

Net Zero by 2050

Pathways to reducing our emissions



Achieving net zero by 2050

Climate change requires serious solutions. At Enbridge, we are building a bridge to a cleaner energy future – helping society transition to a lower-carbon economy while reducing our own emissions.

Our targets

Net zero emissions



Eliminate GHG emissions from our business on a net basis (net zero) by 2050.



Reduce the intensity of GHG emissions from our operations 35% by 2030.

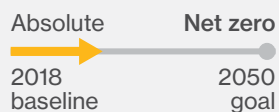
These targets focus on greenhouse gas (GHG) emissions generated by Enbridge's operations arising from the combustion (carbon dioxide (CO₂) and nitrogen dioxide (NO₂)) and/or release of methane (CH₄) (Scope 1¹ emissions) as well as emissions from the generation of purchased electricity consumed by the Company (Scope 2² emissions).

Our targets are grounded in science and aligned with the objectives of the Paris Agreement. Progress against these targets will be measured relative to a 2018 base year, the first full year of operations following the transformational acquisition of Spectra Energy and the roll out of a new long-term strategy for the combined Company.

To hold ourselves accountable, we've linked compensation to delivering on our environmental, social and governance (ESG) targets through objectives set out in annual business unit and corporate function scorecards. We were the first in our sector to issue sustainability-linked loans and develop a framework for future financing that directly ties our cost of capital to our ability to achieve our emissions reduction and other ESG goals.

Tracking our progress

GHG emissions
as at Dec. 31, 2021³



Progress towards net zero



Down ~21% from baseline

¹ Scope 1 accounts for direct GHG emissions which occur from sources that are owned or controlled by the Company.

² Scope 2 accounts for GHG emissions from the generation of purchased electricity consumed by the Company.

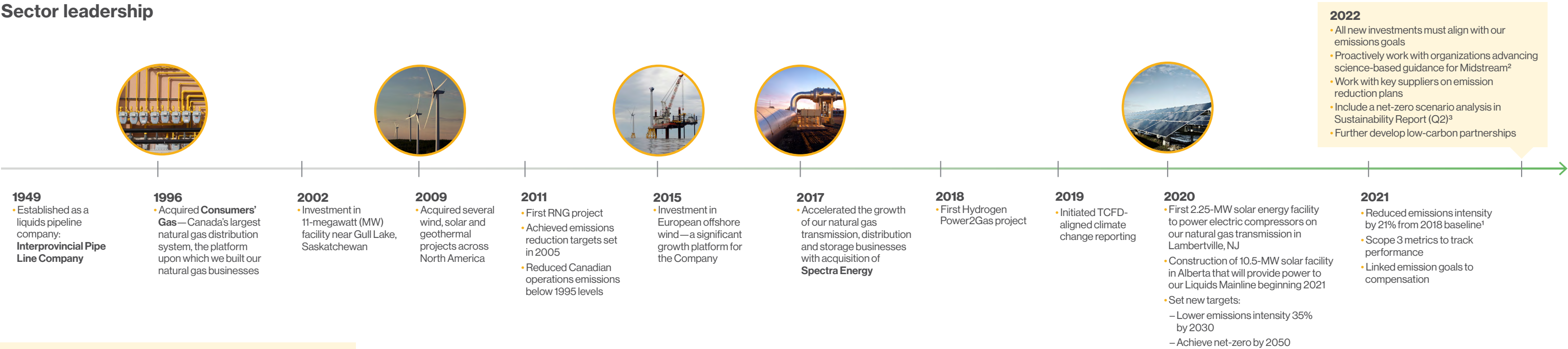
³ To be finalized in the 2021 Sustainability Report (Q2, 2022).

Our approach

Enbridge’s strategic planning process has consistently revealed opportunity in energy systems change. We have long focused on energy fundamentals and building optionality in our business. More specifically, we’ve taken a gradual approach that involves testing the technology, developing the capability and then expanding the opportunity set over time.

We will continue to focus on energy fundamentals while building optionality into our business. And, as we continue to diversify our business mix, we will continue to work to reduce the GHG emissions associated with our business.

Sector leadership



Our progress has been recognized by independent expert parties including CDP (formerly the Carbon Disclosure Project), which gave us an “A-minus” grade for our climate change response, and Sustainalytics, which ranked us in the top 5% of its industry group.

¹ Preliminary year-end estimates of Scope 1 and 2 emissions; to be finalized, including progress on absolute emission reductions, in the 2021 Sustainability Report (Q2,2022).
² For example: Science Based Targets initiative, Institutional Investors Group on Climate Change and Climate Action 100+.
³ IEA Net Zero Emissions (NZE) scenario.



Building on proven success

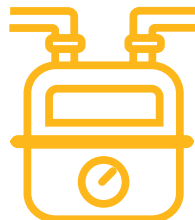
Enbridge has a well-established track record of responsibly addressing environmental consequences of delivering carbon-based energy to North Americans. This includes past programs to successfully reduce GHG emissions.



21%
reduction

in direct GHG emissions from our Canadian operations below 1990 levels between 2005 and 2011

Much of this reduction was achieved through the replacement of approximately 1,800 kilometers of cast iron and bare steel pipe.



**Additional
5%**
GHG
reduction

in the GHG emissions intensity of our gas distribution business relative to the total number of customers between 2011 and 2015



29.2B
cubic meter
reduction

in the amount of natural gas consumed by our gas utility customers between 1995 and 2019 through our energy efficiency and conservation programs

That's enough energy to serve 12.7 million homes for one year, amounting to a reduction of 55 million tonnes of carbon dioxide (tCO₂e) GHG emissions – or the equivalent of taking 11.9 million cars off the road for one year.



Principal pathways to reducing emissions from our operations

Innovation is required across the entire energy system if we are to address climate change and deliver GHG emissions reductions in line with the recommendations of the Intergovernmental Panel on Climate Change and the goals of Paris Accord.

As we strive to provide the secure, reliable and affordable energy the world needs and wants, it is clear that existing energy systems need to be part of the climate solution. With assets across the energy system, Enbridge is well-positioned to make a meaningful contribution.

Our 2030 and 2050 targets will be achieved via several initiatives that are aligned with Enbridge's current strategy and longer-term business plans.

1

Modernization and innovation

2

Decarbonizing energy use

3

Investment in renewables and lower-carbon infrastructure

4

Offsets and carbon credits

“Through 2025, we see about C\$4 billion of a potential investment, including offshore wind in construction, and we expect that to ramp up in the second half of the decade as renewable natural gas (RNG), carbon capture and storage (CCS) and hydrogen accelerates.”

Al Monaco
President and CEO





Modernization and innovation

Enbridge is reducing GHG emissions by modernizing and applying innovation to existing energy transportation and distribution systems to increase efficiency and reduce the emissions intensity of existing infrastructure.

Liquids Pipelines (LP)

- Application of machine learning and predictive analytics to increase system efficiency, reducing the overall energy consumption and emissions.
- Development of an enterprise-level strategy and decision-making framework to optimize power generation, procurement and consumption in a safe and reliable way to maximize value for Enbridge across four dimensions (cost, revenue enhancement, emissions and employee experience) while managing risk and external stakeholders (e.g. customers, public and regulators). A pilot project has been initiated with our LP assets in Alberta and Saskatchewan.

Gas Transmission and Midstream (GTM)

- Replacement of older and less efficient compression facilities on our long-haul natural gas transmission systems to improve energy efficiency and reduce GHG emissions. The first phase is expected to reduce GHG emissions on the Texas Eastern pipeline by more than 180,000 tCO₂e annually beginning in 2024.
- Future phases of modernization have the potential to remove up to 850,000 tCO₂e of additional GHG emissions each year from our gas transmission facilities by 2034.
- As a member of ONE Future Coalition¹, Enbridge commits to voluntarily reduce methane emissions across the U.S. natural gas value chain to 1% or less of total produced natural gas by 2025. This helps drive a specific focus on methane reductions, including the replacement and modernization of equipment to reduce fugitive emissions.

Gas Distribution and Storage (GDS)

- Modernization of equipment, capturing of vented emissions from compressor stations, and enhanced leak detection and repair programs at company facilities is expected to reduce both combustion-related and methane emissions.
- Development and commercialization of new energy sources will reduce the GHG footprint from its own operations and further reduce the carbon intensity of the energy it delivers to its customers. See [reducing Scope 3 emissions](#) section for more detail.

¹ ONE Future is an industry-led initiative formed in 2018 to achieve a science-based average rate of methane emissions across U.S.-based upstream production, transmission and distribution. The goal of ONE Future is to ensure the future of natural gas as a long-term sustainable fuel and to advance industry leadership in energy production and reduction of emissions.

Decarbonizing energy use

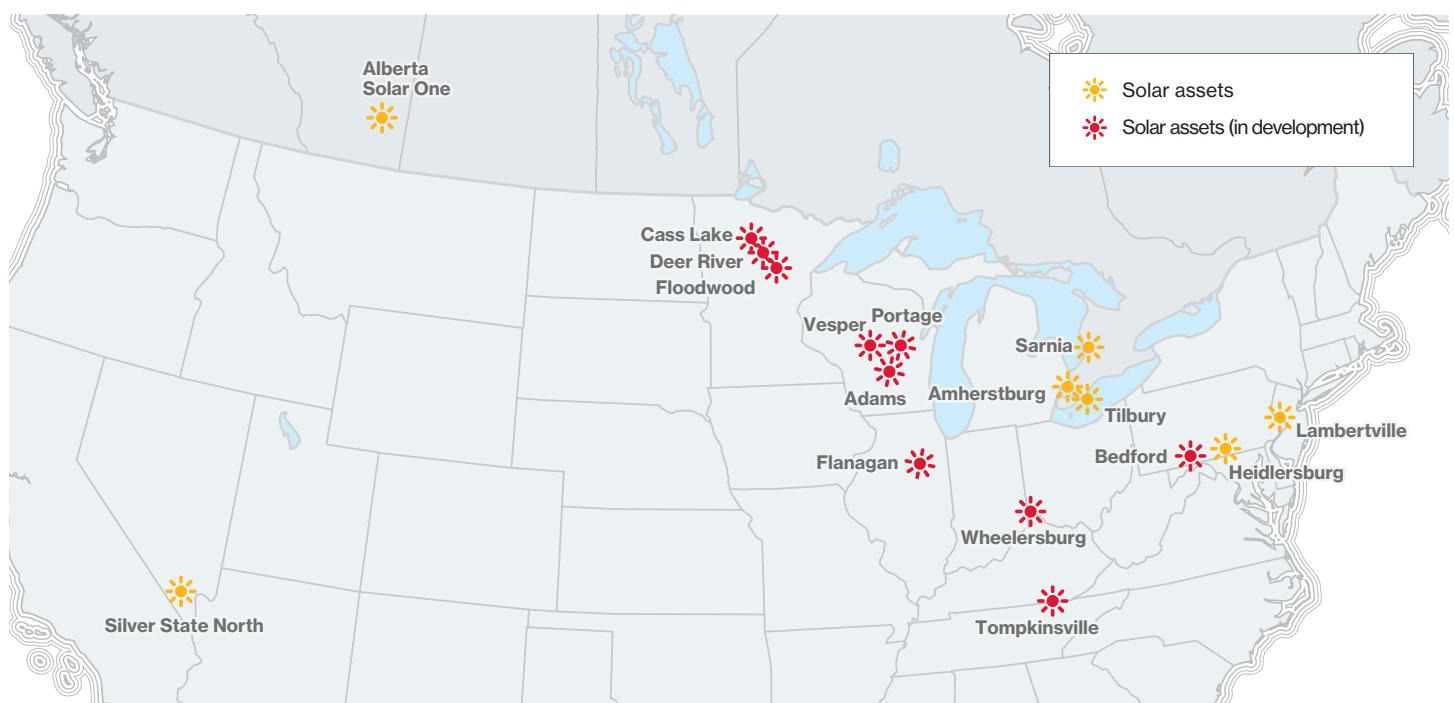
Enbridge is reducing the emissions intensity of the electricity we procure with solar self-power projects and advocating for policies that decarbonize the power grid.

Along our liquids and gas transmission pipeline rights-of-way, we're actively developing and executing on opportunities to "self-power" – building and operating renewable power generation facilities to power our assets with clean electricity.

To date, we've announced 13 solar projects across North America to procure low-emission electricity for our pump stations and compressor stations. Three of these projects – in New Jersey, Pennsylvania and Alberta – are already operational, producing a combined 15.25 MW of power for our own assets.

Collectively, these projects will generate more than 110 MW of clean energy, from Wisconsin to Alberta to Kentucky to Minnesota. That's the equivalent of powering 26,600 households with zero-emission electricity.

Enbridge is pursuing options to meet the balance of electricity needs through the purchase of power from less emissions intensive ("green") sources of electricity in the jurisdictions where we operate. This includes policy advocacy to support the implementation of cost-effective policies to reduce the carbon footprint of the electricity grid.





Investment in renewables and lower-carbon infrastructure

We continue to focus on disciplined investment in lower-carbon infrastructure and business lines, including wind and solar power generation, hydrogen and renewable natural gas.

Since 2002, Enbridge has invested C\$8 billion in renewable power generation facilities (in operation and under construction), with the capacity to deliver about 2,175 MW net of zero-emission power to customers in the U.S., Canada and Europe – enough to meet the energy consumption of about 960,000 homes, or a city about the size of San Francisco, CA. This work includes 300+ MW net through three offshore wind projects currently under construction in France – and with another three gigawatts of new offshore European capacity awarded and in development, we're actively pursuing opportunities to profitably expand this rapidly growing segment of our business.

Enbridge is working across businesses and with partners to develop facilities and programs for the production, marketing, transportation and distribution of RNG, hydrogen and compressed natural gas (CNG). With our vast network of pipelines, Enbridge is also well-positioned to participate in what is expected to be a growing opportunity for investment in CCS facilities. One CCS project under development is our Open Access Wabamun Carbon Hub, to be located west of Edmonton, Canada, which would support recently announced carbon capture projects by Capital Power Corporation and Lehigh Cement. Enbridge will work with Indigenous partners to advance the Hub and have committed to offering our partners a significant equity interest in associated carbon transportation and storage infrastructure.



> In February 2022, Enbridge and the First Nation Capital Investment Partnership announced an agreement to advance the Wabamun Hub. Colin Gruending, EVP & President, LP, is flanked by Treaty 6 Chiefs (from left): Chief Arthur Rain (Paul First Nation); Chief George Arcand Jr. (Alexander First Nation), Colin Gruending, Chief Billy Morin (Enoch Cree Nation), Chief Tony Alexis (Alexis First Nation).

\$8^B
invested in
renewable power



with the capacity to
deliver more than

2,175 MW¹

of net zero-emission power
to customers in the U.S.,
Canada and Europe



which is equivalent to the
energy consumption of about

960,000
homes



¹ In operation and under construction.

Offsets and carbon credits

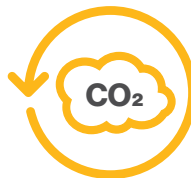
We will balance residual emissions through procurement of carbon offset credits generated by nature-based solutions and renewable energy credits, with a primary focus on areas proximate to our operations.

Selective investment in nature-based solutions and offsets, including



afforestation

and



soil carbon sequestration

and through enhanced agricultural practices proximate to our operations.



Reducing Scope 3¹ emissions

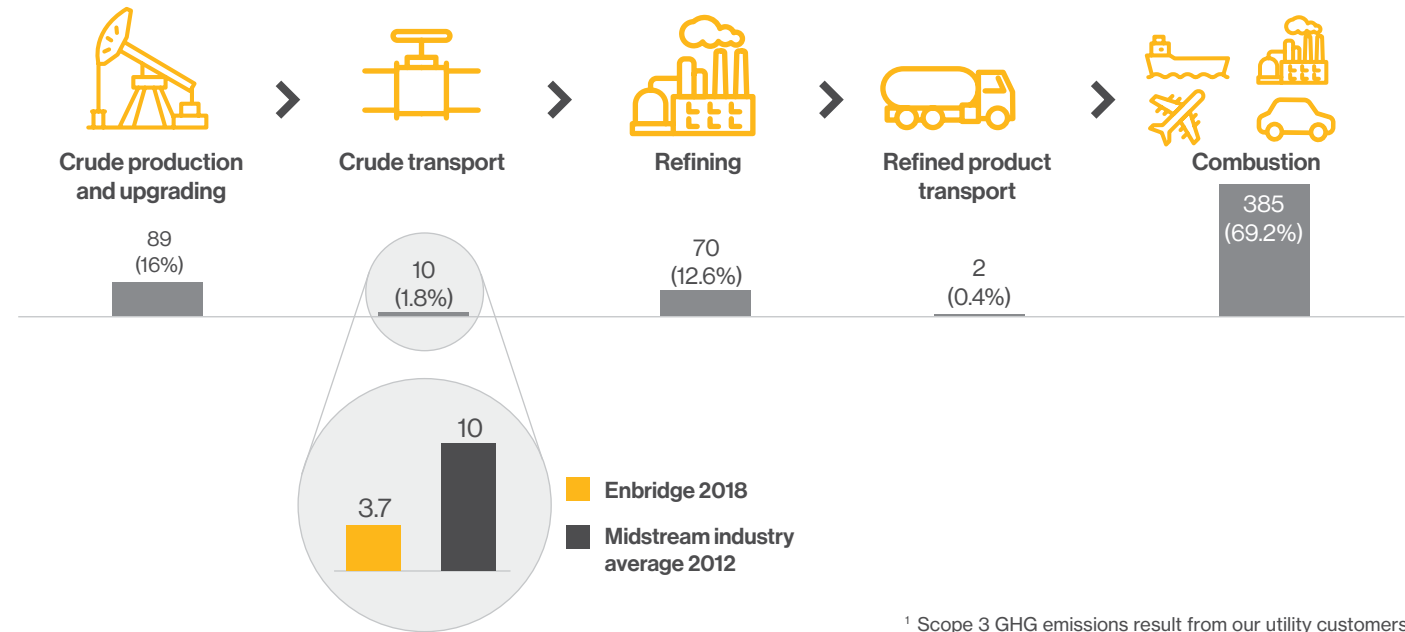
Enbridge's GHG emissions reduction targets focus specifically on Scope 1 and Scope 2 emissions. Yet, operational emissions from the midstream comprise only a small portion of total GHG emission on a lifecycle basis.

The transportation of oil sands product makes up less than 2% of lifecycle emissions – as the diagram below shows, most of the emissions come from combustion, production and upgrading.

Enbridge is leading the midstream sector in tracking, reporting and reducing Scope 3 emissions. Despite the current limited guidance defining Scope 3 emission parameters for our sector, we have been

tracking and reporting on these emissions since 2009. We currently report utility customer natural gas use, employee air travel and electricity grid loss. In 2021, we added new Scope 3 metrics that track the emissions intensity of the energy we deliver and the emissions avoided through our investment in renewables, low carbon fuels and our conservation programs. We've also committed to working with our suppliers to support the further reduction of Scope 3 emissions.

Lifecycle emissions intensity (Scope 1 and Scope 2)
(Canadian oil sands, average produced, kg CO₂e/bbl)



¹ Scope 3 GHG emissions result from our utility customers' natural gas use, our employee business air travel, and from electricity grid transmission and distribution loss (grid loss).

We've committed to clarifying the parameters of Scope 3 emissions for our sector by working with the Science Based Targets Initiative, the Institutional Investors Group on Climate Change and Climate Action 100+. As guidance is developed, we will evaluate it and assess whether our own targets should be amended and improved.

Last year, we added new Scope 3 metrics that track the emissions intensity of the energy we deliver, as well as the emissions avoided through our investment in low-carbon fuels like RNG and hydrogen, as well as our conservation programs. On the latter, the results are measurable and compelling. In the past 26 years that Enbridge has been encouraging its natural gas distribution customers to conserve energy, we've been able to reduce 55 million megatonnes of GHG emissions, or the equivalence of taking approximately 12 million cars off the road.

Our Scope 3 metrics

- 1** The carbon intensity of the energy delivered by Enbridge (tCO₂e per petajoule of energy delivered) based on the total amount of energy contained in the crude oil, natural gas and electricity delivered to customers on a per annum basis.
- 2** The **absolute reduction and/or avoidance** of GHG emissions enabled by Enbridge-operated facilities (tCO₂e per annum) including generation of zero-emission electricity, demand side management and RNG.



Renewable natural gas

We have seven RNG projects operating and in construction through Enbridge Gas, working in partnership with local municipalities including the City of Toronto. More than 50 other projects are in development and our goal is for 5% of the gas delivered by our utility to be RNG by 2030. In GTM, we have up to eight projects planned in partnership with Vanguard Renewables and a significant opportunity across our gas transmission system.



Hydrogen

GDS produces green hydrogen in Markham, ON, and in 2021 became North America's first green H₂ facility in service distributing a greener gas mixture with fewer carbon emissions. We have another 10 to 15 utility projects in development and we're actively studying our system capabilities.



Compressed natural gas

A partnership between Enbridge and the City of Hamilton, ON will fuel 137 CNG buses at a fast-fill compressor station; CNG buses produce 20% fewer GHG emissions than diesel and can reduce fleet costs by up to 50%. Similarly, a 2022 agreement involving an Enbridge Gas affiliate and United Parcel Service (UPS) Canada will convert 25 UPS vans in the delivery giant's London, ON fleet to run on CNG, delivered at a fueling station near the UPS facility in London.

Disclosure and accountability

Enbridge has been publicly reporting GHG emissions data in its annual sustainability report since 2001 and has regularly reported to the CDP (formerly Carbon Disclosure Project) since 2010. In 2019, the Company evolved its disclosure in alignment with the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD), broadening the scope of its data reporting to both emission intensity and absolute emissions, as well as providing insight to the Company's strategy with respect to the risks and opportunities that arise from climate change. In 2020, Enbridge officially became a TCFD supporter.

Enbridge plans to report on our progress in our annual sustainability report including disclosure of our Scope 1 and Scope 2 absolute emissions, intensity metrics and progress against our 2030 and 2050 targets. We will also provide supplementary metrics and other GHG related information.

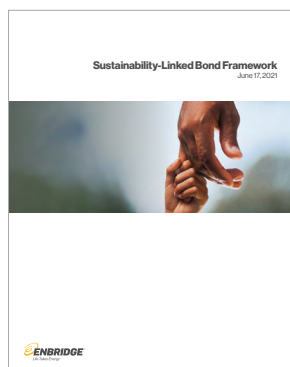
Since the beginning of 2021, all executive and staff compensation will be tied to progress towards Enbridge's emissions targets with leading and lagging indicators embedded in business scorecards. More details are provided in our reporting and in discussion of executive compensation in our annual management information circular.

In 2021, we issued \$3 billion in sustainability-linked bonds that tie the interest rate we pay to delivering on our emission reduction targets. This type of accountability is unique among companies who've made similar commitments and illustrates the importance we've placed on addressing climate change.

More information is available in Enbridge's Sustainability-Linked Bond Framework, which was developed in compliance with the key elements of the Climate Transition Finance Handbook 2020 and with the Sustainability-Linked Bond Principles 2020 published by ICMA. We obtained a second-party opinion from ISS ESG to evaluate the framework, its transparency and governance as well as its alignment to best practices. Enbridge retained a third party to provide limited assurance on our 2018, 2019 and 2020 GHG and energy consumption data. The final report is available [here](#).

Related reports

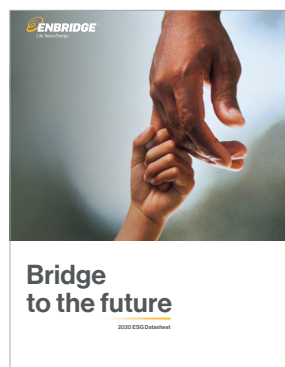
For complementary information, please reference the following reports:



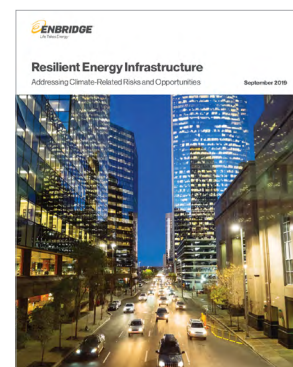
[Sustainability-Linked Bond Framework](#)



[2020 Sustainability report](#)



[2020 ESG datasheet](#)



[2019 Resilient Energy Infrastructure: Addressing climate-related risks and opportunities](#)