that played a role in the events, including human factors that can contribute to elevated risks even when everyone believes they're being safe.

To reinforce and model Enbridge's commitment to worker and contractor safety, we made special efforts in 2022 to have leaders present and visible in the field and at project sites. After two years during which COVID-19 restrictions limited our ability to be physically present in many contexts, we were determined to emphasize leadership visibility – demonstrating in tangible ways that safety is the top priority at every level of our organization. This practice had benefits in both directions: leaders were able to identify new opportunities for learning and for further enhancing safety practices, while staff were reassured by seeing engaged, safety-focused leaders on the ground.

As we pursue growth across our business, we also work to ensure that strong safety and reliability practices are integrated and scaled with every step we take. We've begun to embed safety and reliability requirements into our contracts, ensuring that new ownership and operating agreements express clear expectations in keeping with the rigorous standards we apply to existing assets and processes. Safety and reliability are also integrated into our due diligence processes for acquisitions and joint ventures. Whenever we consider a potential new investment, we carry out dedicated analysis to ensure that it meets or can be enhanced to meet our safety standards.

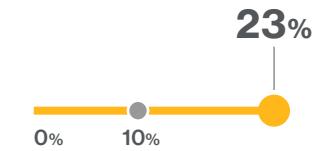


Our ESG goals



10%

improvement
in employee and
contractor **injuries**
over three-year average



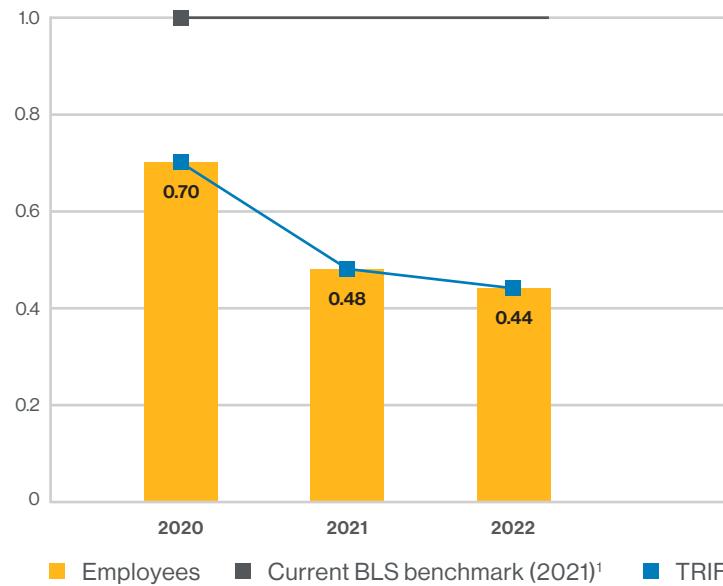
Over 23% improvement
in both employee and
contractor TRIF over
three-year average

Learn more

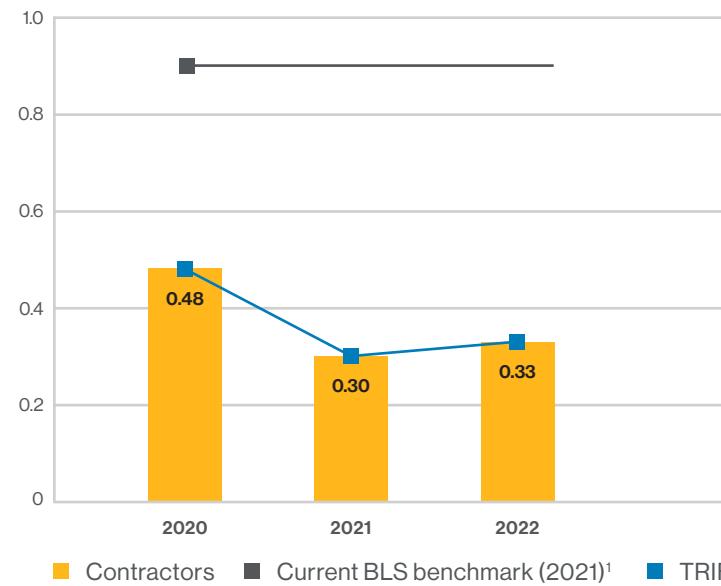
[Management approach: Health and safety](#)

Key safety performance metrics 2022

**Total recordable incident frequency for employees
(per 200,000 hours worked)**



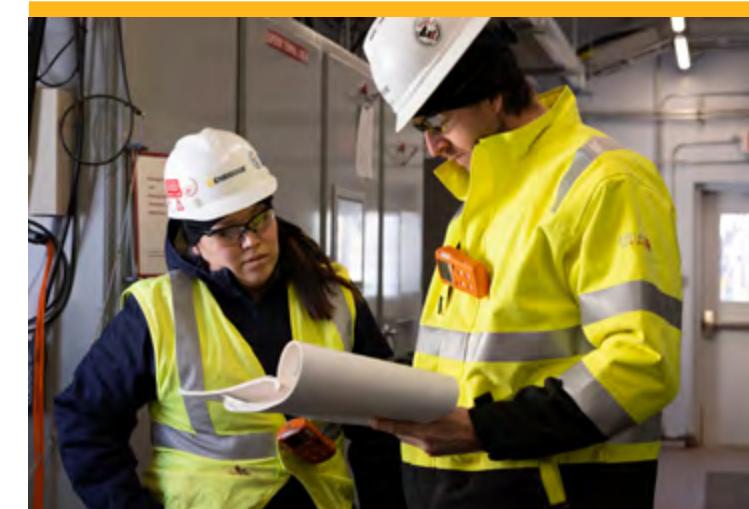
**Total recordable incident frequency for contractors
(per 200,000 hours worked)**



After record-setting safety performance the previous year, Enbridge maintained this strong safety standard in 2022, remaining at record lows.

For additional safety metrics and performance, see our [2022 ESG Datasheet](#).

¹ Bureau of Labor Statistics (BLS) benchmarks lag a year based on industry data availability.



Enbridge's six safety principles

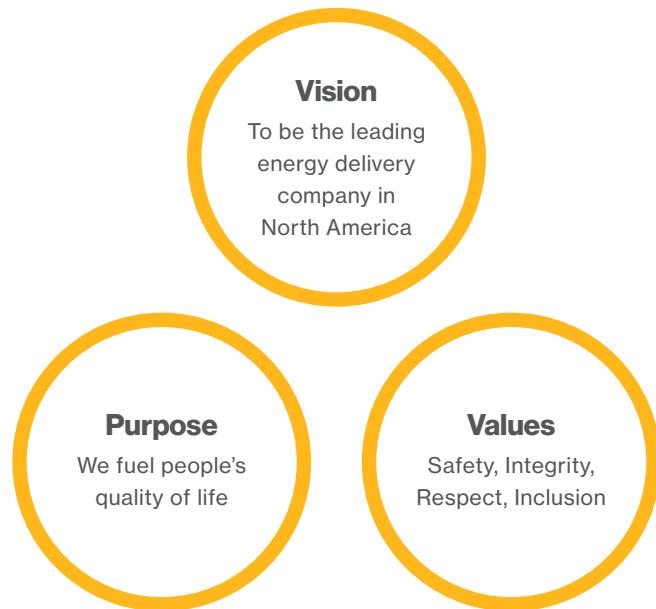
- All injuries, incidents and occupational illnesses can be prevented.
- All operating exposures can be controlled.
- Leaders are accountable for safety performance.
- All employees and contractors are responsible for safety.
- Assessment and improvement are a must.
- We promote off-the-job health and safety for our employees 24/7.

Our people

Investing in employees for success today and tomorrow

Our people are our most valuable asset, and our ability to bridge to a cleaner energy future is highly dependent on them. We aim to effectively engage, develop, retain and reward our employees, and promote their well-being to fulfill our purpose and achieve our goals – from delivering our two-pronged business strategy to demonstrating sustainability leadership.

What we stand for. Our most important common ground is the work we do together – and how and why we do it. We engage our employees around these three core elements:



Well-being. We're committed to supporting our employees' well-being. This practice reinforces the effectiveness and resilience of our workforce while improving life for employees as well as their families and communities. We take a proactive and holistic approach, focusing on all elements of well-being: physical (including personal safety), mental, financial and social. As part of employees' total compensation package, they have access to a range of benefits and resources, including an employee and family assistance program that provides confidential counseling and other services.

Flexibility. In 2022, we enhanced our existing Alternative Work Arrangements program to offer employees greater flexibility in where and when they work. Based on role suitability, employees can work from home up to two days per week, work a compressed workweek or vary their daily schedule. By listening closely to employees, we learned our FlexWork program is a meaningful way for employees to maximize their most precious resource – time.

Listening and engagement. Hearing from our employees and responding to their insights and concerns are priorities for Enbridge. Although direct engagement with their managers and leaders is the most important point of connection, we use many other tools to stay connected, including regular engagement surveys, pulse surveys, all-company forums, company-hosted social media (Yammer), executive coffee chats and email newsletters and updates. This year we fielded our first inclusion survey (see [page 48](#)); distinct from our usual engagement surveys, the voluntary inclusion survey invited employees to share their experiences of Enbridge as an employer, and steps we could take to further promote inclusion and belonging.

Learning and career development. We proudly invest in helping our employees learn new skills and develop their abilities so they can advance in their work and responsibilities. We provide training through courses and seminars, educational assistance programs, leadership development opportunities and mentoring. Employees establish Individual Development Plans (IDP) that guide them toward achieving their professional goals and developing their interests. We reward high achievers with developmental opportunities tailored to their specific career paths.

Policies. Key policies underpinning our talent strategies, practices and human rights include our [Statement on Business Conduct](#), our [Equal Employment Opportunity, Anti-Discrimination and Affirmative Action Policy](#), our [Sustainability Policy](#) and our Respectful Workplace, Harassment and Violence Policy.



Learn more

[Management approach: People practices](#)

Diversity, equity and inclusion

Enbridge's Diversity, Equity and Inclusion (DEI) program is animated by one fundamental belief: We are better together. We believe having a workforce that closely reflects the communities where we live and work strengthens relationships and helps build trust.

In 2021, we launched our new diversity, equity and accessibility strategy (IDEAS), an enterprise-wide strategy addressing several dimensions of diversity, including ethnicity and race, gender identity and expression, sexual orientation and veteran status.

Our work in 2022 has focused on advancing against the three main goals of IDEAS:

Goals



Engage and Empower Employees

Educate and equip people to connect on a personal level, to amplify others, and consciously include.



Embed Equity

Embed policies, programs and practices that are fair for all and reinforce respect.



Elevate Diverse Talent

Seek, develop and retain people with diverse backgrounds and perspectives at all levels.

2022 highlights

Tailored equity strategies. We continue to develop targeted equity action plans focused on specific underrepresented groups. Plans focused on equity for Black and Indigenous team members were already in place before this year; in 2022, we added equity commitments for Asian, Hispanic/Latinx, Middle Eastern/North African/West Asian and multicultural identities, people with disabilities, veterans and 2SLGBTQ+ communities. We sought insight on which groups to emphasize next through a focus group program that engaged more than 1,000 Enbridge employees. Our Employee Resource Groups, composed of members of specific equity-deserving groups and allies, also play an important role in shaping our policies and practices.

Shared commitments, shared responsibility. Accountability for our Diversity, Equity and Inclusion program is not limited to our Talent and Inclusion team. Leaders across Enbridge are embracing responsibility for aligning policies and practices in their business units and operational areas with our DEI strategy; some have created dedicated roles to support success specifically in their areas. Our Diversity Dashboard supports transparency and accountability when it comes to representation within teams and at different levels of leadership and responsibility.

Partnership and exchange. We build DEI-focused partnerships designed to share insights and fuel progress within and beyond our organization. Two especially active partnerships in 2022 were our MARC (Men Advocating Real Change) Initiative with Catalyst and WinSETT (Women in Science, Engineering, Trades and Technology). Also this year, our Women at Enbridge Employee Resource Group hosted its first conference, which featured insights from within and beyond Enbridge.

Real conversations. As an informal element of a broader training and development program, we've introduced a "Values Moment" (similar to the more common "Safety Moment") during which participants share perspectives and experiences on DEI-related topics – from personal pronouns and gender identity to the challenges veterans can face transitioning into civilian careers.



Our first inclusion survey: engaging for continued progress

The work of building a more equitable organization is never finished. As society changes and conversations about identity and inclusion evolve, there's always more to learn and more to do to create connections across differences and foster a culture where people of many backgrounds and experiences can thrive and contribute.

In 2022, we carried out our first inclusion survey to gain insight into employees' sense of being included and valued at Enbridge for who they are. This inaugural inclusion survey, distinct from our longer-standing program of employee engagement surveys, establishes a baseline against which we will gauge the efficacy of our efforts to build an inclusive culture.

The inclusion survey asked team members about a range of impressions and experiences related to their workplace, such as whether they feel a sense of belonging, whether they feel treated fairly, and whether they feel able to express their authentic selves at work.

We distilled the results on multiple specific measures, such as those described above, into a single summary score – an Inclusion Index – that will help us gauge our progress as we continue to execute our [DEI strategy](#) through 2025 and beyond.

We also conducted data analysis to capture key insights and priorities from specific employee groups – both according to demographic and identity dimensions (i.e. age, gender, ability) and according to workplace roles, such as team members with office-based roles versus those who work in the field.

Awards and recognition

2022 CATALYST AWARD

Winner



[Glassdoor Employees' Choice Award](#)

[Canada's Top 100 Employers](#)

[Top Employers for Canadians Over 40](#)

In addition to a Catalyst Award (see sidebar), Enbridge was proud to be recognized with several other distinctions connected to our DEI efforts this year. We welcome these acknowledgements of our teams' successes even as we strive for more progress.

Women Lead Here – Our first appearance on The Globe and Mail's list of 72 organizations in corporate Canada with best-in-class executive gender diversity.

Human Rights Campaign Foundation Corporate Equality Index – For the third year in a row, Enbridge was named as a Best Place to Work for LGBTQ Equality.

Bloomberg Gender Equality Index – Our fourth year of recognition for our commitment to equality and advancing women in the workplace.

Canada's Best Diversity Employers 2022 – Our eighth year of recognition.

A “groundbreaking” commitment to transparency

Enbridge was honored to have our diversity, equity and inclusion efforts – particularly those focused on gender equity – recognized with a 2022 Catalyst Award. A global nonprofit focused on gender equity, Catalyst [summarized](#) the practices that led it to choose Enbridge as one of three winners of this prestigious award in 2022:

“Enbridge’s initiative can be summed up in one word: transparency. ... Enbridge shares its [Diversity Dashboard](#) with all employees. It gives users the ability to segment the data by job level, functional area, and geography, including trending information on hiring, promotion, and turnover rates. Enbridge further shares its representation goals publicly and reports on progress against them. Within the energy industry, this level of transparency is groundbreaking.”

Our ESG goals

6% **people with disabilities** included in our workforce by 2025

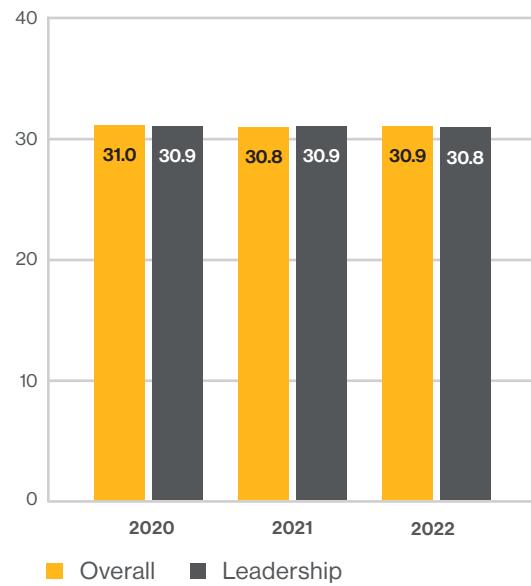
Workforce comprised of 40% women by 2025

28% **underrepresented ethnic and racial groups** in our workforce by 2025

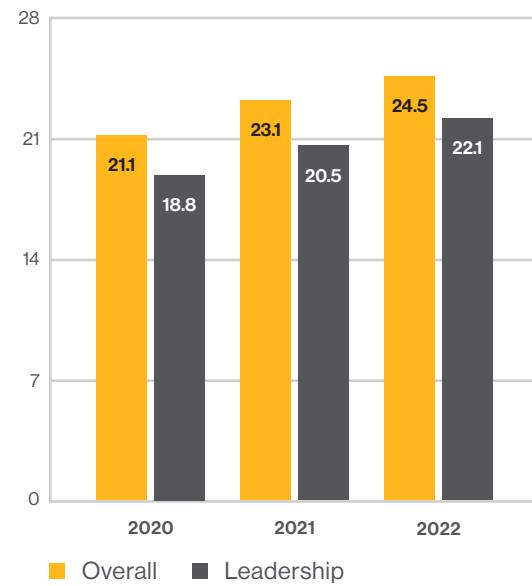
7% **workplace representation of U.S. protected veterans** by 2025

2022 workforce representation

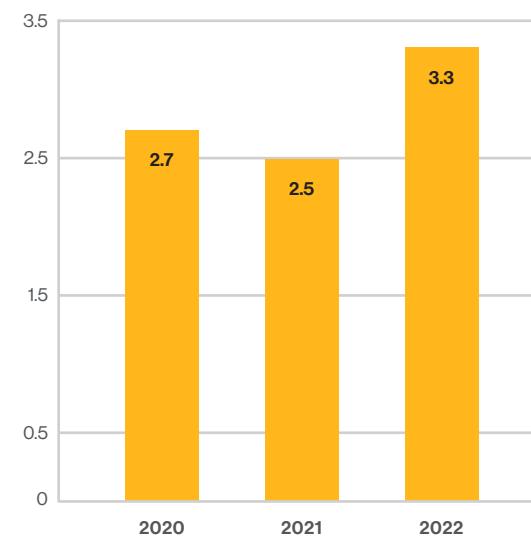
Women (%)



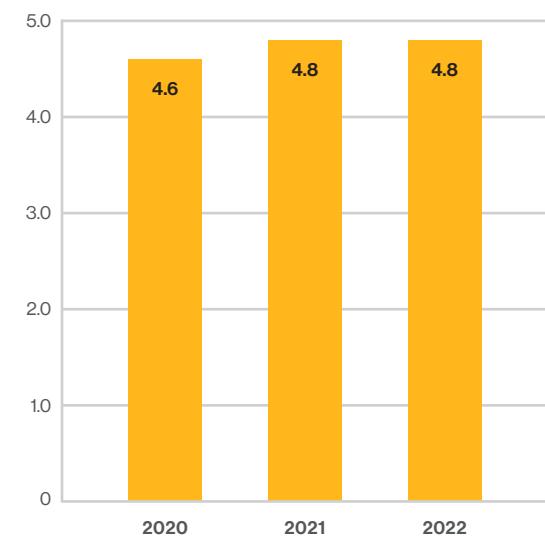
Underrepresented ethnic and racial groups (%)



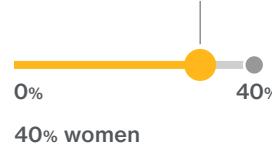
Persons with disabilities (%)



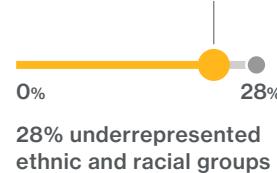
U.S. protected veterans (%)



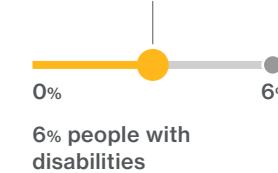
31%



25%



3%



5%



Indigenous engagement and inclusion

Working for meaningful reconciliation

Enbridge is committed to respectful and productive collaboration with Indigenous peoples. While we have worked to expand Indigenous inclusion within our projects and operations and across our company, we recognize that there is more work to do.

In September 2022, Enbridge was proud to release our first Indigenous Reconciliation Action Plan (IRAP). Informed by extensive engagement and consultation with Indigenous peoples across North America, the IRAP extends our longstanding commitment to advancing reconciliation in the communities where we live and work. The plan expresses our intention to be an even stronger partner and employer in the years ahead. As we work to achieve new levels of economic inclusion and respectful engagement with Indigenous peoples, we will continue to report publicly on our results, including as they relate to the specific commitments expressed in our IRAP. It reflects our commitment to facing the complex history of Indigenous peoples across Turtle Island¹ and to building a shared future on new foundations of respect and recognition.

IRAP foundations and process

Our projects and operations span Treaty and Tribal lands, the National Métis Homeland, unceded lands and the traditional territories of Indigenous nations, Tribes, Governments and Groups (Indigenous groups) across Turtle Island.

Enbridge's IRAP was developed:

- In recognition of Call to Action #92 from the Truth and Reconciliation Commission of Canada and the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP).
- With respect for and acknowledgement of Indigenous rights and title, treaties, and sovereignty across Turtle Island.

- Through engagement with more than 50 Indigenous individuals from across Canada and the U.S. who participated in intensive early engagement to inform our thinking and shape our commitments.

Our journey so far

Enbridge has worked to foster respectful, collaborative relationships with Indigenous peoples for many years. Over the past several years, we have deepened our efforts in this area by further formalizing our commitments, enhancing our policies and practices, and reporting our results.

In **2017**, we committed to expanding our reporting on the implementation of our Indigenous Peoples Policy, including the steps we are taking to integrate Indigenous rights and knowledge into our business across Turtle Island.

In **2018**, we began to fulfill that commitment with the release of a discussion paper, [Indigenous Rights and Relationships in North American Energy Infrastructure](#).

In **2019**, we finalized our [Indigenous Lifecycle Engagement Framework](#), which guides our engagement with Indigenous nations, governments and groups over the life of our assets through direct, regional and landscape-level engagement in areas such as environmental stewardship, cultural protection, training and Indigenous rights and interests.

From **2018 through 2021**, our sustainability reports have provided an annual overview of our plans, commitments and outcomes concerning Indigenous inclusion.

By the **end of 2022**, all Enbridge employees had completed Indigenous awareness training. This requirement will remain in place for all future team members, ensuring that our entire team has an understanding of the history, rights, culture and knowledge of Indigenous peoples.



Looking ahead

Our [Indigenous Reconciliation Action Plan](#) is the roadmap for our continued journey to create stronger connections with Indigenous partners and to advance truth and reconciliation. It is the mechanism by which we will remain accountable for executing our commitments to our partners, including Indigenous peoples.

This is our first Sustainability Report since the IRAP's release. Although the plan has only been active for a few months, and some commitments are scheduled to commence in 2023, we report on each of our commitments in the appendix on [pages 75-78](#).

Throughout this report, the symbol below appears when we report on initiatives that are connected to the pillars and goals of the Indigenous Reconciliation Action Plan.



¹ Some Indigenous peoples often refer to the continent of North America as Turtle Island. Both terms appear in the IRAP and our 2022 Sustainability Report, where appropriate.

2022 highlights

Indigenous Peoples Policy update

In 2022, we updated our Indigenous Peoples Policy, which guides our approach to building long-term relationships with Indigenous peoples, focusing on key strategic areas: respect for Indigenous rights; principles of engagement; social and economic inclusion; and employee education. The updated policy recognizes the legal and constitutional rights possessed by Indigenous peoples in Canada and the U.S., and acknowledges that our operations span Indigenous land across North America. The policy also reiterates our commitment to seek the input and knowledge of Indigenous groups to identify and develop appropriate measures to avoid and/or mitigate the impacts of our projects and operations that may occur on their traditional lands.

Connecting with Indigenous talent

As of 2022 year-end, there was a 2.5% representation of self-identified Indigenous people employed by Enbridge across North America. We continue to strive toward our goal of 3.5% Indigenous representation across our teams by 2025. This goal now stands alongside several other training and employment-related goals in our IRAP.

To help us connect with potential Indigenous team members, last year we hired an Indigenous recruiter whose job is focused on attracting and retaining Indigenous employees. We have an established team that is responsible for implementing our Indigenous Employment Program which is focused on not only our 3.5% representation target but also on a range of other initiatives.

Building on these foundations and in support of the workforce-related commitments in our IRAP, we have continued to review internal hiring processes and develop human resource capability to ensure all perspectives are reflected in our attraction and retention activities. We are also working to identify and dismantle barriers that Indigenous people may face to working with Enbridge. We're working to formalize Indigenous attraction/retention programming for diversity, cultural, regional and remote considerations.

Building awareness and understanding across Enbridge

As part of our efforts to embed Indigenous perspectives across our business, all Enbridge employees and contractors were required to undertake Indigenous awareness training by the end of 2022. We achieved 100% completion across our employees and contractors and will continue to ensure this training remains an expectation for everyone who works with us. This goal remains as a commitment within our IRAP.

Our ESG goals

3.5% 
representation
within our workforce of
Indigenous peoples
by 2025



100% 
of all employees and
contractors to complete
Indigenous awareness
training by end of 2022



More information on our approach to building awareness of Indigenous issues in our organization and increasing Indigenous representation in the Company is available in the IRAP, particularly in the commitments articulated under Pillar 1: People, employment and education.

- Focus 1.1** Talent attraction and recruiting
- Focus 1.2** Talent experience and development
- Focus 1.3** Cultural support programs
- Focus 1.4** Learning and awareness

Carbon capture partnerships build Indigenous economic strength

In collaboration with the First Nation Capital Investment Partnership (FNCIP) we continued our work to advance the Open Access Wabamun Carbon Hub (the Hub) west of Edmonton, Alberta. Four Treaty 6 Nations – Alexander First Nation, Alexis Nakota Sioux Nation, Enoch Cree Nation and Paul First Nation – formed the FNCIP to pursue ownership in major infrastructure projects with commercial partners who share Indigenous values, including environmental stewardship. In addition to the FNCIP partners, the Lac Ste. Anne Métis Community Association will also have an opportunity to pursue ownership in future carbon transportation and storage projects associated with the Hub. The project's Indigenous partners will have an opportunity to own up to 50% of the carbon transportation and storage projects developed in connection with the Hub, creating long-term, stable revenues for local Indigenous groups.

The project is focused on developing an innovative combination of carbon transportation and storage solutions to support carbon capture projects in the region. The Hub has the potential to sequester nearly 4 million tonnes of CO₂ emissions annually. When complete, it's expected to be one of the largest integrated CO₂ sequestration projects in the world – effectively doubling Canada's current carbon sequestration capacity. We anticipate that the Hub's phased in-service dates will begin as early as 2025.



In addition to increasing our procurement from Indigenous suppliers and other modes of economic inclusion, our Indigenous Reconciliation Action Plan includes commitments (under Focus 3.1) related to building Indigenous financial partnerships such as the Athabasca equity partnership and the Hub. It also commits us (under Focus 2.1) to develop an incremental formal mechanism for Indigenous groups to provide feedback to Enbridge.



Learn more

[Indigenous Peoples Policy](#)

[Management approach: Indigenous engagement and inclusion](#)



Four Chiefs who represent the four First Nations who are part of an entrepreneurial alliance, First Nations Capital Investment Partnership, have partnered with Enbridge in a proposed Enbridge CCS hub west of Edmonton. A local Métis community is also a partner in the project.

Indigenous engagement across our operations

In addition to building major business partnerships, Enbridge nurtures many grassroots engagements and collaborations each year – connecting with Indigenous peoples, Nations, Tribes, governments and groups connected to our operations and rights-of-way across Canada and the U.S.

Socio-economic inclusion

Socio-economic efforts were a focus in our engagement for 2022 with Indigenous peoples. Our supply chain Indigenous engagement specialist assists Indigenous contractors and businesses by helping them navigate the Enbridge prequalification process for project and operational work, by providing introductions to other industry partners and by finding business opportunities that cross multiple industries.

Other streams of collaboration for Indigenous and non-Indigenous contractors and business partners include chambers of commerce, such as the American Indian Chamber of Commerce Wisconsin (AICCW); the Minnesota American Indian Chamber of Commerce (MAICC); and the Minnesota Tribal Contractors Council (MNTCC). MNTCC was established during the Line 3 Replacement Program to provide a voice for Indigenous contractors and to promote economic development of the trades industry in Minnesota. Enbridge is committed to helping to continue to grow Indigenous business opportunities and building better futures together.

Training and education are key components of building a strong, skilled career force. We work with business partners such as the skilled crafts and trades unions, Middle of the Rez Road podcast, Tribal Employment Rights Ordinance (TERO) offices, [Five Skies Training](#), contractors and others to ensure we recruit, train, build careers and establish work opportunities.

Working with Indigenous partners to deliver a vital transmission line

In 2022, Enbridge continued working with NextEra Energy Canada and OMERS to ease longstanding constraints on the flow of energy between northwestern Ontario and the south. Through a partnership called NextBridge, these three entities delivered a 450-MW East-West Tie Line, a transmission line that delivers power across northern Ontario, from Thunder Bay to Wawa. Essential to the project's success was the Bamkushwada Limited Partnership, a group representing nearby Indigenous nations. Bamkushwada created a 100% Indigenous-owned entity called Supercom Industries, which took responsibility for all recruitment and hiring activity related to the project. "Over the course of the project, more than 200 Indigenous workers received training, and Indigenous monitors were engaged to ensure Aboriginal and Treaty rights were respected during construction," said Jennifer Tidmarsh, a Project Director with NextBridge. "Indigenous men and women accounted for up to 60% of the construction workforce."



"I got into this industry to help people" says Taylor Whitebird-Salo, a first-generation descendant of the Fond du Lac Band of Lake Superior Chippewa and a member of Enbridge's Tribal Engagement team in Wisconsin. She believes Enbridge will continue to make an impact with Indigenous communities through the implementation of the Company's Indigenous Peoples Policy, and her dedication and commitment to her heritage drive her every day.

Helping young people envision opportunities in the energy sector

On August 14, 2022, 14 young adults from Louis Bull Tribe toured Enbridge's Edmonton Terminal to learn about pipeline equipment and operations. The tour was hosted by Terminal Manager Ryan Lowe, Supervisor Stephen Paquette, Terminal Maintainer Cheyenne Eagle and Mechanical Technician Mark O'Leary and included visits to the terminal's lab and control room. The Louis Bull Tribe is one of the Four Nations of Maskwacis, located about 90 kilometers south of Edmonton.

"This was a great opportunity to share what we do and build relationships and I'd like to thank the team at the Terminal and our engagement folks for making this happen," said Ryan Champney, Director, Facilities Planning and Optimization. The tour included a discussion led by Peter Hansen, Strategist, Community and Indigenous Engagement, about career development and opportunities in the pipeline industry. "It was a pleasure to be able to meet young people interested in opportunities in industry and have an open and frank discussion about the nature of the work, along with the challenges that would go with that," said Hansen. "I think we were able to provide guidance and direction to help these young adults in their journey toward meaningful, fulfilling work." Kim Brenneis, Director, Community and Indigenous Engagement, added, "These young people will bring that experience and goodwill back to their families and community. Hopefully, a few of them think about a career with Enbridge."

Wildlife Watch Training program

In the B.C. region we assisted with delivering a Wildlife Watch Training program to provide opportunities for individuals in environmental monitoring fieldwork. The training is a five-day course to provide learners with the skills and knowledge to maintain the safety of crews working in wilderness environments and keep them aware of the wildlife around them. This training opportunity was delivered to seven different Indigenous communities throughout Northern British Columbia in 2022 and 2023. This is in addition to our current Indigenous monitoring program and will help diversify individuals' interest within environmental fieldwork.



Indigenous experts, Indigenous knowledge

The Great Lakes Tunnel is a significant private investment by Enbridge in Michigan, extending a light oil and NGL pipeline through rock as much as 100 feet below the lakebed of the Straits of Mackinac, which mark the intersection between Lakes Michigan and Huron. As part of this project, we have engaged Native American-owned businesses – including 7th Legacy, LLC and Dirt Divers Cultural Resource Management – to carry out archaeological and cultural surveys to ensure that cultural resources on the surrounding lands are identified, respected and protected. More than half of the project's crew are enrolled Tribal members.

CASE STUDY

The Athabasca equity partnership

An innovative energy partnership is set to deliver economic benefits to Indigenous communities in northern Alberta for generations

In September 2022, Enbridge and the newly created Athabasca Indigenous Investments (Aii) announced a landmark [equity partnership](#). Aii represents a diverse group of 23 Treaty 6 and Treaty 8 First Nations and Métis communities in northern Alberta. Under the agreement, Aii assumes an 11.57% ownership stake in seven pipelines in the region, which collectively transport about 45% of Alberta oil sands production.

For the Indigenous groups that came together to form Aii, investing in the region's energy infrastructure is a way of investing in the future prosperity of their Nations and communities. "Our partner logo theme – Seven Pipelines, Seven Generations – speaks to the long-term value potential of these assets, which will help enhance quality of life in our communities for many years to come," said Justin Bourque, Aii President. Because the assets are underpinned by long-life resources and long-term contracts, they're expected to provide highly predictable cash flows for many years to come as they continue to drive North American and global energy security.

For Enbridge, the partnership is an opportunity for meaningful and sustained collaboration with Indigenous communities – both on environmental stewardship and on the ownership and operation of critical energy infrastructure. "This partnership is an important expression of the commitments we've made through our Indigenous Reconciliation Action Plan," says Colin Gruending, Executive Vice President and President, Liquids Pipelines. "We're working to extend our longstanding track record of engagement with Indigenous communities, including through financial partnerships like this one – and also through other modes of economic inclusion, such as procurement, training and recruitment."

In making the largest ever Indigenous energy investment in North America, Aii seeks to achieve a wide array of benefits for the First Nations and Métis communities involved. With its 5% ownership in the Aii partnership, for example, Fort McKay Métis Nation will receive roughly \$500,000 in annual revenue, which president Ron Quintal [plans](#) to direct to education, infrastructure and housing.

Meanwhile, Enbridge will continue to recycle capital from existing businesses to fund new growth opportunities, including a growing slate of investments in renewable and low-carbon energies – projects that will yield even more opportunities for Indigenous partnership in the decades to come.

It's going to allow us to improve our quality of life. It's very significant that this investment has been made collectively by 23 Indigenous communities that are impacted by the development in the Athabasca region. Under the creators, we're all one. We're all his children, and this is what the elders prophesized: that we must work together, and we must care for one another.

Chief Greg Desjarlais of Frog Lake First Nation



Learn more

[Landmark collaboration in northern Alberta](#)

[Athabasca equity partnership fact sheet](#)



Chief Desjarlais participating in the Athabasca equity partnership signing ceremony.

Community engagement

Building trust and value through dialogue and collaboration

Enbridge is committed to clear, honest, respectful and timely engagement with Indigenous nations and regional stakeholders – including landowners, governments and communities – near our projects and operations.

We use a four-step community engagement process to help us identify, understand and engage with community members about opportunities or concerns.

By adhering consistently to this process as well as maintaining a company-wide public awareness program that meets or exceeds regulatory requirements, we aim to build trust and maintain positive, productive relationships with landowners and communities wherever we work.

In addition to engaging with communities on new projects and activities, we meet with landowner groups to keep communication channels active and open, and to support mutual awareness of any emerging concerns.



Learn more

[Management approach: Community engagement](#)

[Public Awareness Program](#)

2022 highlights

Hundreds visit Great Lakes learning and engagement hub

In late 2021, Enbridge opened the doors to a new [Informational Center in St. Ignace, Michigan](#), where residents and visitors can learn about the past, present and future of Line 5 and its passage under the Great Lakes. Line 5 has delivered a reliable supply of energy for decades, and Enbridge plans to build a new tunnel under the Straits of Mackinac with state-of-the-art safety and water protection features to relocate the pipeline.

The opening of the Informational Center was intended to provide local residents and other stakeholders with a place to seek information about the project and to speak directly with on-site Enbridge representatives. Visitorship in 2022 attests to strong local interest in the project and to the power of in-person engagement. More than 400 visitors have taken advantage of our regular office hours, during which members of the public can drop in, ask questions and take in interactive displays. An additional 200 people have attended special events at the Center.

The facility uses a range of educational resources to help visitors understand the tunnel's technology, engineering, safety features and overall function. These include life-sized diagrams and murals; geological information about the area; core samples from the project's geotechnical program; and information about how officials manage interactions between nearby infrastructure and ship traffic in the Straits.

The Information Center will continue to complement our [numerous other methods](#) of community engagement around the Great Lakes Tunnel Project, including in-person and virtual meetings and open houses, presentations and tours of Enbridge facilities.



A life-sized mural depicting the interior of the Great Lakes Tunnel has helped visitors visualize the tunnel's scale and safety features – and inspired plenty of selfies. Enbridge's Joe Calcaterra gives two thumbs up in front of the tunnel mural.

Saint-Nazaire: Stakeholder consultation at the heart of the project

EDF Renewables and EIH S.à.r.l, a subsidiary of Enbridge Inc. and CPP Investments, have achieved a significant milestone as France's first commercial-scale offshore wind project, the 480-megawatt Saint-Nazaire Offshore Wind Project. Located between 12 and 20 km from the southwest coast of France, the wind farm will help support the French state's energy transition goals, which include targets to generate 32% of its energy from renewable sources by 2030. After nearly three years of construction, the Saint-Nazaire Offshore Wind Project first produced electricity at the beginning of June 2022 and proceeded to incrementally connect its 80 wind turbines to the national electricity transmission network. Throughout the development and construction phases, the project team worked closely with local stakeholders. Environmental protection associations, such as France Nature Environnement, Bretagne Vivante, the League for the Protection of Birds, and associated experts from the National Museum of Natural History, National Institute of Research for the Exploitation of the Sea and independent design specialists provided the knowledge needed to design the wind farm while respecting its environmental considerations and biodiversity. Fauna and flora were rigorously monitored during the various phases of the work and environmental monitoring will continue.

A fuel-switching opportunity in Tennessee

Like many areas across the U.S., Tennessee is exploring opportunities to replace coal-fired power generation with cleaner-burning, lower-carbon natural gas. The [Tennessee Valley Authority \(TVA\)](#), an electric utility, is studying the possibility of replacing the energy some Tennesseans currently receive from the Kingston Fossil Plant with natural gas.

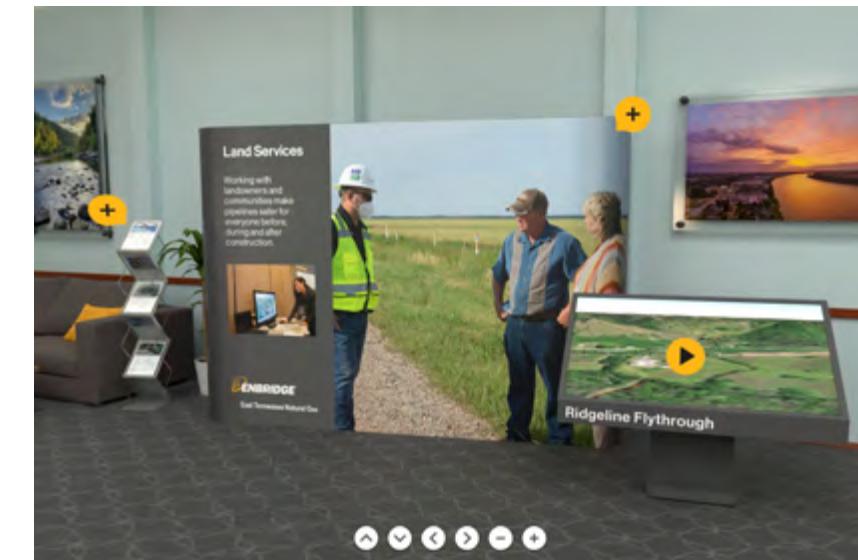
Natural gas could be provided to customers in the region through an expansion of Enbridge's existing East Tennessee Natural Gas (ETNG) system. Enbridge is proposing to design, construct and operate the Ridgeline Expansion Project, which would include the construction of about 117 miles of 30-inch pipeline looping, an approximately 8-mile 24-inch lateral and one new electric motor drive compressor station.

Wherever possible, the route for the expansion would be located adjacent to the existing ETNG right-of-way, to minimize impacts on landowners and the environment. In a further effort to minimize the project's environmental effects, Enbridge's proposed plans call for about half the power for the compressor station to come from solar self-power equipment.

Engaging the community

Enbridge is committed to providing ample opportunity for local residents and the wider public to review proposed plans for the project and offer input. Enbridge and TVA – should both agree that they wish to move forward with investment in the project – are also committed to engaging with landowners to identify the optimal route for the expansion. We have already been working with and listening to local stakeholders for nearly a year before planning to embark on the multi-year regulatory review process, to achieve alignment with the community before engaging regulators.

Extensive in-person engagement is ongoing, including small meetings, presentations to local and state public officials, and open houses for the public, to allow for dialogue issues resolution even before the regulatory authorization process commences. A range of complementary resources – including a suite of [fact sheets](#) and a [virtual open house](#) – are available online to help the public understand the nature of this project, including how the infrastructure operates and the benefits fuel-switching would stand to deliver to the region.



To support engagement on the Ridgeline Expansion Project, Enbridge developed an online open house to provide awareness with stakeholders on this project.

Q&A

A Q&A with Friends of RGV Reef conservation leader Gary Glick

As part of a longstanding partnership, Enbridge is helping a conservation organization and research team explore artificial reefs' potential to sequester carbon

How did you first get involved with RGV (Rio Grande Valley) Reef?

It started with my love of fishing in the Rio Grande Valley; that's how I first got involved in conservation in this area. The reef initiative began in 2017, when we created a 1,650-acre artificial reef to help boost biodiversity in the Gulf. A \$250,000 Enbridge Fueling Futures grant was vital to our ability to create this enormous structure, which includes intentionally sunken vessels and a huge number of cinderblocks. (In other words, there was heavy lifting.) That grant was the beginning of what's turned out to be a very strong partnership. Over the past six years, RGV Reef has attracted millions of fish to the area – and even drawn some endangered sea turtles.

What's the current focus of the work around RGV Reef?

Researchers from the University of Texas Rio Grande Valley (UTRGV), led by Dr. Richard Kline, are carrying out a marine study to learn even more about the difference this structure is making ecologically. This is the largest artificial reef in Texas, and the idea is to understand two very important potential impacts of the reef structure: how this resource, and resources like it, restores and enhances biodiversity, and the potential for the organisms that make up this biodiversity to trap carbon. Quantifying the number of species on and around the reef structure will tell us just how successful this structure is from a biodiversity standpoint. Further, the world's oceans store more carbon than any other area on Earth, but until now, artificial reefs and the carbon sequestration potential of the encrusting organisms attracted to them have not been extensively studied.

How is the research being conducted?

The UTRGV team is using a range of approaches. They take physical samples and also use multiple sonar-based measurements to quantify the biomass at the site. Ultimately, the idea is to develop a precise estimate of its weight – and how much of that weight is composed of stored carbon. The work involves a lot of advanced equipment and analysis, so it takes resources. We're grateful that Enbridge has stayed right by our side in this latest phase of the project, providing an additional \$250,000 Enbridge Fueling Futures grant. The fact that Pete Sheffield, Enbridge's Chief Sustainability Officer, joined us at the research kickoff event says a lot about the Company's engagement with the work we're doing.

Why is the work important? What are its implications?

Quantifying the success of the RGV Reef from a biodiversity standpoint is critical to supporting further development of the reef in an area of the Gulf that has seen a significant drop in various species of fish over the years. Quantifying the biodiversity success of this structure will also inform other artificial reef efforts around the world. Further, if the research reveals that marine habitats seeded by humans can be effective in sequestering carbon, those findings may point to an important strategy for reducing the amount of greenhouse gases in the atmosphere. Because the project is examining distinct segments of RGV Reef, which includes various shapes and structures across roughly 2.5 square miles of the Gulf floor, it may also yield insights for people in other coastal areas seeking to construct future artificial reefs. The study may tell us which configurations are most supportive of marine life. Any nation that has a coastline may be able to build artificial reefs that could help in the climate battle, while at the same time restoring precious habitat and bringing back fish and other marine habitats around the world. That's why this research is so important.



We're pleased to continue our partnership with Friends of RGV Reef, supporting work that is enhancing biodiversity and marine life in the Gulf while at the same time exploring the possible climate benefits associated with the reef.

Pete Sheffield,
Chief Sustainability Officer and Vice President,
External Affairs U.S., Enbridge

 **Learn more**
[Friends of RGV Reef](#)

[Offshore carbon capture study in Texas](#)

CASE STUDY

A lifecycle approach to energy infrastructure

Engaging landowners and ensuring land remediation, benefiting people and nature

When the ground thaws above the 50th parallel in Saskatchewan in the spring of 2023, an Enbridge crew will be seeding a swath of farmland. At a site where our wind turbines produced clean energy for two decades, agricultural production is about to resume.

The turbines at this Saskatchewan wind farm were Enbridge's first renewable energy investment, back in 2002 – the beginning of an \$8 billion program of renewable energy development to date. We decided to decommission the asset, the SunBridge Wind Farm, in 2022 because the turbines had reached the end of their useful life, and challenges with surrounding infrastructure made it inefficient to repower and re-equip the asset. (Our new investments in wind energy elsewhere outstrip this lost capacity many times over. See, for example, [pages 31](#) and [57](#).)

Although renewable energy production at the site was ending, our commitment to environmental stewardship and landowner engagement remains as strong as ever. We carried out extensive local engagement to understand landowner priorities for the site. We recycled or reused almost every part of the physical equipment, and responsibly dismantled every element of the energy asset, including not just the turbines but substation and access road. Before restoring soil to the land, we passed a large industrial magnet over the entire area to ensure that no scrap metal would be left behind, thus eliminating the risk of injury or damage to farm equipment.

When the ground is ready in the spring, we'll be there – planting seeds and delivering on the commitment we made 20 years ago to fulfill our responsibilities to the land and the surrounding communities.



Corporate citizenship

Energizing communities through donations, sponsorships and employee volunteerism

Our corporate citizenship program, Enbridge Fueling Futures, supports programs that strengthen the safety, vibrancy and sustainability of our communities.

Safe communities. We support local safety initiatives and organizations that help make our communities safer places to live. Our commitment to safety – one of four Enbridge core values – is about more than our operational safety. It's also about the safety of the communities where we live and work. Enbridge's 2022 contribution to safe communities was \$3.5 million.

Vibrant communities. Vibrant communities are places that offer opportunities for every citizen. Enbridge Fueling Futures supports activities that build potential in youth, celebrate culture and community, honor Indigenous peoples and culture and empower people to achieve their full potential. Enbridge's 2022 contribution to vibrant communities was \$11.8 million.

Sustainable communities. We support initiatives that contribute to a sustainable future by helping to improve, grow and nurture the environment. In particular, Enbridge Fueling Futures supports environmental education projects to advance the energy transition and habitat conservation and remediation. Enbridge's 2022 contribution to sustainable communities was \$1.7 million.

Enbridge Fueling Futures employee volunteering and giving.

Through Enbridge Fueling Futures, we're energizing communities through the volunteerism and generosity of our employees. Employees are empowered to contribute and strengthen our communities on behalf of Enbridge by supporting causes that are important to them. Enbridge provided \$4.6 million to 2,097 organizations through employee donation matching, volunteer grants, as well as community project and leadership grants in 2022.

See the next page for a featured project in each of our three key focus areas.

Enbridge Fueling Futures community impact

\$22M

invested through our

Enbridge Fueling Futures programs.

See our [interactive community](#)

[investment map](#) to learn more

about our partner organizations.

53,712

volunteer hours by
Enbridge employees

3,369

organizations supported



Featured partner: United Way

The Enbridge Fueling Futures program directs substantial support each year to [The United Way – supporting and building community resiliency](#). Since 2018, Enbridge has invested more than C\$32.1 million in support of local United Way chapters. In 2022, 133 communities across North America benefited from:

- 2,000+ Enbridge team members' participation
- 2,900 volunteer hours by Enbridge employees
- C\$4.7 million of total giving from employee, contractor and retiree donations, boosted by Enbridge's corporate match

This year, with cost-of-living concerns affecting millions, many Enbridge teams focused on United Way-supported food security initiatives. Our team in Houston raised over \$1 million for United Way, which benefits agencies like Target Hunger, a non-profit that provides direct food assistance to children, families and seniors.

Featured projects

Here are just a few of the initiatives we supported through our Enbridge Fueling Futures grant programs.



Safe communities

[Safe Community Project Zero](#) and Safe Community Project Assist aim to save lives in Ontario communities. Safe Community Project Zero is a public education program focused on reducing residential fire and carbon monoxide related deaths to zero. Enbridge Gas contributed \$250,000 to purchase combination smoke and carbon monoxide alarms, which were distributed to 50 fire departments across Ontario and into the homes where they were needed most. Safe Community Project Assist supplements existing training for volunteer and composite fire departments. In 2022, Enbridge Gas contributed an additional \$250,000 for educational materials, helping 50 Ontario fire departments train personnel in life-saving techniques.



Vibrant communities

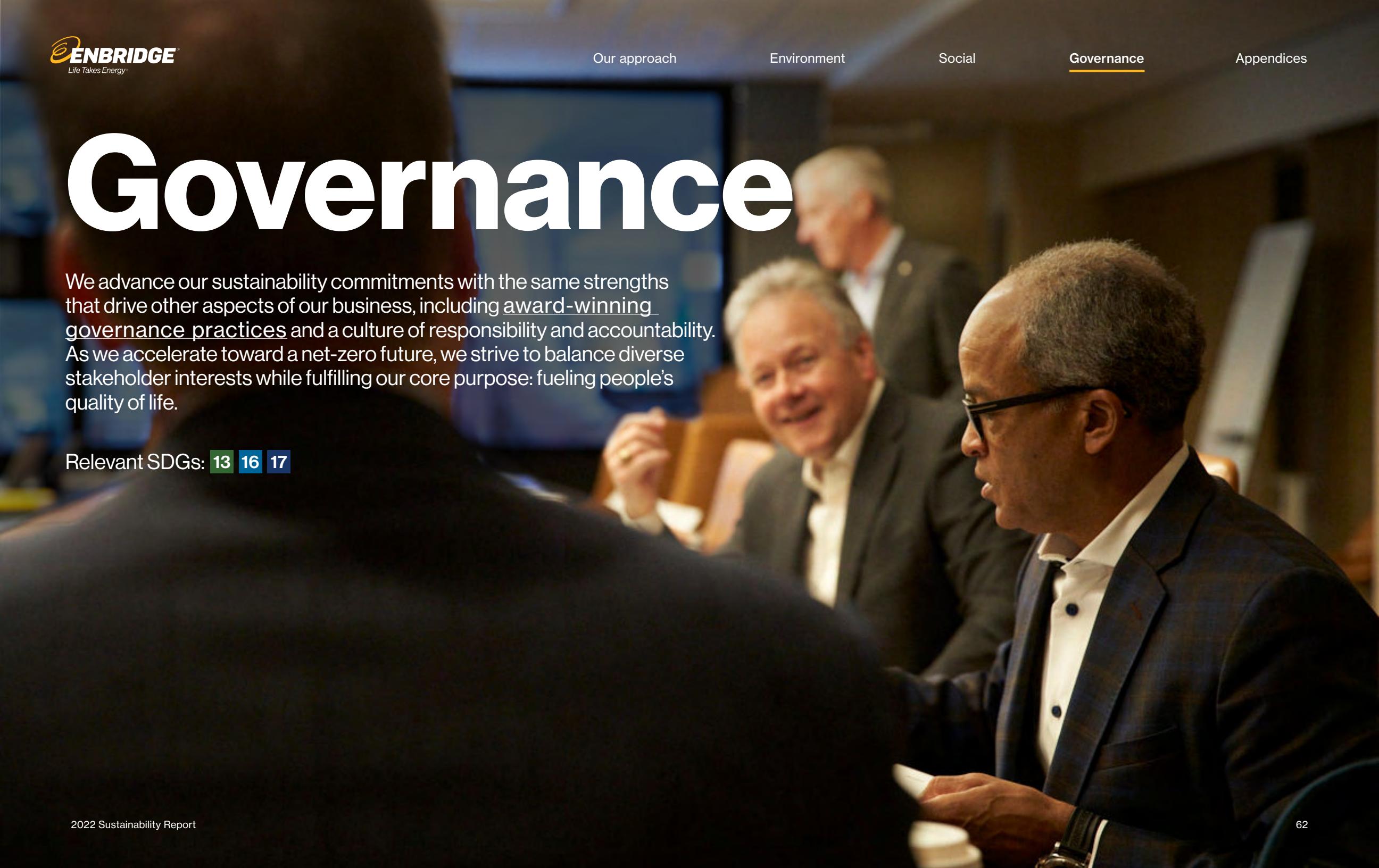
At Darrell's Dream Boundless Playground, children of all abilities can play together. The three-acre complex in Kingsport, Tennessee includes universally accessible playground equipment and surfaces, a walking trail that's accessible for people with blindness or low vision and other fully inclusive amenities for people of all ages – all in a lakeside setting. [Enbridge Fueling Futures support is helping to provide maintenance and playground equipment](#).



Sustainable communities

Teachers and administrators see the Waubun-Ogema-White Earth School District's outdoor learning programs as a major success, increasing student attendance, engagement and test scores. More than eight in 10 of the district's students are Indigenous, many connected to the Minnesota community of White Earth. Building on longstanding outdoor recreation programs, the district has begun to bring other learning outside; for instance, students build math skills by measuring and charting changes in nature. An Enbridge Fueling Futures [grant of \\$150,000 is helping to expand facilities at the outdoor learning center](#).

Governance

A photograph showing three men in professional attire (suits) engaged in a discussion. One man in the foreground is gesturing with his hands while speaking. The background is slightly blurred, suggesting a conference room or office environment.

We advance our sustainability commitments with the same strengths that drive other aspects of our business, including award-winning governance practices and a culture of responsibility and accountability. As we accelerate toward a net-zero future, we strive to balance diverse stakeholder interests while fulfilling our core purpose: fueling people's quality of life.

Relevant SDGs: [13](#) [16](#) [17](#)

Corporate governance

We are committed to strong and sustainable corporate governance, which promotes the long-term interests of our stakeholders, strengthens Board and management accountability, and helps build public trust in Enbridge.

Our Board of Directors is elected by Enbridge's shareholders and is responsible for overseeing the business and affairs of our company. Governance principles, policies and practices are consistent with our values, and with the rules and requirements applicable to our business.

Strong Board refreshment practices have helped us consistently bring in new perspectives and knowledge, including directors with expertise in stakeholder engagement, new energy technologies and energy transition. Since 2021, we have added five new directors. In 2022, our former Board Chair, Greg Ebel, became Enbridge's CEO and Pamela L. Carter was appointed as our Board Chair, effective January 1, 2023. Pamela is Enbridge's first female Board Chair and its first Black Chair.



Learn more

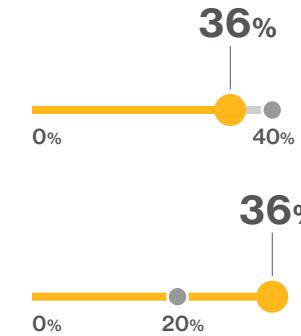
[2023 Management Information Circular](#)

[Corporate Governance Principles and Guidelines](#)

Our ESG goals

Representation on the Board of
40% women and
20% underrepresented ethnic and racial groups by 2025

 **Sustain leading ESG reporting standards**
and evolve with best practices



Strong corporate governance matters more than ever and is essential in overseeing the Company's place in the energy transition. There are risks with moving too slowly and risks from moving too quickly—part of the Board's job is to ensure we get the pace right, in the best interests of the Company and our long-term shareholders.

Pamela Carter,
Chair, Enbridge Board of Directors

Board governance principles

Principle	2022 status or update
Accountability – Strong Board and Committee oversight and risk management practices	We strive to ensure that our Board members are well-equipped to oversee ESG matters, including climate change risk and the energy transition.
Independence – Separate Chair and CEO; Chair independent	<ul style="list-style-type: none"> • 10 of 11 directors independent • 5 of 5 Board committees composed entirely of independent directors
Diversity – Diversity of thought, experience, perspectives and skills	<p>This principle is supported by our written Diversity and Inclusion Policy, which outlines the importance of diversity in meeting the Board's oversight and stewardship responsibilities.</p> <ul style="list-style-type: none"> • Board Chair is a woman and a member of an underrepresented ethnic and racial group • 4 of 11 directors are women (36%) • 2 of 5 committee chairs are women (40%) • 4 of 11 directors are members of underrepresented ethnic and racial groups (36%) • The average age of directors on the Board is 66 <ul style="list-style-type: none"> – 2 of 11 are under 60 (18%) – 2 of 11 are between 60 and 65 (11%) – 7 of 11 are above 65 (64%) <p>As part of our Board succession planning process, we regularly assess overall Board composition, using a skills matrix to maintain a balance of diverse perspectives, backgrounds and experiences.</p>
Transparency – Robust financial and sustainability reporting aligned with SASB, GRI and TCFD	We have steadily expanded and enhanced our sustainability reporting practices over the past 22 years, and we recently created an enterprise-wide, multi-functional ESG disclosure working group to promote clarity, consistency and data quality across our sustainability reporting assets. In the 2023 Management Information Circular (MIC), we have added sections describing our approach to the energy transition (see 2023 MIC page 10) and our progress on social initiatives and achievements (see 2023 MIC page 11), and our 2022 Sustainability Report contains new information on methane emissions. For more information on our disclosures, see the 2022 Content Indices and 2022 ESG Datasheet .



To support accountability for our IRAP commitments and to ensure that our decisions reflect Indigenous rights and knowledge, Enbridge has committed to:

- Facilitate a thought leader roundtable related to Indigenous inclusion and perspectives in sustainability strategy and policies (IRAP Goal 5.2)
- Establish an Indigenous advisory group (IRAP Goal 6.1)
- Ensure executive sponsorship and commitment to achieving IRAP goals and ensure IRAP implementation and support mechanisms are established and aligned across the Company (IRAP Goal 6.2)
- Continue to conduct Indigenous Sharing Circles with participation from the Executive Leadership Team (IRAP Goal 6.3)

ESG governance

Driving continuous improvement in ESG performance requires an effective and accountable internal governance structure. Our approach to sustainability governance engages all levels of the Company, from the Board to our employees. Oversight of ESG is fully integrated into the responsibilities of the Board and all five Board committees.

Board of Directors

The Board and its five committees are responsible for identifying and understanding Enbridge's principal business risks, including sustainability risks, and ensuring appropriate systems are implemented to monitor, manage and mitigate those risks. The Board also oversees the Company's strategic planning process, including reviewing and approving our strategic plan annually.

Board committees:

Sustainability Committee	Human Resources & Compensation Committee	Audit, Finance & Risk Committee	Safety and Reliability Committee	Governance Committee
E	<ul style="list-style-type: none"> Climate risk Emissions goals and targets, including overseeing progress 	<ul style="list-style-type: none"> Alignment of ESG goals to compensation 	<ul style="list-style-type: none"> Annual corporate risk assessment and financial reporting Cybersecurity (financial risk) 	<ul style="list-style-type: none"> Asset integrity Incident response Environmental management systems
S	<ul style="list-style-type: none"> Indigenous inclusion Stakeholder engagement Human rights 	<ul style="list-style-type: none"> Workforce engagement Diversity, equity and inclusion 		<ul style="list-style-type: none"> Safety culture Safety and operational risks, including physical and transition climate-related risks
G	<ul style="list-style-type: none"> ESG reporting 	<ul style="list-style-type: none"> Compensation management and succession 		<ul style="list-style-type: none"> Board shareholder engagement Board diversity and inclusion
Executive Leadership Team <p>Responsible for the Company's sustainability performance; integration of sustainability considerations into strategic and financial plans, and operational and functional responsibilities; and the Company's performance and long-term success.</p>		Chief Sustainability Officer <p>Responsible for sustainability strategies and policies; management of sustainability performance reporting and disclosure; and public policy.</p>	Management <p>Establishes, oversees and ensures adherence to corporate policies and programs; integrates sustainability strategy and risk management into day-to-day operations. Includes Diversity and Inclusion Steering Committee, Indigenous Steering Committee and Operations and Integrity Committee, with executive oversight.</p>	Employees <p>Implement departmental initiatives and conduct our business in a socially responsible and ethical manner consistent with our policies and values.</p>

Supply chain management

Building a diverse and sustainable supply chain

A strong, diverse supplier community is essential to the resiliency and sustainability of our supply chain and contributes to the vitality of the communities where we live and work.

2022 highlights

In 2022, we advanced an initiative to gather sustainability data from our suppliers on four key dimensions: environment, labor and human rights, ethics, and sustainable procurement. With support from EcoVadis, we collected data on more than 100 suppliers and, for a subset of these, we gathered Scope 1, 2 and 3 emissions information and assessed their carbon management practices.

We also hosted the first ever Enbridge Supplier ESG Summit to share insights and leading practices across our supply chain. The event attracted strong engagement, as 148 supplier participants representing 72 companies attended alongside 55 Enbridge representatives, three external speakers from supplier diversity advocacy councils and one financial partner speaker. The event included remarks from our Chief Sustainability Officer and Vice President & Chief Supply Chain Officer. Topics included supplier diversity, decarbonization and ESG strategy.

Building on an initiative we carried out in 2021 to evaluate existing diversity within our supply chain (i.e. to determine which suppliers are at least 51% owned, managed and controlled by a diverse person or group with U.S. or Canadian citizenship), this year we took further steps to increase supplier diversity. In 2022, we spent \$315.2 million on goods and services from diverse-owned suppliers – a 20% increase over the previous year (when normalized for the Line 3 Replacement Program).

Looking beyond our direct suppliers, in 2022, we continued to advance our Tier 2 Diverse Spend Program, which requires our direct (Tier 1) suppliers to report to Enbridge on the diversity of their subcontractors (Tier 2). By taking stock of the composition of our entire supply chain, we can work together to further expand opportunities for diverse business owners in the U.S. and Canada. In 2022, the share of our suppliers who reported on the diversity of their supply chains increased by 38% relative to 2021.

In 2022, our Gas Distribution and Storage team embarked on a roadshow to share information about our supplier diversity program. One positive outcome of that work was that certain of our existing suppliers learned they were eligible to pursue certification as “diverse-owned” – a step that will aid these businesses beyond their work with Enbridge.

Finally, to continue building momentum on sustainability performance across our team – while harnessing the insight and ingenuity of our people – this year we asked every employee in the supply chain function to craft and be accountable for three ESG-focused goals.

Clear expectations

We require our suppliers to uphold the human rights, labor, health and safety, environmental, and business ethics practices prescribed in all our relevant policies:

- [Supplier Code of Conduct](#)
- [Statement on Business Conduct](#)
- [Sustainability Policy](#)
- [Indigenous Peoples Policy](#)
- [Supplier Diversity Policy](#)



In addition to advancing other supplier diversity initiatives described on this page, Enbridge has committed through our IRAP to:

- Advance opportunities for Indigenous businesses to participate in Enbridge's supply chain (IRAP Focus 3.2)
- Establish Indigenous spend targets (IRAP Focus 3.3).

Q&A

A Q&A with Nannette Ho-Covernton, Sustainability Leader at Spartan Controls

The sustainability specialist describes how her company, a supplier of industrial automation solutions, works with Enbridge to achieve shared goals

Can you tell us a little about the history of sustainability at Spartan Controls?

Several of our sustainability commitments have roots that span Spartan's six-decade history. In our first fixed Calgary facility, our founders implemented a specific architectural design aimed at conserving energy and promoting employee interaction by guiding movement throughout the building. Spartan Controls is wholly employee-owned, which builds strong relationships between the company and the people who work here. However, as far as a recognized sustainability program, we've been primarily active on the environmental dimension since 1990s.

What's been the focus of your sustainability program in recent years?

Our sustainability framework has six key pillars: People; Well-Being; Community; Industry & Education; Innovation; and Environment. We have strong commitments in each of these areas, but some are more mature than others. Our safety program (part of the Well-Being pillar) is very well-established and our safety record is something we've taken pride in for a long time. At the other end of the spectrum, we're in the initial stage of gathering comprehensive data about diversity in our supply chain. We're in the process of surveying our suppliers and analyzing the data.

How has Enbridge's sustainability program, which includes goals related to its supply chain, shaped Spartan Controls' practices?

As a supplier, we always do our best to respond to our customers' needs across the board. Whether it's in sustainability, quality or service, meeting our customers' expectations and being aligned with them is at the heart of our business. When our major customers' sustainability reports come out, we spend plenty of time with them to make sure that our perspectives on materiality are staying aligned – that we understand their projects, their core initiatives, any innovations they're pursuing.

This year, we submitted information through the EcoVadis platform in order to help Enbridge gain insight into their Scope 3 emissions as well as other issues, such as labor and ethics. We were happy to do this both because we value Enbridge as a customer and also because it was a learning opportunity for us in our own sustainability program.

What was most useful about going through that process?

We're in the process of building a more comprehensive picture of our emissions. We've been developing and enabling technology to reduce emissions for many years; to date, we've helped industry abate more than 20 megatonnes of CO₂ equivalent with the products and services we provide – in areas ranging from fuel management to advanced process controls. Until recently, we didn't have a comprehensive inventory as a baseline. In fall 2022, we published our Scope 1 emissions for the first time, and we're working on Scope 2. Like Enbridge, we're beginning to survey our suppliers to understand our Scope 3 emissions. It is interesting to have a window into Enbridge's process by participating in it.

What stands out for you about working with Enbridge on shared sustainability goals?

Enbridge is highly collaborative, which makes a huge difference. They're very willing to engage on the substance of the issues – they don't just send out surveys and wait. We have real conversations with members of their supply chain and sustainability team about what they're trying to learn and why. It's beneficial to have the kind of relationship where we can really engage around the goals we're trying to achieve, and how we each fit into each other's work. Generally speaking, it's nice to be collaborative – but it also makes a big difference in terms of the impact we can achieve together. There are so many companies working on the same questions and challenges.

The more we can work together and share what we're learning, the faster we can move the dial on our sustainability goals.

Nannette Ho-Covernton,
Sustainability Leader

Ethics and compliance

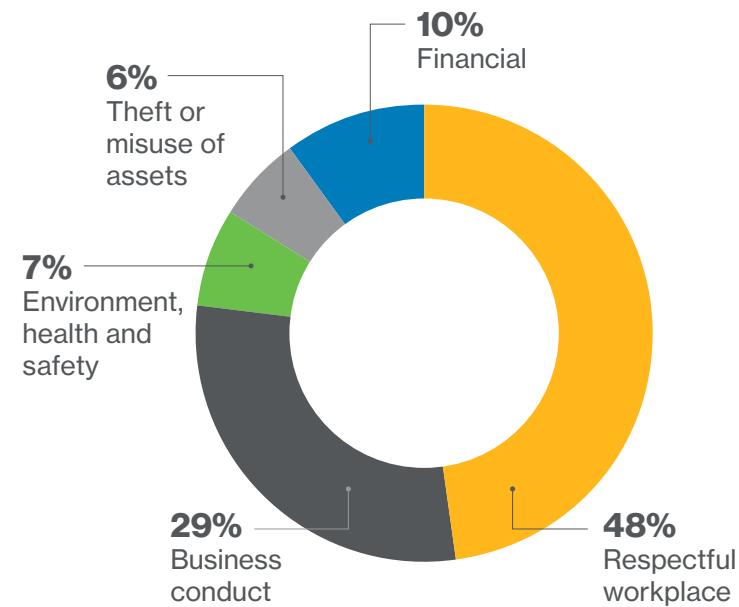
Setting high standards for business conduct and accountability

Everyone who works for Enbridge is accountable for upholding high standards of conduct and understands that transparency around our performance is essential for building trust with our stakeholders.

Our Statement on Business Conduct (SOBC) is the foundation of our commitment to ethics and compliance. Upon joining Enbridge and annually thereafter, all team members active in Workday are required to complete SOBC training and certify their compliance with its provisions. They must also disclose any actual or potential conflicts of interest. In 2022, the Board approved a revised SOBC, which became effective June 2022.

Our Whistle Blower Policy sets out the procedures for reporting concerns about potential fraudulent or inaccurate accounting, auditing or financial reporting violations, ethical misconduct or violations of law or policy. It also indicates how such concerns are handled, and articulates Enbridge's approach to preventing further violations of policy as well as our prohibition against retaliation against any person making a complaint in good faith.

2022 Ethics Helpline reports by category (%) of reports)



We encourage employees to turn to their people leaders first to share concerns. Should team members feel uncomfortable reporting certain concerns through this channel, the [Ethics Helpline](#) allows the option of filing a report confidentially and anonymously. This mechanism is available 24/7 and supports reporting via telephone, web and SMS text message. It also enables stakeholders to ask questions regarding the application of the Company's various governing policies.

In 2022, a total of 167 matters were received through the Ethics Helpline, compared to 137 in 2021. Anonymous reporting represented 43% of all reports.

Our Anti-Bribery and Anti-Corruption program includes policies, procedures and training aimed at preventing violations of anti-bribery and anti-corruption legislation, as well as money laundering, facilitation of tax evasion and terrorist financing.

Through our third-party risk management program we also continue to screen and monitor our suppliers and other third parties for bribery and corruption, money laundering, terrorist financing, facilitation of tax evasion, sanctions and human rights violations.

The third-party risk management program also played an essential role in responding to the economic sanctions imposed in 2022, as a result of the ongoing geopolitical conflict between Russia and Ukraine.

We intend to work according to all external regulations and laws to prevent fines, penalties and violations, whether monetary or non-monetary. Any such penalties in excess of C\$10,000 and US\$10,000 (depending on the country in which they occurred) are disclosed in the appendix to this report (see [page 80](#)).

Related policies

[Statement on Business Conduct](#)

[Whistle Blower Policy](#)

[Political Contributions Policy](#)

Political advocacy and accountability

Sharing our perspective with policymakers and the public

Enbridge engages in government, regulatory and public policy processes in the jurisdictions where we operate. The goal of this engagement is to contribute to the development of responsible public policies and regulatory processes that support our enterprise-wide strategic priorities. We also participate in consultations, workshops, hearings, working groups and conferences to help advance sound public policy in areas such as tax, safety and low-carbon development. As we go about this work, we adhere closely to all applicable laws and ethical obligations as well as our own [Political Contributions Policy](#). We file lobbying reports with the Office of the Commissioner of Lobbying in Canada, the U.S. Congress and state, provincial and municipal agencies.



Learn more

Enbridge belongs to trade associations that offer opportunities to collaborate on issues important to us and our industry. It is important we are transparent on our positions to ensure we continue to have constructive relationships with our associations. In 2023, we conducted a review of how eight key trade associations' climate-related activities and positions align with ours. As a result of this review, we found one that we deemed to be partially aligned and no misalignments. Results of our detailed Climate Lobbying Report assessment can be found [here](#).

2022 highlights

In November 2022, we published [Advancing North America's Energy Future](#), a paper that articulates the fundamentals of our current policy positions – and seeks to inform the development of sound public policies that position North America as the world's most reliable, affordable and sustainable energy provider. In the context of rising energy demand, energy security concerns and an urgent need for lower carbon energy, the paper articulates four key areas where policy action is most necessary:

1. Promoting a North American energy bloc to provide energy globally
2. Supporting dual-track investment in conventional and lower-emission energy to simultaneously meet growing demand while advancing the energy transition
3. Creating a regulatory and permitting environment that provides consistency and predictability to help de-risk investments in the energy transition for all stakeholders
4. Supporting the energy industry's efforts to provide lasting economic and social value through the creation of local jobs as well as business and community development, especially in partnership with diverse communities and Indigenous peoples

Enbridge's gas utility released another important contribution to public conversations about the energy transition – this one specifically focused on the Ontario energy market. "[Pathways to Net Zero](#)" explored possible pathways to achieving net zero by 2050. It presented solutions across numerous sectors – ranging from those with the highest potential for electrification in the near term to those that will be most challenging to electrify.

The report identified two potential pathways, each arriving at net zero emissions by 2050. One was an electrification-heavy pathway. The other took a more diversified approach: It included lower-carbon fuels such as renewable natural gas and hydrogen alongside electrification, and complemented these strategies with the use of CCS. The analysis concluded that requiring electrification as the dominant solution across diverse sectors would lead to a more expensive and less reliable energy system *en route* to net zero. One central concern with the less diversified approach is that it requires the electrical grid to store large amounts of energy, a function that has been found to be cost-prohibitive and logically challenging in the absence of a diversified energy mix.

In addition to sharing insight and analysis through publications, we continued to participate in important forums on energy security and the energy transition. Joining provincial delegations from Alberta and Ontario at COP27, three Enbridge leaders participated in the global summit: Gas Distribution and Storage President Michele Harradence, Chief Sustainability Officer Pete Sheffield and Low Carbon Development Director Adam Chalkley. Enbridge representatives argued that the most economical and resilient way to achieve net zero is a diversified approach that includes CCS, renewable natural gas and hydrogen.

Key advocacy topics in 2022

Enbridge shared its perspective on a range of important policy issues this year.

- We argued for the importance of policy and **regulatory certainty** on both sides of the Canada-U.S. border, especially with respect to frameworks that will regulate energy in the future. Clarity in these areas is critical to enabling Enbridge and others to invest with confidence in capital and operational adaptations that will support the transition to a lower-emissions economy.
- Leveraging our perspective as an operator of essential energy infrastructure on both sides of the Canada-U.S. border, we proposed a number of tax credits and incentives that would help to **stimulate investment in renewable and low-carbon energy** while harmonizing key policies across the two countries to help the energy transition progress as quickly and rationally as possible.
- Complementing our work to build innovative equity partnerships (see [page 50](#)) and advance other forms of economic engagement with Indigenous peoples, we called on governments to support **greater Indigenous participation in the energy industry**. In particular, we called for governments to facilitate true equity partnerships and to help reduce the cost of borrowing for Indigenous peoples seeking to invest in the future of energy.
- We underscored the importance of the **voluntary carbon market** as a pathway to regulatory compliance and corporate ESG targets. We believe the development of offsets and credits needs to be supported by a framework that ensures credits are of high quality and not additional. Enbridge has a comprehensive strategy to achieve net zero emissions by 2050, which includes the use of high-quality carbon offsets to address emissions from hard-to-abate sources.
- We presented evidence of the powerful role **fuel-switching** can play in decarbonization, in both domestic and international markets. Compared to the emissions from coal-fired power plants prevalent in some of the world's most populous jurisdictions, notably China and India, natural gas from North America produces, on average, 50.5% less greenhouse gas. Supplying international markets with more sustainable energy sources from North America, including less emissions intensive natural gas and hydrogen, can be a powerful step toward reducing GHG emissions worldwide. This year, Enbridge participated in the development of a [Public Policy Forum paper](#) that explores this topic.
- Responding to the energy crisis in Europe sparked by geopolitical events, we argued for the importance of North American liquefied natural gas in addressing **energy security** globally and affordability at home – all as we invest heavily in the energy transition.
- Enbridge is focused on maintaining and modernizing existing energy infrastructure to ensure consumers have reliable access to affordable and ever-cleaner energy. A number of incentives in the Inflation Reduction Act signed into law in 2022 will support necessary investments to modernize our energy systems and help advance our low-carbon energy investments. Enbridge advocated for this important piece of legislation which will send a strong market signal to support investment in clean energy infrastructure. A number of the tax provisions are of great benefit for Enbridge, including an extension through 2024 of the existing 30% investment tax credit (ITC) for solar, qualified fuel cell, waste energy recovery, geothermal and other designated electricity generation facilities. In addition, an extension through 2024 of the existing production tax credit (PTC) for wind, biomass, landfill gas, trash, qualified hydropower and other designated electricity generation facilities is expected to benefit Enbridge.
- Enbridge was at the forefront of efforts to advocate for permitting reform in the U.S. Congress and with the Biden Administration. Our senior leadership had several conversations with key policymakers in the U.S. government, and Enbridge was an active voice in our trade associations on the issue. It's only through a permitting process which allows for necessary energy infrastructure to advance in a timely, inclusive and predictable manner that we can deliver affordable, reliable and ever-cleaner energy here at home and to meet the needs of our global allies. For us to continue to pursue the goals that policymakers and customers share, we are going to have to streamline and stabilize the permitting regime, not just for renewables but for all vital energy resources.
- We believe that natural gas will continue to serve as a critical tool in the path to a lower-carbon economy and for energy security. While much progress has been made to abate methane emissions, voluntary initiatives will not be enough. Enbridge has long advocated for cost-effective policies and federal regulation of methane emissions to complement voluntary efforts by industry. We are working with industry to influence regulatory impediments and build confidence around methane reduction, with a focus on activities to improve detection, measurement, quantification and verification of methane emissions. With our trades we have been working to advance for federal regulation of methane regulations.
- In 2022, Enbridge made \$10,750 in corporate political contributions in Canada, \$49,000 in corporate political contributions in the U.S. and provided US\$253,500 in support to the Enbridge-DCP Political Action Committee.

Enterprise risk management

Our ability to operate and ensure long-term success is linked to how well we identify and manage potential risks to our company. Our Board oversees all risks and management is responsible for ensuring that appropriate systems are implemented to monitor, manage and mitigate those risks with the goal of ensuring that we can achieve our long-term strategic priorities. Enbridge has identified risks in the following areas: safety and operations; strategy and competition; cyberattacks and security breaches; financial matters; human resources; brand and reputation; and legal, regulatory and compliance requirements. See our [2023 Management Information Circular](#) to learn more.

Enbridge actively undertakes risk management activities each and every day. Annually, the Company develops a comprehensive Corporate Risk Assessment (CRA) that examines risks across all areas of the Company and is reported to the Board and its committees. The CRA process:

- Is a bottom-up review of enterprise-wide risks, trends and treatment
- Assesses the potential likelihood and consequence of risks and the impact of treatment
- Supports continuous risk management improvement
- Informs strategic planning, operational risk management, sustainability reporting and audit prioritization

As part of its process, management provides reports at every Board meeting to discuss key risk areas, emerging trends and treatment measures. In addition, a mid-year update is provided to the Board for the Company's top risks. As an example, cyberattacks have been identified as a top risk that continues to increase in sophistication and frequency. The Board received quarterly reports on information technology and cybersecurity matters in 2022.

The committees of the Board, comprised of the Safety and Reliability Committee; Audit, Finance & Risk Committee; Governance Committee; Sustainability Committee; and the Human Resources & Compensation Committee, have oversight over risks within their respective mandates. The Company's management, led by the Executive Leadership Team, through standing committees, is responsible for the implementation of risk management strategies and monitoring performance. For example, the Operations and Integrity Committee (OIC) is chaired by the Chief Executive Officer whose mandate is to ensure safe and reliable operations while providing oversight of Enbridge's Safety and Reliability Policy. The Corporate Financial Risk Management Committee is chaired by the Chief Financial Officer providing oversight of the Corporate Financial Risk Management Policy and the management of financial risk.

Enbridge's resiliency is further enhanced by fostering a strong risk management culture where people at all levels proactively anticipate and escalate risks, look out for one another, and respond to evolving opportunities and threats in pursuit of our strategic priorities.



Privacy

Enbridge maintains high standards of confidentiality with respect to all personal information in our possession, whether it belongs to customers, personnel, landowners or others connected to our organization. We strive to ensure that our relationships with stakeholders reflect our values and inspire confidence. As part of our overall commitment to excellent service, we work to demonstrate responsibility, fairness, honesty and sound ethics in everything we do.

Our Privacy Office, managed by our Chief Privacy Officer and supported by a team of dedicated staff, is responsible for safeguarding our stakeholders' personal information – and for fostering a strong culture of privacy across Enbridge. The Privacy Office sets privacy policies and standards designed to fulfill our commitment to maintaining stakeholder trust.

We use a Privacy Management Program to minimize the risk of privacy breaches. The program includes an internal governance structure and carefully implemented program controls, which together ensure that our Privacy Policy is active in all our relevant activities, and that our activities align with applicable privacy legislation. Enbridge's Privacy Statement summarizes these fundamental privacy commitments.

Focus areas in 2022 included:

- Continued enhancement and automation of privacy processes, including privacy metric development and tracking
- Growing the Privacy Steward Network to champion sound data governance practices across the organization
- Improvements in third-party privacy risk assessment capabilities
- First steps in executing a multi-year Data Privacy Optimization Project focusing on evolving the privacy program and preparing for proposed privacy legislation changes



Learn more

[Privacy statement](#)

Cybersecurity

As an operator of critical energy infrastructure, we must apply the same mindset to our cyber safety as we do to physical safety – being constantly vigilant, erring on the side of caution and immediately reporting any concerns. This is how we help protect Enbridge and our customers.

We conduct continuous assessments of our cybersecurity standards, perform regular tests of our ability to respond and recover, and monitor for potential threats. To further mitigate threats, we collaborate with governments and regulatory agencies, and take part in external events to learn and share.

As with any operational risk, Enbridge has a robust governance structure around cybersecurity. The Board of Directors provides effective oversight. Regular updates are provided to both the Safety and Reliability Committee and the Audit, Finance & Risk Committee of the Board. The Technology and Information Services function is centralized under the Senior Vice President, Technology & Chief Information Officer, which provides a clear line of sight into how well our policies drive improvements. We also engage independent third parties to assess our cybersecurity program, track their recommendations and use those to inform road-mapping to further improve the program.

Our workforce participates in regular security awareness training, including exercises to build capabilities to identify and report suspect emails to our Security Operations Center. In the last year, we continued to expand the cybersecurity training and simulated testing we administer to high-risk groups within the organization. A tailored cybersecurity training course was implemented for team members in operational technology roles, and we have increased the frequency of phishing simulation tests.

Besides having a trained workforce, our Cybersecurity team uses several layers of defense and protection technologies, cybersecurity experts, and automated alerting and response mechanisms to reduce risk to Enbridge.

We have a cyber defense program to further protect the confidentiality, integrity, availability and reliability of our information and services. Focus areas in 2022 included:

- Improving data protection through the implementation of data loss prevention (DLP) controls
- Further expansion of vulnerability management capabilities for timely mitigation of potential threats
- Sustained focus on layers of defense with additional network controls, workstation controls and access controls to mitigate cyber risk
- Continued assessment of cybersecurity maturity and defense capabilities through both internal audits and independent third-party engagements, including an annual maturity assessment against the National Institute of Technology Cybersecurity Framework

Our ESG goals



Advance effective cyber defense programs to protect information and services



Appendices



Indigenous Reconciliation Action Plan (IRAP) commitment progress

Pillar 1: People, employment and education

Focus	Commitment	Target/Goal	Timeline	Progress since September 2022
Talent attraction and recruiting	Establish flexible work placements and opportunities for Indigenous peoples that account for regional and cultural considerations across Canada and the U.S.	<ul style="list-style-type: none"> Update Indigenous engagement employment program to account for Indigenous culture, regional/remote considerations and legal considerations, as appropriate Explore establishing a cultural leave program 	2022 – Ongoing	Established Indigenous internal team which is responsible for implementing the Indigenous Employment Program and have mechanisms in place to help support these commitments. Continue to work with HR and Legal to help develop a cultural leave program in the jurisdictions where we operate.
	Continue to seek and strive to increase Indigenous representation in Enbridge's permanent workforce	<ul style="list-style-type: none"> Continue to report metrics and provide annual disclosure Identify key growth areas for employment and skills development Establish partnership with Indigenous employment agency Attend at least eight Indigenous-focused career fairs throughout Canada and the U.S. Attempt to reach our previously established goal of a minimum of 3.5% of proportional Indigenous representation¹ 	2025	<p>At the end of 2022, 2.5% of our employee workforce are Indigenous (self-identification). You can read further in our Indigenous Inclusion section of the report and find further metrics in our ESG Datasheet.</p> <p>Developed five external partnerships with Indigenous education and employment agencies in the U.S. and Canada. Will continue to explore various agencies as we progress on this commitment.</p> <p>Attended 15 career fairs and employment events in both Canada and U.S.</p> <p>Dedicated Indigenous recruitment advisor put in place in 2021 to focus on recruitment from Indigenous communities.</p>
	Continue to review internal hiring processes and develop human resource capability to ensure all perspectives are reflected through the attraction/retention lifecycle	<ul style="list-style-type: none"> Review and, where appropriate, update internal hiring processes Conduct ongoing and regular training with Talent Acquisition team related to hiring practices Explore development of policies/procedures to support Indigenous attraction/retention programs 	2022 – Ongoing	<p>Dedicated Indigenous recruitment advisor put in place in 2021 to focus on recruitment from Indigenous communities.</p> <p>Posted full-time employee positions seeking Indigenous preference in instances where allowed by employment law.</p>
Talent experience and recruiting	Increase representation of Indigenous employees within Enbridge's Leadership Development Program to support the retention and advancement of Indigenous employees	<ul style="list-style-type: none"> Explore expansion of programs and opportunities for the growth of Indigenous employees/employee base 	2023 – Ongoing	Working group established and development work is underway.

Please note that bargaining unit employees are subject to the terms and conditions of their collective bargaining agreement.

¹ All percentages or specific goals regarding inclusion, diversity, equity and accessibility are aspirational goals that we intend to achieve in a manner compliant with state, local, provincial and federal law, including, but not limited to, U.S. federal regulations and Equal Employment Opportunity Commission, Department of Labor and Office of Federal Contract Programs guidance.

Pillar 1: People, employment and education (continued)

Focus	Commitment	Target/Goal	Timeline	Progress since September 2022
Cultural support programs	Continue to develop and maintain cultural support programs to make Enbridge an attractive and welcoming employer for all people, including Indigenous peoples	<ul style="list-style-type: none"> • Continue to implement and expand cultural support programs • Integrate Indigenous arts and culture in Enbridge offices and facilities across Turtle Island¹ 	2023 – Ongoing	<p>Continued support and work by the Indigenous resource group and the Indigenous Employment Program to provide cultural support for employees.</p> <p>Examples of how we integrated cultural support: held smudge ceremonies in the Calgary office, Indigenous land acknowledgement plaques provided to all major offices for placement in lobby or high-traffic areas, Indigenous artwork will be placed in major offices, recorded land acknowledgement for Enbridge AGM and will rename main boardrooms to Indigenous wording to reflect local Indigenous territory.</p>
Learning and awareness	Ensure 100% of Enbridge's employees complete Indigenous awareness training	<ul style="list-style-type: none"> • 100% employee participation in cultural awareness training • Ensure every new Enbridge employee receives cultural awareness training as a requirement 	2022; ongoing for new team members	<p>100% of employees and contractors have completed the Indigenous awareness training by end of 2022. Please refer to our Indigenous Inclusion section for more information.</p> <p>We continue to make it a requirement of all new hires to complete the Indigenous awareness training.</p>

Please note that bargaining unit employees are subject to the terms and conditions of their collective bargaining agreement.

Pillar 2: Community engagement and relationships

Focus	Commitment	Target/Goal	Timeline	Progress since September 2022
Feedback mechanism	Develop an incremental formal mechanism for Indigenous groups to provide feedback to Enbridge	<ul style="list-style-type: none"> • Establish and launch feedback mechanism 	2023 – Ongoing	<p>A dedicated working group has been established and has developed draft recommendations for an Indigenous specific feedback mechanism. The group is working on implementation options.</p>
Community engagement and relationships	Provide \$80 million in cumulative funding support for engagement priorities, community capacity building and fostering well-being over the next five years	<ul style="list-style-type: none"> • \$80 million in cumulative funding over five years 	2022-2027	<p>\$18.4M spent in 2022.</p> <p>Dedicated team to identify priorities and engage with partners to establish spending priorities for 2023.</p>

¹ Some Indigenous peoples often refer to the continent of North America as Turtle Island. Both terms appear in the IRAP and our 2022 Sustainability Report, where appropriate.

Pillar 3: Economic inclusion and partnerships

Focus	Commitment	Target/Goal	Timeline	Progress since September 2022
Indigenous financial partnerships	Revise and formalize Indigenous financial partnership processes that encourage strategies to provide opportunities for Indigenous economic participation	<ul style="list-style-type: none"> • Develop Indigenous Economic Development Taskforce • Formalize processes and strategies for Indigenous economic participation • Implement new partnership processes and strategies that foster early engagement with Indigenous groups • Ensure Indigenous perspectives are included within review and development process(es) 	2022 – Ongoing	<p>Identified an Indigenous Economic Development Working Group (Taskforce). Formal best practices for processes, strategies and mechanisms have been developed and will be updated on an ongoing basis.</p> <p>Dedicated manager and director-level staff assigned to work on Indigenous financial partnerships.</p> <p>Input from our Indigenous partners on existing deals has been considered and incorporated as we evaluate processes going forward.</p> <p>We executed on three financial partnerships in 2022 (Athabasca equity partnership, Wabamun Hub and Bamkushwada Limited Partnership (BLP)). Refer to our Indigenous Inclusion section for more information.</p>
Supplier capacity development	Advance opportunities for Indigenous businesses to participate in Enbridge's supply chain	<ul style="list-style-type: none"> • Develop and conduct at least eight information sessions over two years 	Ongoing	<p>Conducted the first online webinar in Q1 2023 with approximately 40 individuals in attendance.</p> <p>Hosted an Indigenous business forum in Michigan with 30 participants.</p>
Indigenous procurement	Establish Indigenous spend targets	<ul style="list-style-type: none"> • Determine and disclose Indigenous spend targets 	2023	External spend target development is underway.

Pillar 4: Environmental stewardship and safety

Focus	Commitment	Target/Goal	Timeline	Progress since September 2022
Indigenous inclusion and traditional knowledge	Review and revise Enbridge's approach to Indigenous inclusion in the environmental review processes	<ul style="list-style-type: none"> • Confirm and utilize a phased approach to revise Enbridge's environmental review processes, as needed 	2022 – Ongoing	Working group established and reviewing the current practices of Indigenous inclusion in our environmental review processes. Making recommendations for increased inclusion that reflects specific regional differences, community capacity and interest.
	Regionally advance opportunities for Indigenous inclusion in environmental field work	<ul style="list-style-type: none"> • Increase Indigenous involvement in fieldwork 	2022 – Ongoing	Working group established and reviewing the current practices of Indigenous inclusion in our environmental fieldwork. Developing recommendations for increased inclusion that reflects specific regional differences and community capacity and interest.
Emergency preparedness and pipeline safety	Continue to share emergency management materials and encourage increased Indigenous awareness in emergency response	<ul style="list-style-type: none"> • Continue to share relevant emergency management materials to generate awareness 	2022 – Ongoing	<p>Working with key internal groups to develop improvements in support of increasing awareness around our emergency management resources and emergency response.</p> <p>Continued to invite Indigenous communities to participate in appropriate emergency response exercises.</p> <p>Refer to Emergency Preparedness and Response section for further information.</p>
	Continue to communicate with Indigenous groups regarding emergency and safety mechanisms and approaches	<ul style="list-style-type: none"> • Proactively communicate with Indigenous groups through release notifications 	2022 – Ongoing	Working with key internal groups to develop improvements in notification expectations across the enterprise. Notification requirements and protocols, where established, are referenced within response plans.

Pillar 5: Sustainability, reporting and energy transition

Focus	Commitment	Target/Goal	Timeline	Progress since September 2022
Reporting	Report and disclose progress on IRAP commitments in ESG and Sustainability Report	<ul style="list-style-type: none"> Disclose progress via annual Sustainability Report 	2023 – Ongoing	<p>Have developed internal reporting mechanism to support disclosure and reporting.</p> <p>Disclosed progress from September 2022 to Q1 2023 in our 2022 Sustainability Report and ESG Datasheet.</p>
	Refresh IRAP commitments and goals every two years	<ul style="list-style-type: none"> Publish updated IRAP commitments/goals every two years 	2024 – Ongoing	Conversations have begun to determine a workplan to publish updated IRAP commitments in 2024.
Sustainability	Facilitate a thought leader roundtable related to Indigenous inclusion and perspectives in sustainability strategy and policies	<ul style="list-style-type: none"> Establish partnership(s) with Indigenous-led organizations and relevant industry peers Convene at least one thought leader roundtable Consider the findings and Indigenous perspectives shared at the roundtable(s) when Enbridge sustainability strategies and policies are updated 	2023	Conversations and plans have been drafted in support of this commitment. Currently on track to host a roundtable in 2023.

Pillar 6: Governance and leadership

Focus	Commitment	Target/Goal	Timeline	Progress since September 2022
Governance	Establish an Indigenous Advisory Group (IAG)	<ul style="list-style-type: none"> Establish IAG and Terms of Reference 	2023	<p>Mandate and terms of reference complete and recruitment underway.</p> <p>Currently on track to hold the first in-person meetings in Fall 2023.</p>
Leadership and oversight	Ensure executive sponsorship and commitment to achieving IRAP goals	<ul style="list-style-type: none"> Ensure IRAP performance is included in executive objectives 	2023	Executive sponsor in place and reporting plans in development.
	Ensure IRAP implementation and support mechanisms are established and aligned across the Company	<ul style="list-style-type: none"> Establish mechanisms for implementation and accountability of the IRAP 	2023	Internal working group established with leads responsible for each pillar. Developed a tracking tool in support of reporting and disclosure.
Cultural awareness	Continue to conduct Indigenous Sharing Circles with participation from Executive Leadership Team	<ul style="list-style-type: none"> Conduct quarterly Indigenous Sharing Circles 	2023 – Ongoing	<p>Have conducted a Sharing Circle in Q1 2023.</p> <p>Future Sharing Circles are being scheduled.</p>

Trade association memberships

In 2022, we contributed more than C\$50,000 and US\$50,000 in membership dues to the following organizations in Canada and the U.S., respectively. Please note that we have only listed our executive-level involvement in these organizations. We also participate in various committees associated with these trade associations.

Organization	Purpose	Examples of our involvement
Canada		
Canadian Chamber of Commerce	Connects businesses from all sectors and regions of the country to advocate for public policies that will foster a strong, competitive economic environment that benefits businesses, communities and families across Canada.	Committee participation
Canadian Gas Association	Represents Canada's natural gas distribution industry. Members include distribution companies, transmission companies, equipment manufacturers and other service providers.	Executive Vice President and President, Gas Transmission and Midstream served on the Board
Canadian LNG Alliance	Represents Canada's LNG industry.	Director, Business Development NGL & LNG served on the Board
CanREA ¹	Represents Canada's wind and solar energy and energy storage industries, advocating for clean electricity in Canada's energy system.	Director M&A Integrity served on the Board
Ontario Energy Association	Represents Ontario's energy sector, serving as a bridge between business, government and other groups to foster common understanding of each other's positions and interests.	Executive Vice President and President, Gas Transmission and Midstream serves on the Board
U.S.		
American Gas Association (AGA)	Represents more than 200 local energy companies that deliver clean-burning natural gas throughout the U.S.	Committee participation
American Petroleum Institute (API)	As the primary trade association of the oil and natural gas industry, API represents nearly 600 members involved in all aspects of petroleum. Membership in API is open to corporations involved in the oil and natural gas industry or that support the industry.	President & CEO served on the Executive Committee, Finance Committee and Board
American Clean Power (ACP)	Represents 800 member companies including global leaders in wind power and energy development, turbine manufacturing, and component and service suppliers to promote wind energy as a clean source of electricity for consumers in the U.S. and around the world.	Senior Vice President, Strategy and Power serves on the Board
Liquid Energy Pipeline Association	Represents the interests of owners and operators of liquid pipelines in the U.S.	Executive Vice President & President, LP serves on the Board
Interstate Natural Gas Association of America	Advocates regulatory and legislative positions of importance to the natural gas pipeline industry in North America, and initiates industry-wide safety and asset integrity improvement efforts.	Executive Vice President & President, GTM served as Board Chair in 2019
Michigan Chamber of Commerce	As the Great Lakes State's leading statewide business advocacy organization, the Michigan Chamber of Commerce is on the job every day, standing up for job providers in the legislative, political and legal arenas while working to build a stronger Michigan for all.	Director of External Affairs, U.S., serves on the Board
North West Gas Association	Advocating for the role of the region's gas infrastructure in safely delivering a clean, dependable, and affordable energy future.	Director External Affairs Canada & Enterprise Public Policy serves on the Board

¹ As of publication this organization has dissolved.

Fines, penalties and violations

Our intention is to work according to all external regulations and laws to prevent fines, penalties and violations that are monetary or non-monetary in nature. We are reporting all fines, penalties and violations (monetary and non-monetary) in excess of C\$10,000 and US\$10,000 (depending on the country in which they occurred). In 2022, we remitted the following fines, penalties and violations:

Year	Regulatory authority	Enforcement action summary
2022	Kentucky Department for Environmental Protection (KY DEP)	In July 2020, Enbridge received a penalty resulting from multiple issues previously received in four Notices of Violation that were issued between December 2018 and February 2020. Enbridge implemented the required corrective and preventive actions and paid a penalty of US\$75,000.
2022	Connecticut Department of Energy and Environmental Protection (CT DEEP)	In July 2021, Enbridge received a Notice of Probable Violation for operating units outside of the operating modes listed in their permits in 2017, 2018 and 2019. Enbridge implemented the required corrective and preventive actions and paid a penalty of US\$38,640.
2022	Pennsylvania Department of Environmental Protection (PA DEP)	In January 2022, Enbridge received a Notice of Probable Violation for findings found during an agency inspection that occurred in August 2021 related to shipments of hazardous waste by a transporter without a valid licence issued by the Department. Enbridge implemented the required corrective and preventive actions and paid a penalty of US\$77,000.
2022	Indiana Department of Environmental Management (IDEM)	In December 2022, Enbridge received a Final Order for failure to perform volatile organic compound (VOC) and nitrogen oxide (NOx) testing. Enbridge implemented the required corrective and preventive actions and paid a penalty of US\$16,188.
2022	Ontario Energy Board (OEB): Gas Distribution Access Rules (GDAR)	In 2022, Enbridge Gas Inc. (EGI) paid an administrative penalty of C\$250,000 connected with an Assurance of Voluntary Compliance EGI provided to the OEB for non-compliance with performance measures set out in the OEB's Gas Distribution Access Rule (GDAR) for meter reading and customer service call performance. Enbridge continues to implement its mitigation plans to improve its performance metrics and has requested the OEB grant a partial exemption from certain GDAR metrics for 2023 and 2024 and conduct a generic review of same.
2022	U.S. Department of Transportation (DOT): Pipeline and Hazardous Materials Safety Administration (PHMSA)	In April 2022, Enbridge received a Notice of Probable Violation (NOPV) for an incident that occurred on September 16, 2020 whereby natural gas was released and ignited, causing over US\$75,000 in damages. Enbridge implemented the required corrective and preventive actions and paid a penalty of US\$218,647.
2022	U.S. Environmental Protection Agency (EPA)	In October 2022, Enbridge received multiple fines related to violations of the Consent Decree. Enbridge implemented the required corrective and preventive actions and paid a grand total penalty amount of US\$1,141,000.
2022	Minnesota Department of Natural Resources (MN DNR), Minnesota Pollution Control Agency, Fond du Lac Band of Lake Superior Chippewa, and Minnesota Attorney General's Office	In October 2022, Enbridge agreed to enforcement resolutions of approximately US\$11,300,000 including penalties and fines (US\$1,000,000) as well as ongoing commitments for restoration, mitigation (US\$400,000), monitoring (US\$1,800,000) and financial assurance (US\$1,900,000). Enbridge also agreed to fund environmental projects (US\$2,900,000) to enhance water quality in the areas near Line 3 Replacement Project construction. The US\$11,300,000 is inclusive of the Administrative Penalty Order issued by the MN DNR in 2021 that required Enbridge to commit funds towards administrative costs, penalties and an escrow account for restoration (US\$3,400,000). Enbridge implemented the required corrective and preventive actions.

Process safety incidents

The following is a list of the more consequential (Tier 1) leaks or releases from the past year. While most leaks and releases result in no harm to the environment, property or people, Enbridge treats all incidents and near misses as an opportunity to learn and strengthen our systems against threats and other demands, regardless of cause.

Pennsylvania, USA

- A broken nipple fitting at a compressor station resulted in a natural gas release that lasted for four hours. There were no injuries, or medical attention required, and no other impacts occurred.
- A partially broken body bleed valve inside of a compressor station resulted in a natural gas release exceeding the Tier 1 quantitative threshold; there were no other impacts.

Ohio, USA

A failed fire-eye at a compressor station activated the emergency shutdown system, but the emergency station shutdown did not function as intended due to a frozen station inlet isolation valve. The result was a prolonged natural gas release exceeding the Tier 1 quantitative threshold until the station was manually isolated.

Florida, USA

Operations discovered a partially opened meter station valve that was left open from a previous shutdown activity resulting in a natural gas release through the blowdown for 10 hours.

Alberta, Canada

Field staff were conducting daily site checks and noticed oil product on a side of a tank resulting from an overfill. The volume of oil product exceeded the Tier 1 quantitative threshold and was fully contained within the terminal containment berm.

Texas, USA

A significant pipeline leak was caused by unstable ground conditions and second party damage, resulting in the release of natural gas exceeding the Tier 1 quantitative threshold. There were no other impacts from the release.

Alberta, Canada

Crude oil exceeding the Tier 1 quantitative threshold was released from a faulty inline inspection trap door. Some of the crude oil migrated off-site into a nearby storm water ditch. There were no impacts to wildlife nor natural or commercial water bodies.

Maine, USA

Personnel heard blowing gas at a station and, upon investigating, discovered that a broken nipple fitting on a meter run was releasing natural gas in excess of the Tier 1 quantitative threshold. There were no other impacts from the release.

Forward-looking information

Forward-looking information, or forward-looking statements, have been included in this Sustainability Report to provide information about us and our subsidiaries and affiliates, including management's assessment of our and our subsidiaries' future plans and operations. This information may not be appropriate for other purposes. Forward-looking statements are typically identified by words such as "anticipate", "believe", "estimate", "expect", "forecast", "intend", "likely", "plan", "project", "target" and similar words suggesting future outcomes or statements regarding an outlook. Forward-looking information or statements included in this document include, but are not limited to, statements with respect to the following: our corporate vision and strategy, including strategic priorities and enablers; expected supply of, demand for, exports of and prices of crude oil, natural gas, natural gas liquids (NGL), liquefied natural gas (LNG) and renewable energy; energy transition and lower-carbon energy, and our approach thereto; our environmental, social and governance (ESG) goals, practices and performance; our pathways to net zero, including plans to update models and forecasts; our plans to achieve our ESG goals and targets and to monitor and report our progress thereon; expected resiliency of our assets and growth opportunities under climate change scenarios; plans to fulfill our commitments under the Indigenous Reconciliation Action Plan; industry and market conditions; anticipated utilization of our assets; expected strategic priorities and performance of the Company's businesses; expected costs, benefits and in-service dates related to announced projects and projects under construction; expected capital expenditures; investable capacity and capital allocation priorities; expected future growth, development and expansion opportunities; expected optimization and efficiency opportunities; expectations about our joint venture partners' ability to complete and finance projects under construction; expected closing of acquisitions and dispositions and the timing thereof; expected benefits of transactions; operational, industry, regulatory, climate change and other risks associated with our businesses; and our assessment of the potential impact of the various risk factors identified herein.

Although we believe these forward-looking statements are reasonable based on the information available on the date such statements are made and processes used to prepare the information, such statements are not guarantees of future performance and readers are cautioned against placing undue reliance on forward-looking statements. By their nature, these statements involve a variety of assumptions, known and unknown risks and uncertainties and other factors, which may cause actual results, levels of activity and achievements to differ materially from those expressed or implied by such statements. Material assumptions include assumptions about the following: energy transition, including the drivers and pace thereof; global economic growth and trade; the expected supply of, demand for, export of and prices of crude oil, natural gas, NGL, LNG and renewable energy; anticipated utilization of assets; exchange rates; inflation; interest rates; the COVID-19 pandemic and the duration and impact thereof; availability and price of labor and construction materials; the stability of our supply chain; operational reliability; maintenance of support and regulatory approvals for our projects;

anticipated in-service dates; weather; the timing and closing of acquisitions and dispositions; the realization of anticipated benefits of transactions; governmental legislation; litigation; estimated future dividends and impact of our dividend policy on our future cash flows; our credit ratings; capital project funding; hedging program; expected earnings before interest, income taxes, and depreciation and amortization (EBITDA); expected earnings/(loss); expected future cash flows; and expected distributable cash flow. Assumptions regarding the expected supply of and demand for crude oil, natural gas, NGL, LNG and renewable energy, and the prices of these commodities, are material to and underlie all forward-looking statements, as they may impact current and future levels of demand for our services. Similarly, exchange rates, inflation and interest rates and the COVID-19 pandemic impact the economies and business environments in which we operate and may impact levels of demand for our services and cost of inputs and are therefore inherent in all forward-looking statements. The most relevant assumptions associated with forward-looking statements regarding announced projects and projects under construction, including estimated completion dates and expected capital expenditures, include the following: the availability and price of labor and construction materials; the stability of our supply chain; the effects of inflation and foreign exchange rates on labor and material costs; the effects of interest rates on borrowing costs; the impact of weather and customer, government, court and regulatory approvals on construction and in-service schedules and cost recovery regimes; and the COVID-19 pandemic and the duration and impact thereof.

Our forward-looking statements are subject to risks and uncertainties pertaining to the successful execution of our strategic priorities, operating performance; legislative and regulatory parameters; litigation; acquisitions, dispositions and other transactions and the realization of anticipated benefits therefrom; operational dependence on third parties; dividend policy; project approval and support; renewals of rights-of-way; weather; economic and competitive conditions; public opinion; changes in tax laws and tax rates; exchange rates; inflation; interest rates; commodity prices; access to and cost of capital; political decisions; global geopolitical conditions; the supply of, demand for and prices of commodities and other alternative energy; and the COVID-19 pandemic, including but not limited to, those risks and uncertainties discussed in this Sustainability Report and in our other filings with Canadian and U.S. securities regulators. The impact of any one assumption, risk, uncertainty or factor on a particular forward-looking statement is not determinable with certainty as these are interdependent and our future course of action depends on management's assessment of all information available at the relevant time. Except to the extent required by applicable law, Enbridge assumes no obligation to publicly update or revise any forward-looking statement made in this Sustainability Report or otherwise, whether as a result of new information, future events or otherwise. All forward-looking statements, whether written or oral, attributable to us or persons acting on our behalf, are expressly qualified in their entirety by these cautionary statements.


GRI index

Statement of use: Enbridge's 2022 Sustainability Report has been developed with reference to the GRI Standards for the period January 1–December 31, 2022. The 8 principles of reporting suggested in GRI 1 Foundation 2021—balance, clarity, comparability, completeness, sustainability context, timeliness, and verifiability, have been adopted to ensure the quality and proper presentation of the reported information.

Applicable GRI Sector Standard: GRI 1: Oil and Gas Sector 2021

Disclosure number	Disclosure title	Page/Link	GRI11 Sector Standard Reference Number	SDG
GRI 2: General Disclosures 2021				
2-1	The organization and its reporting practices	Sustainability Report [pages 5-83] 2022 Annual Report [page 8]		
2-2	Entities included in the organization's sustainability reporting	Sustainability Report [page 4] 2022 Annual Report [pages 8-39]		
2-3	Reporting period, frequency and contact point	Sustainability Report [page 4-60] 2022 Annual Report [page 2]		
2-4	Restatements of information	There were no restatements of past information in the 2022 Sustainability Report Sustainability Report [page 4]		
2-5	External assurance			
2-6	Activities, value chain and other business relationships	Sustainability Report [pages 4-66] 2022 Annual Report [pages 12-31]		
2-7	Employees	ESG Datasheet [pages 38-39]		
2-8	Workers who are not employees	ESG Datasheet [page 38]		
Governance				
2-9	Governance structure and composition	Sustainability Report [pages 63-65] Management Information Circular [pages 54-62]		
2-10	Nomination and selection of the highest governance body	Sustainability Report [pages 63-65] Management Information Circular [pages 45-46]		
2-11	Chair of the highest governance body	Sustainability Report [page 64]		
2-12	Role of the highest governance body in overseeing the management of impacts	Sustainability Report [pages 63-65] 2022 Management Information Circular [pages 41-49]		
2-13	Delegation of responsibility for managing impacts	Sustainability Report [pages 63-65] 2022 Management Information Circular [pages 41-49]		
2-14	Role of the highest governance body in sustainability reporting	Sustainability Report [pages 63-65] Management Information Circular [pages 43-53]		
2-15	Conflicts of interest	2022 Management Information Circular [pages 39-40] Our Commitment on Business Conduct [pages 15-16]		

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2022 Content Indices

Contact us

If you have any inquiries concerning the 2022 Sustainability Report and/or the 2022 ESG Datasheet, please contact sustainability@enbridge.com.

If you have any investment-related inquiries, please contact Enbridge Investor Relations at investor.relations@enbridge.com or toll-free 1-800-481-2804.

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