Welcome to your CDP Climate Change Questionnaire 2023

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

We're a team of more than 7,000 energy problem solvers working to move, generate and store the energy North America relies on. Today, we're taking action to make that energy more sustainable and more secure. We're innovating and modernizing to reduce emissions from our business. And, we're delivering new energy solutions – from natural gas and renewables to carbon capture and hydrogen – to help other businesses and industries decarbonize too. Along the way, we invest in communities and partner with our neighbours, customers and governments to build the energy system of the future.

Natural gas pipelines - Our 93,700-kilometre (58,200- mile) network serves the largest, most competitive resource basins and the highest-value demand markets. Spanning Canada, the U.S. and Mexico, we safely supply more than 25 per cent of the natural gas required to meet North America's energy needs. Our U.S. natural gas system currently moves approximately 30 per cent of liquified natural gas (LNG) feed-gas and we are constructing the first direct link for Western Canadian Sedimentary Basin (WCSB) gas to reach LNG markets through the Coastal GasLink pipeline. Natural gas is a secure and reliable fuel that has an important role to play in the energy transition as the world reduces dependence on higher-carbon energy sources. It is an abundant and cleaner burning fuel that will continue to backstop the intermittency of renewable power sources.

Liquids Pipelines – Our 4,900-kilometre (3,000-mile) liquids pipeline system directly connects one of the largest global oil reserves, the WCSB, to the largest refining markets (totaling ~14 million bbl/d of capacity) in the U.S. Midwest and Gulf Coast. Underpinned by long-term commercial structures and 96 per cent investment-grade or equivalent customers, this irreplaceable system serves a highly strategic corridor. North American oil production is expected to remain a robust and important part of the fuel mix for decades to come. Stable and reliable WCSB crude oil supply is forecast to grow by 600,000 bbl/d through the end of the decade, with refining utilizations in our key markets forecast to remain strong through 2050.

Power and Energy Solutions - We own or have interests in facilities providing approximately 4,300 megawatts (MW) of capacity, approximately 75 per cent of which is emission-less. Our power portfolio is over 92 per cent underpinned by long-term contracts and we have secured 600 MW in the U.S. and 416 MW in Canada of power purchase agreements from wind and solar facilities. We continue to progress numerous energy transition growth initiatives, including opportunities to increase capacity and extend the life of our Bruce Power nuclear facility while also continuing to explore or invest in

renewables, hydrogen, pumped storage and carbon capture and storage (CCUS). Rising power demand requires an all-of-the-above solution that TC Energy is well-positioned to serve. Our strong foundational business is growing via customer led opportunities and our incumbent position enables access to high barrier-to-entry markets.
For further details about our business, including additional details on the scope, size and strategy of our operations, please refer to our 2022 Annual Report. For more recent information about our business beyond the 2022 timeframe of this report, please review our subsequent quarterly filings (https://www.tcenergy.com/investors/reports-and-filings/).

C0.2

(C0.2) State the start and end date of the year for which you are reporting data and indicate whether you will be providing emissions data for past reporting years.

Reporting year

Start date

January 1, 2022

End date

December 31, 2022

Indicate if you are providing emissions data for past reporting years

No

C0.3

(C0.3) Select the countries/areas in which you operate.

Canada
Mexico
United States of America

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response.

CAD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory.

Operational control

C-EU0.7

(C-EU0.7) Which part of the electric utilities value chain does your organization operate in? Select all that apply.

Row 1

Electric utilities value chain

Electricity generation

Other divisions

Gas storage, transmission and distribution

C-OG0.7

(C-OG0.7) Which part of the oil and gas value chain and other areas does your organization operate in?

Row 1

Oil and gas value chain

Midstream

Other divisions

Grid electricity supply from gas

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, an ISIN code	CA87807B1076
Yes, a Ticker symbol	TRP.NYSE and TRP.TSX
Yes, a SEDOL code	BJMY6G0 and BJMY6F9

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual or committee	Responsibilities for climate-related issues
Board Chair	The Chair of the Board is responsible for ensuring that the Board is organized properly, functions effectively and meets its obligations and responsibilities. The Chair's role includes coordinating the affairs of the Board, working with management (primarily the CEO) and

Position of individual or committee	Responsibilities for climate-related issues
	ensuring effective relations with Board members, shareholders, other stakeholders and the public. The duties and responsibilities for the Chair of the Board include but are not limited to: • act as the principal sounding board, counselor and confidant for the CEO, including helping to review strategies, define issues, maintain accountability, and build relationships • at the request of the CEO, provide advice to the CEO on major policy issues • in co-operation with the CEO, assist in representing the Company in a general industry and community context • ensure the CEO is aware of concerns of the Board, shareholders, other stakeholders and the public • ensure the Board is aware of its obligations to the Company, shareholders, management, other stakeholders and to carry out such obligations pursuant to applicable law • ensure the Board receives adequate and regular updates from the CEO on all issues important to the welfare and future of the Company • maintain a liaison and communication with all directors and Committee Chairs to co-ordinate input from directors, and optimize the effectiveness of the Board and its committees • represent the Board with shareholder engagement meetings, in such engagement meetings the Chair advances the purpose, vision and strategy of the Company in support of long-term shareholder value creation The full Terms of Reference for Chair of the Board of Directors can be found within the following document: https://www.tcenergy.com/siteassets/pdfs/about/governance/tc-terms-of-reference-board-directors.pdf
Other, please specify Board of Directors (in its entirety)	Our Board provides oversight and direction in the strategic planning process to ensure we have a robust strategy that supports our vision of being North America's premier energy infrastructure company today and in the future. As part of our annual strategic plan review, management includes an assessment of energy fundamentals, the competitive environment and the stakeholder landscape to identify opportunities and threats to our business strategy. This session informs our annual strategic priorities and executive performance measures. We also periodically test our strategy against a range of energy supply and demand outlooks to confirm our resilience. The Board reviews, discusses and approves the revised and extended five-year strategic plan during our strategic plan review. Our 2022 Board education program included four in-depth focus sessions covering several climate change-related topics including: global crude oil markets, natural gas fundamentals, power fundamentals and low carbon energy transition scenarios.

Position of individual or committee	Responsibilities for climate-related issues
Chief Executive Officer (CEO)	The President and Chief Executive Officer (CEO) reports to the Board of Directors (BOD) and maintains open communication with the Board Chair. The President and CEO also sits on the Board as a non-independent director and while not a member of any of committees, is invited to attend committee meetings. The CEO provides overall leadership and vision in developing, in concert with the BOD, strategic direction, values, and tactics and business plans necessary to realize corporate objectives. Together, they are responsible for creating a tone and culture that ensures safe and efficient operation of the company and compliance with environment, health and safety policies and practices. The duties and responsibilities of the CEO includes, but is not limited to: • Lead and manage the Company consistent with the approved strategic and business plans of the Company. • Develop and recommend strategic plans to the Board that ensure the Company's profitable growth and overall success. This includes updating and making changes as required and involving the Board in the early stages of developing strategy. • Successfully implement the corresponding business and operational plans. Review and report regularly to the Board on the overall progress and results against operating and financial objectives and initiate courses of action for improvement. • Keep the Board fully informed on all aspects of the Company's operational and financial affairs, and on all matters of significant relevance to the Company. This includes internal items and external items emanating from governments and regulators on issues such as fiscal, monetary and environment policies, legislation affecting operations and regulating oversight, etc. • Develop annual operating forecasts of revenue, expenditures, operational results and financial performance. • Authorize commitment of funds to capital projects included in budgets approved by the Board, and commitments and expenditures to $200M max. for unbudgeted commitments and expenditures. • Ensure Company's assets are adequately safeguarded and optimized in the best interests of the shareholders. • Ensure effective communications and appropriate relationships are maintained with shareholders and other stakeholders The full Terms of Reference for the CEO can be found here: https://www.tcenergy.com/siteassets/pdfs/about/governance/tc-terms-of-reference-ceo.pdf

Position of individual or committee	Responsibilities for climate-related issues
Board-level committee	The Health, Safety, Sustainability and Environment (HSSE) Committee receives updates to TC Energy's environmental management program, including biodiversity and land management, climate change related risks and opportunities and GHG emission targets. The committee reviews TC Energy's implementation of a safety conscious culture, including emergency preparedness plans, landowner and community relationships and mental health and psychological safety initiatives, as well as our risk management matrix and Voluntary ESG reporting and disclosure. The HSSE Committee typically has three regularly scheduled meetings each year, each of which includes a standing agenda item on 'sustainability' covering a range of topics. Starting in late 2022, the committee also began holding regular sessions, outside formal committee meetings, with members of senior management to receive status, cost and notable updates on certain complex capital projects. The HSSE Committee receives updates and reports on: (i) prevention, mitigation and management of risks related to HSSE matters, including climate change or business interruption risks that may adversely impact TC Energy and; (ii) other sustainability matters, including social, environmental and climate change related risks and opportunities, as well as voluntary public disclosure such as our annual Report on Sustainability. The full charter for the Health, Safety, Sustainability and Environment committee can be found here: https://www.tcenergy.com/siteassets/pdfs/about/governance/tc-health-safety-environment-committee-charter.pdf
Board-level committee	The Audit Committee is responsible for assisting the Board in overseeing the integrity of our financial statements, cybersecurity risk, and our compliance with legal and regulatory requirements. The Committee oversees how management monitors compliance with market risk and counterparty credit risk management policies and procedures, discusses with management the Company's material financial risk exposures and the steps management has taken to monitor and control such exposures, including the Company's risk assessment and risk management policies and reviews climate change and sustainability inclusion in financial disclosure documents. Regarding market risk/commodity price risk, climate change is specifically addressed in our Annual Report/Consolidated Financial Statements. The full charter for the Audit committee can be found here: https://www.tcenergy.com/siteassets/pdfs/about/governance/tc-audit-committee-charter.pdf

Position of individual or committee	Responsibilities for climate-related issues
Board-level committee	The Human Resources Committee oversees TC Energy's Inclusion and Diversity targets and action plan, employee engagement levels, executive compensation levels, employee compensation and benefits programs and our overall corporate scorecard.
Board-level committee	The Governance Committee oversees the Enterprise Risk Management (ERM) program, policy and framework and meets with management annually to ensure there is proper Board and committee oversight according to the terms of their charters. The Governance Committee recommends, along with the respective committee (or executive) assigned responsibility for specific risks, any enhancements to our risk management program and policies to the Board. The Governance Committee also has accountability for overseeing the strategy development process and works with management to identify and discuss emerging strategic issues. Key strategic issues as identified by the Governance Committee, including climate issues and shareholder climate proposals, are elevated for discussion with the entire Board as part of the strategy development process. In 2022, the Committee also reviewed information on climate-related management and shareholder proposals and voting trends. The full charter for the Governance committee can be found here: https://www.tcenergy.com/siteassets/pdfs/about/governance/tc-governance-committee-charter.pdf

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – all meetings	Overseeing major capital expenditures Overseeing acquisitions, mergers, and divestitures	The Board's primary responsibility is to foster the long-term success and sustainability of the Company consistent with the Board's responsibility to act honestly and in good faith with a view to the best interests of our company. The Board provides oversight and direction in the strategic planning process to ensure we have a robust strategy that supports TC Energy's vision of being North America's premier energy

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
	Reviewing innovation/R&D priorities Overseeing and guiding employee incentives Reviewing and guiding strategy Overseeing and guiding the development of a transition plan Overseeing the setting of corporate targets Monitoring progress towards corporate targets Reviewing and guiding the risk management process	infrastructure company today and in the future. In particular, the Board reviews, discusses and approves the revised and extended five-year strategic plan during our strategic plan review, which included approving capital commitment and expenditure budgets and related operating plans. The strategic plan review comprises an assessment of energy fundamentals, the competitive environment and the stakeholder landscape to identify opportunities and threats to our business strategy. This session informs our annual strategic priorities and executive performance measures including progress towards GHG emissions reduction goals. We also periodically test our strategy against a range of energy supply and demand outlooks to confirm our resilience. The Board and its committees are also responsible for risk oversight, including climate-related risks, and oversee the management systems and processes that identify, evaluate, prioritize, mitigate and monitor risk. On an annual basis, the Board reviews and approves the Enterprise Risk Register and on a quarterly basis reviews emerging risks and management responses. Our directors have a broad range of experience and skills in risk management and are highly engaged and qualified to participate in a meaningful discussion of risks with management and, as a result, are highly engaged and qualified to participate in a meaningful discussion of key business risks with management at Board and committee meetings.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues

Row 1	Yes	Director candidates who are nominated for the first time must have experience in industries similar to ours or experience in general business management or with corporations or organizations that are similar in size and scope. Potential candidates are recommended based on their qualifications and independence and how these qualities balance with the skill set of the current Board. This assessment helps the Board determine the best mix of skills and experience including operations, health, safety, sustainability and environment to guide our business operations and our long-term strategy. The Governance committee regularly assesses the skill set of each director, and reviews it against the director retirement schedule, their ages and the composition of each Board committee. While all our directors possess an extensive list of skills and experience, the Governance committee has determined that focusing on each director's top key expertise areas is a more effective way to assess director candidates and to ensure that our Board has a deep knowledge base available in each key expertise area. Currently 9 out of 13 directors have been assessed to have expertise in this area.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Position or committee

Chief Executive Officer (CEO)

Climate-related responsibilities of this position

Managing annual budgets for climate mitigation activities
Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Managing climate-related acquisitions, mergers, and divestitures
Developing a climate transition plan
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets

Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line

Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

The President and CEO position is the highest level of executive leadership with responsibility for climate-related risks and opportunities. This position is responsible for the company's overall leadership and vision in developing strategic direction, values and business plans, and includes overall responsibility for operating and growing our business while managing risk, including climate-related risks, to create long-term sustainable value for our shareholders.

The CEO and Executive Leadership Team (ELT) develop and implement TC Energy's strategy. Our CEO is also a member of the Board of Directors, and the corresponding accountabilities also apply.

The primary responsibilities of this role also include:

I. managing the overall business to ensure strategic and business plans are effectively implemented within the authority limitations delegated by the Board, the results are monitored and reported to the Board, and financial and operational objectives are attained;

II. managing the business to create sustainable long-term shareholder value; and,

III. ensuring the identification and communication to the Board of all material risks along with mitigation plans and procedures.

Position or committee

Chief Risks Officer (CRO)

Climate-related responsibilities of this position

Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)

Managing climate-related acquisitions, mergers, and divestitures

Developing a climate transition plan
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Monitoring progress against climate-related corporate targets
Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line

Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

The Chief Risk Officer (CRO) centralizes a pragmatic approach to facilitating the annual enterprise risk assessment and management of the enterprise risk register. The CRO is focused on prioritizing risks, clarifying roles and responsibilities, improving Board and management oversight, and providing the Board with quarterly in-depth presentations on the Enterprise Risks including climate-related risks. The CRO is responsible for ensuring the Enterprise Risk Management Program governance model, framework, and processes are established, properly documented, and maintained in a manner that is suitable for our culture and operating model. The CRO also periodically reports enterprise risks and emerging risks to the Board and the Governance Committee and engages with the Board to obtain their insights for risk identification of enterprise risks.

Position or committee

Chief Sustainability Officer (CSO)

Climate-related responsibilities of this position

Managing annual budgets for climate mitigation activities
Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)

Managing climate-related acquisitions, mergers, and divestitures
Developing a climate transition plan
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line

Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

The Chief Sustainability Officer (CSO) formalizes our commitment to, and provides strategic leadership of, sustainability-related issues such as climate change, energy and resource conservation, environmental stewardship, stakeholder issues and awareness at the highest level of TC Energy. The CSO is responsible for directing the coordination, and management of sustainability-related issues, including climate change, and communicates with management, shareholders, customers, employees and other stakeholders to address sustainability matters, including climate-related issues.

The CSO, a member of the Executive Leadership Team (ELT), reports to the Health, Safety, Sustainability and Environment (HSSE) Committee of the Board on sustainability matters, including climate-related issues, as well as to the CEO and the rest of the ELT. Currently, the CSO, Chief Compliance Officer and Chief Risk Officer roles are held by the same individual, which creates alignment in the oversight of sustainability, compliance and enterprise risks

Position or committee

Other committee, please specify

Corporate Health, Safety, Sustainability and Environment (HSSE) committee

Climate-related responsibilities of this position

Managing annual budgets for climate mitigation activities
Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Managing climate-related acquisitions, mergers, and divestitures
Developing a climate transition plan
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Setting climate-related corporate targets
Monitoring progress against climate-related corporate targets
Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line

Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

The Corporate Health, Safety, Sustainability and Environment (HSSE) committee, comprised of management representatives from various departments, recommends strategic priorities relating to HSSE matters to the Chief Sustainability Officer (CSO), monitors HSSE developments and shapes communication strategy on HSSE matters. The Committee also ensures the adequacy and effectiveness of the Health, Safety and Environment (HSE) Management programs that are part of TC Energy's Operational Management System, TOMS. To enhance our overall governance structure, we are in the process of evolving the corporate HSSE committee into two separate committees which will report to the Board HSSE Committee. A Sustainability Management Committee will provide strategic leadership and direction on sustainability-related

issues, while an Operating Committee will be responsible for making enterprise decisions in support of management system governance, strategic system enhancements and operational risk management related to safety and some environmental considerations.

Position or committee

Risk committee

Climate-related responsibilities of this position

Managing major capital and/or operational expenditures related to low-carbon products or services (including R&D)
Implementing a climate transition plan
Integrating climate-related issues into the strategy
Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line

Reports to the board directly

Frequency of reporting to the board on climate-related issues via this reporting line

Quarterly

Please explain

Chaired by the Chief Risk Officer (CRO), the Management Risk Committee is comprised of the Executive Leadership Team (ELT) and is accountable for the management of emerging and enterprise risks including climate-related risks and implementation of risk mitigation plans. In addition to their primary oversight by the Board of Directors Governance Committee, the outputs of the Management Risk Committee are also reported to the full Board of Directors.

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	In 2022, we further embedded ESG goals into our corporate scorecard, with a weighting of 50 percent of our overall corporate performance on progressing ESG priorities and advancing key strategic priorities including growth and energy transition. Our 2023 corporate scorecard includes a 30 percent weighting to targets for human and process safety, diversity of women and visible minorities in leadership and GHG-emissions reduction. There is a 40 percent weighting toward delivering financial results and 30 percent toward strategic priorities including strengthening the balance sheet, finding operational efficiencies, and effective execution of divestitures and sanctioned growth. Performance against targets impacts executive and employees' short-term incentivization. Our approach to sustainability is guided by our sustainability commitments that align to the SDGs, with tangible targets to measure and drive performance in areas including emissions reductions, biodiversity and safety.

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive

Chief Executive Officer (CEO)

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Progress towards a climate-related target

Achievement of a climate-related target
Reduction in emissions intensity

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

Executive compensation is closely linked to the strategic plan. Our annual corporate objectives support the strategic plan and are integrated into our compensation decision-making process. Starting in 2022, we embedded ESG goals into our corporate scorecard with a stronger focus on overall corporate performance to progress ESG priorities and advance energy transition. Key performance areas that we track to measure success against these goals include achieving top personal safety, maintaining safe, reliable operations and asset integrity while minimizing environmental impacts and developing solutions for a lower-carbon energy future.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

The 2022 corporate scorecard was approved by the Board early in the year, consistent with our practice in prior years. The scorecard focused on safe, reliable and sustainable operations, financial results, and advancing our strategic priorities through long term value creation and enabling energy transition determine compensation. Our compensation plans are designed to encourage disciplined decision-making in the balanced pursuit of near-term financial performance and responsible long-term facilities development. At the end of each year, the Board assesses our performance against the corporate objectives to determine the Corporate factor that is used in calculating short-term incentive awards for the CEO, executive vice-presidents and all other employees. Each year the Board approves corporate, business unit and individual objectives that are aligned with the overall business plan for the CEO and each executive vice-president. These objectives are used to assess performance.

Our 2023 corporate scorecard includes a 30 per cent weighting to ESG including targets for human and process safety, diversity of women and visible minorities in leadership and GHG-emissions reduction. There is a 40 per cent weighting toward delivering financial results and 30 per cent toward strategic priorities including strengthening the balance sheet, finding operational efficiencies, and effective execution of divestitures and sanctioned growth.

Entitled to incentive

All employees

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Progress towards a climate-related target
Achievement of a climate-related target
Reduction in emissions intensity

Incentive plan(s) this incentive is linked to

Short-Term Incentive Plan

Further details of incentive(s)

Starting in 2022, we embedded ESG goals into our corporate scorecard with a stronger focus on overall corporate performance to progress ESG priorities and advance energy transition. Key performance areas that we track to measure success against these goals include achieving top personal safety, maintaining safe, reliable operations and asset integrity while minimizing environmental impacts and developing solutions for a lower-carbon energy future.

Explain how this incentive contributes to the implementation of your organization's climate commitments and/or climate transition plan

Our success in achieving our sustainability strategy is enabled by the capabilities and expertise of our workforce, the extent to which we embrace technology and encourage innovation, and our approach to sustainability. To this end, we set targets for every one of our sustainability commitments in 2021. In 2022, we added five new targets to reflect current and emerging business activities. Our annual corporate objectives support the strategic plan and are integrated into our compensation decision-making process. The 2022 corporate scorecard was approved by the Board early in the year, consistent with our practice in prior years. Our compensation plans are designed to encourage disciplined decision-making in the balanced pursuit of near-term financial performance and responsible long-term facilities development.
Our 2023 corporate scorecard further embeds ESG into our goals with a 30 per cent weighting to ESG including targets for human and process

safety, diversity of women and visible minorities in leadership and GHG-emissions reduction. At the end of each year, the Board assesses our performance against the corporate objectives to determine the Corporate factor that is used in calculating short-term incentive awards for the CEO, executive vice-presidents and all other employees. Each year the Board approves corporate, business unit and individual objectives that are aligned with the overall business plan for the CEO and each executive vice-president. These objectives are used to assess performance.

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	1	5	Time horizons align with our risk practices including Enterprise Risk Management.
Medium-term	6	12	Time horizons align with our risk practices including Enterprise Risk Management.
Long-term	13	70	Time horizons align with our risk practices including Enterprise Risk Management.

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

We examine risks holistically, seeking to understand the potential consequences of a risk event by examining it through different lenses. This enables a consistent risk analysis and furthermore informs the response to and treatment of risks. We have established criteria on risk impact, through our Enterprise Risk Matrix, including the impact of financial risks on our business and we use differing levels relating to damage/financial loss estimates (e.g., market risk, counterparty credit risk and potential impacts of policy changes on earnings, cashflows and ultimately, shareholder value).

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Risk management is embedded in all activities at TC Energy and is integral to the successful operation of our business. Our strategy is to ensure that our risks and related exposures are aligned with our objectives as well as our risk tolerances. We manage risk through a centralized enterprise risk management (ERM) program that systematically identifies enterprise risks, including climate-related risks, that could materially impact the achievement of our objectives. The program and framework follow a principled approach and include:

• an enterprise risk register,
• an enterprise risk heat map and report consisting of risk assessment, mitigation controls and key risk indicators (KRIs), and
• quarterly emerging risk reports.

The purpose of the ERM program is to address risks to, or yielding from, the execution of our business strategies, as well as enabling practices that allow us to identify and monitor emerging risks. Specifically, the ERM program and its framework provide an end-to-end process for risk identification, analysis, evaluation and mitigation, and the ongoing monitoring and reporting to the Board, CEO and executive vice-presidents, including the Chief Risk Officer.

The core ERM principles are in alignment with international standards and guidelines, such as ISO 31000, the Committee of Sponsoring Organizations (COSO) and TCFD. Our Board retains general oversight of all enterprise risks, as identified below, and specifically has direct oversight of reputation and relationships, regulatory uncertainty, capital allocation strategy, and execution and capital costs. The Board also participates in detailed presentations on each enterprise risk as required or requested.
The Board is informed quarterly on emerging risks and management's response to these risks. If an emerging risk rises to the level of an enterprise risk, then the Governance committee will review the mapping of such enterprise risk and the Governance committee chair will include the identified enterprise risk and the enterprise risk governance and execution owners in its report to the Board.

In 2022, as part of our commitment to continuous improvement of the ERM program, we identified and adopted key risk indicators (KRIs) for identified risk events that may impact our ability to achieve our strategic objectives. These KRIs provide quantifiable metrics and objective rationales, as well as meaningful tracking of trending, for each enterprise risk.

Our executive leadership team is accountable for developing and implementing risk management plans and actions, and effective risk management is reflected in their compensation. Each identified enterprise risk has executive leadership team member(s) as the governance and execution owner(s) and they provide an in-depth review for the Board on an annual basis and, as appropriate, this includes climate-related risks. Our process ensures that the Board is fully informed of the interrelationship between the business environment and its associated risks and is intended to facilitate and stimulate discussion of our key business risks.

The enterprise risk register establishes clear accountabilities of the Board, committees, and executives responsible for specific oversight of each enterprise risk. The following is a list of enterprise-wide risks with potential to affect our organization are continuously monitored.
• Business Interruption
• Reputation and relationships
• Access to capital at a competitive cost
• Capital allocation strategy

- Cyber security
- Climate change
- Political and regulatory
- Strategy and development
- Project execution and capital costs
- Talent attraction, retention, and succession planning

Our Corporate Governance Guidelines outlines that the Board is responsible for understanding the principal risks associated with the Company's business on an ongoing basis and for ensuring that management has implemented appropriate strategies to manage these risks. It is the responsibility of Management to assure that the Board and its Committees are kept well informed of these changing risks on a timely basis. It is important that the Board understands and supports the key risk decisions of management, which includes comprehending the appropriate balance between risks and benefits. The Governance Committee has been delegated the responsibility to oversee our ERM activities, which includes ensuring appropriate management systems are in place to identify and manage our risks, ensuring adequate Board oversight of our risk management policies, programs and practices.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term

Long-term

Description of process

Regulatory: we monitor regulatory and government developments and decisions to analyze their possible impact on our businesses. We build scenario analysis into our strategic outlook and work closely with our stakeholders in the development and operation of our assets. We identify emerging risks and signposts including customer, regulatory and government decisions as well as innovative technology development and report on our management of these risks quarterly through the Enterprise Risk Management program to the Board. We also use this information to inform our capital allocation strategy and adapt to changing market conditions.

Value chain stage(s) covered

Direct operations

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

Annually

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Project Delivery Standard: our Project Delivery Standard (PDS) was established to drive consistent and predictable project outcomes. It ensures decision makers are provided relevant information at the right time to make effective investment decisions. PDS defines the framework for planning, executing and assuring projects, and provides a consistent, disciplined approach to create new or replace, modify or add to existing operational assets throughout their project lifecycle. PDS drives capital efficiency by matching the level of effort with the level of project maturity, and it articulates business objectives. PDS defines the approach to planning, executing, and assuring projects at TC Energy. The Engineering Design Procedures under PDS support projects in ensuring assets are fit for purpose, comply with regulatory requirements, and adhere to our

engineering standards that define requirements for engineering design, drafting, construction and commissioning of new or modified assets. These processes and standards ensure assets are designed and constructed with consideration of physical risks.
While delivering energy, pipelines could potentially pose a risk to public in the event of a release, consequently as an operator TC Energy must make decisions every day affecting risk. Thorough integrated information equips decision makers with the data necessary to make critical decisions. Our System Wide Risk Assessment (SWRA) provides the critical risk information as quantitative and integrated risk projections. It is used by pipeline integrity functions and leadership, to thoroughly quantify risks in support of the Integrity Management Program and optimize asset management decisions. Completed annually, SWRA utilizes algorithms to predict the likelihood of a release by incorporating integrity assessment data, SME expertise, and failure history. It then combines the likelihood with understanding of a consequence to the affected public by considering nearby structures and populated areas and their proximity to the pipeline. The output is risk, reported using two measures: Individual Risk (IR) - Risk to an individual presumed to be present on the pipeline right of way, and Societal Risk (SR) - Risk to people living and working nearby a pipeline.

Value chain stage(s) covered

Direct operations

Risk management process

A specific climate-related risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term

Description of process

Business Interruption: we are committed to being an industry leader in the safe and reliable delivery of energy. At the foundation of this commitment is the effective identification and management of risk as it is instrumental in achieving our safety, reliability, economic, social and environmental objectives. Our operational management system, TOMS, includes our corporate health, safety, sustainability, environment and

asset integrity programs to prevent incidents and protect employees, contractors, members of the public, the environment and our assets. TOMS includes process safety, incident, emergency and crisis management programs to ensure TC Energy can effectively respond to operational events, minimize loss or injury and enhance our ability to resume operations. This is supported by our business continuity program that identifies critical business processes and develops corresponding business resumption plans. We also have a comprehensive insurance program to mitigate a certain portion of our risks, but insurance does not cover all events in all circumstances.
The mandated programs set requirements, driven by specific risk areas, internal objectives, industry best practices and regulatory requirements, and include, but are not limited to, the following areas which incorporate climate-related risks:
• Environment: we are committed to managing our environmental and climate-related effects and protecting the environment through the complete life-cycle of our assets. We understand our ability to have strong environmental stewardship, protection and performance has a direct impact on the communities where we work and our ability to competitively build and operate our assets.

Asset (Facility and Pipeline) Integrity: maintaining the integrity of our assets is one of our guiding principles that helps prevent unplanned releases that could result in a major incident. Such incidents can result in serious injuries to personnel or the public, property damage, the loss of production and environmental impacts. This includes threat management related to weather and other outside forces.

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

A specific climate-related risk management process

Frequency of assessment

Annually

Time horizon(s) covered

Medium-term
Long-term

Description of process

Scenario Analysis: as part of our annual strategic planning process and scenario analysis, we monitor the pace and magnitude of energy transition through various signposts and watch for material shifts that pose threats or create opportunities. More detail on our management of climate-change related market risks and opportunities can be found in the TCFD section of our Report on Sustainability.

We evaluate the resilience of our asset portfolio over a range of potential energy supply and demand outcomes, also known as scenario analysis, as part of our strategic planning process. We monitor climate policy and related developments through our Enterprise Risk Management (ERM) program to ensure leadership has visibility to the broader perspective, and that treatments are applied in a holistic and consistent manner. We build scenario analysis into our strategic outlook and work closely with our stakeholders in the development and operation of our assets. We identify emerging risks and signposts including customer, regulatory and government decisions as well as innovative technology development and report on our management of these risks quarterly through the ERM program to the Board. We also use this information to inform our capital allocation strategy and adapt to changing market conditions.

Our scenario analysis makes a variety of assumptions about future trends, including the impact of climate policies on the energy mix, the rate of technological change for energy systems and supply and demand changes for oil and gas (both domestic and global). These scenarios offer alternative outlooks for the energy future, but do not describe what will or should happen. With this in mind, we do not assign probabilities to the scenarios, and investors should not rely on them to make investment decisions.

In 2021 and 2022, we reviewed, analyzed, and presented several global development scenarios to senior management. Last year this included 1.8oC (Green), 2.4oC (Base), and 2.9oC (Stagnant) scenarios.
• Green scenario: requires a revolutionary transformation to a sustainable low-carbon economy, including yet-to-be defined technologies.
• Base scenario: ambitious in terms of acknowledging energy transition goals although reflects a pragmatic and plausible approach to the implementation and timing of those goals, one that factors in economic recovery and demand growth in the medium term before there is a peak.
• Stagnant scenario: highlights weak political support of environmental and climate policies.

The differentiating factors in this range of scenarios are the pace of change, the role of consumer choice and behaviours, the role of government and the private sector, the impact of geopolitical cooperation and the long-term economic effects of how energy security risks are managed in different markets.
The analysis included evaluation of supply and demand as well as market drivers related to our key commodities: liquids, natural gas and

power. In addition to the above scenario analyses, we conduct recurring reviews and analysis of major 1.5oC to 1.77oC accelerated and net zero scenarios. This includes an annual review of the International Energy Agency's (IEA) World Energy Outlook. We evaluate the penetration of renewable energy, hydrogen demand, carbon capture, LNG trade and other meaningful trends.

C2.2a

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Our assets are subject to federal, state, provincial and local environmental statutes and regulations governing environmental protection, including air and GHG emissions, water quality, species at risk, wastewater discharges and waste management. Operating our assets requires obtaining and complying with a wide variety of environmental registrations, licenses, permits and other approvals and requirements. Failure to comply could result in administrative, civil or criminal penalties, remedial requirements, or orders affecting future operations. We own assets and have business interests in a number of regions subject to GHG emissions regulations, including GHG emissions management and carbon pricing policies. In 2022, we incurred $118 million (2021 – $59 million) of expenses under existing carbon pricing programs. We support transparent climate change policies that promote sustainable and economically responsible natural resource development, and in Our assets in specific geographies are currently subject to GHG regulations and we expect that the number of our assets subject to GHG regulations will continue to increase over time across our footprint. Through the implementation of our Environment Program, we continually monitor our facilities for compliance with all material legal and regulatory environmental requirements across all jurisdictions where we operate. We also comply with all material legal and regulatory permitting requirements in our project routing and development. Operating our assets also requires obtaining and complying with a wide variety of environmental registrations, licenses, permits and other approvals and requirements. Failure to comply could result in administrative, civil or criminal penalties, remedial requirements, or orders affecting future operations.
Emerging regulation	Relevant, always included	Our ability to construct and operate energy infrastructure requires regulatory approvals and is dependent on evolving policies and regulations by government authorities. This includes changes in regulation that may affect our projects and operations which could affect the financial performance of our assets.

	Relevance & inclusion	Please explain
		Climate-related litigation is also evolving, becoming an increasingly common process to hold organizations accountable for climate-related physical and transition risks, which could impact our ability to operate our assets. We own assets and have business interests in several regions subject to GHG emissions regulations including GHG emissions. Across North America, there are a variety of new and evolving regulatory requirements and initiatives aimed at reducing GHG emissions that could affect our business. Adverse impacts on competitive geographic and business positions could result in the inability to meet our growth targets through missed or lost organic, greenfield and brownfield opportunities. Financial impacts of denied or delayed projects could include lost development costs, loss of investor confidence and potential legal costs from litigation. Regulations could also increase the cost of our operations, due to complying with new or more stringent regulations, resulting in the inability to earn a reasonable return on our invested capital. We monitor regulatory and government developments and decisions to analyze their possible impact on our businesses. We build scenario analysis into our strategic outlook and work closely with our stakeholders in the development and operation of our assets. We identify emerging risks including regulatory and government decisions and report on our management of these risks quarterly through the ERM program to the Board. We also use this information to inform our capital allocation strategy and adapt to changing market conditions. We have established an Insights & Policy team that will drive TCE's public policy thought leadership, systematically monitor the political and public policy environment, and manage TCE's relationships with multilateral stakeholders. We will advocate for policies that are consistent with our climate-related goals, support deployment of clean energy systems, a robust energy trade, a strategic diversification of our energy mix, and the aspirational pursuit of limiting a global temperature increase to 1.5° Celsius.
Technology	Relevant, always included	To be competitive, we must offer integral energy infrastructure services in supply and demand areas and in forms of energy that are attractive to customers. This includes energy evolution opportunities such as energy efficiency, electrification, renewable and alternative energy sources, batteries and other energy storage, and low-carbon infrastructure to support RNG, carbon capture and sequestration and hydrogen, along with traditional energy sources. Developing and deploying new technologies and new products inherently involves a degree of financial risk associated with escalating costs, uncertain outcomes and delays to anticipated in-service schedules. Should alternative lower-carbon forms of energy result in decreased demand for our services on an accelerated timeline versus our pace of depreciation, the value of our long-lived

	Relevance & inclusion	Please explain
		energy infrastructure assets could be negatively impacted. We have a dedicated energy transition team to assess relevant technologies and opportunities to support business resiliency across a range of future energy scenarios. We're leveraging our existing R&D budget to focus on technical innovation in support of energy transition and making small strategic bets to stay on top of emerging technologies, like our equity investment in Carbon Clean - a UK-based company at the leading edge of innovation in carbon capture for heavy industry. We have a diverse portfolio of assets and use portfolio management to divest of non-strategic assets, effectively rotating capital while adhering to our risk preferences and focus on per share metrics. We also conduct analyses to identify resilient supply sources as part of our energy fundamentals and strategic development reviews. We recover depreciation through our regulated pipeline rates which is an important lever to accelerate or decelerate the return of capital from a substantial portion of our assets. We also monitor signposts including innovative technology development to inform our capital allocation strategy and adapt to changing market conditions.
Legal	Relevant, always included	Our ability to construct and operate energy infrastructure requires regulatory approvals and is dependent on evolving policies and regulations by government authorities. This includes changes in regulation that may affect our projects and operations which could affect the financial performance of our assets. Climate-related litigation is also evolving, becoming an increasingly common process to hold organizations accountable for climate-related physical and transition risks, which could impact our ability to operate our assets. Increasing climate-related concerns could result in an increased risk of associated litigation. Our Legal Requirements Monitoring Process, part of the Compliance Element in our Operational Management System (TOMS), is the corporate process for identifying and monitoring compliance with applicable legal requirements including those related to GHG emissions, carbon pricing and other climate-related legislation. The process is required by the Canadian Energy Regulator and Mexican Comisión Reguladora de Energía and is currently offered on an elective "opt-in" basis for our corporate functions, Power and Storage business and U.S. business.
Market	Relevant, always included	The mandates of institutional investors, credit rating agencies, lenders and insurers are increasingly considering climate-related risks and opportunities. Investor confidence in our energy transition plans could affect our ability to access capital and/or insurance coverage including at a competitive cost. Changing consumer behaviour could affect North American energy consumption patterns and preferences, affecting long-term energy supply and demand trajectories. Significant deterioration in market conditions for an extended period of time and changes in investor and lender sentiment

	Relevance & inclusion	Please explain
		could affect our ability to access capital at a competitive cost, which could negatively impact our ability to deliver an attractive return on our investments or inhibit our growth. The continued focus on climate-change and the transition to a lower-carbon economy may affect future global energy demand and use, including the composition/mix of types of energy used by industry and individual consumers. Changes in the North American energy mix could affect the long-term growth of our customer base and reduce demand for the products we transport, which could have a negative impact on revenues. We operate within our financial means and risk tolerances, maintain a diverse array of funding levers and also utilize asset divestitures as an important component of our financing program. In addition, we have candid and proactive engagement with the investment community, including credit rating agencies, with the objective of hearing their feedback and keeping them apprised of developments in our business and factually communicating our prospects, risks and challenges as well as sustainability-related updates. We conduct research around the evolving sustainability preferences of our investors and financial partners which we consider in our decision making. In 2022, we launched our first sustainability linked loan as we continue to build sustainability and ESG performance metrics into our business strategy. Additional mitigations to this risk include shifting longer-term portfolio mix to align with pace of energy transition while capturing low-carbon growth opportunities with attractive returns, leveraging our footprint to invest in high barrier to entry markets to align returns with corporate targets, commitment to transparent disclosure on the progress we're making and our plans to achieve our targets, maintaining strong balance sheet and access to multiple sources of capital.
Reputation	Relevant, always included	Our operations and growth prospects require us to have strong relationships with key stakeholders and rightsholders including customers, Indigenous communities, landowners, suppliers, investors, governments and government agencies and environmental non-governmental organizations. Inadequately managing, or failing to meet stakeholder expectations and concerns, including those related to climate-related risks, can have a significant impact on our operations and projects, infrastructure development and overall reputation. It could also affect our ability to operate and grow. As we work to build the energy system of the future, we recognize the importance of working together, in common cause, with communities, governments and our customers. Our core values – safety, responsibility, collaboration, integrity and innovation – guide us in building and maintaining our key relationships as well as our interactions with stakeholders. In 2022, TC Energy's management engaged with holders of over 50% of our outstanding common shares, with the CEO, CFO and other members of management participating in approximately 250 meetings. These meetings included participating in 40 engagement meetings on sustainability-specific topics with shareholders.

	Relevance & inclusion	Please explain
		Beyond our core values, we have specific stakeholder programs and policies that shape our interactions, clarify expectations, assess risks and facilitate mutually beneficial outcomes. We are proud of the strong relationships we have built with stakeholders across our geographies, and we are continuously seeking ways to strengthen these relationships. We are committed to sharing information and seeking public input, documenting the entire stakeholder engagement process including the issues raised by stakeholders and rightsholders, along with the ways we address these issues. We engage and consult early and often, invite feedback, provide updates and address concerns throughout the regulatory process and throughout operations, with preference for addressing concerns through direct and respectful discussion. Additional mitigations to this risk include: executing on our plans to achieve our GHG emission reduction goals; maintaining our commitment to transparent disclosure on our progress through centralized hubs to access climate change and sustainability communications; our environmental, social and governance and sustainability webpages; advocating for a thoughtful and balanced approach to energy development.
Acute physical	Relevant, always included	Our assets could be impacted by significant temperature or weather changes. Our business may be impacted by market risks due to extreme weather events affecting energy consumption, long-term energy supply and demand trajectories. Weather-related delays can impact execution risks of our investments in large infrastructure projects, which involve substantial capital commitments. Weather-related delays can also impact our ability to operate our in-service assets. Seasonal changes in temperature can reduce the efficiency and production of our natural gas-fired power plants. Business interruption caused by physical changes to our environment could result in a decrease in revenues and increase in operating costs, legal proceedings or regulatory actions, or other expenses, all of which could reduce our earnings. We evaluate the resilience of our portfolio over a range of potential energy supply and demand outcomes as part of our strategic planning process. We monitor climate policy and related developments through our ERM program to ensure leadership has visibility to the broader perspective, and that treatments are applied in a holistic and consistent manner. Our engineering standards are regularly reviewed to ensure assets continue to be designed and operated to withstand the potential impacts of climate change. Our Emergency Management Program (within TOMS) would manage our response to natural disasters, which include catastrophic events. We have a comprehensive insurance program to mitigate a certain portion of these risks, but insurance does not cover all events in all circumstances. Additional mitigations to this address this risk:

	Relevance & inclusion	Please explain
		- Enhanced inspection & maintenance of assets and pipeline rights-of-way, emergency & crisis response planning & training, & business continuity planning - Utilization of weather data during the design of new sites or facilities so they are more resilient - Implementation of systems to forecast extreme weather events - Joint contingency planning with other parties, enabling us to coordinate shutdowns in advance - Operational response planning for extreme weather events, including the installation of on-site emergency generators We partner with research organizations and industry groups to monitor the resilience of assets to physical risks, including severe weather events such as 100- and 200-year rainfall events. This helps determine the need for maintenance or replacement of company assets, including existing pipelines.
Chronic physical	Relevant, always included	All relevant chronic physical risk considerations are captured in our description for monitoring and mitigating acute physical risks.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Reputation

Increased stakeholder concern or negative stakeholder feedback

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

RISK 1 - Reputation and relationships

As concerns around climate change continue to accelerate, there is growing pressure on oil and gas companies to reduce emissions and manage climate-related risk. Our operations and growth prospects require us to have strong relationships with key stakeholders and rightsholders including customers, Indigenous communities, landowners, suppliers, investors, governments and government agencies and environmental non-governmental organizations.

Time horizon

Short-term

Likelihood

More likely than not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Cost of response to risk

Description of response and explanation of cost calculation

Inadequately managing, or failing to meet stakeholder expectations and concerns, including those related to climate-related risks, can have a significant impact on our operations and projects, infrastructure development and overall reputation. It could also affect our ability to operate and grow. Our core values – safety, responsibility, collaboration, integrity and innovation – guide us in building and maintaining our key relationships as well as our interactions with stakeholders.

In 2022 and early 2023, TC Energy's management engaged with holders of over 40% of our outstanding common shares, with the CEO, CFO and other members of management participating in approximately 250 meetings. These meetings included participating in 40 engagement meetings on sustainability-specific topics with shareholders. Beyond our core values, we have specific stakeholder programs and policies that shape our interactions, clarify expectations, assess risks and facilitate mutually beneficial outcomes. Specific stakeholder and rightsholder programs and policies shape our interactions, clarify expectations, assess risks and facilitate mutually beneficial outcomes.

We are proud of the strong relationships we have built with stakeholders across our geographies, and we are continuously seeking ways to strengthen these relationships.

We strive to be a leader in the delivery of energy in a safe, responsible and sustainable manner, ensuring we are positioned to maximize long-term value creation. Being a leader also means communicating candidly about our performance and approach, aiming to provide comprehensive, decision-useful and material disclosure on our environmental, social and governance management. We continue to be transparent in how we communicate our progress on sustainability matters and how relevant information is woven throughout our reporting. Our ESG webpage (https://www.tcenergy.com/investors/esg/) acts as a central hub to provide our stakeholders with details of our comprehensive management and performance of relevant sustainability and ESG issues.

Comment

Reputational risk is identified and managed through our enterprise risk management (ERM) program which are continuously monitored and revised annually. Risks specific to each operating business segment can be found in each business segment discussion of the Annual Report and the climate-related risk listed may not be material under securities laws.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Current regulation

Other, please specify

current and emerging climate-related regulations and policy

Primary potential financial impact

Other, please specify

increased capital expenditures and decreased asset value or asset useful life leading to write-offs, asset impairment or early retirement of existing assets

Company-specific description

RISK 2 - Regulatory uncertainty

Across North America, there are a variety of new and evolving regulatory requirements and initiatives aimed at reducing GHG emissions that could affect our business. Adverse impacts on competitive geographic and business positions could result in the inability to meet our growth targets through missed or lost organic, greenfield and brownfield opportunities. Financial impacts of denied or delayed projects could include lost development costs, loss of investor confidence and potential legal costs from litigation. Regulations could also increase the cost of our operations, due to complying with new or more stringent regulations, resulting in the inability to earn a reasonable return on our invested capital. Our ability to construct and operate energy infrastructure requires regulatory approvals and is dependent on evolving policies and regulations by government authorities. This includes changes in regulation that may affect our projects and operations which could affect the financial

performance of our assets. Climate-related litigation is also evolving, becoming an increasingly common process to hold organizations accountable for climate-related physical and transition risks, which could impact our ability to operate our assets.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Cost of response to risk

Description of response and explanation of cost calculation

TC Energy continues to assess the impact of climate change on the consolidated financial statements. The Company has announced internal greenhouse gas reduction targets and closely monitors regulatory initiatives that may impact its existing businesses. There were also recent

developments in sustainability frameworks and regulatory initiatives that could further impact accounting estimates and judgments including, but not limited to, assessment of asset useful lives, goodwill valuation, impairment of plant, property and equipment and accrued environmental costs. The impact of these changes is continuously assessed to ensure any changes in assumptions that would impact estimates listed above are adjusted on a timely basis. Emerging policies could affect North American energy consumption patterns and preferences and we expect headwinds and tailwinds for our existing infrastructure and growth plan. Broadly, decarbonization policies will affect long-term energy supply and demand trajectories and influence capital investment decisions. Investors and customers are watching, using sustainability factors to differentiate between energy companies. We evaluate climate-related scenarios to gain perspective on the implications for our footprint, growth opportunities and portfolio optimization; this plays a critical role in understanding how we can manage several of our key enterprise risks. Adverse impacts on competitive geographic and business positions could result in the inability to meet our growth targets through missed or lost organic, greenfield and brownfield opportunities. Financial impacts of denied or delayed projects could include lost development costs, loss of investor confidence and potential legal costs from litigation. Regulations could also increase the cost of our operations resulting in the inability to earn a reasonable return on our invested capital. We monitor regulatory and government developments and decisions to analyze their possible impact on our businesses. We build scenario analysis into our strategic outlook and work closely with our stakeholders in the development and operation of our assets. We identify emerging risks and signposts including customer, regulatory and government decisions as well as innovative technology development and report on our management of these risks quarterly through the ERM program to the Board. We also use this information to inform our capital allocation strategy and adapt to changing market conditions.

Comment

Risks specific to each operating business segment can be found in each business segment discussion of the Annual Report. The climate-related risks listed may not be material under securities laws.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Technology

Transitioning to lower emissions technology

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

RISK 3 - Technology and customer demand changes

To be competitive, we must offer integral energy infrastructure services in supply and demand areas and in forms of energy that are attractive to customers. This includes efforts to minimize our carbon footprint such as energy efficiency, electrification, renewable and alternative energy sources, batteries and other energy storage, and low-carbon infrastructure to support RNG, carbon capture and sequestration and hydrogen, along with traditional energy sources. We face various competitive forces that impact our existing assets and prospects for growth. For instance, our existing power plants will compete over time with new power capacity. New supply could come in several forms including supply that employs more efficient power generation technologies or additional supply from regional power transmission interconnections. We also face competition from other power companies in Canada and the U.S. as well as in the development of greenfield power plants. Traditional and non-traditional players are entering the growing low-carbon economy in North America and, as a result, we face competition in building low-carbon platforms with energy and financial options to provide customer-driven solutions for energy transition.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Cost of response to risk

Description of response and explanation of cost calculation

Developing and deploying new technologies and new products inherently involves a degree of financial risk associated with escalating costs, uncertain outcomes and delays to anticipated in-service schedules. Should alternative lower-carbon forms of energy result in decreased demand for our services on an accelerated timeline versus our pace of depreciation, the value of our long-lived energy infrastructure assets could be negatively impacted.

We have a dedicated energy transition team to assess relevant technologies and opportunities to support business resiliency across a range of future energy scenarios. We're leveraging our existing R&D budget to focus on technical innovation in support of energy transition and making small strategic bets to stay on top of emerging technologies, like our equity investment in Carbon Clean - a UK-based company at the leading edge of innovation in carbon capture for heavy industry. We have a diverse portfolio of assets and use portfolio management to divest of non-strategic assets, effectively rotating capital while adhering to our risk preferences and focus on per share metrics. We also conduct analyses to identify resilient supply sources as part of our energy fundamentals and strategic development reviews. We recover depreciation through our regulated pipeline rates which is an important lever to accelerate or decelerate the return of capital from a substantial portion of our assets. We also monitor signposts including innovative technology development to inform our capital allocation strategy and adapt to changing market conditions.

Comment

Our existing extensive footprint offers significant in-corridor growth opportunities. This includes possible future opportunities to deploy low-emission infrastructure technologies such as renewables, hydrogen and carbon capture, which will help reduce the carbon footprint of our customers and us, and also support extending the longevity of our existing assets. This is a subset of the risks identified through our enterprise

risk management (ERM) program which are continuously monitored and revised annually. The financial impact has been determined following our annual enterprise risk assessments where both risks to, and opportunities from, TC strategy are considered. Risks specific to each operating business segment can be found in each business segment discussion of the Annual Report. The climate-related risks listed may not be material under securities laws.

Identifier

Risk 4

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Market

Other, please specify

changes in commodity prices, foreign exchange rates and interest rates, which may affect our earnings, cash flows and the value of our financial assets and liabilities.

Primary potential financial impact

Other, please specify

increased indirect operating costs and decreased asset value or asset useful life leading to write-off, asset impairment or early retirement of existing assets

Company-specific description

RISK 4 - Market

We require substantial amounts of capital in the form of debt and equity to finance our portfolio of growth projects and maturing debt obligations at costs that are sufficiently lower than the returns on our investments. The mandates of institutional investors, credit rating agencies, lenders and insurers are increasingly considering climate-related risks and opportunities. Investor confidence in our energy transition plans could affect our ability to access capital and/or insurance coverage including at a competitive cost. Changing consumer behaviour could affect North American energy consumption patterns and preferences, affecting long-term energy supply and demand trajectories. Significant deterioration in

market conditions for an extended period of time and changes in investor and lender sentiment could affect our ability to access capital at a competitive cost, which could negatively impact our ability to deliver an attractive return on our investments or inhibit our growth.
The continued focus on climate-change and the transition to a lower-carbon economy may affect future global energy demand and use, including the composition/mix of types of energy used by industry and individual consumers. Changes in the North American energy mix could affect the long-term growth of our customer base and reduce demand for the products we transport, which could have a negative impact on revenues. While climate change affects nearly all economic sectors, the level and type of exposure and the impact of climate-related risks differs by sector, industry, geography, and organization.

Time horizon

Medium-term

Likelihood

Unlikely

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Cost of response to risk

Description of response and explanation of cost calculation

We operate within our financial means and risk tolerances, maintain a diverse array of funding levers and also utilize asset divestitures as an important component of our financing program. In addition, we have candid and proactive engagement with the investment community, including credit rating agencies, with the objective of hearing their feedback and keeping them apprised of developments in our business and factually communicating our prospects, risks and challenges as well as sustainability-related updates. We conduct research around the evolving sustainability preferences of our investors and financial partners which we consider in our decision making. In 2022, we launched our first sustainability linked loan as we continue to build sustainability and ESG performance metrics into our business strategy. Additional mitigations to this risk include:

• Shifting our longer-term portfolio mix to align with pace of energy transition while capturing low-carbon growth opportunities with attractive returns
• Leveraging our footprint to invest in high barrier to entry markets to align returns with corporate targets
• Commitment to transparent disclosure on the progress we're making and our plans to achieve our targets
• Maintaining strong balance sheet and access to multiple sources of capital.

We conduct analyses to identify resilient supply sources as part of our energy fundamentals and strategic development reviews. The use of a disciplined approach to capital allocation supports our ability to maximize value over the short, medium and long term. We allocate capital in a manner that improves the breadth and cost competitiveness of the services we provide, extends the life of our assets, increases diversification and strengthens the carbon-competitiveness of our assets.

Comment

This summary of potential climate-related risk event that may affect our company is a subset of the risks identified through our enterprise risk management program which are continuously monitored and revised annually. The financial impact has been determined following our annual enterprise risk assessments where both risks to, and opportunities from, TC strategy are considered. Risks specific to each operating business segment can be found in each business segment discussion of the Annual Report and the climate-related risks listed may not be material under securities laws. We operate within our financial means and risk tolerances, maintain a diverse array of funding levers and also utilize portfolio management as an important component of our financing program. In addition, we have candid and proactive engagement with the investment community, including credit rating agencies, with the objective of hearing their feedback and keeping them apprised of developments in our

business and factually communicating our prospects, risks and challenges as well as sustainability-related updates. We also conduct research around the evolving ESG preferences of our investors and financial partners which we consider in our decision making.

Identifier

Risk 5

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Other, please specify

chronic and acute physical risks due to significant temperature or weather changes resulting in forest fires, tornadoes, earthquakes, floods, volcanic eruptions and hurricanes

Primary potential financial impact

Other, please specify

increased indirect operating costs and increased insurance claims liability

Company-specific description

RISK 5 – Physical (acute and chronic); significant temperature or weather changes

As a leading energy infrastructure company with a footprint that spans across North America, our assets could be impacted by significant temperature or weather changes. Our business may be impacted by market risks due to extreme weather events affecting energy consumption and long-term energy supply and demand trajectories. Weather-related delays can also impact execution risks of our investments in large infrastructure projects, which involve substantial capital commitments, including project costs and schedules. Similarly, weather related delays can also impact our ability to operate our in-service assets. Seasonal changes in temperature can also reduce the efficiency and production of our natural gas-fired power plants. Business interruption caused by physical changes to our environment, including those related to climate change, could result in a minimal financial impact for our pipeline assets given toll and contractual structures and may result in an increase to operational costs, legal proceedings or regulatory actions, or other expenses, all of which could reduce our earnings.

Time horizon

Short-term

Likelihood

About as likely as not

Magnitude of impact

Low

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Cost of response to risk

Description of response and explanation of cost calculation

Fluctuations in energy supply and demand, increasing commodity prices or volatility and output capability. Business interruption caused by physical changes to our environment could result in a decrease in revenues and increase in operating costs, legal proceedings or regulatory actions, or other expenses, all of which could reduce our earnings. We work to limit our exposure to physical risks through routine inspections and maintenance as well as emergency response planning.

Comment

We evaluate the resilience of our asset portfolio over a range of potential energy supply and demand outcomes, also known as scenario analysis, as part of our strategic planning process. We monitor climate policy and related developments through our Enterprise Risk Management (ERM) program to ensure leadership has visibility to the broader perspective, and that treatments are applied in a holistic and consistent manner. Our engineering standards are also regularly reviewed to ensure assets continue to be designed and operated to withstand the potential impacts of climate change. If an event did occur, then our Emergency Management Program (within TOMS) would manage our response to natural disasters, which include catastrophic events such as forest fires, tornadoes, earthquakes, floods, volcanic eruptions, and hurricanes. We have a set of procedures in place to manage our response to natural disasters, which include catastrophic events such as forest fires, tornadoes, earthquakes, floods, volcanic eruptions and hurricanes. The procedures, which are included in our Emergency Management Program, are designed to help protect the health and safety of our employees and contractors, minimize risk to the public and limit the potential for adverse effects on the environment. We also have a comprehensive insurance program to mitigate a certain portion of these risks, but insurance does not cover all events in all circumstances.

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resource efficiency

Primary climate-related opportunity driver

Use of more efficient production and distribution processes

Primary potential financial impact

Reduced direct costs

Company-specific description

OPPORTUNITY 1 - Resource Efficiency

There is a natural incentive to reduce energy use. Our strategy is to leverage our competitive footprint as a platform to grow our business and enhance the lifecycle and reliability of our assets, all driven by internal and external customer needs. Long term, we believe there will be a growing need for a reliable supply of resources as the energy transition continues to unfold.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

We have an opportunity to achieve direct cost savings through modernization and optimization of existing infrastructure. Through decarbonizing our asset base, we're increasing the readiness of the organization to manage exposure to GHG compliance costs, creating efficiencies and reducing operating costs, increasing the terminal value of our assets, and contributing to global efforts to address climate change, all while mainlining our commitment to safe, reliable operations. Efforts to advance this opportunity include investing in operational efficiencies and enhancements that improve emissions performance as part of executing our plan to achieve a 30 per cent reduction in GHG emissions intensity across our operations by 2030. We also factor sustainability into our decision making around new projects, modernization, maintenance, electrification and enhanced leak detection.

Comment

We evaluate climate-related scenarios to gain perspective on the implications for our footprint, growth opportunities and portfolio optimization; this plays a critical role in understanding how we can manage several of our key enterprise risks.

Identifier

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Other, please specify

use and delivery of lower-emission sources of energy, use of supportive policy incentives, and use of new technologies

Primary potential financial impact

Returns on investment in low-emission technology

Company-specific description

OPPORTUNITY 1 - Energy Sources

We continue to look at all forms of energy to balance energy demand with global GHG emissions reduction goals and we continue to demonstrate commitment to sustainable energy across our footprint. We are uniquely positioned to capture energy transition opportunities through a variety of future scenarios, building on our existing experience and assets. We also know technological innovation is critical to managing the complex and interrelated issues surrounding GHG emissions. Taking advantage of the opportunities posed by technological development is closely integrated with mitigating its risks.

Our low-risk and enduring utility-like business model offers the scale and presence to provide essential and highly-competitive infrastructure services that enable us to maximize the full-life value of our long-life assets and commercial positions throughout all points of the business cycle. Our incumbent portfolio of assets and synergistic footprint support transporting both molecules and electrons, providing us flexibility to allocate capital towards electrification or other emerging low-carbon technologies in support of any energy transition scenario. For example, we are working with an industry partner on the Alberta Carbon Grid (ACG) – a world-scale carbon capture and storage system in development to help the province's industrial sectors sequester their emissions. We have a long track record of turning policy and technology changes into opportunities – for example, re-entering Mexico when the country shifted from fuel oil to natural gas, reversing pipeline flows in response to the shale gas revolution, re-purposing the underutilized Canadian Mainline pipeline capacity from natural gas to crude oil service, installing electric compression and/or switching gas compression to electrification such as the proposed Valhalla North and Berland River (VNBR) and Wisconsin Reliability (WR) projects in Canada and the U.S., respectively.

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

Our GHG reduction strategy focuses on reducing our own emissions while taking advantage of the business growth opportunities presented by low-carbon fuels and infrastructure. We have the potential to increase revenues through capitalizing on the growing demand for emission-less power by growing our portfolio of solutions that include: nuclear power generation, other mature power generation (wind, solar), and storage and firming resources. The inherent financial risks associated with technological developments also offers financial opportunities. Our strategy and energy transition teams collaborate with our business units to assess how the pace, scale and types of energy system shifts may potentially introduce business opportunities. As of Dec 31 2022 our $34 billion secured capital program is over 60 per cent weighted towards enabling energy transition. This includes $2.8 billion to decarbonize our own asset base, $14.2 billion in projects displacing higher emitting fuels, and $4.4 billion in low carbon investments including increasing capacity and extending the life of our Bruce Power nuclear facility which supplies approximately 30percent of Ontario's power market with emission-less electricity. Additional efforts to realize this opportunity include:
•Exploring ways to leverage our nuclear position into small modular reactors

•Pioneering a combined wind, solar and long-duration pumped hydro portfolio that positions customers to manage hourly power needs with cost certainty and achieve decarbonization goals by sourcing power from emissions-free assets
•Earning incremental returns and reducing emissions through virtual power purchase agreements; a renewable power solution to decarbonize electricity consumption of both internal and external customers
By equipping pipelines with zero-emission electric compressors, advancing carbon capture technology, and shifting the company fleet to electric vehicles, we're reducing emissions from our operations. We're using data and machine learning to make our systems smarter, safer and more efficient so that every piece of our footprint can be part of the solution. Our team contributed to over 100 projects developing innovative energy solutions including 66 projects conducted internally through our Technology and Innovation Management Office (TIMO) and in 52 collaborative Emerging Fuel Institute (EFI) Projects and Pipeline Research Council International (PRCI) Projects with participation from our peers and stakeholders.

Comment

Our existing extensive footprint offers significant in-corridor growth opportunities. This includes possible future opportunities to deploy low-emission infrastructure technologies such as renewables, hydrogen and carbon capture, which will help reduce the carbon footprint of our customers and us, and also support extending the longevity of our existing assets. We continue to progress numerous energy transition growth initiatives, including opportunities to increase capacity and extend the life of our Bruce Power nuclear facility while also continuing to explore or invest in renewables, hydrogen, pumped storage and carbon capture and storage (CCUS). Natural gas is a secure and reliable fuel that has an important role to play in the energy transition as the world reduces dependence on higher-carbon energy sources. It is an abundant and cleaner burning fuel that will continue to backstop the intermittency of renewable power sources. For over a decade, Mexico has been undergoing a significant transition from fuel oil and diesel as its primary energy sources for electric generation to using natural gas. New natural gas pipeline infrastructure has been and continues to be required to meet the growing demand for natural gas. We're delivering new energy solutions – from natural gas and renewables to carbon capture and hydrogen – to help other businesses and industries decarbonize too.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Development and/or expansion of low emission goods and services

Primary potential financial impact

Other, please specify

Increased revenues resulting from growing demand for products and services, and through access to new and emerging markets

Company-specific description

OPPORTUNITY 3 - Products and Services

As demand for lower carbon products and services increases globally, we're leveraging our foundational assets across North America, our strong relationships and over 30 years in the power business to grow our portfolio of customer-driven low carbon solutions. Our incumbent position allows us access to high barrier to entry markets, advance low-carbon projects with attractive returns, and pursue a diversity of opportunities and structures with optionality to align with our risk preferences.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

We are developing high quality, long-life assets under our current capital program, comprised of approximately $34 billion in secured projects. We will advance selected opportunities, including energy transition growth initiatives, to full development and construction when market conditions are appropriate and project risks and returns are acceptable. We monitor trends specific to energy supply and demand fundamentals, in addition to analyzing how our portfolio performs under different energy mix scenarios considering the recommendations of the Financial Stability Board's TCFD. This enables the identification of opportunities that contribute to our resilience, strengthen our asset base or improve diversification. Our incumbent position allows us access to high barrier to entry markets, advance low-carbon projects with attractive returns, and pursue a diversity of opportunities and structures with optionality to align with our risk preferences. We continue to actively build our customer-focused origination platform across North America, providing commodity products and energy services to help customers address the challenges of energy transition. Our existing network of assets, customers and suppliers provide a mutual opportunity in which we can tailor solutions to meet their clean energy needs. Our business model also provides socioeconomic benefits as we work closely with Indigenous communities, community-based organizations, landowners and other stakeholders in alignment with our values and sustainability commitments. Additional efforts to realize this opportunity include:

• Entered two joint development agreements supporting customer driven hydrogen production for long haul transportation, power generation, large industrials and heating across the U.S. and Canada.

• Investing $146 million to build our first Canadian solar power project

• Investing in Carbon Clean; a highly promising carbon capture technology to reduce GHG emissions on our current asset base.

• GreenGasUSA renewable natural gas (RNG) hubs, a strategic collaboration to explore the development of a network of natural gas transportation hubs, including RNG, to provide centralized access to existing energy transportation infrastructure for renewable natural gas sources which will provide up to 37 hours of on-demand, flexible, clean energy and ancillary services to the Alberta electricity grid.

Comment

Our existing network of assets, customers and suppliers provide a mutual opportunity in which we can tailor solutions to meet their clean energy needs. We build scenario analysis into our strategic outlook and work closely with our stakeholders in the development and operation of our assets. We identify emerging risks and signposts including customer, regulatory and government decisions as well as innovative technology development and report on our management of these risks quarterly through the ERM program to the Board. We also use this information to inform our capital allocation strategy and adapt to changing market conditions. We're innovating and modernizing to reduce emissions from our business while also delivering new energy solutions – from natural gas and renewables to carbon capture and hydrogen. We continue to progress numerous energy transition growth initiatives, including opportunities to increase capacity and extend the life of our Bruce Power nuclear facility while also continuing to explore or invest in renewables, hydrogen, pumped storage and carbon capture and storage (CCUS). In addition to meeting domestic energy demand, our unique footprint plays an indispensable role in delivering approximately 30 per cent of the natural gas destined for LNG export from the U.S. to markets around the world. We anticipate continued growth in LNG exports as global energy demand continues to rise. This past year, we sanctioned $8.8 billion in new projects, including several energy transition initiatives, along with expanding, extending and modernizing our natural gas systems. We have a $34 billion industry-leading portfolio of diverse and fully sanctioned capital projects. Our goal is to sanction $5+ billion of projects every year that are consistent with our risk and return preferences.

Identifier

Opp4

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Markets

Primary climate-related opportunity driver

Other, please specify

displacing coal-fired power, backstopping the intermittency of renewable power sources and creating the foundation to expand hydrogen and other new energy sources

Primary potential financial impact

Other, please specify

increased revenues resulting from increased demand for products and services and through access to new and emerging markets

Company-specific description

OPPORTUNITY 4 - Markets

Our natural gas pipeline systems are enabling energy transition. Natural gas is a reliable, high-efficiency energy source that is displacing coal-fired power, backstopping the intermittency of renewable power sources and creating the foundation to expand hydrogen and other new energy sources.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

Demand for affordable and reliable energy is increasing and the fundamentals support the critical role our natural gas, liquids and power infrastructure will play for decades. We see North American energy mix continuing to evolve, but most importantly, it requires an All-of-the-Above solution. With over 90,000 kilometers of pipe in the ground and more than 650 Bcf of storage capacity, we move natural gas from the prolific low-cost basins in North America to the highest demand markets. Our expertise across the energy spectrum including in pipelines and power generation position us well to access high barrier to entry markets and capitalize on growth opportunities and increased revenue from participation in growing markets like hydrogen, carbon capture and LNG export.

TC Energy has an industry-leading portfolio of $34 billion in fully sanctioned and diverse capital projects that is expected to continue to grow and evolve. We are also focused on expanding our systems in key locations and developing new projects to provide connectivity to LNG export terminals, both operating and proposed, in Canada, the U.S. and Mexico, displacing coal-fired power generation globally.

Additional efforts to advance this opportunity include:

• Leveraging our existing asset footprint and rights-of-way as a launchpad for hydrogen production and transportation, as well as carbon capture and storage opportunities

• Pursuing connections to new and growing industrial and electric power generation markets and local distribution companies

• Leveraging our trading expertise to participate in carbon markets and earning incremental returns through virtual power purchase agreements

Comment

Identifier

Opp5

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Resilience

Primary climate-related opportunity driver

Other, please specify

continued adoption of energy-efficiency measures, lower-emission technologies and participant in carbon market

Primary potential financial impact

Other, please specify

less sensitivity to current and emerging climate-related regulations

Company-specific description

OPPORTUNITY 5 - Resiliency to current and emerging climate related regulation and policy

We view current and emerging climate-related regulation and policy development as an opportunity to contribute to the development of strong and sound policy. There is also an opportunity to provide the regulatory certainty required to attract capital, facilitate cost-effective emissions reductions and encourage North American energy sector competitiveness. Policy development is also an opportunity to recognize and account for early and/or voluntary actions and to support market-based policies to promote industry innovation. We know that strong climate change policy will take a collective effort among industry, governments, communities, and consumers to see true change, and we will continue to advance our efforts to work with policy makers and industry peers to help our industry fully participate in the North American climate change discussion. We monitor the pace and magnitude of energy transition through various signposts and look for material shifts that pose threats or create opportunities.

We are upgrading our infrastructure and processes and collaborating with suppliers, customers and peers to effectively measure, monitor and reduce GHG emissions. In line with our 2030 and 2050 emission reduction targets, each of our business segments is continuing to execute on emission reduction strategies and identify new opportunities to reduce emissions. We have an opportunity to achieve direct cost savings through modernization and optimization of existing infrastructure. Through decarbonizing our asset base, we’re increasing the readiness of the organization to manage exposure to GHG compliance costs, creating efficiencies and reducing operating costs, increasing the terminal value of our assets, and contributing to global efforts to address climate change, all while mainlining our commitment to safe, reliable operations.

Time horizon

Short-term

Likelihood

Likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

We have a long track record of turning policy and technology changes into opportunities – for example, re-entering Mexico when the country shifted from fuel oil to natural gas, reversing pipeline flows in response to the shale gas revolution, re-purposing the underutilized Canadian Mainline pipeline capacity from natural gas to crude oil service, installing electric compression and/or switching gas compression to electrification such as the proposed Valhalla North and Berland River (VNBR) and Wisconsin Reliability (WR) projects in Canada and the U.S., respectively, and currently leveraging our complementary asset mix. We also proactively manage emissions through asset-level efficiency improvements and installations, and by taking an industry-leading role in carbon markets across North America. We continue to improve operational efficiencies and factor sustainability into our decision making around new projects, modernization, maintenance, electrification, and enhanced leak detection. Further, a growing number of RNG customers are connecting to our system. Our corporate scorecard that drives

CEO, executives and all employee compensation includes 30% weighting towards progressing ESG priorities including safety, diversity and GHG emissions. In 2022, we added sustainability commitments to one of our credit facilities as we continue to build sustainability and ESG performance metrics into our business strategy. Known as a sustainability linked loan, we report to our lenders on progress against a $3 billion loan tied to emissions reduction and gender diversity goals.

Comment

We support broad-based, economy-wide carbon pricing and believe that an effective carbon pricing structure must:
• Facilitate meaningful emissions reductions;
• Balance economic, environmental, and energy security needs;
• Provide the regulatory certainty required to attract capital;
• Consider the role of natural gas in the timely transition to a low-carbon economy;
• Maintain and encourage the North American energy sector competitiveness;
• Support market-based policies to promote industry innovation;
• Ensure compliance flexibility and support for carbon offsets;
• Recognize and account for early and/or voluntary actions; and,
• Harmonize policy frameworks and avoid duplication.
When such principles inform public policy, they minimize overall societal costs and allow markets to determine the technologies that will be most successful.

Identifier

Opp6

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Primary potential financial impact

Increased revenues resulting from increased production capacity

Company-specific description

OPPORTUNITY 6- Bruce Power Life Extension

Bruce Power is a world-class nuclear generating facility and a critical asset in TC Energy's portfolio. It represents TC Energy's source of nuclear expertise and capabilities, which could lead to additional nuclear opportunities in the future. In 2021, Bruce Power launched Project 2030 with a goal of achieving a site peak output of 7,000 MW by 2033 in support of climate change targets and future clean energy needs. Project 2030 is focused on continued asset optimization, innovation and leveraging new technology, which could include integration with storage and other forms of energy, to increase the site peak output. Project 2030 is arranged in three stages with the first two stages fully approved for execution. Stage 1 started in 2019 and is expected to add 150 MW of output and Stage 2, which began in early 2022, is targeting another 200 MW.

Time horizon

Long-term

Likelihood

Virtually certain

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Cost to realize opportunity

Strategy to realize opportunity and explanation of cost calculation

Bruce Power will put the Major Component Replacement (MCR) program, and Project 2030 capital into service over the coming years aligned with historical returns in the low double digits. As part of the life extension and refurbishment agreement, Bruce Power receives a uniform contract price for all units which includes certain flow-through items such as fuel and lease expense recovery. The contract also provides for payment if the IESO requests a reduction in Bruce Power's generation to balance the supply of, and demand for, electricity and/or manage other operating conditions of the Ontario power grid. The amount of the reduction is considered deemed generation, for which Bruce Power is paid the contract price. Bruce Power's contract price increased on April 1, 2022, in accordance with contract terms, reflecting capital to be invested under the Unit 3 MCR program and the 2022 to 2027 Asset Management program plus normal annual inflation adjustments. The contract price is subject to adjustments for the return of and on capital invested at Bruce Power under the Asset Management and MCR programs, along with various other pricing adjustments that allow for a better matching of revenues and costs over the long term. As part of the amended agreement, Bruce Power is also required to share operating cost efficiencies with the IESO for better than planned performance. These efficiencies are reviewed every three years and paid out on a monthly basis over the subsequent three-year period.

Comment

Bruce Power is a global supplier of Cobalt-60, a medical isotope used in the sterilization of medical equipment and to treat certain types of cancer. Cobalt-60 is produced during Bruce Power's generation of electricity, harvested during certain planned maintenance outages and provided for medical use in the treatment of brain tumours and breast cancer. In addition, Bruce Power continues to advance a project to expand isotope production from its reactors with a focus on Lutetium-177, another medical isotope used in the treatment of prostate cancer and neuroendocrine tumors. This project is being undertaken with a Canadian-based nuclear medicine partnership and the Saugeen Ojibway Nation on whose traditional territory the Bruce Power facilities are located.

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a climate transition plan that aligns with a 1.5°C world?

Row 1

Climate transition plan

No, but our strategy has been influenced by climate-related risks and opportunities, and we are developing a climate transition plan within two years

Explain why your organization does not have a climate transition plan that aligns with a 1.5°C world and any plans to develop one in the future

Position to achieve net zero by 2050 is our target as of today.In 2022, $6.5B of capex was aligned with our climate transition plan representing project costs incurred at December 31 disclosed in our Annual Report.As of April 28 2023, our $34B secured capital program is over 60% weighted towards enabling energy transition.This includes $2.8B to decarbonize our own asset base,$14.2B in projects displacing higher emitting fuels,and $4.4B in lowcarbon investments including increasing capacity and extending the life of our Bruce Power nuclear facility.Our existing footprint, our financial resiliency, and our unique blend of experience and strong relationships with partners and customers positions us to seize the opportunities that the global energy transition presents.In 2022,the Bruce Power life extension project capex was $2.2B, reflecting our expected share of cash contributions for the Bruce Power Unit6 Major Component Replacement(MCR) program,expected to be in service in 2023, and the Unit3 MCR, expected in service 2026,as well as amounts to be invested under the Asset Management program through 2027 and the incremental uprate initiative.Coastal GasLink is expected to support the elimination of 60M - 90M tonnes/year of CO2 emissions by displacing coal fired generation with natural gas in Asia.In Mexico, our Southeast Gateway project is expected to supply >1 Bcf/day of natural gas to Mexico's Yucatan Peninsula displacing high sulfur diesel and fuel oil.This may support reducing CO2 emissions by 27% by helping displace higher emitting fuels.The Valhalla North Berlin River project in Canada is expected to add 500mmcf/day of incremental capacity utilizing non-emitting electric compression.In the U.S., our Virginia Reliability and Wisconsin Reliability electrification projects represent $1.6B that will include upgrading compressor stations to hybrid drive horsepower reducing our Scope 1 emissions.We are taking steps to be flexible and prudent in supporting net-zero by 2050 despite the unknowns about how global energy transition may unfold.To support this endeavor,we

have 5 focus areas which make up the critical elements of our road to 2050: modernize our assets;decarbonize our energy consumption;develop digital solutions and technologies;invest in low carbon energy infrastructure;the consideration of carbon offsets and credits.In 2023 & 2024, TCE plans to undergo a deeper scenario analysis effort to stress test the business portfolio against a 1.5oC scenario.

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario analysis to inform strategy
Row 1	Yes, qualitative and quantitative

C3.2a

(C3.2a) Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios IEA NZE 2050	Company-wide		The North American energy mix is continuing to evolve and requires an all-of-the-above solution to maintain affordability, reliability and deliver GHG emissions reductions. We continue to expand our capabilities and investments in renewable and low-carbon energy solutions, such as hydrogen, CCUS and renewable natural gas. Our long-term strategy is driven by several key beliefs: natural gas will continue to play a pivotal role in N.A's energy future and crude oil will remain an important part of the fuel mix; the need for renewables along with reliable, on-demand energy sources to support grid stability will grow significantly; the value of existing infrastructure assets will become more valuable given the challenges to develop new greenfield, linear-energy infrastructure, in particular, pipelines. We monitor trends specific to energy supply and demand fundamentals, in addition to analyzing how our portfolio performs under different energy mix scenarios considering the recommendations of TCFD. Scenario overview: in 2021 and 2022, we reviewed, analyzed, and presented several global development scenarios to senior management. Last year this included 1.8oC (Green), 2.4oC (Base), and 2.9oC (Stagnant) scenarios:

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
			•Green: requires a revolutionary transformation to a sustainable low-carbon economy, including yet-to-be defined technologies. •Base: ambitious in terms of acknowledging energy transition goals although reflects a pragmatic and plausible approach to the implementation and timing of those goals, one that factors in economic recovery and demand growth in the medium term before there is a peak. •Stagnant: highlights weak political support of environmental and climate policies. The differentiating factors in this range of scenarios are the pace of change, the role of consumer choice and behaviours, the role of government and the private sector, the impact of geopolitical cooperation and the long-term economic effects of how energy security risks are managed in different markets. The analysis included evaluation of supply and demand as well as market drivers related to our key commodities: liquids, natural gas and power. In addition to the above scenario analyses, we conduct recurring reviews and analysis of major 1.5oC to 1.77oC accelerated and net zero scenarios. This includes an annual review of the IEA World Energy Outlook. We evaluate the penetration of renewable energy, hydrogen demand, carbon capture, LNG trade and other meaningful trends.

C3.2b

(C3.2b) Provide details of the focal questions your organization seeks to address by using climate-related scenario analysis, and summarize the results with respect to these questions.

Row 1

Focal questions

We monitor the pace and magnitude of energy transition using various signposts and look for material shifts that pose threats or create opportunities. We evaluate climate-related scenarios to gain perspective on the implications or our footprint, growth opportunities and portfolio optimization. Our understanding of these factors plays a critical role in helping us manage several of our key enterprise risks.

Results of the climate-related scenario analysis with respect to the focal questions

In 2020, with the help of a third-party, we conducted an ‘accelerated low-carbon scenario’ deep dive to stress test our portfolio. The scenario indicated that our assets would be largely insulated from fossil fuel demand destruction to 2030. Post-2030, when policy shifts are expected to materially reduce demand for fossil fuels, TC Energy’s positioning in the lowest-cost gas basins and projected LNG growth out of North America are still expected to maintain the resiliency of our assets. We remain observant of potential future dependence on LNG exports as North American demand declines from reduced gas-fired power. In this scenario, existing Canadian oil sands production remains resilient, but future growth would stall. Our existing liquids pipelines are expected to maintain their value given their direct access to key markets and competitive toll structures. Our current Power and Energy Solutions business, centered around Bruce Power, is not materially impacted in this analysis. TC Energy believes it is critical to consider more accelerated emissions-reduction scenarios as part of its overall corporate strategic outlook to identify risks and opportunities.

Under a ‘base scenario’ analysis conducted in 2022, the market fundamentals show consistent positive momentum for natural gas, oil and electricity businesses in the medium term and resilience in the long-term. A sustained global and North American natural gas and oil demand outlook through to 2040 also exhibits resilience due to TC Energy's central feedstock role and favorable economics, with both gas and oil serving as core energy sources through to 2050. Continuously rising global and North American power demand up to 2050 is projected to drive economic growth and decarbonization. The new technology and decarbonization goals being put forward by industry are key drivers of energy transformation.

The need for new forms of clean energy is expected to generate investment opportunities for us in the future. New growth prospects include leveraging our existing assets, including hydrogen and RNG and capitalizing on our capability to execute complex and capital-intensive projects such as carbon capture and storage. We also see the opportunity to participate in the growing electrification movement through our Power and Energy Solutions business, which can support modernization of our pipeline assets and reduce emissions from our existing operations, thus enhancing the resiliency of our businesses.

Bringing it all together, we recognize there are multiple ways that energy transition could unfold. Our strategies are designed to deliver long-term value no matter what the future brings. We operate under a low-risk and enduring utility-like business model, which offers the scale and presence to provide essential and highly competitive infrastructure services. This enables us to maximize the full-life value of our long-life assets and commercial positions throughout all points of the business cycle.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	TC Energy remains opportunity rich. This past year, we sanctioned $8.8 billion in new projects, including several energy transition initiatives, expanding, extending and modernizing our natural gas systems. We monitor energy supply and demand fundamentals, in addition to analyzing how our portfolio performs under different energy mix scenarios considering the recommendations of TCFD. This enables the identification of opportunities that contribute to our resilience, strengthen our asset base or improve diversification. We're delivering new energy solutions – from natural gas and renewables to carbon capture and hydrogen – to help other businesses and industries decarbonize too.We have entered into two Joint Development Agreements (JDA) to support customer-driven hydrogen production for long-haul transportation, power generation, large industrials and heating customers across the U.S. and Canada. As part of one of our JDAs, we announced a plan to evaluate a hydrogen production hub in Crossfield, Alberta, where we currently operate our natural gas storage facility. We expect a final investment decision by the end of 2023, subject to customary regulatory approvals. The second JDA is to develop hydrogen production facilities focused on zero-to-negative carbon intensity hydrogen from renewable natural gas, biogas and other sustainable sources.Our significant pipeline, storage and power assets can potentially be leveraged to lower the cost and increase the speed of development of these hubs. This may include exploring the integration of pipeline assets to enable hydrogen distribution and storage via pipeline and/or to deliver carbon dioxide to permanent sequestration sites to decarbonize the hydrogen production process.In support of our GHG intensity reduction targets, we continue to improve operational efficiencies and factor sustainability into our decision making around new projects, modernization, maintenance, electrification and enhanced leak detection. Further, a growing number of RNG customers are connecting to our system. In April 2022, we announced a strategic collaboration to explore development of a network of RNG transportation hubs. We believe that this collaboration, which

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
		targets 10 transportation hubs nationally, will rapidly expand and provide incremental capability to the already existing RNG interconnects across our U.S. natural gas footprint.
Supply chain and/or value chain	Yes	We know we have an important role to play in managing GHG emissions while balancing the need to provide safe and reliable energy to our customers and community through our suppliers. We have requirements within our existing Contractor Code of Conduct, which sets expectations for all contractors, including suppliers, to share our commitment to the highest standard of business conduct, focusing on the areas of environmental stewardship, social responsibility, inclusion and diversity and responsible business behaviour. We have also adopted several aspects of ISNet's refreshed evaluation services, focused on sustainability-related activities, which allows us to prioritize sourcing with suppliers that pursue and/or endorse activities such as emission reduction. We are engaged with our customers, formally and informally, to find synergies and solutions to reduce GHG emissions together, with the goal of sharing ideas, information and resources to better understand reduction technologies. We are utilizing the existing site infrastructure from a decommissioned coal mine, located near Hinton, Alberta, to develop a pumped hydro storage project that is expected to have a generating capacity of 75 MW. The facility is expected to provide up to 37 hours of on-demand, flexible, clean energy and ancillary services to the Alberta electricity grid. The project has received the approval of the Alberta Utilities Commission and the required approval of the Government of Alberta for hydro projects under the Dunvegan Hydro Development Act (Alberta). The Canyon Creek Pumped Storage project is a 24-by-7 carbon-free power product in the Province of Alberta and includes output from wind and solar projects currently under construction or being developed, thereby positioning our customers to manage hourly power needs with cost certainty and achieve decarbonization goals by sourcing power from emission-free assets. We continue to pursue potential contracts and/or investment opportunities in wind, solar and energy storage projects to supply renewable energy products and services to industrial and oil and gas sectors proximate to our in-corridor demand. To date, we have contracted approximately 600 MW from wind and solar projects. We are actively building our customer-focused origination platform across North America, to help customers address the challenges of energy transition.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
Investment in R&D	Yes	TCE's track record of implementing innovative solutions to meet customer needs spans over 60 years, and we continue to conduct significant research and development (R&D) in support of our responsibility to safety, community, and the environment. TCE's innovation efforts span a diverse range of technologies, from emission reduction pilots, machine learning, advanced analytics for optimized processes, hydrogen blending feasibility studies and drones. We have a dedicated energy transition team to assess relevant technologies and opportunities to support business resiliency across a range of future energy scenarios. We're leveraging our existing R&D budget to focus on technical innovation in support of energy transition and making small strategic bets to stay on top of emerging technologies, like our equity investment in Carbon Clean - a UK-based company at the leading edge of innovation in carbon capture for heavy industry. We have a diverse portfolio of assets and use portfolio management to divest of non-strategic assets, effectively rotating capital while adhering to our risk preferences and focus on per share metrics.
Operations	Yes	We continually seek to enhance our core competencies in safety, operational excellence, investment opportunity origination, project execution and stakeholder relations as well as key sustainability and ESG areas to deliver shareholder value. The use of a disciplined approach to capital allocation supports our ability to maximize value over the short, medium and long term. We allocate capital in a manner that improves the breadth and cost competitiveness of the services we provide, extends the life of our assets, increases diversification and strengthens the carbon-competitiveness of our assets. We are targeting five focus areas to reduce the emissions intensity of our operations, while also capturing growth opportunities that meet the energy needs of the future: • modernize our existing system and assets • decarbonize our energy consumption • drive digital solutions and technologies • leverage carbon credits and offsets • invest in low-carbon energy and infrastructure, such as renewables along with emerging fuels and technology.

	Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
		Our natural gas and liquids pipelines are strategically positioned, connecting the lowest-cost basins to the largest demand markets. We have over 30 years of experience in the power business, and within North America, we are uniquely situated at the intersection of molecules and electrons, allowing us to capitalize on energy transition opportunities as GHG emission reductions will come primarily from electrification over the next decade. Importantly, our strategy has been tested against multiple energy outlooks including an accelerated energy transition scenario. Our assets are expected to remain highly utilized and useful across a broad range of energy transition pathways. Our unparalleled footprint provides significant opportunities to advance a lower carbon energy future. By decarbonizing our energy consumption and innovating across our assets, we will achieve our climate targets and support global goals for emissions reduction. We're investing in nuclear, solar, pumped storage, hydrogen and renewable natural gas technologies that are expected to be critical components of a sustainable energy future. By equipping pipelines with zero-emission electric compressors, advancing carbon capture technology, and shifting the company fleet to electric vehicles, we're reducing emissions from our operations.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs Capital expenditures	We manage risk through a centralized enterprise risk management (ERM) program that identifies enterprise risks, including ESG-related risks, that could materially impact the achievement of our strategic objectives. Our exposure to climate change risk and opportunities and the resulting policy changes is managed through our business model which is based on a long-term, low-risk strategy whereby most of our earnings are underpinned by regulated cost-of-service

	Financial planning elements that have been influenced	Description of influence
	Capital allocation Acquisitions and divestments Access to capital Assets Liabilities	arrangements and long-term contracts. **Direct/Indirect Costs -** We own assets and have business interests in a number of regions subject to GHG emissions regulations, including GHG emissions management and carbon pricing policies. Across North America, there are a variety of new and evolving initiatives and policies in development aimed at reducing GHG emissions. We actively monitor and submit comments to regulators as these evolving initiatives are implemented. We support transparent climate change policies that promote sustainable and economically responsible natural resource development. We expect the number of our assets subject to GHG regulations will continue to increase over time across our footprint. Changes in regulations may result in higher operating costs, other expenses or capital expenditures to comply with new or changing regulations. We monitor the pace and magnitude of energy transition and evaluate climate-related scenarios to gain perspective on the implications for our footprint, growth opportunities and portfolio optimization. **Capital expenditures/capital allocation -** To be competitive, we must offer energy infrastructure services in supply and demand areas, and forms of energy that are attractive to customers. Should alternative lower-carbon forms of energy result in decreased demand for our current services, the value of our long-lived energy infrastructure assets could be negatively impacted. We conduct analyses to identify resilient supply sources as part of our energy fundamentals and strategic development reviews. We recover depreciation through our regulated pipeline rates which is an important lever to accelerate or decelerate the return of capital from a substantial portion of our assets. We are leveraging our footprint and expertise to enter markets with high barriers to entry such as LNG, hydrogen, renewable natural gas, carbon capture, transportation and storage, nuclear and shifting our portfolio mix to building Power Energy Solutions. Acquisitions/divestments –We allocate capital in a manner that improves the breadth and cost competitiveness of the services we provide, extends the life of our assets, increases diversification and strengthens the carbon-competitiveness of our assets. **Market and counterparty risk/revenues** – We are exposed to market risk and counterparty credit risk and have strategies, policies and limits in place to manage the impact of these risks on our earnings, cash flows and, ultimately, shareholder value. Risk management is designed to ensure our risks and exposures are in line with our business objectives and risk tolerance. Market risk and counterparty credit risk are managed within limits that are established by our Board of Directors, implemented by senior management and monitored by our risk management, internal audit and

	Financial planning elements that have been influenced	Description of influence
		business segment groups. **Access to capital-** The mandates of institutional investors, credit rating agencies, lenders and insurers are increasingly considering climate-related risks and opportunities. Investor confidence in our energy transition plans could affect our ability to access capital and/or insurance coverage including at a competitive cost. We have candid, proactive engagement with the investment community with the objective of hearing their feedback and keeping them apprised of developments in our business and factually communicating our prospects, risks and challenges, as well as ESG-related updates. We conduct research around the evolving ESG preferences of our investors and financial partners which we consider in our decision making. In 2022, we launched our first sustainability-linked loan as we continue to build sustainability and ESG performance metrics into our business strategy. **Assets –** We review long-lived assets for impairment whenever events or changes in circumstances lead us to believe we might not be able to recover an asset's carrying value. Factors we consider in our assessment of the recoverability of long-lived assets include, but are not limited to, macroeconomic conditions, changes in the industries and markets in which we operate, our ability to renew contracts, and the financial performance and prospects of our assets. If the total of the undiscounted future cash flows that we estimate for an asset within property, plant and equipment, or the estimated selling price of any long-lived asset is less than its carrying value, we consider its fair value to be less than its carrying value and record an impairment loss to recognize this. For goodwill, if the fair value of the reporting unit determined using discounted cash flows is less than its carrying value, including goodwill, we consider it to be impaired. **Liabilities –** Under TOMS, mandated programs set requirements to manage specific risk areas for TC Energy, including the Environment Program, which is a documented set of processes and procedures that identifies our requirements to manage environmental hazards and risks proactively and systematically throughout the lifecycle of our assets. Our assets are subject to regulations governing environmental protection, including air and GHG emissions, water quality, species at risk, wastewater discharges and waste management. Operating our assets requires obtaining and complying with a wide variety of environmental registrations, licenses, permits and other approvals and requirements. Failure to comply could result in administrative, civil or criminal penalties, remedial requirements, or orders affecting future operations. We continually monitor our facilities for compliance with all material legal and regulatory environmental requirements across all jurisdictions where we operate. We also comply with all material legal and regulatory permitting requirements in our project

	Financial planning elements that have been influenced	Description of influence
		routing and development. We routinely monitor proposed changes to environmental policy, legislation and regulation. **Energy Transition -** We have a dedicated energy transition team to assess relevant technologies and opportunities to support business resiliency irrespective of the pace or direction of energy transition. Our strategy has been tested against multiple energy outlooks including an accelerated energy transition scenario. Our assets are expected to remain highly utilized and useful across a broad range of energy transition pathways.

C3.5

(C3.5) In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's climate transition?

	Identification of spending/revenue that is aligned with your organization's climate transition
Row 1	No, but we plan to in the next two years

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year?

Intensity target

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number

Int 1

Is this a science-based target?

No, and we do not anticipate setting one in the next two years

Target ambition

Year target was set

2017

Target coverage

Business activity

Scope(s)

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Intensity metric

Other, please specify

% methane

Base year

2017

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)

Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure

% of total base year emissions in all selected Scopes covered by this intensity figure

Target year

2025

Targeted reduction from base year (%)

0.31

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]

% change anticipated in absolute Scope 1+2 emissions

% change anticipated in absolute Scope 3 emissions

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)

Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

Does this target cover any land-related emissions?

% of target achieved relative to base year [auto-calculated]

Target status in reporting year

Achieved

Please explain target coverage and identify any exclusions

TC Energy is a member of Our Nation's Energy Future Coalition, Inc. (ONE Future), a group of U.S. energy companies voluntarily working to reduce methane emissions by identifying policy and technical solutions that better manage emissions associated with production, processing, transmission and distribution. We committed to the ONE Future 2025 methane intensity goals, which means reducing the methane intensity of our U.S. natural gas transmission and storage operations to 0.31 per cent. Based on the 2021 results from ONE Future transportation and storage companies, including TC Energy, the aggregate sector methane emissions intensity was 0.089 per cent, exceeding the goal by 70 per cent. Our U.S. natural gas pipelines methane intensity is more than two times below the ONE Future sector target, and we continue to find ways to drive down these emissions. We are also a signatory to the Methane Guiding Principles, which were developed collaboratively in 2017 by a coalition of industry and civil society organizations. The principles, which are consistent with our own environmental values, drive efforts and focus on actions to reduce methane emissions across the natural gas supply chain and provide signatories with a framework for reporting progress. As a signatory, we have committed to investing in innovative technologies for monitoring and reducing emissions, improving emissions data collection methodologies, and working with key stakeholders to improve approaches to methane management.

Our Nation's Energy Future (ONE Future) is a coalition of more than 50 natural gas companies representing the natural gas value chain focused on implementing an innovative, performance-based approach to the management of methane emissions directed toward a concrete goal of one percent (or less) of total produced natural gas by 2025. The coalition is comprised of some of the largest Natural Gas Production, Gathering & Boosting, Processing, Transmission & Storage and Distribution companies in the U.S. and represents more than 20% of the total U.S. natural gas value production. ONE Future members operate in 16 out of the 38 production basins and have distribution operations in 36 out of the 50 states, other segments of the value chain operate in multiple regions of the country as well. Therefore, ONE Future's data represent a geographically diverse and material share of the U.S. natural gas supply chain.

TC Energy's assets are reported under the "Transmission and Storage" (T&S) Industry Segment, which is comprised of high pressure, large diameter pipelines that transport natural gas from production and processing to natural gas distribution systems or large- volume consumers such as power plants or chemical plants. This includes interstate and intrastate facilities. Storage facilities, such as underground storage in expended gas reservoirs are used by transmission companies to hold gas and allow for seasonal demand differences. The U.S. Environmental

Protection Agency (USEPA) combines T&S into one segment since many of the storage facilities are owned and operated by transmission companies, and since, in some cases the surface facilities (compression at underground storage, for example) are similar to other transmission facilities. Compression of natural gas is a significant operation for the T&S sector, and therefore emissions from compressors, including fugitive components, components designed to vent gas, and compressor exhaust play a larger role in CH4 emissions.

ONE Future's approach is science-based and goal-oriented, but flexible in that member companies choose how they can cost-effectively and efficiently achieve their methane emissions intensity goal for their particular assets – whether by deploying an innovative technology, modifying a work practice, or in some cases replacing or retrofitting high emitting equipment.

Plan for achieving target, and progress made to the end of the reporting year

List the emissions reduction initiatives which contributed most to achieving this target

ONE Future's methane intensity value for Transmissions and Storage reflects the implementation of some of the following methane reduction activities by the ONE Future companies with T&S operations:

• Implemented voluntary LDAR programs to identify and fix equipment leaks at aboveground sites.
• Implemented performance-based monitoring and replacement for reciprocating compressor rod packing.
• Used dry seals over wet seals for centrifugal compressor installations.
• Replaced two-stroke lean burn engines with more efficient turbines that have lower methane slip rates.
• Replaced gas-fired engine compressors with electric motors.
• Reduced maintenance blowdown emissions by operating practice changes (such as increasing the length of pressurized hold times on compressors to reduce number of compressor unit blowdowns to atmosphere).
• Reduced blowdown emissions by implementing pipeline pump-down techniques that lowered the pipeline pressure prior to transmission pipeline blowdowns and conducted regulatory required Emergency Shutdown tests (ESDs) utilizing "vents blocked" tests.
• Used sleeves and composite wraps to repair pipelines, eliminating the need to blowdown the pipeline. Used pipeline isolation systems and hot taps to make new connections, eliminating the need to blowdown the pipeline.
• Replaced or repaired high emitting pneumatic devices with low or no-bleed devices.
• Used cathodically protected pipe

Target reference number

Int 2

Is this a science-based target?

No, and we do not anticipate setting one in the next two years

Target ambition

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 1
Scope 2

Scope 2 accounting method

Location-based

Scope 3 category(ies)

Intensity metric

Metric tons CO2e per unit of production

Base year

2019

Intensity figure in base year for Scope 1 (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 2 (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)

Intensity figure in base year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)

Intensity figure in base year for total Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in base year for all selected Scopes (metric tons CO2e per unit of activity)

0.00096

% of total base year emissions in Scope 1 covered by this Scope 1 intensity figure

100

% of total base year emissions in Scope 2 covered by this Scope 2 intensity figure

100

% of total base year emissions in Scope 3, Category 1: Purchased goods and services covered by this Scope 3, Category 1: Purchased goods and services intensity figure

% of total base year emissions in Scope 3, Category 2: Capital goods covered by this Scope 3, Category 2: Capital goods intensity figure

% of total base year emissions in Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) covered by this Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) intensity figure

% of total base year emissions in Scope 3, Category 4: Upstream transportation and distribution covered by this Scope 3, Category 4: Upstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 5: Waste generated in operations covered by this Scope 3, Category 5: Waste generated in operations intensity figure

% of total base year emissions in Scope 3, Category 6: Business travel covered by this Scope 3, Category 6: Business travel intensity figure

% of total base year emissions in Scope 3, Category 7: Employee commuting covered by this Scope 3, Category 7: Employee commuting intensity figure

% of total base year emissions in Scope 3, Category 8: Upstream leased assets covered by this Scope 3, Category 8: Upstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 9: Downstream transportation and distribution covered by this Scope 3, Category 9: Downstream transportation and distribution intensity figure

% of total base year emissions in Scope 3, Category 10: Processing of sold products covered by this Scope 3, Category 10: Processing of sold products intensity figure

% of total base year emissions in Scope 3, Category 11: Use of sold products covered by this Scope 3, Category 11: Use of sold products intensity figure

% of total base year emissions in Scope 3, Category 12: End-of-life treatment of sold products covered by this Scope 3, Category 12: End-of-life treatment of sold products intensity figure

% of total base year emissions in Scope 3, Category 13: Downstream leased assets covered by this Scope 3, Category 13: Downstream leased assets intensity figure

% of total base year emissions in Scope 3, Category 14: Franchises covered by this Scope 3, Category 14: Franchises intensity figure

% of total base year emissions in Scope 3, Category 15: Investments covered by this Scope 3, Category 15: Investments intensity figure

% of total base year emissions in Scope 3, Other (upstream) covered by this Scope 3, Other (upstream) intensity figure

% of total base year emissions in Scope 3, Other (downstream) covered by this Scope 3, Other (downstream) intensity figure

% of total base year emissions in Scope 3 (in all Scope 3 categories) covered by this total Scope 3 intensity figure

% of total base year emissions in all selected Scopes covered by this intensity figure

100

Target year

2030

Targeted reduction from base year (%)

30

Intensity figure in target year for all selected Scopes (metric tons CO2e per unit of activity) [auto-calculated]

0.000672

% change anticipated in absolute Scope 1+2 emissions

% change anticipated in absolute Scope 3 emissions

Intensity figure in reporting year for Scope 1 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 2 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 1: Purchased goods and services (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 2: Capital goods (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 3: Fuel-and-energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 4: Upstream transportation and distribution (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 5: Waste generated in operations (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 6: Business travel (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 7: Employee commuting (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 8: Upstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 9: Downstream transportation and distribution (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 10: Processing of sold products (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 11: Use of sold products (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 12: End-of-life treatment of sold products (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 13: Downstream leased assets (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 14: Franchises (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Category 15: Investments (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (upstream) (metric tons CO2e per unit of activity)

Intensity figure in reporting year for Scope 3, Other (downstream) (metric tons CO2e per unit of activity)

Intensity figure in reporting year for total Scope 3 (metric tons CO2e per unit of activity)

Intensity figure in reporting year for all selected Scopes (metric tons CO2e per unit of activity)

0.001

Does this target cover any land-related emissions?

% of target achieved relative to base year [auto-calculated]

-13.8888888889

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

Our targets address Scope 1 and 2 emissions, relative to a 2019 baseline year, adjusted for material changes in our asset portfolio and quantified with an operational control boundary, including all three countries we operate in (Canada, U.S. Mexico). Production data from our business segments has been converted to a common unit of measure, GJ. Our targets focus on reduction of carbon dioxide (CO2), methane (CH4), and nitrogen oxide (N2O) emissions, which are generated predominately from fuel combustion at our natural gas pipeline assets. Scope 3 emissions are excluded from our targets.

Plan for achieving target, and progress made to the end of the reporting year

Our vision for a North American energy strategy supports an orderly,balanced energy transition focused on: leverage North America's strategic position,comparative advantage to expand global access to lower emission-intensive energy at an affordable rate to consumers; increase our offering of alternative energy resources to help reduce the demand for carbon-intensive fuels; seek opportunities to reduce the emissions intensity of our operations while ensuring that we continue providing customers with access to reliable and affordable energy;harmonize NA regulatory policies; enhance cross-border coordination; drive investment in early-stage R&D and deployment; and provide a technology-and resource-neutral policy environment focused on innovation and emissions reductions while promoting technology-neutral commercial diplomacy. In line with our 2030 and 2050 targets, each of our business segments is continuing to execute on reduction strategies and identify new opportunities. We are currently pursuing a variety of projects including furthering the electrification of our fleet, power generation and LDCs, expanding our modernization programs and in-corridor expansion opportunities on our existing systems. We continue to improve operational efficiencies and factor sustainability into our decision making around new projects, modernization, maintenance, electrification and enhanced leak detection. In compliance with Canadian regulatory requirements, we continued to execute our Leak Detection and Repair program on our Canadian natural gas pipeline facilities.By completing repairs and more accurately measuring our leaks, we have realized 55% reduction in

annual fugitive emissions since 2019.We sanctioned an Emissions Capital Abatement Program for our Canadian gas assets which is a suite of projects targeting reduction of methane and combustion emissions across our footprint. Projects will be implemented through 2030 to achieve 700,000 tCO2e/year reduction in GHG emissions.We sanctioned the Valhalla North and Berland River project which will serve aggregate system requirements and connect migrating supply to key demand markets, providing incremental capacity on the NGTL System of approximately 527 TJ/d and is expected to contribute to lower GHG emission intensity for the overall system.

List the emissions reduction initiatives which contributed most to achieving this target

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year?

Net-zero target(s)

Other climate-related target(s)

C4.2b

(C4.2b) Provide details of any other climate-related targets, including methane reduction targets.

Target reference number

Oth 1

Year target was set

2016

Target coverage

Other, please specify

targeting 40-45% reduction from 2019 across the Canadian Oil & Gas Sector

Target type: absolute or intensity

Absolute

Target type: category & Metric (target numerator if reporting an intensity target)

Methane reduction target

Other, please specify

% reduction

Target denominator (intensity targets only)

Base year

2019

Figure or percentage in base year

Target year

2025

Figure or percentage in target year

Figure or percentage in reporting year

% of target achieved relative to base year [auto-calculated]

Target status in reporting year

Underway

Is this target part of an emissions target?

In 2016, Canada committed to reduce methane emissions by 40-45 per cent below 2012 levels by 2025 from the oil and gas sector. The government target is based on 2012; however, internally TC Energy uses a 2019 baseline year, which is aligned with the baseline year used for our corporate GHG emissions reduction targets. The federal Environment and Climate Change Canada (ECCC) methane regulations (Regulations Respecting Reduction in the Release of Methane and Certain Volatile Organic Compounds (Upstream Oil and Gas Sector)) came into force in January 2020. The regulations are part of Canada's larger mandate to address climate change and are anticipated to reduce the country's greenhouse gas emissions by about 20 Mt per year. The methane reduction commitment was reaffirmed in the 2016 Pan-Canadian Framework on Clean Growth and Climate Change and again in the 2020 Canadian climate plan, A Healthy Environment, and a Healthy Economy. The government target is to reduce methane emissions by 40-45 per cent below 2012 levels by 2025 from the oil and gas sector overall. This target is not intended to be operator specific, but TC Energy will use it as a performance guidepost to evaluate the effectiveness of its regulatory methane reduction compliance activities and corporate net zero target.

This commitment was expressed by both Canada and the United States in a 2016 joint statement of coordinated action on climate change, specifically the Joint Statement on Climate, Energy, and Artic Leadership.

ECCC committed to expand on the current methane reduction regulations and develop a plan to reduce oil and gas sector methane emissions by at least 75 per cent below 2012 levels by 2030. Several government methane-related publications were made available in 2022, including the 2022 Faster and Further: Canada's Methane Strategy that reiterated this newest methane reduction, as well as a Proposed Regulatory Framework with proposed amendments to the current methane reduction regulations. TC Energy provided feedback on the proposed regulatory framework in December 2022 through the ECCC's call for stakeholder submissions and continues active engagement with the regulator on the topic.

Is this target part of an overarching initiative?

Other, please specify

Canada's 2030 Emissions Reduction Plan, A Healthy Environment, and a Healthy Economy, and Pan-Canadian Framework on Clean Growth and Climate Change

Please explain target coverage and identify any exclusions

The methane regulations are applicable to upstream oil and gas facilities that extract, process and/or transport natural gas. For TC Energy's Canada Gas business unit, these regulations apply to compressor and meter stations. Stand-alone valve sites are excluded. The regulations are designed to eliminate fugitive emissions and limit vented emissions. The first phase of requirements took effect in 2020 and additional

requirements will come into force January 2023.
The 2020 requirements required each company to implement a Leak Detection and Repair (LDAR) Program to eliminate fugitive emissions and an annual compressor vent testing to ensure venting is below specified limits depending on the compressor size and date of installation. The LDAR Program involves completing leak inspections at each facility three times a year and all leaks identified must be repaired within 30 days of inspection or, depending on the leak's severity or repair requirements, during the next planned outage.
The 2023 requirements specify a facility-level venting limit and requires the use of low or no-bleed pneumatic devices.
Our Canada Gas 2022 annual reported methane emissions decreased by 15% from 2019. We anticipate additional reductions in vented emissions once we implement the 2023 regulatory requirements that address vented emissions.

Plan for achieving target, and progress made to the end of the reporting year

In 2020, in response to new Canadian methane reduction regulations, we began implementing an enhanced approach to managing and reducing fugitive emissions from routine operations on our Canadian Natural Gas Pipelines with the implementation of a regulatory Leak Detection and Repair (LDAR) Program. We have digitized our processes and created a unique-in-Canada Emissions Management Application (EMA), improving our ability to plan maintenance activities. The EMA application enables us to capture emissions data from field surveys, pinpoint leak locations with precise GPS coordinates, and rapidly triage required maintenance and repair work on pipeline and compressor station valves and other components.
Our Canada Gas 2022 annual reported methane emissions decreased by 15% from 2019. We anticipate additional reductions in vented emissions once we implement the 2023 regulatory requirements that address vented emissions.
Compressor vent testing occurs during the leak inspections, and we continue to observe venting below the regulatory limits. The regulations also offer the option to capture or destroy compressor venting. To better understand the technology available to meet that option of the regulation, we successfully installed and piloted Canada's first vent capture and reinjection skid to collected vented emissions at a compressor station in 2021. Additional pilot projects continue to conducted to explore the use of other technology applications for handling compressor and station venting to meet or exceed the current methane regulation requirements. The regulatory Leak Detection and Repair Program has contributed the most to reducing Canadian Natural Gas Pipelines methane emissions and TC Energy's portion of Canada's oil and gas sector emissions. In anticipation of the 2023 requirements, work was initiated in late 2021 and continued through 2022 to convert pneumatic devices to low or no-bleed where required and to build the required digital solution to enable monthly facility venting record keeping. For more details, please refer to question C-OG4.6.

List the actions which contributed most to achieving this target

C4.2c

(C4.2c) Provide details of your net-zero target(s).

Target reference number

NZ1

Target coverage

Company-wide

Absolute/intensity emission target(s) linked to this net-zero target

Int2

Target year for achieving net zero

2050

Is this a science-based target?

No, and we do not anticipate setting one in the next two years

Please explain target coverage and identify any exclusions

Our targets address 100% of Scope 1 and 2 emissions, relative to a 2019 baseline year, adjusted for material changes in our asset portfolio and quantified with an operational control boundary, including all three countries we operate in (Canada, U.S. Mexico). Our targets focus on reduction of carbon dioxide (CO2), methane (CH4), and nitrogen oxide (N2O) emissions, which are generated predominately from fuel combustion at our natural gas pipeline assets. Scope 3 emissions are excluded from our net zero target.

Do you intend to neutralize any unabated emissions with permanent carbon removals at the target year?

Unsure

Planned milestones and/or near-term investments for neutralization at target year

Planned actions to mitigate emissions beyond your value chain (optional)

We intend to work towards our goals through a variety of strategies across our business units. Technical and commercial experts from each of our business units contributed ideas, insight and support for our enterprise-wide goals and plans. We are targeting five focus areas to reduce the emissions intensity of our operations, supported by specific abatement tactics with quantifiable emissions reductions while also capturing growth opportunities that meet the energy needs of the future:

1. Modernize our existing systems and assets
2. Decarbonize our energy consumption
3. Invest in low-carbon energy and infrastructure
4. Drive digital solutions and technologies
5. Leverage carbon credits and offsets

In the next decade, most of our identified reductions come from decarbonizing our own energy consumption. That includes reducing fuel consumption in our natural gas compressor fleet and sourcing renewable electricity to power our liquids pipelines. Activities to modernize are also vital to reducing fugitive and vented emissions and to improving overall operational efficiency. Further details of our emission management reduction goals may be found in our GHG Emissions Reduction Plan:
https://www.tcenergy.com/siteassets/pdfs/sustainability/ghg-plan/2021/tc-ghg-emissions-reduction-plan.pdf

TC Energy is also continuing its work on a carbon offset strategy to enhance the value of low-carbon opportunities while supporting abatement plans and 2050 net zero strategic positioning.

C-OG4.2d

(C-OG4.2d) Indicate which targets reported in C4.1a/b incorporate methane emissions, or if you do not have a methane-specific emissions reduction target for your oil and gas activities, please explain why not and forecast how your methane emissions will change over the next five years.

Our GHG emissions reduction targets address Scope 1 and Scope 2 emissions and focus on reduction of carbon dioxide (CO2), methane (CH4), and nitrogen oxide (N2O) emissions, which are generated predominately from fuel combustion at our natural gas pipeline assets. Our biggest opportunity for meaningful reduction in our emissions profile is addressing Scope 1 CO2 emissions from natural gas-fired compressor engines that power our natural gas pipeline system. TCE is a signatory to the Methane Guiding Principles which focus on priority areas for action towards the reduction of methane emissions across the natural gas value chain. We are committed to minimizing the environmental impact of pipelines throughout the entire pipeline lifecycle. During maintenance, the use of pull-down compressors helps us capture and recycle methane emissions and hot tap procedures

enable us to prevent blowdown emissions. During operation, our fugitive emissions inspection and leak repair programs enable us to identify leaks on pipeline and compressor station valves and other components that are repaired to reduce fugitive releases of natural gas.

At the federal level, we adhere to methane regulations which are designed to reduce oil and gas industry emissions in Canada by 40-45% below 2012 levels by 2025. In 2021, ECCC committed to expand on the current methane reduction regulations and develop a plan to reduce oil and gas sector methane emissions by at least 75 percent below 2012 levels by 2030. TCE is pioneering methane reduction technology through pilot projects, including installing methane capture technologies to avoid compressor vented emissions, adding piping to conserve compressor unit blowdowns, and trialing various incineration technologies to address residual gas after use of pull-down compressors. These pilot projects are part of an Emissions Capital Abatement Program which comprises a suite of voluntary projects to reduce greenhouse gas emissions from our Canadian Natural Gas Pipeline assets between now and 2030.

In 2021 the United States Environmental Protection Agency (USEPA) released proposed rulemaking to reduce methane and other harmful air pollutants from both new and existing sources in the oil and natural gas industry. The proposed rule for new or modified sources is expected to impact any new projects that begin in 2022 and beyond. The guidelines for existing emission sources have the potential to impact all of our existing facilities when fully implemented in the future. On November 11 2022, the USEPA released a supplemental proposal to expand and strengthen the November 2021 proposal to reduce methane and VOC emissions from the oil and natural gas industry. The supplemental proposal impacts any new projects (new, modified, or reconstructed on or after November 15, 2021) and also affects existing facilities when fully implemented. The supplemental proposal is expected to be finalized in 2023.
Other examples in the U.S. include:
• Reciprocating compressor rod packing condition is assessed utilizing a condition-based replacement approach;
• Pipeline pump-downs are conducted to reduce gas blown to atmosphere and reducing pipeline pressures prior to blowdowns;
• Pressurized holds are practiced on compressors to reduce blowdown events;
• Low emitting dry gas seals are installed on new centrifugal compressors to reduce emissions;
• Electric starters have replaced gas starters on new turbine installations;
• Electric driven compression has replaced reciprocating/turbine drivers at some facilities;
• Installation of cathodically protected pipe has replaced unprotected pipe to reduce leakage to the atmosphere; and,
• Department of Transportation emergency shutdown annual compliance tests are conducted at 93% of U.S. compressor stations in lieu of full-scale blowdowns to atmosphere.

The Government of Mexico published a regulation that established guidelines for the prevention and control of methane emissions from the hydrocarbon sector. Companies are required to prepare a Program for the Comprehensive Prevention and Control of Methane Emissions (PPCIEM) which includes identification of sources of methane, quantification of baseline emissions and an estimate of the expected emission reductions from prevention and control activities. This regulation requires the PPCIEM, through which operational and technological practices are adopted, to determine a reduction goal that must be met within a period not exceeding six calendar years from the delivery of the PPCIEM. TCE developed and applied the PPCIEM to all of its facilities in Mexico in 2020. New projects and/or modifications in the facilities must contain equipment and adhere to what the guidelines for the prevention and control of methane emissions from the hydrocarbon sector mentions, with which there will be a direct contribution to methane emissions derived from our activities.

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	16	
To be implemented*	3	
Implementation commenced*	9	
Implemented*	3	14,100
Not to be implemented		

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Other, please specify

Other, please specify

Pneumatic vented emission reductions

Estimated annual CO2e savings (metric tonnes CO2e)

11,000

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Mandatory

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

Estimated lifetime of the initiative

>30 years

Comment

This project was required to meet compliance requirement for low-bleed or no pneumatic devices, as part of the second stage of Canadian federal methane requirements that would take effect in 2023. The project involved inventorying all continuously venting pneumatic devices at our facilities, identifying those that would be in non-compliance, and converting the high bleed continuously bleeding pneumatic devices to low-bleed devices.

Initiative category & Initiative type

Other, please specify

Other, please specify

Pipeline blowdown vented emission reductions

Estimated annual CO2e savings (metric tonnes CO2e)

2,500

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

Estimated lifetime of the initiative

>30 years

Comment

Incineration can be used to reduce the emissions intensity from planned pipeline blowdown events by combusting the residual gas that remains after use of pull-down compressors. TC Energy continues to test various types of incinerators for operability, safety, and cost. The intent is to incorporate incineration into pipeline blowdown activities.

This estimated annual tonnes CO2e savings is for the use of incineration for two pilot projects that occurred in 2022 and is a function of the size and length of pipeline to be evacuated, as well as the starting and end pressures of the gas. As the use of incinerators for pipeline blowdowns is increased, we expect emissions savings will also increase.

Initiative category & Initiative type

Other, please specify

Other, please specify

Compressor station blowdown emissions reductions

Estimated annual CO2e savings (metric tonnes CO2e)

638

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 1

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

Investment required (unit currency – as specified in C0.4)

Payback period

Estimated lifetime of the initiative

>30 years

Comment

This project involved the installation of 400m of new above-ground small diameter piping at one of our compressor stations to capture natural gas that would otherwise be released to atmosphere during planned station plant blowdowns and transfer it to the adjacent station plant onsite. Planned station blowdowns generally occur annually. This modification solution is site-specific and may only be possible at select compressor stations with similar configurations. Final tie-ins were completed in 2022 and the piping has already been used to abate two blowdown events.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	We own assets and have business interests in a number of regions subject to GHG emissions regulations, including GHG emissions management and carbon pricing policies. Across North America, there are a variety of new and evolving initiatives and policies in development aimed at reducing GHG emissions. We actively monitor and submit comments to regulators as these new and evolving initiatives are undertaken and policies implemented. Please refer to our 2022 Annual Report (pg 107-110) for an overview of existing policies, anticipated policies, and changes to environmental assessment legislation, which drive emission reduction activities. These include, but are not limited to, the following: •Canadian Methane Regulations which detail requirements to reduce methane emissions through operational and capital modifications. •Canadian Output-based Pricing System (OBPS) regulation to impose carbon pricing for larger industrial facilities and set federal benchmarks for GHG emissions for various industry sectors. •State (CA, PA, MD and starting 2023 NY) LDAR program requiring owners/operators of oil and gas facilities to monitor and repair methane leaks. Additional regulatory requirements, or voluntary initiatives, which are considered drivers for emission reduction activities include: •Pipeline “pump downs” during construction and pipeline integrity digs to reduce methane blown to atmosphere

Method	Comment
	(reported to EPA Natural Gas STAR). •Installation of cathodically-protected pipe replacing unprotected pipe to reduce methane leakage to atmosphere. •Electric driven compressors are also evaluated for new U.S. Gas Operations installations to reduce CO2 from combustion. Mexico Climate Change Law and Emissions Trading Scheme sets an aspirational 30% GHG reduction target by 2020, increasing to 50% by 2050 with regard to the year 2000 emissions. According to the Climate Change Law, GHG reduction targets may be achieved if an international regime is in place that provides for financial and technological support afforded by developed countries. Currently, the government has a target for 35% of the nation's energy output to come from renewable or "clean" sources by the year 2024, compared with the current levels of 10%. The Mexican gov't requires that emitters of >50,000 MT of GHGs a year report their emissions. This is widely seen as a prelude to a future emissions trading scheme.
Financial optimization calculations	Within our Canadian Natural Gas Pipelines business unit, we conduct financial optimization analyses on capital investment decisions to allocate resources efficiently and in alignment with our long-term strategy. These analyses encompass investments in system expansions, equipment retrofits, and emissions reduction initiatives. Net present value is used as the basis of decision on capital investments. It is important to note that depending on the project type, the timespan or lifecycle applied can vary. Particularly, emissions reduction projects consistent with a pathway to net zero are evaluated over a longer time horizon (i.e., 25 years or more), whereas incremental efficiency improvements to gas-fired facilities are analyzed over a short timeframe. This provides a more favorable net present value for net zero pathway projects, giving preference to them over projects that reduce emissions but still rely on fossil fuels.
Other carbon pricing	We support transparent climate change policies that promote sustainable and economically responsible natural resource development. We consider carbon pricing to be a key factor in determining the financial viability of a project and include it in our business case modelling for Canadian projects. The Canadian federal OBPS regulation imposes carbon pricing for larger industrial facilities and sets federal benchmarks for GHG emissions for various industry sectors. This federal regulation is in effect for 2022 in the provinces of Manitoba, Saskatchewan and New Brunswick as these jurisdictions did not have provincial carbon pricing plans in place which met the Government of Canada's

Method	Comment
	equivalency criteria. As a result of the Federal program, our assets across Canada are all subject to some type of carbon pricing and the costs under these programs are recovered in tolls. These carbon prices are scheduled to increase by $15/tonne every year after 2022 to $170/tonne in 2030. The Government of Canada is developing the Clean Fuel Regulations (CFR) to achieve reductions in GHG emissions. In 2021 the Canadian Federal Government unveiled its plan aimed to exceed their previous 2030 GHG emissions reduction target of 30 per cent below 2005 levels to a new target of 40- 45 per cent below 2005 levels with the ultimate goal of achieving net-zero emissions by 2050. As part of this plan, the Canadian Federal Government narrowed the CFR scope to include only liquid fuels, which will not directly impact TC Energy. This plan also increased carbon pricing levels and released a complementary hydrogen strategy. Carbon prices are scheduled to increase by $15/tonne every year after 2022 to $170/tonne in 2030. While the scope of the CFR is limited to liquid fuels, there will be opportunities to generate credits for the gaseous fuel stream to incentivize emission reduction opportunities. To understand the future impacts of an internal carbon price on our business decisions, including investment in emission reduction activities and operating costs, we use an evolving price of carbon for projects within jurisdictions that have a carbon price. The cost of carbon is also applied to our potential growth projects and strategies to assess the viability of the projects over the long term, under both our base and stress cases.
Other Dedicated Technical R&D Budget is leveraged for low-carbon R&D	Internally, TCE has invested over $900K in technical R&D projects focused on investigating transportation of hydrogen and hydrogen gas blends as well as GHG emissions reduction. These projects were funded through the existing annual R&D funding as these projects are aligned with TCE's Strategic Research Priorities. These investments have facilitated the development of advanced real time, leak detection technologies with the potential to drive significant reductions in GHG emissions. We have also been an active member of the international R&D efforts, and as one of the founding members of the PRCI's Emerging Fuels Institute, we have contributed USD250k in 2021 to the R&D in the areas of hydrogen and RNG pipeline transportation and storage alongside our industry peers globally, currently jointly driving over USD 2M of annual investment in this space. In 2022, seven strategic internal R&D projects were funded, and the results of these studies are already being leveraged for TCE blending project feed studies.

Method	Comment
Partnering with governments on technology development	We advance business objectives by identifying issues, opportunities, and risks within the local, provincial, and federal government political arenas in which we do business or would like to do business. We also continuously build, cultivate and leverage positive and constructive relationships with government officials and other stakeholders through project advocacy and education, and identifying and addressing stakeholder issues, concerns, values and needs. This allows us to gain trust and respect in the public sector, obtain government and community support for its activities and initiatives, and to contribute to and collaborate with the communities where the company operates, which includes technology development. We actively participate in several government, industry and academic collaborations dedicated to improving field research and adoption of emissions detection, quantification, mitigation, conservation and conversation technologies. The outcomes of these collaborations and pilot projects will inform our selection of practices and technologies to reduce emissions, while meeting safety and reliability requirements. TCE is engaged with research organizations across the globe which collaborate and share research and development advancements with government stakeholders with respect to pipeline safety and sustainability. TCE is one of four founding members of the Emerging Fuels Institute (EFI) formed through Pipeline Research Council International (PRCI). The EFI focuses on addressing challenges in the storage and transportation of hydrogen and hydrogen blends. The goal of EFI is to develop a hydrogen pipeline guide to be used as a framework to safely convert and operate natural gas pipeline systems to hydrogen blend service. We are participants in the U.S. Environmental Protection Agency Natural Gas STAR program, a member company in the Interstate Natural Gas Association of America Methane Emission Commitment, and a member of the Petroleum Technology Alliance Canada (PTAC), which created the Canadian Emissions Reductions Innovation Consortium (CanERIC) to streamline GHG emission reduction technologies.
Other Operational excellence and effectiveness	Our focus on operational excellence and effectiveness increases efficiency, thereby reducing emissions, while our drive for continual improvement including aligning metrics, improving information accessibility, and completing integration activities, extends through our integrated business, applying consistent stringent standards and practices to improve overall performance. The use of a disciplined approach to capital allocation supports our ability to maximize value over the short, medium and long term.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Other, please specify

Paris Agreement compliant (compatible with a 1.5˚C degree decarbonization trajectory per Climate Bonds Taxonomy)

Type of product(s) or service(s)

Power

Other, please specify

Nuclear generation facility; power plant

Description of product(s) or service(s)

Bruce Power is a nuclear power generation facility located near Tiverton, Ontario and is comprised of eight nuclear units with a combined capacity of approximately 6,550 MW. Bruce Power leases the facilities from OPG, has no spent fuel risk and will return the facilities to OPG for decommissioning at the end of the lease. We hold a 48.3 per cent ownership interest in Bruce Power. Bruce Power recently launched Project 2030 with the goal of achieving a site peak output of 7,000 MW by 2033 in support of climate change targets and future clean energy needs. Bruce Power's Project 2030 has a goal of achieving a site peak output of 7,000 MW by 2033 in support of climate change targets and future clean energy needs. Project 2030 is focused on continued asset optimization, innovation and leveraging new technology, which could include integration with storage and other forms of energy, to increase the site peak output. Project 2030 is arranged in three stages with the first two

stages fully approved for execution. Stage 1 started in 2019 and is expected to add 150 MW of output and Stage 2, which began in early 2022, is targeting another 200 MW. Both stages are expected to increase output in multiple steps ending in 2033.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

No

Methodology used to calculate avoided emissions

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

Explain your calculation of avoided emissions, including any assumptions

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

3.7

Level of aggregation

Product or service

Taxonomy used to classify product(s) or service(s) as low-carbon

Other, please specify

Renewable Natural Gas (RNG) Technology Roadmap Steering Committee with support from Government of Canada

Type of product(s) or service(s)

Other

Other, please specify

Renewable natural gas

Description of product(s) or service(s)

% revenue from low carbon product(s) in the reporting year is unknown.

Our Canadian and U.S natural gas system is currently capable of delivering 8 billion cubic feet (Bcf) per year of RNG from farms and landfills – and has another 30 Bcf per year of RNG projects in the works. We have 3 active interconnects in Missouri. At full ramp-up, our Missouri interconnects will flow a combined 2.1 million cubic feet per day of RNG produced from hog waste, avoiding some 42,800 tonnes per year of CO2 equivalent—comparable to the emissions of roughly 9,300 passenger vehicles driven for one year. In 2022, we announced a strategic collaboration with GreenGasUSA to explore development of a network of RNG transportation hubs. We believe that this collaboration, which targets 10 transportation hubs nationally, will rapidly expand and provide incremental capability to the already existing RNG interconnects across our U.S. natural gas footprint. In late 2022, we signed a development agreement on the first of the 10 targeted transportation hubs. We also announced a US$29 million investment for a 30 per cent ownership interest in the Lynchburg Renewable Fuels project, a RNG production facility in Lynchburg, Tennessee. Along with our ownership interest, we will market all RNG and environmental attributes generated from the facility once operational, which we expect in 2024. We also have the option to jointly develop future RNG projects with 3 Rivers Energy Partners, LLC.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

No

Methodology used to calculate avoided emissions

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

Explain your calculation of avoided emissions, including any assumptions

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

C-EU4.6

(C-EU4.6) Describe your organization's efforts to reduce methane emissions from your activities.

For over half a century, we have pioneered innovative technology and practices to enhance efficiency and reduce emissions at our facilities, and we maintain a robust corporate research and development program, with a focus on improving the efficiency of our operations.
Through continued development of world-class technologies, we are working hard to reduce the GHG intensity of our operations and reduce energy use on our power and storage facilities. Across North America there are a variety of new and evolving policies and initiatives in development at the federal, regional, state and provincial level aimed at reducing GHG emissions, including methane emissions.
Adherence to these programs inherently drives us to reduce emissions (through innovation, technology or other practices/procedures), or accept increased financial obligations.

We also continue to implement practices to enhance our management of fugitive methane emissions from our power generation activities. For example, our power generation facilities perform fugitive emission inspections on an annual frequency. Leaks are tagged if they cannot be repaired immediately, and the repair activity is recorded for that piece of equipment.

C-OG4.6

(C-OG4.6) Describe your organization's efforts to reduce methane emissions from your activities.

TCE is actively engaged in reducing individual sources of methane emissions- see our Report on Reliability of Methane Emissions Disclosure for more information. To manage fugitive emissions, we are enhancing our leak detection and repair programs and modernizing our equipment. Vented emissions are being mitigated through improved operating and maintenance activities and by implementing new practices and technologies to reduce emissions. TCE is committed to minimizing the environmental impact of pipelines throughout the entire pipeline lifecycle. We have reduced our absolute methane emissions by 14 per cent from 2019 to 2022, while increasing natural gas throughput by 11 per cent over the same period. Our progress has been significant, and we are committed to doing more. We continue to focus on pipeline integrity, enhancing our leak detection and repair (LDAR)/leak survey programs, modernizing and upgrading our equipment, and developing and implementing new practices and pilot technologies. We are also a signatory to the Methane Guiding Principles (MGP). These principles focus on priority areas for action towards the reduction of methane emissions across the natural gas value chain. See our Report on reliability of methane emissions disclosure for more information.

The Pipeline Integrity Management Program (IMP) has, for many years, been utilizing set-frequency aerial leak detection to detect the uncommon scenario of a methane leak from a pipeline asset. A methane release from the pipeline asset is repaired as a priority activity, to manage the risk associated with safety and environmental impacts. The repair and pipeline blowdown strategy utilizes a variety of methane reduction processes (i.e. capacity drawdown, transfer compression, incineration) where applicable. In Canada, we began implementing an enhanced approach to managing and reducing fugitive emissions from routine operations on our Canadian Natural Gas Pipelines. We survey for leaks three times annually at all our compressor and meter stations using Optical Gas Imaging (OGI) cameras in accordance with regulations and have expanded our program to include annual valve site inspections. In 2022, we piloted new valve models to reduce fugitive emissions on devices where we identified leak recurrences through the LDAR program. Since the enhanced Canadian LDAR program started in 2020, we have abated over 240,000 tCO2e through expanded use of direct measurement techniques and timely equipment repairs.

In our U.S. operations, we complete annual leak surveys at approximately 70 per cent of our compressor stations using a combination of OGI cameras and flow measuring devices. Approximately 20 per cent of our compressor stations are also subject to quarterly fugitive leak methane emissions monitoring and repair requirements using OGI cameras. A subset of our compressor stations (in New York, California, Maryland and Pennsylvania) are subject to state LDAR programs where the pipe fugitive components are monitored using Environmental Protection Agency (EPA) Method 21

instruments or OGI cameras. Depending on the state regulations, this monitoring occurs bi-monthly, quarterly or annually. We also conduct semi-annual rotary wing aerial surveys on all our pipes using methane sniffing technology that identifies leaks for further investigation.
In our Mexico operations, we complete semi-annual leak surveys at our compressor stations in accordance with Mexican regulatory requirements.
We continue to assess and deploy new practices and technologies to make further improvements. For example, we have been piloting various continuous monitoring and aerial monitoring technologies to explore their potential for enhancing the detection and measurement of our emissions.
In 2021 and 2022, we piloted mobile incinerators for conversion of residual natural gas on three pipeline blowdowns in Alberta. TCE has utilized large transfer compressors to reduce vented emissions from controlled blowdowns of large pipe sections since 1979; however, residual gas remains. The mobile incineration technology enables conversion of the residual methane to carbon dioxide, which has a much lower global warming potential. These three pilots collectively avoided over 5,150 tCO2e of emissions with potential for greater reductions if used on larger pipeline sections in the future. In 2022 we completed installation of a pulldown manifold at a compressor station in BC. The new yard piping captures natural gas that would normally be vented to the atmosphere during a planned blowdown event and redirects it to another plant in the station that is still running. In addition to centralizing emissions data management, we are developing and deploying software and systems to digitize our operations and monitor emissions, including system automation, artificial intelligence (AI) and machine learning applications.

C-OG4.7

(C-OG4.7) Does your organization conduct leak detection and repair (LDAR) or use other methods to find and fix fugitive methane emissions from oil and gas production activities?

Yes

C-OG4.7a

(C-OG4.7a) Describe the protocol through which methane leak detection and repair or other leak detection methods, are conducted for oil and gas production activities, including predominant frequency of inspections, estimates of assets covered, and methodologies employed.

TC Energy owns and operates interstate natural gas transport pipelines, associated metering and valve sites, and compressor facilities along the pipelines in the oil and gas sector. We do not own or operate any upstream oil and gas production assets. In 2020, our Canadian LDAR program was enhanced with the regulatory requirements set out by provincial and federal methane regulations. As such, our survey frequencies increased to three times a year using optical-gas imaging cameras for both the compressor and the meter stations. While valve sites are currently excluded from

regulatory requirements, as of 2022 we increased the frequency of inspecting fugitive emissions at valves sites to once a year and use the same detection equipment utilized in our LDAR Program.

Our in-house developed Emissions Management Application within SAP (EMA-SAP Tool) supports our Canadian Natural Gas Pipeline assets LDAR program to automatically extract necessary leak survey data into EMA/SAP for triage. We can use this tool to evaluate leaks and automate the generation of workorders to operations departments for repair, within 2 business days. This rapid assessment sets up our field personnel for success by giving them as much time as possible to complete repairs within regulatory required timelines. Regulatory leaks are repaired within 30 days of discovery, or at the next outage if gas must be evacuated to safely complete the repair.

In our U.S. operations, we have been completing annual leak measurements at approximately 70% of the compressor stations in compliance with the EPA's mandatory Greenhouse Gas Reporting Program (GHGRP) under 40 CFR 98 Subpart W for reportable facilities and performs voluntary "as found" greenhouse gas surveys for non-reportable facilities. The leak measurements are made using a combination of Optical Gas Imaging (OGI) cameras and flow measuring devices.

Approximately 20% of the compressor stations are currently subject to the fugitive leak methane emissions monitoring and repair requirements under 40 CFR 60 Subpart OOOOa regulations. Each affected facility fugitive components are monitored quarterly using an optical gas imaging (OGI) camera, and any leaks identified are repaired within 30 days or placed on a "Delay of Repair," list and repaired within 2 years or at the next opportunity in accordance with the regulation.

A subset of compressor stations in U.S. Operations are subject to state LDAR programs (in New York, California, Maryland, and Pennsylvania). The pipe fugitive components are monitored once annually, quarterly or bi-monthly depending on the state regulations using EPA Method 21 instrument or OGI camera. Any leaks identified are required to be repaired within the specified timeline in the regulations (as stringent as within 2 calendar days if the leak exceeds 50,000ppm or up to 14 days based on the leak concentration in California, or 15 days in Pennsylvania or up to 30 days in Maryland and New York) If a leak cannot be repaired within these timelines, an approval with the state or regional environmental agency should be obtained for a "Delay of Repair" and the repair must be completed within the approved timeline.

In Mexico, we complete gas leak detection on the equipment and accessories on a semiannual basis, at both the stations and the pipeline, in accordance with the Mexican regulations NOM-007-SECRE-2010 "Transport of Natural Gas", the NOM-007-ASEA-2016 "Transport of Natural Gas, Ethane and Gas associated with Mineral Coal by means of Pipelines" and the General Administrative Provisions (DAG) that establish the Guidelines for the prevention and comprehensive control of methane emissions from the Hydrocarbons Sector, as well as applicable internal procedures.

Enterprise-wide, we've matured our compliance LDAR programs to survey beyond regulated assets. As carbon price is forecasted to increase, we are making efforts to move away from emission factor and estimation methods (of GHG inventory quantification) and shift to direct measurement. As we mature our LDAR programs and continue to invest and develop Alt-LDAR technologies using Satellites, Aerial and continuous monitoring we will continue to shift from use of emission factors, increase surveillance frequency and overall reduce our mean time to leak found, and in turn the mean time to repair leaks.

A byproduct of our LDAR programs, we are getting better understanding/learning of our vents and are using machine learning to compare the varying vent rates we observe throughout the year to our operational configurations of our system to apply machine learning to map the ontology of our vented emissions with our operational plans and consider emissions with efficiency, reliability and availability of our compression units when operating our system.

C-OG4.8

(C-OG4.8) If flaring is relevant to your oil and gas production activities, describe your organization's efforts to reduce flaring, including any flaring reduction targets.

While we do not own or operate any upstream oil and gas production assets, we use flares at the gas storage operations at a minimal capacity for process safety purposes. Where practical and safe, flaring is also used as part of the Canadian natural gas pipelines to combust the methane releases from pipeline blowdowns during maintenance activities in specific situations, and on dehydration skids at our U.S. gas operations, however, some thermal oxidizers exist as an alternative to flares.

Our Mexico operating systems do not have flaring destruction systems and it is not being contemplated; our main activity is to reduce venting frequency and durations.

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

No

C5.1a

(C5.1a) Has your organization undergone any structural changes in the reporting year, or are any previous structural changes being accounted for in this disclosure of emissions data?

Row 1

Has there been a structural change?

No

C5.1b

(C5.1b) Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

	Change(s) in methodology, boundary, and/or reporting year definition?	Details of methodology, boundary, and/or reporting year definition change(s)
Row 1	Yes, a change in boundary	Historically, TC Energy reported Scope 1 and Scope 2 emissions predominately reflecting equity share reporting boundaries for CDP. For this year's CDP reporting, (2022 operational activity data), TC Energy will be reporting Scope 1 and Scope 2 emissions using the operational control boundary only, to better align with corporate targets. In the 2023 published Report on Sustainability, TC Energy continues to report GHG indicators on both equity share and operational control basis so no restatement of data is required.

C5.1c

(C5.1c) Have your organization's base year emissions and past years' emissions been recalculated as a result of any changes or errors reported in C5.1a and/or C5.1b?

	Base year recalculation	Base year emissions recalculation policy, including significance threshold	Past years' recalculation
Row 1	No, because the impact does not meet our significance threshold	There are no recalculations to the emissions reported in the previous year, or for the base year. TC Energy publicly discloses GHG indicators using both equity share and operational control reporting boundaries in the Report on Sustainability. Corporate GHG targets based on the operational control boundaries.	

C5.2

(C5.2) Provide your base year and base year emissions.

Scope 1

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

18,283,785

Comment

We calculate GHG emissions using a combination of methods mandated by various regulations in the different jurisdictions we operate. We report our emissions to British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Québec, Environment and Climate Change Canada, the U.S. Environmental Protection Agency, California, Oregon, Washington, and Mexico's Ministry of Environment and Natural Resources (SEMARNAT). These methods can include, but are not limited to, direct measurement and use of emission factors in conjunction with operating conditions. We report gross emissions emitted to the atmosphere before accounting for offsets, credits, or other similar mechanisms that have reduced or compensated for emissions. For increased transparency, consistency and completeness between regulatory jurisdictions, the 2022 corporate GHG emissions reported within this questionnaire response include emission sources considered below reporting thresholds under regulatory reporting regimes.

The base year emissions for Scope 1 reported within this questionnaire are based on the operational control reporting boundary. Reported GHG emissions are normalized to carbon dioxide equivalents based on the Intergovernmental Panel on Climate Change (IPCC) 100-year Global Warming Potentials in its Fourth Assessment Report.

Scope 2 (location-based)

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO2e)

2,131,847

Comment

We calculate GHG emissions using a combination of methods mandated by various regulations in the different jurisdictions where we operate. Scope 2 emissions are not required in many of the jurisdictional reporting regulations, however, TC Energy records and reports Scope 2 emissions from all applicable operational assets using location-based reporting methods.
The methods used to inform the methodology for Scope 2 emissions utilizes direct measurement or acceptable missing data procedures to inform the amount of energy consumed. The calculation of Scope 2 emissions from the energy consumed using the location-based method of reporting references regional or sub-regional emission factors for the generation of power from national government sources:
• Canada – ECCC, National Inventory Reporting (annual publication);
• US – EPA, eGRID (bi-annual publication);
• Mexico - Registro Nacional de Emisiones
We report gross Scope 2 emissions emitted to the atmosphere before accounting for offsets, credits, or other similar mechanisms that have reduced or compensated for emissions.
The Scope 2 emissions reported for the base year (2019) are based on the operational control reporting boundary. Reported GHG emissions are normalized to carbon dioxide equivalents based on the Intergovernmental Panel on Climate Change (IPCC) 100-year Global Warming Potentials in its Fourth Assessment Report.

Scope 2 (market-based)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 2 emissions are not quantified and reported using market-based methodologies at this time.

Scope 3 category 1: Purchased goods and services

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 2: Capital goods

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 4: Upstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 5: Waste generated in operations

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 6: Business travel

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 7: Employee commuting

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 9: Downstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 11: Use of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 12: End of life treatment of sold products

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO2e)

Comment

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

American Petroleum Institute Compendium of Greenhouse Gas Emissions Methodologies for the Oil and Natural Gas Industry, 2009
The Climate Registry: General Reporting Protocol
The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)
The Greenhouse Gas Protocol: Scope 2 Guidance
US EPA Mandatory Greenhouse Gas Reporting Rule
US EPA Emissions & Generation Resource Integrated Database (eGRID)
Other, please specify
Western Climate Initiative, USPEA 40 CFR Part 98, ECCC GHGRP, AB TIER, CEPEI, 2022 Manual, API Compendium 2021 for Industry, GHG Protocol, ECCC NIR GHG 2023, US EPA Egrid, MEX Registro Nacional de Emisiones, WRI/WBSCD GREET, Climate Registry

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e)

21,132,249

Comment

Gross global Scope 1 emissions are calculated as per jurisdictional regulatory reporting program guidance, including operational control reporting boundary, emission category, calculation methodology and global warming potentials. In instances where regulatory reporting program guidance does not align across jurisdictions, we have attempted to align the emission calculation methodology consistently across all legal entities, including those outside minimum regulatory reporting thresholds. Gross emissions provided are based on the operational control reporting boundary.

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We have operations where we are able to access electricity supplier emission factors or residual emissions factors, but are unable to report a Scope 2, market-based figure

Comment

Scope 2 emissions are considered an indirect emissions source (that are not included in our Scope 3 emission metrics), as the emissions are a consequence of activities of the reporting organization but occur at sources owned or controlled by another organization (e.g., an electricity generator or utility).

Our location-based Scope 2 emissions are calculated based on purchased and imported electricity, steam/heat that is consumed in our operational activities and excludes electricity that is retailed to our customers. Scope 2 emission factors are based on publicly available regional or sub-regional emission factors (e.g., grid electricity emission factors).

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

2,113,830

Comment

Electricity emissions factors for location-based Scope 2 accounting are taken from the 2023 Canadian National Inventory Report (NIR), supplied by grid operators (where available), the USEPA Emissions & Generation Resource Integrated Database (eGrid), and memos released by the Registro Nacional de Emisiones.
Gross emissions provided are based on the operational control reporting boundary.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1, Scope 2 or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure?

Yes

C6.4a

(C6.4a) Provide details of the sources of Scope 1, Scope 2, or Scope 3 emissions that are within your selected reporting boundary which are not included in your disclosure.

Source of excluded emissions

Scope 1 emissions from construction related activities are not yet evaluated and therefore not included in our GHG emissions.

Scope(s) or Scope 3 category(ies)

Scope 1

Relevance of Scope 1 emissions from this source

Emissions are not evaluated

Relevance of location-based Scope 2 emissions from this source

Relevance of market-based Scope 2 emissions from this source

Relevance of Scope 3 emissions from this source

Date of completion of acquisition or merger

Estimated percentage of total Scope 1+2 emissions this excluded source represents

Estimated percentage of total Scope 3 emissions this excluded source represents

Explain why this source is excluded

Scope 1 emissions from construction related activities are not yet evaluated and therefore not included in our GHG emissions.

Explain how you estimated the percentage of emissions this excluded source represents

Source of excluded emissions

Scope 2 emissions using Market-based emission factors are relevant to our business; however, cannot be quantified at this time due to limited/unavailable market-based emission factors (e.g., residual mix or supplier specific factors) across all Canadian, US and Mexico electricity markets.

Scope(s) or Scope 3 category(ies)

Scope 2 (market-based)

Relevance of Scope 1 emissions from this source

Relevance of location-based Scope 2 emissions from this source

Relevance of market-based Scope 2 emissions from this source

Emissions are relevant but not yet calculated

Relevance of Scope 3 emissions from this source

Date of completion of acquisition or merger

Estimated percentage of total Scope 1+2 emissions this excluded source represents

Estimated percentage of total Scope 3 emissions this excluded source represents

Explain why this source is excluded

Scope 2 emissions using Market-based emission factors are relevant to our business; however, cannot be quantified at this time due to limited/unavailable market-based emission factors (e.g., residual mix or supplier specific factors) across all Canadian, US and Mexico electricity markets.

Explain how you estimated the percentage of emissions this excluded source represents

Source of excluded emissions

The evaluation on the relevance of various Scope 3 categories is underway but not yet completed. Categories that are deemed relevant but not yet reported, have not been fully evaluated to quantify the significance of excluded emissions.

Scope(s) or Scope 3 category(ies)

Scope 3: Purchased goods and services
Scope 3: Capital goods
Scope 3: Upstream transportation and distribution
Scope 3: Employee commuting
Scope 3: Downstream transportation and distribution
Scope 3: Processing of sold products
Scope 3: Use of sold products
Scope 3: End-of-life treatment of sold products
Scope 3: Downstream leased assets
Scope 3: Franchises
Scope 3: Investments

Relevance of Scope 1 emissions from this source

Relevance of location-based Scope 2 emissions from this source

Relevance of market-based Scope 2 emissions from this source

Relevance of Scope 3 emissions from this source

Emissions are not evaluated

Date of completion of acquisition or merger

Estimated percentage of total Scope 1+2 emissions this excluded source represents

Estimated percentage of total Scope 3 emissions this excluded source represents

Explain why this source is excluded

The evaluation on the relevance of various Scope 3 categories is underway but not yet completed. Categories that are deemed relevant but not yet reported, have not been fully evaluated to quantify the significance of excluded emissions.

Explain how you estimated the percentage of emissions this excluded source represents

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status

Relevant, not yet calculated

Please explain

We are evaluating applicable methodologies and available data to support the quantification of emissions from the goods and services that are purchased across our organization. Scope 3 emissions in this category are not currently quantified.

Capital goods

Evaluation status

Relevant, not yet calculated

Please explain

We are evaluating applicable methodologies and available data to support the quantification of emissions from purchased capital goods, such as construction materials for capital projects.
Scope 3 emissions in this category are not currently quantified.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

3,480,792.1

Emissions calculation methodology

Average data method
Fuel-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Included in this Scope 3 category are emissions from purchased products used for operational purposes and/or business activities, which have not already been quantified as a direct (Scope1) or indirect (Scope 2) emissions source and are located outside of operational boundaries.
This includes:
• Purchased Electricity
• Fuel Consumption (upstream extraction, processing and transport emissions that are outside our operational boundaries.)
• T&D Losses (electrical T&D losses are based on average emission factors defined for regional and subregional power grids.
For the 2022 reporting year, this category represents approximately 99% of our reported Scope 3 emissions.

Upstream transportation and distribution

Evaluation status

Relevant, not yet calculated

Please explain

We are evaluating applicable methodologies and available data to inform the quantification of emissions attributed to the freight and logistical services that are used to support our business activities.

Scope 3 emissions in this category are not currently quantified.

Waste generated in operations

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

22,901

Emissions calculation methodology

Spend-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Included in this Scope 3 category are emissions from spend on the handling and disposal of waste as invoiced by our waste vendors across all jurisdictions.

For the 2022 reporting year, this category represents approximately 0.67% of our reported Scope 3 emissions.

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

6,358

Emissions calculation methodology

Distance-based method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Emissions included in this Scope 3 category cover employee business-related travel activities. Included in this Scope 3 category:

- Domestic, continental, and intercontinental air travel
- Rail travel
- Car Rental
- Extensity

For the 2022 reporting year, this category represents approximately 0.10% of our reported Scope 3 emissions profile.

Employee commuting

Evaluation status

Relevant, not yet calculated

Please explain

We are evaluating opportunities to obtain employee commuting information, via employee surveys, to further categorize and quantify associated Scope 3 emissions in this category.

GHG emissions from corporately owned and leased air and vehicular travel are captured under Scope 1 emissions.

Upstream leased assets

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

8,790

Emissions calculation methodology

Fuel-based method
Asset-specific method
Lessor-specific method

Percentage of emissions calculated using data obtained from suppliers or value chain partners

100

Please explain

Emissions included in this Scope 3 category include day-to-day operation of leased office spaces that are outside of our operational control.
Included in this Scope 3 category:
• Leased office space electricity and heating fuel consumption as well as fugitive emissions attributed to air conditioning systems, proportionate to our lease space footprint

For the 2022 reporting year, this category represents approximately 0.26% of our reported Scope 3 emissions.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

Our core business is to provide a service for the transportation or storage of natural gas or crude oils for various shippers to supply markets across North America as well as the generation of electricity. Although TC Energy continues to evaluate this Scope 3 category, downstream emissions as defined in this category are not relevant to our transmission pipelines business.
Downstream electricity and heat energy use, after generation from TC Energy facilities, is excluded from this category as the use of electricity does not result in the generation of GHG emissions. The production of electricity and heat energy is captured as part of our scope 1 emissions profile.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

TC Energy is continuing to evaluate the relevance of this category relative to our core transmission pipeline and storage business. Relative to our Power entities, as electricity is not 'processed', the quantification of GHG emissions relating to the processing of sold products (electricity) is null.

Use of sold products

Evaluation status

Relevant, not yet calculated

Please explain

As part of our core business activities, we do not take ownership of the natural gas and crude oil that we transport and handle on behalf of our customers/shippers. There are instances where our natural gas transmission and liquids pipeline business units buy and sell product volumes for operational or marketing purposes however, many of these transactions occur within the pipeline or storage facility prior to reaching the end users. At this time, we have not quantified emissions attributed to this Scope 3 category; however, we continue to evaluate the relevance of our business activities and anticipate including Category 11, as applicable, in future reporting.

As energy products such as electricity and heat do not produce GHG emissions as a result of their direct use, category 11 does not apply to those energy sources produced by TC Energy. The production of electricity and heat energy is captured as part of our scope 1 emissions profile.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Please explain

We do not sell any physical products requiring end of life waste treatment services as part of its business activities. Sold products include electricity, pipeline transportation, and heat/steam from cogeneration activities. As energy products do not produce physical waste in their end use, this category does not apply.

Downstream leased assets

Evaluation status

Relevant, not yet calculated

Please explain

We are continuing to evaluate this category and the identification of downstream leased assets in our organizational boundary.

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

Emissions from this Scope 3 category are not relevant to our operations as we do not operate franchises, as defined in the GHG Scope 3 Accounting and Reporting Standard.

Investments

Evaluation status

Relevant, not yet calculated

Please explain

We are continuing to evaluate and develop the methodology for this Scope 3 category.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Please explain

We do not have other upstream Scope 3 emissions to report.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

We do not have other downstream Scope 3 emissions to report.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure

0.001

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

23,246,079

Metric denominator

Other, please specify

GJ

Metric denominator: Unit total

23,017,580,391.51

Scope 2 figure used

Location-based

% change from previous year

0.61

Direction of change

Increased

Reason(s) for change

Change in boundary

Please explain

In 2022, our emissions intensity has not materially changed. This is partly due to increased energy demand, resulting in increased throughput across our pipeline networks which was offset by an increase to our scope 1 and scope 2 emissions in order to move additional product (i.e., increased energy inputs were required to support the increased demand of the products transported). This emission intensity metric is based on operational control reporting boundary. TCE's corporate emission intensity is influenced by the Scope 1 and Scope 2 emissions generated from the operations required to provide reliable and affordable energy, safely to its customers. In TCE's GHG Emissions Reduction Plan, we set targets to reduce our emissions intensity by 2030 and to be positioned for net zero by 2050. TCE's 2022 emissions intensity and base year, are measured using an operational control approach.

To drive operational GHG emissions reductions, we've created dedicated energy transition teams focused on establishing the foundational tools and capabilities and assessing relevant technologies and opportunities to support business resiliency.
TCE's decarbonization efforts are concentrated on five focus areas to reduce the emissions
intensity of our operations, while also capturing growth opportunities that meet the energy needs of the future:
1. Modernize our existing systems and assets
2. Decarbonize our energy consumption
3. Invest in low-carbon energy and infrastructure
4. Drive digital solutions and technologies
5. Leverage environmental attributes such as carbon credit and offsets

Intensity figure

1,100

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

10,563,872

Metric denominator

Other, please specify

billion cubic feet (Bcf) natural gas throughput

Metric denominator: Unit total

9,602

Scope 2 figure used

Location-based

% change from previous year

3.9

Direction of change

Decreased

Reason(s) for change

Change in output

Change in boundary

Please explain

This metric is being reported using the operational control reporting boundary. In prior years, equity share was the reporting boundary.

This metric is relevant to our natural gas pipelines in the U.S. and represents Scope 1 and 2 emissions only from those US facilities. Calculated GHG emission intensities for our natural gas business segments are based on a throughput denominator measured in units of billion cubic feet (BCF).

Throughput within each operational jurisdiction is calculated based on regionally or pipeline system distinct methodologies and definitions. The relationship between natural gas transmission pipeline GHG emissions and the volume of gas transported is complex. The nature of a transmission network, such as a single, long-haul pipeline with few connections or points where gas is added and removed from the system, requires different equipment and has a different emissions profile than highly integrated networks with a large number of “branches” over a smaller geographic area. In addition, the amount of GHGs released during operation does not have a linear relationship to the volume of gas that is transported on the system. Therefore, comparisons of emissions intensities between natural gas transmission pipeline systems and between jurisdictions, should consider the type of pipeline network and the service that it is providing.

In 2022, Scope 1 emissions increased as a result of increased energy requirements (I.e., fuel consumption) to transport higher volumes of natural gas product. The overall emission intensity for this business unit improved by approximately 4% relative to 2021.

Intensity figure

983

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

8,746,815

Metric denominator

Other, please specify

billion cubic feet (Bcf) natural gas throughput

Metric denominator: Unit total

8,898

Scope 2 figure used

Location-based

% change from previous year

9.3

Direction of change

Increased

Reason(s) for change

Change in output
Change in boundary

Please explain

This metric is being reported using the operational control reporting boundary. Where in prior years equity share was the reporting boundary.

This metric is relevant to our natural gas pipelines in Canada and represents Scope 1 and 2 emissions only from those facilities. Calculated GHG emission intensities for our natural gas business segments are based on a throughput denominator measured in units of billion cubic feet (BCF).
Throughput within each operational jurisdiction is calculated based on regionally or pipeline system distinct methodologies and definitions. The relationship between natural gas transmission pipeline GHG emissions and the volume of gas transported is complex. The nature of a transmission network, such as a single, long-haul pipeline with few connections or points where gas is added and removed from the system, requires different equipment and has a different emissions profile than highly integrated networks with a large number of “branches” over a smaller geographic area. In addition, the amount of GHGs released during operation does not have a linear relationship to the volume of gas that is transported on the system. Therefore, comparisons of emissions intensities between natural gas transmission pipeline systems and between jurisdictions, should consider the type of pipeline network and the service that it is providing.
The throughput volumes across the Canadian natural gas pipelines were higher in 2022, resulting in increased energy (i.e, fuel combustion) and associated Scope 1 emissions to transport the product to meet customer demand. Additionally, projects were in construction forcing some compressors to see additional throughput and therefore additional emissions to compensate while other stations were down for construction.

Intensity figure

164

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

116,335

Metric denominator

Other, please specify

billion cubic feet (Bcf) natural gas throughput

Metric denominator: Unit total

709

Scope 2 figure used

Location-based

% change from previous year

27.9

Direction of change

Increased

Reason(s) for change

Change in output

Change in boundary

Please explain

This metric is being reported using the operational control reporting boundary where in prior years equity share was the reporting boundary.

This metric is relevant to our natural gas pipelines in Mexico and represents Scope 1 and 2 emissions only from those facilities. Calculated GHG emission intensities for our natural gas business segments are based on a throughput denominator measured in units of billion cubic feet (BCF). Throughput within each operational jurisdiction is calculated based on regionally or pipeline system distinct methodologies and definitions. The relationship between natural gas transmission pipeline GHG emissions and the volume of gas transported is complex. The nature of a transmission network, such as a single, long-haul pipeline with few connections or points where gas is added and removed from the system, requires different equipment and has a different emissions profile than highly integrated networks with a large number of “branches” over a smaller geographic area. In addition, the amount of GHGs released during operation does not have a linear relationship to the volume of gas that is transported on the system. Therefore, comparisons of emissions intensities between natural gas transmission pipeline systems and

between jurisdictions, should consider the type of pipeline network and the service that it is providing.
The variance from 2021 reported intensity is attributed to increased natural gas throughput in 2022. In prior years the intrinsic pipeline pressure was enough to move product, but as throughput increased the need for added compression was required to move product introducing new sources of emissions.

Intensity figure

0.5638

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

2,136,900

Metric denominator

megawatt hour generated (MWh)

Metric denominator: Unit total

3,790,201

Scope 2 figure used

Location-based

% change from previous year

5.2

Direction of change

Decreased

Reason(s) for change

Change in output
Change in boundary

Please explain

This metric is being reported using the operational control reporting boundary, where in prior years, equity share was the reporting boundary. This change in reporting boundary has resulted in the removal of a nuclear power generation facility from the reporting boundary resulting in significant deviation from historical emission intensities reported for this business unit.

Metric tonnes CO2e per MWh produced is relevant to our Power generation facilities and measures Scope 1 and 2 emissions only from those facilities.
Many of our electricity-generating facilities also generate a heat product, which is not currently accounted in our production metrics for CDP reporting. Therefore, an emissions intensity based on electricity generation is only partially representative of our 'true' emissions intensity of our cogeneration assets and the overall energy generated for our customers.

In 2022, less electricity was generated resulting in lower fuel combustion (ie., Scope 1 emissions), relative to 2021. The decrease in power generation was offset by the decrease in Scope 1 emissions, resulting in a lower emission intensity for 2022.

Intensity figure

445

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

59,331

Metric denominator

Other, please specify

Total volume (Injected + Withdrawn) (BCF)

Metric denominator: Unit total

133

Scope 2 figure used

Location-based

% change from previous year

10

Direction of change

Increased

Reason(s) for change

Change in output

Change in boundary

Please explain

This metric is being reported using the operational control reporting boundary. Where in prior years equity share was the reporting boundary.

Metric tonnes CO2e per total natural gas volume (Injected + Withdrawn) is relevant to our Canadian Gas Storage facilities and measures Scope 1 and 2 emissions only from those facilities.

Although the 2022 storage volumes were similar to 2021, higher volumes of gas were injected into storage in 2022 compared to the volumes withdrawn. As injection processes are more energy intensive (i.e., electrified compression is required to pressure the reservoir) the emission intensity in 2022 was higher relative to 2021.

Intensity figure

0.0042

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

1,573,541

Metric denominator

Other, please specify

Throughput (NSV bbls)

Metric denominator: Unit total

370,796,101

Scope 2 figure used

Location-based

% change from previous year

0.8

Direction of change

Increased

Reason(s) for change

Change in output
Change in boundary

Please explain

This metric is being reported using the operational control reporting boundary.
Metric tonnes CO2e per net standard volume (NSV) throughput is relevant to our Canadian and U.S.-based liquids pipeline entities and measures Scope 1 and 2 emissions only from those facilities. The 2022 emission intensity is marginally higher than 2021 due to lower throughput volumes which was offset by lower Scope 1 and Scope 2 emissions (i.e., lower energy inputs and lower grid power carbon emission intensity).

Intensity figure

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

46,284

Metric denominator

Metric denominator: Unit total

Scope 2 figure used

Location-based

% change from previous year

Direction of change

Reason(s) for change

Other, please specify

First year reporting

Please explain

This metric is being reported using the operational control reporting boundary.

This includes corporate service functions including building occupancy, associated electricity and HVAC required for buildings, Fleet Vehicles, and TC Owned Aviation Vehicles. These are corporate functions that do not contribute to a single BU but are a function of the whole company. There are no products associated with this services entity therefore, an emission intensity cannot be calculated.

C-OG6.12

(C-OG6.12) Provide the intensity figures for Scope 1 emissions (metric tons CO2e) per unit of hydrocarbon category.

Unit of hydrocarbon category (denominator)

Other, please specify

MWh of Natural Gas and Electricity

Metric tons CO2e from hydrocarbon category per unit specified

0

% change from previous year

0

Direction of change

No change

Reason for change

The increase in total Scope 1 emissions was offset by the increased throughput (utilization) across most pipeline entities and power generation assets resulting in a comparable intensity to 2021.

Comment

Metric tons CO2e from hydrocarbon category per unit specified is 0.004. Throughput in MMcf of natural gas for pipelines was converted to MWh and added to the MWh of electricity consumed from generated electricity within power generation facilities.
The total CO2e emissions were then divided by MWh to obtain a corporate intensity for 2022.

C-OG6.13

(C-OG6.13) Report your methane emissions as percentages of natural gas and hydrocarbon production or throughput.

Oil and gas business division

Midstream

Estimated total methane emitted expressed as % of natural gas production or throughput at given division

Estimated total methane emitted expressed as % of total hydrocarbon production or throughput at given division

0.034

Details of methodology

Total methane emissions from our Natural Gas Pipelines operations are based on measured and estimated sources including stationary combustion (i.e., combustion efficiency), vented emissions and fugitive emissions. Total hydrocarbon throughput was based on throughput data from all three natural gas pipeline business units (i.e., Canadian Gas Operations, US Natural Gas and Mexico Gas Operations).

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	17,489,349	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	3,563,087	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	79,281	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	533	IPCC Fourth Assessment Report (AR4 - 100 year)

C-EU7.1b

(C-EU7.1b) Break down your total gross global Scope 1 emissions from electric utilities value chain activities by greenhouse gas type.

	Gross Scope 1 CO2 emissions (metric tons CO2)	Gross Scope 1 methane emissions (metric tons CH4)	Gross Scope 1 SF6 emissions (metric tons SF6)	Total gross Scope 1 emissions (metric tons CO2e)	Comment
Fugitives	0.102	9.554	0	239	Fugitive emissions from our power generation facilities is attributed to natural gas lost that is used to fuel the turbine generator and afterburner equipment, if operational. The use and regeneration of SF6 products were not reported by operations in 2022.
Combustion (Electric utilities)	1,966,781	136	0	1,984,342	Combustion emissions are attributed to the gas turbine generators.
Combustion (Gas utilities)					
Combustion (Other)					
Emissions not elsewhere classified	4.12	32.513	0	817	Emissions disclosed in this category represent venting emission sources during the 2022 calendar year.

C-OG7.1b

(C-OG7.1b) Break down your total gross global Scope 1 emissions from oil and gas value chain production activities by greenhouse gas type.

Emissions category

Combustion (excluding flaring)

Value chain

Midstream

Product

Gas

Gross Scope 1 CO2 emissions (metric tons CO2)

15,336,418

Gross Scope 1 methane emissions (metric tons CH4)

3,421

Total gross Scope 1 emissions (metric tons CO2e)

15,486,146

Comment

Data based on operational control reporting boundary. Emissions do not include sources from our corporate services assets (e.g., buildings).

Emissions category

Flaring

Value chain

Midstream

Product

Gas

Gross Scope 1 CO2 emissions (metric tons CO2)

63,704

Gross Scope 1 methane emissions (metric tons CH4)

247

Total gross Scope 1 emissions (metric tons CO2e)

69,930

Comment

Data based on operational control reporting boundary.

Emissions category

Venting

Value chain

Midstream

Product

Gas

Gross Scope 1 CO2 emissions (metric tons CO2)

856

Gross Scope 1 methane emissions (metric tons CH4)

57,462

Total gross Scope 1 emissions (metric tons CO2e)

1,437,396

Comment

Data based on operational control reporting boundary

Emissions category
Fugitives

Value chain
Midstream

Product
Gas

Gross Scope 1 CO2 emissions (metric tons CO2)
20,308

Gross Scope 1 methane emissions (metric tons CH4)
81,172

Total gross Scope 1 emissions (metric tons CO2e)
2,049,609

Comment
Data based on operational control reporting boundary

C7.2

(C7.2) Break down your total gross global Scope 1 emissions by country/area/region.

Country/area/region	Scope 1 emissions (metric tons CO2e)
Canada	10,688,415
United States of America	10,328,195
Mexico	115,635

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Natural Gas Pipelines	19,030,684
Liquids Pipelines	414
Power and Storage	2,059,834
Corporate	41,317

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Comment
Electric utility activities	1,985,398	The value reported here includes emissions from our electric power generation assets only. This total does not include emissions from our non-regulated Canadian Gas Storage entities, which do not meet the CDP definition of an "Electric Utility", however are included in our Power and Energy Solutions (previously, Power and Storage) business segment. The Storage business in Canada operates independently from our regulated natural gas transmission and storage businesses.

	Gross Scope 1 emissions, metric tons CO2e	Comment
		Net Scope 1 emissions are the same as gross emissions as TCE did not abate any emissions through environmental attributes such as Offsets or REC's.
Oil and gas production activities (upstream)		
Oil and gas production activities (midstream)	19,031,098	The value reported here includes estimated emissions from our natural gas and liquids pipeline assets. Net Scope 1 is the same as gross we did not abate any emissions through environmental attributes such as Offsets or REC's
Oil and gas production activities (downstream)		

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/area/region.

Country/area/region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Canada	891,165	
United States of America	1,219,416	
Mexico	3,238	

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division

C7.6a

(C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Natural Gas Pipelines	396,338	
Liquids Pipelines	1,573,126	
Power and Storage	136,397	
Corporate Services	7,967	

C7.7

(C7.7) Is your organization able to break down your emissions data for any of the subsidiaries included in your CDP response?

No

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Oil and gas production activities (upstream)			
Oil and gas production activities (midstream)	1,969,465		Value is based on the operational control reporting boundary. This value represents emissions from our natural gas and liquid pipeline assets.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Oil and gas production activities (downstream)			

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year?

Increased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption				
Other emissions reduction activities				
Divestment				
Acquisitions				

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Mergers				
Change in output				
Change in methodology	121,688.27	Increased	0.52	In 2022, we have included additional emission sources into the corporate inventory that were historically excluded due to lack of operational data to support the quantification of emissions. These sources of emissions from a more comprehensive inventory of buildings that are owned or operated by the company (scope 1 and scope 2). Additional scope 1 emissions were included from our US glycol dehydration units as well as the inclusion of scope 2 emissions from all known/available assets across the US natural gas business, that were historically unattainable.
Change in boundary	616,849	Increased	2.65	The change in emissions represents the difference between Scope 1 and Scope 2 emissions between equity share and operational control reporting boundaries for 2022. Historically, values reported to CDP were based on equity share reporting boundaries however, TC Energy reports both equity share and operational control indicators in our Report on Sustainability.
Change in physical operating conditions				
Unidentified				
Other				

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Location-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy?

More than 10% but less than or equal to 15%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

C8.2a

(C8.2a) Report your organization’s energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	91,514,056	91,514,056
Consumption of purchased or acquired electricity		0	4,983,221	4,983,221
Consumption of purchased or acquired steam		0	383,618	383,618
Consumption of self-generated non-fuel renewable energy				
Total energy consumption		0	96,880,895	96,880,895

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	Yes
Consumption of fuel for the generation of heat	Yes
Consumption of fuel for the generation of steam	Yes
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	Yes

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Sustainable biomass

Heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

TC Energy does consume steam energy for the generation of power, that is supplied from a third-party who uses biomass to create the steam energy. TC Energy is working with the steam provider to inform future reporting of this value.

Other biomass

Heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

Other renewable fuels (e.g. renewable hydrogen)

Heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

Coal

Heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

Oil

Heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

Gas

Heating value

Total fuel MWh consumed by the organization

0

MWh fuel consumed for self-generation of electricity

0

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self- cogeneration or self-trigeneration

0

Comment

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

HHV

Total fuel MWh consumed by the organization

91,514,056

MWh fuel consumed for self-generation of electricity

88,506

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self- cogeneration or self-trigeneration

8,850,552

Comment

Various emission factors were used based on type of fuel / electricity, source of fuel / electricity. Fuel volumes are based on measured/metered data or from supplier invoice records.
Other non-renewable fuels include: diesel, kerosene, motor gasoline, natural gas, liquid propane.

Total fuel

Heating value

HHV

Total fuel MWh consumed by the organization

91,514,056

MWh fuel consumed for self-generation of electricity

88,506

MWh fuel consumed for self-generation of heat

0

MWh fuel consumed for self-generation of steam

0

MWh fuel consumed for self- cogeneration or self-trigeneration

8,850,552

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	3,820,809	37,730	0	0
Heat	6,491,897	0	0	0
Steam	0	0	0	0

Cooling	0	0	0	0

C-EU8.2d

(C-EU8.2d) For your electric utility activities, provide a breakdown of your total power plant capacity, generation, and related emissions during the reporting year by source.

Coal – hard

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Lignite

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Oil

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Gas

Nameplate capacity (MW)

1,088

Gross electricity generation (GWh)

3,821

Net electricity generation (GWh)

3,790

Absolute scope 1 emissions (metric tons CO2e)

1,985,398

Scope 1 emissions intensity (metric tons CO2e per GWh)

524

Comment

Nameplate capacity and gross electricity generation is based on the operational control reporting boundary and excludes the assets that are not operated by TC Energy.

Sustainable biomass

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Other biomass

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Waste (non-biomass)

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Nuclear

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Fossil-fuel plants fitted with CCS

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Geothermal

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Hydropower

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Wind

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Solar

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Marine

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Other renewable

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Other non-renewable

Nameplate capacity (MW)

0

Gross electricity generation (GWh)

0

Net electricity generation (GWh)

0

Absolute scope 1 emissions (metric tons CO2e)

0

Scope 1 emissions intensity (metric tons CO2e per GWh)

0

Comment

Total

Nameplate capacity (MW)

1,088

Gross electricity generation (GWh)

3,821

Net electricity generation (GWh)

3,790

Absolute scope 1 emissions (metric tons CO2e)

1,985,398

Scope 1 emissions intensity (metric tons CO2e per GWh)

524

Comment

Data reported reflects the operational control organizational reporting boundary.

C8.2g

(C8.2g) Provide a breakdown by country/area of your non-fuel energy consumption in the reporting year.

Country/area

Canada

Consumption of purchased electricity (MWh)

2,196,941

Consumption of self-generated electricity (MWh)

37,730

Consumption of purchased heat, steam, and cooling (MWh)

383,617.51

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

2,618,288.51

Country/area

United States of America

Consumption of purchased electricity (MWh)

2,632,249

Consumption of self-generated electricity (MWh)

0

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

2,632,249

Country/area

Mexico

Consumption of purchased electricity (MWh)

4,696

Consumption of self-generated electricity (MWh)

0

Consumption of purchased heat, steam, and cooling (MWh)

0

Consumption of self-generated heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

4,696

C-EU8.4

(C-EU8.4) Does your electric utility organization have a transmission and distribution business?

No

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

C-OG9.5a/C-CO9.5a

(C-OG9.5a/C-CO9.5a) Break down, by fossil fuel expansion activity, your organization's CAPEX in the reporting year and CAPEX planned over the next 5 years.

	CAPEX in the reporting year for this expansion activity (unit currency as selected in C0.4)	CAPEX in the reporting year for this expansion activity as % of total CAPEX in the reporting year	CAPEX planned over the next 5 years for this expansion activity as % of total CAPEX planned over the next 5 years	Explain your CAPEX calculations, including any assumptions
Exploration of new oil fields				
Exploration of new natural gas fields				
Expansion of existing oil fields				
Expansion of existing natural gas fields				

C-EU9.5a

(C-EU9.5a) Break down, by source, your organization's CAPEX in the reporting year and CAPEX planned over the next 5 years.

Coal – hard

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Lignite

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Oil

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Gas

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Sustainable biomass

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Other biomass

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Waste (non-biomass)

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Nuclear

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

2,200,000,000

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

23.4

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Most recent year in which a new power plant using this source was approved for development

2015

Explain your CAPEX calculations, including any assumptions

Secured projects (CAPEX) plan from 2022 Annual Report. The $2.2B reflects projects costs incurred as of December 2022 for our expected share of cash contributions for the Bruce Power Unit 6 Major Component Replacement (MCR) program, expected to be in service in 2023, amounts to be invested under the Asset Management program through 2027 as well as the incremental uprate initiative. In addition, it includes our expected share of cash contributions for the Unit 3 MCR, subject to IESO approval of the basis of estimate. We hold a 48.4 per cent ownership interest in Bruce Power.

Geothermal

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Hydropower

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Wind

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Solar

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Marine

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Fossil-fuel plants fitted with CCS

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Other renewable (e.g. renewable hydrogen)

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

Other non-renewable (e.g. non-renewable hydrogen)

CAPEX in the reporting year for power generation from this source (unit currency as selected in C0.4)

CAPEX in the reporting year for power generation from this source as % of total CAPEX for power generation in the reporting year

CAPEX planned over the next 5 years for power generation from this source as % of total CAPEX planned for power generation over the next 5 years

Explain your CAPEX calculations, including any assumptions

C-EU9.5b

(C-EU9.5b) Break down your total planned CAPEX in your current CAPEX plan for products and services (e.g. smart grids, digitalization, etc.).

Products and services	Description of product/service	CAPEX planned for product/service	Percentage of total CAPEX planned products and services	End of year CAPEX plan
Large-scale storage	Canyon Creek Pumped Storage: We are utilizing the existing site infrastructure from a decommissioned coal mine, located near Hinton, Alberta, to develop a pumped hydro storage project that is expected to have a generating capacity of 75 MW. The facility is expected to provide up to 37 hours of on-demand, flexible, clean energy and ancillary services to the Alberta electricity grid. The project has received the approval of the Alberta Utilities Commission and the required approval of the Government of Alberta for hydro projects under the Dunvegan Hydro Development Act (Alberta). The Canyon Creek Pumped Storage project is part of a larger product offering by us, a 24-by-7 carbon-free power product in the Province of Alberta and includes output from wind and solar projects currently under construction or being developed, thereby positioning our customers to manage hourly power needs with cost certainty and achieve decarbonization goals by sourcing power from emission-free assets. Saddlebrook Solar and Storage: On October 4, 2022, we announced that we have commenced pre-construction activities on the 81 MW Saddlebrook Solar project located near Aldersyde, Alberta. The expected capital cost is $146 million, with the project partially supported by $10 million from Emissions Reduction Alberta. Construction is expected to be completed in			

Products and services	Description of product/service	CAPEX planned for product/service	Percentage of total CAPEX planned products and services	End of year CAPEX plan
	2023. Ontario Pumped Storage: We continue to progress the development of the Ontario Pumped Storage project (OPSP), an energy storage facility located near Meaford, Ontario designed to provide 1,000 MW of flexible, clean energy to Ontario's electricity system using a process known as pumped hydro storage. The OPSP has been granted long-term land access to the fourth Canadian Division Training Centre for development of the project on this site from the Federal Minister of National Defence and has been included in Gate 2 of the IESO's Unsolicited Proposals Process. Once in service, this project would store emission-free energy when available and provide that energy to Ontario during periods of peak demand, thereby maximizing the value of existing emission-free generation in the province.			
Other, please specify wind, solar and power storage renewable energy projects	Leveraging our Power business as a platform for future growth and diversification, we announced that we were seeking to identify potential contracts and/or investment opportunities in renewable energy projects that could generate up to 3.2 million MWh/year of zero carbon energy comprising of up to 620 MW of wind, 300 MW of solar and 100 MW of battery storage capacity. We also identified meaningful origination opportunities to supply renewable energy products and services to industrial and oil and gas sectors proximate to our in-corridor demand. To date we have finalized contracts for approximately 600 MW from wind and solar projects.			

Products and services	Description of product/service	CAPEX planned for product/service	Percentage of total CAPEX planned products and services	End of year CAPEX plan
Other, please specify carbon transportation and sequestration system	In June 2021, we announced a partnership with Pembina Pipeline Corporation to jointly develop a world-scale carbon transportation and sequestration system which, when fully constructed, is expected to be capable of transporting more than 20 million tonnes of carbon dioxide annually. On October 18, 2022, ACG announced that it has entered into a carbon sequestration evaluation agreement with the Government of Alberta to further evaluate one of the largest AOI for safely storing carbon from industrial emissions in Alberta. This agreement will allow ACG to continue evaluating the suitability of its AOI and move forward into the next stage of the province's CCUS process to provide confidence to customers, Indigenous communities, stakeholders and the Government of Alberta in the project's carbon storage capabilities. ACG is exploring options to potentially leverage existing infrastructure and right-of-ways to connect the Alberta Industrial Heartland emissions region to a key sequestration location. In February 2022, we submitted an application to the Government of Alberta to build and operate a carbon storage hub and gathering lines in the industrial heartland near Edmonton. In March 2022, the Alberta Government confirmed that the ACG has been invited to move forward into the next stages of the province's CCUS process to further evaluate the suitability of the proposed location for safely storing carbon from industrial emissions.			

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	The Technical Centre's Technology & Innovation Management Office (TIMO) is the enterprise hub for engineering R&D. TIMO expedites strategic R&D by coordinating across all areas of the business, reducing redundancy, strategic prioritization, and proven cost effectiveness. It is our focus to enhance our industry's sustainability through research and development (R&D) and innovation investments. We invest in R&D that make our assets and operations safer, more efficient, and sustainable. In 2022, TCE contributed to over 100 projects developing innovative energy solutions. Our portfolio spans a diverse range of technologies from emission reduction pilots, machine learning and advanced analytics tools. We work collaboratively across borders and business lines to confront key technical challenges and develop solutions. This community of practice leverages deep expertise and experience from technical specialists from across our organization to think differently and share ideas. To facilitate focused discussions, the TIMO program has 8 Technology Focus Areas (TFAs) that drive the top ranked R&D ideas each year that align to the Strategic Research Priorities (SRPs) – cost competitiveness, asset integrity and the energy transition. We are leveraging industry intelligence through participation in various partnerships. We are a founding member of the Emerging Fuel Institute (EFI) whose goal is to develop a Hydrogen Pipeline Guidance Document to be used as a framework to safely convert, maintain, and operate hydrogen infrastructure. We recently became members of the Center for Hydrogen Safety group which promotes hydrogen safety and best practices worldwide by addressing concerns regarding the safe use of hydrogen. These partnerships in addition to PRCI and PSG give us exclusive and detailed access to the world's leading hydrogen research in engineering, risk, and safety. While we continue to leverage existing research and experience from our industry partners, we also identified a need for further hydrogen research focusing on measurement, blending station design and pipe integrity aspects of natural gas – hydrogen blending scenarios. In 2022, seven strategic internal R&D projects were funded, and the results of these studies are already being leveraged for TCE blending project feed studies.

C-CO9.6a/C-EU9.6a/C-OG9.6a

(C-CO9.6a/C-EU9.6a/C-OG9.6a) Provide details of your organization's investments in low-carbon R&D for your sector activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)	Average % of total R&D investment planned over the next 5 years	Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan
Other, please specify collaborative technical and engineering innovation through industry associations	Applied research and development		541,000		As a member of the Pipeline Research Council International (PRCI) for over 70 years, we have been able to collaborate with regulators, industry partners, and vendors, all who have helped us on our mission to make a positive impact on the energy industry. PRCI is an international organization with 34 pipeline operators from around the world. Internally, with support from PRCI, our R&D teams collaboratively manage nine technical R&D projects focused on GHG emissions reductions and improvements in leak detection. Additionally, we are members of the Petroleum Technology Alliance of Canada (PTAC) and collaborating on the PTAC's CanERIC (Canadian Emissions Reduction Innovation Consortium) initiative.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)	Average % of total R&D investment planned over the next 5 years	Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan
Other, please specify Energy storage	Large scale commercial deployment				We are currently advancing two large-scale storage projects: Canyon Creek Pumped Storage (Alberta) and Ontario Pumped Storage (Ontario). Please efer to question C-EU9.5b for additional details.
Hydrogen	Full/commercial-scale demonstration				We have entered into Joint Development Agreements (JDAs) to support customer-driven hydrogen production for long-haul transportation, power generation, large industrials and heating customers across the U.S. and Canada. Under one JDA, there is a long-term anchor customer for hydrogen production infrastructure supporting hydrogen-fueled, zero-emission, heavy-duty trucks and the co-development of large-scale green and blue hydrogen production hubs. A second JDA is expected to support the development of hydrogen production facilities focused on zero-to-negative carbon intensity hydrogen from RNG, biogas and other sustainable sources. These facilities are expected to be located close to demand, supporting back-to-base vehicle deployments. Our significant pipeline, storage and power assets can potentially be leveraged to lower the cost and increase the speed of development of these hubs. This may include exploring the integration of pipeline

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)	Average % of total R&D investment planned over the next 5 years	Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan
					assets to enable hydrogen distribution and storage via pipeline and/or to deliver carbon dioxide to permanent sequestration sites to decarbonize the hydrogen production process. In April 2022, we announced a plan to evaluate a hydrogen production hub in Crossfield, Alberta, where we currently operate a natural gas storage facility. We expect an FID in 2024, subject to customary regulatory approvals.
Advanced monitoring techniques	Applied research and development				TC Energy is working with a consortium of telecommunications, energy and drone operations companies to demonstrate the safety and viability of Beyond Visual Line of Sight (BVLOS) drone flights. TC Energy's pipeline rights-of-way cover vast distances (often in remote areas) and require regular monitoring for safety, environmental and regulatory purposes with helicopters and light manned aircrafts. In 2022, we completed our first set of long-range test flights through a 193 km corridor that successfully demonstrated the reliability of the LTE internet connection on a long-range BVLOS flight. This project is on-going as we continue work with regulators and refine BVLOS technology. Using drones to monitor our rights-of-way has the potential to deliver tangible

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)	Average % of total R&D investment planned over the next 5 years	Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan
					environmental and economic benefits by reducing our carbon footprint, while enhancing safety and security across our assets.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	No third-party verification or assurance

C10.1a

(C10.1a) Provide further details of the verification/assurance undertaken for your Scope 1 emissions, and attach the relevant statements.

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

vrpt_ggerr_2022_fhpl_lfo_20230526_signed.pdf

vrpt_ggerr_2022_ngtl_lfo_20230526_signed.pdf

Page/ section reference

Entire documents. Additional relevant standards include:
• ISO 14065:2013
• IAF MD4:2018

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

3

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

fnl_rpt_160925198_ver_tier_agg_2022_20230623.pdf
fnl_rpt_160925199_ver_tier_bearcreek_2022_20230622.pdf
fnl_rpt_160925199_ver_tier_mackay_2022_20230622.pdf
fnl_rpt_1609251994_ver_tier_redwater_2022_20230622.pdf
fnl_rpt-160925199-ver-tier-carseland-2022-20230622.pdf
fnl_rpt_160925197_tce_ab_pipeline_20230626.pdf

Page/ section reference

Entire documents. Additional relevant standards include:
• ISO 14065:2013
• IAF MD4:2018

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

33

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

rpt_fnl_obps_TC_SK_FHPL_2022_20230529.pdf
rpt_fnl_obps_TC_MB_2022_20230529.pdf
rpt_fnl_obps_TC_SK__2022_20230529.pdf

Page/ section reference

Entire documents. Additional relevant standards include:
• ISO 14065:2013
• IAF MD4:2018
• ECCC verification guidance document
• Stantec's Standard Operating Procedure
• ANSI National Accreditation Board

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

8

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

rpt_on_fnl_TC_2022_20230704.pdf

Page/ section reference

Entire document. Additional relevant standards include:
• ISO 14065:2013
• IAF MD4:2018
• ECCC verification guidance document
• Stantec's Standard Operating Procedure
• ANSI National Accreditation Board

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

5

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

11207825-RPT-9-11-Rapport de vérification TQM East Hereford 2022.pdf

11207825-RPT-8-10-Rapport Vérification-TC Pipelines Les Cèdres 2022.pdf

Page/ section reference

Entire documents

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

1

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Third party verification/assurance underway

Attach the statement

GHGRP Verification Statement_Ione.pdf

GHGRP Verification Statement_Bend 1.pdf

GHGRP Verification Statement_Chemult.pdf

GHGRP Verification Statement_Bonanza.pdf

GHGRP Verification Statement_Kent.pdf

GHGRP Verification Statement_Madras.pdf

Page/ section reference

Entire document

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

2

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Limted assurance report 2022.pdf

Page/ section reference

Entire document.
International Standard on Assurance Engagements ('ISAE') 3000 (Revised) Assurance Engagements other than Audits or Reviews of Historical Financial Information and ISAE 3410 Assurance Engagements on Greenhouse Gas Statements

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

C10.1b

(C10.1b) Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

fnl_rpt_160925198_ver_tier_agg_2022_20230623.pdf

fnl_rpt_160925199_ver_tier_bearcreek_2022_20230622.pdf
fnl_rpt_160925199_ver_tier_mackay_2022_20230622.pdf
fnl_rpt_1609251994_ver_tier_redwater_2022_20230622.pdf
fnl_rpt-160925199-ver-tier-carseland-2022-20230622.pdf
fnl_rpt_160925197_tce_ab_pipeline_20230626.pdf

Page/ section reference

Entire documents. Additional relevant standards include:
• ISO 14065:2013
• IAF MD4:2018

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

7

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Limited assurance

Attach the statement

Limted assurance report 2022.pdf

Page/ section reference

Entire document. International Standard on Assurance Engagements ('ISAE') 3000 (Revised) Assurance Engagements other than Audits or Reviews of Historical Financial Information and ISAE 3410 Assurance Engagements on Greenhouse Gas Statements

Relevant standard

ISAE3000

Proportion of reported emissions verified (%)

100

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5?

Yes

C10.2a

(C10.2a) Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C6. Emissions data	Year on year change in emissions (Scope 1 and 2)	International Standard on Assurance Engagements ('ISAE') 3000 (Revised) Assurance Engagements other than	TC Energy completes limited assurance on select indicators such as enterprise-wide

Disclosure module verification relates to	Data verified	Verification standard	Please explain
		Audits or Reviews of Historical Financial Information and ISAE 3410 Assurance Engagements on Greenhouse Gas Statements	Scope 1 and Scope 2 GHG emissions and the corporate emission intensity.
C6. Emissions data	Year on year emissions intensity figure	International Standard on Assurance Engagements ('ISAE') 3000 (Revised) Assurance Engagements other than Audits or Reviews of Historical Financial Information and ISAE 3410 Assurance Engagements on Greenhouse Gas Statements	TC Energy completes limited assurance on select indicators such as enterprise-wide Scope 1 and Scope 2 GHG emissions and the corporate emission intensity.
C5. Emissions performance	Other, please specify Emission intensity performance relative to the regulatory defined facility-specific benchmark measured as total tonnes of regulated CO2e emissions per billion cubic feet (Bcf) natural gas per kilometer distance of pipeline	TIER Standard for Validation, Verification and Audit, V5.1, December 2020 (Verification Standard) • ISO 14064 Part 3 • ISO 14065 • International Accreditation Forum Mandatory Document for the Use of Information and Communication Technology (ICT) for Auditing/Assessment Purposes: Issue 2 (IAF MD4:2018).	The volumetric throughput of products from each of the pipeline systems are subject to regulatory verification to ensure the data and records management are valid (e.g., metering devices are maintained, data acquisition systems are relaying and storing appropriate operational activity data). The throughput volumes for regulatory reported emission intensity for the TCE assets under the TIER regulations are reported as tonnes of regulated CO2e emissions per bcf/km distance of pipe.

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C5. Emissions performance	Other, please specify emission intensity performance of each facility relative to the regulatory benchmarks measured as total tonnes of regulated CO2e emissions per megawatt hour of power (MWh) and heat generated (GJ)	TIER Standard for Validation, Verification and Audit, V5.1, December 2020 (Verification Standard) • ISO 14064 Part 3 • ISO 14065 • International Accreditation Forum Mandatory Document for the Use of Information and Communication Technology (ICT) for Auditing/Assessment Purposes: Issue 2 (IAF MD4:2018)	The electrical and heat production from each of the cogeneration facility is subject to regulatory verification to ensure the data and records management are valid (e.g., metering devices are maintained, data acquisition systems are relaying and storing appropriate operational activity data).
C6. Emissions data	Other, please specify emission intensity performance of the storage facilities(aggregate facility) relative to the regulatory based facility specific benchmark measured as total regulated CO2e emissions (for TIER aggregate facilities) per volume (Injected+Withdrawn)(e3m3)	TIER Standard for Validation, Verification and Audit, V5.1, December 2020 (Verification Standard) • ISO 14064 Part 3 • ISO 14065 • International Accreditation Forum Mandatory Document for the Use of Information and Communication Technology (ICT) for Auditing/Assessment Purposes: Issue 2 (IAF MD4:2018)	The production from each of the storage assets that are subject to regulatory verification is required to ensure the data and records management are valid (e.g., metering devices are maintained, data acquisition systems are relaying and storing appropriate operational activity data). The data used to inform the production metrics for these assets are also subject to regulatory reporting under Alberta Energy Regulator Directive 17 - Measurement Requirements for Oil and Gas Operations.

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)?

Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations.

Alberta TIER - ETS
BC carbon tax
BC GGIRCA - ETS
Canada federal fuel charge
Ontario EPS - ETS
Oregon ETS
Québec CaT - ETS
Saskatchewan OBPS - ETS
Other ETS, please specify
Manitoba OBPS – ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

Alberta TIER - ETS

% of Scope 1 emissions covered by the ETS

33

% of Scope 2 emissions covered by the ETS

6.76

Period start date

January 1, 2022

Period end date

December 31, 2022

Allowances allocated

Allowances purchased

Verified Scope 1 emissions in metric tons CO2e

6,908,331.01

Verified Scope 2 emissions in metric tons CO2e

142,918.73

Details of ownership

Facilities we own and operate

Comment

In Alberta, TIER regulations require industrial facilities with GHG emissions above a certain threshold or voluntary participating facilities to reduce their operational emissions to meet specified emission intensity 'benchmarks' for a predefined production unit (emission intensity benchmark) , which are prescribed by the Alberta Government for each participating facility or industrial sector.
Not all Scope 1 emissions are covered by the TIER regulations. For example, TIER aggregate facilities do not need to include emission from non-combustion sources and Scope 2 emissions.
The third-party verified Scope 2 emissions under the TIER regulations are also different from the corporate quantified Scope 2 emissions that are used to inform this CDP submission. The Scope 2 emissions reported in TIER regulations prescribe the emission intensity factors for

electricity and heat energy using the “high performance benchmarks” that do not reflect the regional or subregional emission intensity of those energy sources. The scope 2 emission factors that are used to inform our corporate emissions are based on federally (ECCC) published emission factors that are based on measured emission intensity metrics for Alberta power generation (location-based method for reporting).

BC GGIRCA - ETS

% of Scope 1 emissions covered by the ETS

3

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2022

Period end date

December 31, 2022

Allowances allocated

Allowances purchased

Verified Scope 1 emissions in metric tons CO2e

546,804

Verified Scope 2 emissions in metric tons CO2e

142

Details of ownership

Facilities we own and operate

Comment

Adherence to this Regulation inherently drives us to reduce emissions (through innovation, technology or other practices/procedures), or accept increased financial obligations. Presently, the regulation does not consider the import of electricity and the associated indirect emissions (Scope 2) from that energy and is not part of the annual verification requirements.

Ontario EPS - ETS

% of Scope 1 emissions covered by the ETS

5

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2022

Period end date

December 31, 2022

Allowances allocated

Allowances purchased

Verified Scope 1 emissions in metric tons CO2e

1,031,759

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

Our assets are subject to this provincial EPS regulation, which covers all Scope 1 emission sources from our operations with the exception of import/consumption of electricity. Adherence to this Regulation inherently drives us to reduce emissions (through innovation, technology or other practices/procedures), or accept increased financial obligations. The Ontario and Federal governments reached an agreement whereby the Federal OBPS in Ontario was replaced on January 1, 2022 by the Ontario Emissions Performance Standards (EPS) program. The Ontario Emissions Performance Standards apply to our Canadian Mainline operations in the province and costs under this program will be recovered in tolls. There was no material impact to the financial performance of our Ontario natural gas facilities as a result of the Ontario Emissions Performance Standards program.

Oregon ETS

% of Scope 1 emissions covered by the ETS

2

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2022

Period end date

December 31, 2022

Allowances allocated

Allowances purchased

Verified Scope 1 emissions in metric tons CO2e

411,000

Verified Scope 2 emissions in metric tons CO2e

588

Details of ownership

Facilities we own and operate

Comment

Adherence to this Regulation inherently drives us to reduce emissions (through innovation, technology or other practices/procedures), or accept increased financial obligations. Presently, the regulation does not consider the import of electricity and the associated indirect emissions (Scope 2) from that energy and is not part of the annual verification requirements.

Québec CaT - ETS

% of Scope 1 emissions covered by the ETS

0.7

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2022

Period end date

December 31, 2022

Allowances allocated

Allowances purchased

Verified Scope 1 emissions in metric tons CO2e

140,734.37

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

Adherence to this Regulation inherently drives us to reduce emissions (through innovation, technology or other practices/procedures), or accept increased financial obligations. Presently, the regulation does not consider the import of electricity and the associated indirect emissions (Scope 2) from that energy and is not part of the annual verification requirements.

Saskatchewan OBPS - ETS

% of Scope 1 emissions covered by the ETS

6

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2022

Period end date

December 31, 2022

Allowances allocated

Allowances purchased

Verified Scope 1 emissions in metric tons CO2e

1,363,763.77

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

Our assets are subject to this federal OBPS regulation, which covers all Scope 1 emission sources from our operations with the exception of venting and fugitive emissions and the import/consumption of electricity. This federal regulation is in effect for 2022 in the provinces of Manitoba, Saskatchewan and New Brunswick as these jurisdictions did not have provincial carbon pricing plans in place which met. In September 2022, the Saskatchewan and Federal governments reached an agreement whereby the Federal OBPS in Saskatchewan will be replaced on January 1, 2023 by the Saskatchewan Emissions Performance Standards program for pipeline transmission sector assets. Covered facilities are still required to meet the Federal OBPS regulations for the 2022 compliance period. Federal OBPS and the Saskatchewan Emissions Performance Standards apply to our Canadian Mainline and Foothills operations in the province and costs under this program will be recovered in tolls. At this time, we do not anticipate a material impact to the financial performance of our natural gas facilities as a result of the transition to the Saskatchewan Emissions Performance Standards program.

Other ETS, please specify

% of Scope 1 emissions covered by the ETS

2

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2022

Period end date

December 31, 2022

Allowances allocated

Allowances purchased

Verified Scope 1 emissions in metric tons CO2e

320,649.7

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

Our assets are subject to the federal OBPS regulation, which covers all Scope 1 emission sources from our operations with the exception of venting and fugitive emissions and the import/consumption of electricity. Adherence to this Regulation inherently drives us to reduce emissions (through innovation, technology or other practices/procedures), or accept increased financial obligations. This federal regulation is in effect for 2022 in the provinces of Manitoba, Saskatchewan and New Brunswick as these jurisdictions did not have provincial carbon pricing plans in place which met the Government of Canada's equivalency criteria. As a result of the Federal program, our assets across Canada are all subject to some type of carbon pricing and the costs under these programs are recovered in tolls. These carbon prices are scheduled to increase by $15/tonne every year after 2022 to $170/tonne in 2030.

C11.1c

(C11.1c) Complete the following table for each of the tax systems you are regulated by.

BC carbon tax

Period start date

January 1, 2022

Period end date

December 31, 2022

% of total Scope 1 emissions covered by tax

2

Total cost of tax paid

24,061,112

Comment

BC adopted their carbon tax system in 2008, the first broad-based carbon tax in North America.
On April 1, 2022, B.C.'s carbon tax rate, applied to the purchase and use of fossil fuels, rose from $45 per tCO2e to $50 per tonne and is scheduled to increase in alignment with the federal carbon pricing schedule beyond 2022.

Canada federal fuel charge

Period start date

January 1, 2022

Period end date

December 31, 2022

% of total Scope 1 emissions covered by tax

0.05

Total cost of tax paid

Comment

The Fuel Charge applies to the consumption of fossil fuels that are generally used for the purposes of combustion. TC Energy indirectly pays this tax as the fuel charge is typically imbedded in the price of the fuel at the point of purchase and taxes are remitted to the federal government by the registered distributor or fuel supplier.

Representative of the percentage of total Scope 1 emissions in the reporting period that were taxed by this carbon tax.
Under the Greenhouse Gas Pollution Pricing Act, adopted in 2018, the Canadian federal carbon pollution pricing system has two parts: a regulatory charge on fuel (fuel charge), under Part 1 of the Act, and a regulatory trading system for industry known as OBPS, under Part 2 of the Act.

The Fuel Charge, applies to 21 types of fuel delivered, transferred, used, produced, imported, or brought into the provinces and territories in which the federal system applies. It also applies to combustible waste that is burned for the purpose of producing heat or energy.

The Fuel Charge came into effect in April 2019 in Manitoba, New Brunswick, Ontario and Saskatchewan, in July 2019 in Nunavut and Yukon, and January 1, 2020 in Alberta.
The remainder of the Canadian provinces and territories either have their own version of the fuel charge (Newfoundland and Labrador, Prince Edward Island, Nova Scotia, British Columbia and the Northwest Territories) or have implemented a cap-and-trade program (Quebec) as an alternative.

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

Across North America, there are a variety of new and evolving initiatives and policies in development at the federal, regional, state and provincial level aimed at reducing GHG emissions. We actively monitor and submit comments to regulators as these new and evolving initiatives are undertaken and policies are implemented. We support transparent climate change policies that promote sustainable and economically responsible natural resource development, and in October 2021, we published a GHG Emissions Reduction Plan that includes GHG reduction targets in support of global climate goals. Our assets in specific geographies are currently subject to GHG regulations and we expect that the number of our assets subject to GHG regulations will continue to increase over time across our footprint. Changes in regulations may result in higher operating costs, other expenses or capital expenditures to comply with new or changing regulations. We monitor the pace and magnitude of energy transition through various signposts and look for material shifts that pose threats or create opportunities. We evaluate climate-related scenarios to gain perspective on the implications for our footprint, growth opportunities and portfolio optimization; this plays a critical role in understanding how we can manage several of our key enterprise risks.
We follow a portfolio approach, seeking abatement opportunities within our own footprint (e.g. waste heat recovery, process optimization, electrification and sourcing net zero power), as well as retirement of self-generated cogeneration environmental performance credits, active procurement of carbon

offset credits, and replacement of leak detection equipment at our pipeline assets with more effective equipment (e.g. replacement of electrochemical cell detectors by infrared camera equipment). Most carbon pricing regimes (Alberta TIER, Canadian federal OBPS) limit the use of carbon offsets and performance credits, mandating payments for excess emissions. In cap-and-trade markets, we exercise commercially reasonable strategies to maintain compliance requirements by retirement of appropriate vintage carbon credit allowances purchased at auctions or from secondary markets. We continue to advocate for the use of carbon markets to create immediate and measurable reductions in GHGs at the lowest possible cost.
As a regulated midstream oil and gas company, TC Energy typically flows through carbon liability costs to its customers through rate base or shipper agreements. In British Columbia, the CleanBC Industrial Incentive Program (CIIP) supports emission reductions and industrial competitiveness by providing incentives for cleaner industrial operations that meet a world-leading low-carbon emissions benchmark. The level of incentive is based on the performance of each operation, such as TC Energy's Foothills pipeline system. For program year 2022, TC Energy's Foothills pipeline received roughly $422,000 in grants through the CIPP which was passed back to the customers.
We regularly consult with federal and provincial governments on the development of carbon pricing frameworks to ensure our customers costs are mitigated to the extent possible. These contributions occur with advocacy from our Stakeholder Relations and Policy teams, as well as through industry associations such as IETA, CGFA, INGAA, API, CGA and CEPEI.

C11.2

(C11.2) Has your organization canceled any project-based carbon credits within the reporting year?

No

C11.3

(C11.3) Does your organization use an internal price on carbon?

No, and we do not currently anticipate doing so in the next two years

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues?

Yes, our suppliers
Yes, our customers/clients
Yes, other partners in the value chain

C12.1a

(C12.1a) Provide details of your climate-related supplier engagement strategy.

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Other, please specify

collection of environmental regulations and laws/compliance information

% of suppliers by number

85

% total procurement spend (direct and indirect)

% of supplier-related Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement

We are working to increase response rates and accuracy of data with our suppliers, however, not all suppliers are required to respond due to the applicability and feasibility of the program to their services. Scope 3 emission mapping is under development.

Impact of engagement, including measures of success

Our contractor qualification process reviews all contractors. This process ensures current and potential contractors meet minimum requirements in EH&S and regulatory, legal, quality, and our Anti-Bribery and Corruption policies. We are also requiring and sustainability questionnaire from suppliers to map their sustainability efforts and progress.
Any contractor to be found with a violation or fine is reviewed internally and assessed a classification on the severity of the incident. Decisions are based on working with contractors that align to our environmental principles of Stewardship, Performance and Protection of our footprint and interactions with the Environment in the work we conduct.

Comment

Sustainability questionnaires through ISN provides several benefits including enhanced business continuity, development of trusted partnerships with suppliers, cost savings through reduced energy and water consumption, prevention of fines and litigation, and minimization of disruptions in the supply chain. We are focusing this year to roll out climate change/sustainability performance criteria in our contractor awards scheme and track any associated cost savings climate reduction opportunities.

Type of engagement

Engagement & incentivization (changing supplier behavior)

Details of engagement

Other, please specify

contractor encouragement to identify opportunities for improvement (OFI's)

% of suppliers by number

% total procurement spend (direct and indirect)

% of supplier-related Scope 3 emissions as reported in C6.5

Rationale for the coverage of your engagement

Our contractors are encouraged to provide opportunities for improvements and reductions in our environmental and carbon impacts across our projects for contracted work packages.

Impact of engagement, including measures of success

We are working with our supply chain categories to onboard new suppliers that can support our energy transition plan for projects that will reduce our carbon footprint. Each of these supply chain categories are working with our suppliers to communicate our sustainability goals and priorities to help them meet our requirements. Suppliers are encouraged to bring opportunities and improvements to our existing services and materials that can help achieve our goals.

Comment

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement & Details of engagement

Collaboration & innovation

Other, please specify

Solving customers' decarbonization as a part of our strategy

% of customers by number

% of customer - related Scope 3 emissions as reported in C6.5

Please explain the rationale for selecting this group of customers and scope of engagement

Solving customers' decarbonization needs is fundamental to executing TC Energy's strategy, particularly that of our Power and Energy Solutions business segment.

Impact of engagement, including measures of success

Engagement with customers regarding efforts to reduce GHG emissions tends to be done informally through conversations. At times we have provided formal presentations to prospective customers who are trying to understand current or potential future exposures associated with environmental regulation.

Type of engagement & Details of engagement

Other, please specify

Other, please specify

Informal customer / potential value-chain partners engagement

% of customers by number

% of customer - related Scope 3 emissions as reported in C6.5

Please explain the rationale for selecting this group of customers and scope of engagement

Commercial customers occasionally inquire about our climate change position and actions; questionnaires are completed as required for commercial contracts and bids.

The annual Report on Sustainability is published publicly to encourage further engagement with us on climate change positioning and actions.

Impact of engagement, including measures of success

While we have not had engagement sessions with our customers on our GHG emissions and climate change strategies, we engage with our customers with respect to the introduction of the climate change policies that have been legislated across Canada, and how those policies may impact the costs and operation our assets.

Type of engagement & Details of engagement

Other, please specify

Other, please specify

Education/information sharing via natural gas trade organizations

% of customers by number

% of customer - related Scope 3 emissions as reported in C6.5

Please explain the rationale for selecting this group of customers and scope of engagement

Impact of engagement, including measures of success

We formally engage with customers as members and Board members of many industry trade organizations. Collaborating in these associations allows us to educate each other and respond together on important issues regarding the natural gas industry, such as climate related risk. Associations we actively engage with include PTAC – Petroleum Technology Alliance Canada, American Gas Association (AGA), Canadian Gas Association (CGA), Northwest Gas Association (NWGA), Western Energy Institute (WEI), Southern Gas Association (SGA) and The Interstate Natural Gas Association of America (INGAA).

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

We engage value chain partners in various ways to ensure the climate-related interests and concerns of its stakeholders are incorporated.
One of our main tools for engaging stakeholder on climate change is the annual Report on Sustainability and complementary disclosures, which provide detailed information regarding our initiatives to address climate-related issues, as well as relevant performance metrics. We also provide public information about GHG emission reduction practices through voluntary disclosures like the CDP climate change questionnaire.
Our operations and growth prospects require us to have strong relationships with key stakeholders including customers, Indigenous communities, landowners, suppliers, investors, governments and government agencies and environmental non-governmental organizations to conduct collaborative research, listen to different perspectives and share our position related to climate change. We maintain ongoing partnerships with industry groups and trade associations, which collectively engage industry sector companies in climate-related discussions and identify opportunities to collaborate on strategies and industry commitments.

Our core values – safety, responsibility, collaboration, integrity and innovation – guide us in building and maintaining our key relationships as well as our interactions with stakeholders. We are proud of the strong relationships we have built with stakeholders across our geographies, and we are continuously seeking ways to strengthen these relationships. Beyond our core values, we have specific stakeholder programs and policies that shape our interactions, clarify expectations, assess risks and facilitate mutually beneficial outcomes.
Our existing extensive footprint offers significant in-corridor growth opportunities. This includes possible future opportunities to deploy low-emission infrastructure technologies such as renewables, hydrogen and carbon capture, which will help reduce the carbon footprint of our customers and us, and also support extending the longevity of our existing assets.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

No, but we plan to introduce climate-related requirements within the next two years

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

External engagement activities that could directly or indirectly influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers
Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate
Yes, we fund organizations or individuals whose activities could influence policy, law, or regulation that may impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

Yes

Attach commitment or position statement(s)

tce-climate-related-lobbying.pdf

Describe the process(es) your organization has in place to ensure that your external engagement activities are consistent with your climate commitments and/or climate transition plan

TC Energy is uniquely positioned to help advance a clean energy transition that promotes security and prosperity for energy users worldwide. We will continue to be a voice for thoughtful and balanced solutions that drive global growth and emissions reductions through infrastructure development and a leveraging of North America's abundant energy resources. We will advocate for policies that are consistent with our climate-related goals, support deployment of clean energy systems, a robust energy trade, a strategic diversification of our energy mix, and an advancement of the aspirational pursuit of limiting a global temperature increase to 1.5°C.
While we support the aspirational goal to limit global warming to 1.5°C, we do not always support legislation or regulations that are aimed at limiting global warming: A specific piece of legislation or regulation, while well intentioned, may not be designed to achieve the intended objective. Our climate-related lobbying report outlines our advocacy activities and assesses alignment of the climate-related policy engagement of our primary trade associations and memberships. We outline the framework used to determine alignment, partial alignment and misalignment in the assessment, and the steps taken to address position differences.

We know that strong climate change policy will take a collective effort among industry, governments, communities and consumers to see true change in our actions against climate change. We will continue to advance our efforts to work with policy-makers and industry peers to help our industry fully participate in the North American climate change discussion.

The company engages in the public policy process by participating in direct government advocacy, as well as working with third parties, such as industry associations. As part of this commitment, the company focuses on constructive engagement and support of the political process through contributions to political organizations and political campaigns to the extent permitted by applicable law. TC Energy is non-partisan and participates in the political process only when permitted by applicable law, in accordance with company policies, and in a responsible and ethical way that serves the best interests of the company and its stakeholders.

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Specify the policy, law, or regulation on which your organization is engaging with policy makers

In 2022, TC Energy engaged on the Canadian government's 2030 Emissions Reduction Plan (ERP). Beyond setting a target for Canada to reduce national emissions 40 percent below 2005 levels by 2030, the ERP also either began or continued facilitating a significant policymaking process and implementation for an array of related measures. Key initiatives relating to the ERP applicable to TC Energy include the following:
- Federal Carbon Pollution Pricing System
- Federal GHG Offset System
- Clean Fuel Regulations
- Investment Tax Credits (CCUS, Hydrogen, Clean Technology)
- National CCUS Strategy
- Oil and Gas Emissions Cap
- Clean Electricity Regulations
- Changes to the Oil and Gas Methane Regulations

Category of policy, law, or regulation that may impact the climate

Climate change mitigation

Focus area of policy, law, or regulation that may impact the climate

Climate-related targets
Emissions – methane
Low-carbon, non-renewable energy generation
Other, please specify
Carbon taxes

Policy, law, or regulation geographic coverage

National

Country/area/region the policy, law, or regulation applies to

Canada

Your organization's position on the policy, law, or regulation

Support with major exceptions

Description of engagement with policy makers

TC Energy made a written submission to ECCC in 2022 outlining our overarching perspectives on the foundational values that should underpin government's approach to developing the 2030 ERP. Throughout the year, we provided additional submissions and pursued advocacy, both directly and through industry associations, as discrete policy was developed to advance the 2030 ERP. This included engagements with ECCC, NRCan and Finance Canada on the Oil and Gas Emissions Cap, Clean Electricity Regulations, revisions to the Methane Regulations, the development of investment tax credits (CCUS, hydrogen and clean technologies), along with other implemented policy pieces government was looking to refine (carbon pricing, clean fuel regulations).

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

We will advocate for policies that are consistent with our climate-related goals, support deployment of clean energy systems, a robust energy trade, a strategic diversification of our energy mix, and an advancement of the aspirational pursuit of limiting a global temperature increase to 1.5°C.While we support the aspirational goal to limit global warming to 1.5°C, we do not always support legislation or regulations that are aimed at limiting global warming: A specific piece of legislation or regulation, while well intentioned, may not be designed to achieve the intended objective.

We provided some considerations for government in developing the 2030 Canadian Government's 2030 Emissions Reduction Plan (ERP). TC Energy positions relevant to this questionnaire include:
- Ensuring consideration for how existing energy pathways can be best used to support Canadians through the energy transition.
- Focusing on establishing outcome-based policy that provides the certainty and incentivization needed to support the transition to a lower emission economy.
- Ensuring a balance between required compliance and market-based policies that provide fiscal incentives to help drive renewable deployment.
- Seeking opportunities to streamline regulatory processes to ensure decarbonization projects can be deployed as quickly as possible, while still meeting stakeholder and environmental objectives.
- Ensuring the necessary quick win emission reductions do not come at the expense of the transformational change required to facilitate the energy transition.
- As climate change is a global issue and all reasonable future energy scenarios see significant hydrocarbon use beyond 2050, ensuring Canada does not cede market share to international producers with lower ranking sustainability performance to achieve near-term national

emission reductions.
Similarly, key relevant positions regarding the CCUS ITC included:
- Eligibility for infrastructure in all three CCUS value chain components (capture, transportation and storage)
- Eligibility for both greenfield and brownfield projects
- Facilitating credit stackability with other federal and provincial programs
- Ensuring tax credit competitiveness with similar programs in other jurisdictions (i.e., the United States)
TC Energy recommendations on the remaining policy engagements were more technical or nuanced in nature; therefore, we have excluded in the context of this questionnaire.

Have you evaluated whether your organization's engagement on this policy, law, or regulation is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.3b

(C12.3b) Provide details of the trade associations your organization is a member of, or engages with, which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association

American Gas Association

Is your organization's position on climate change policy consistent with theirs?

Mixed

Has your organization attempted to influence their position in the reporting year?

No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

The American Gas Association (AGA) is committed to reducing greenhouse gas emissions through smart innovation, new and modernized infrastructure, and advanced technologies that maintain reliable, resilient, and affordable energy service choices for consumers. While in 2022 we did not actively attempt to influence AGA's position on climate change, in early 2023 we assessed our key trade associations' climate-related activities and how their positions align with our climate lobbying policy statement. Our climate lobbying policy statement, and details of our future engagement regarding climate-related activities, can be found in our 2023 Climate-related lobbying report. We will provide a progress update on our trade association alignment in our annual sustainability report.

In our assessment of trade association alignment, an association was identified as partially aligned if we found that it did not meet the criteria for either aligned or not aligned. When assessing AGA, we identified evidence of indirect support limiting average global warming to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C resulting in an assessment of partial alignment. As a significant advocate for the natural gas sector, we find value in our membership and will maintain participation. We will urge AGA to advocate for policies and/or activities that are aligned with membership values and which seek to limit average global warming to below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C.

AGA and its member natural gas utilities collectively commit to:

1. Further reduce methane emissions from natural gas utility systems
2. Encourage and support energy efficiency
3. Increase efficiencies in operating facilities
4. Scale-up and deploy advanced natural gas applications
5. Invest in research, development, and deployment of new technologies
6. Support renewable natural gas development and use and assess the potential of renewable power to gas
7. Modernize - infrastructure
8. Encourage and support third-party damage prevention programs
9. Utilize recognized best practices to reduce methane and transparently report emissions data
10. Encourage and increase collaboration with natural gas producers and pipeline operators to help ensure that natural gas resources are developed and transported sustainably and responsibly

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

75,833

Describe the aim of your organization's funding

TC Energy engages with governments and other stakeholders to support balanced policies, legislation and regulations that will play a key role in a net-zero emissions economy, while addressing global energy security, affordability and sustainability. TC Energy's Executive Vice-President and Group Executive of U.S. and Mexico Natural Gas Pipelines is an advisory director.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is not aligned

Trade association

American Petroleum Institute

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

American Petroleum Institute's (API) mission, as representation of members from all segments of America's natural gas and oil industry, is to promote safety across the industry globally and to influence public policy in support of a strong, viable U.S. oil and natural gas industry. The natural gas and oil industry is unified in the commitment to accelerating safety and environmental progress across its operations, while meeting global demand for affordable, reliable and cleaner energy. Meeting this demand requires safe and responsible production, transportation, refining and exports. Under API Energy Excellence, API members commit to accelerating safety and environmental progress by adhering to 13 core elements that serve to continuously improve our performance as an industry. API members apply these elements to safeguard our employees, environment and the communities in which they operate. When assessing API, we identified them as aligned with our climate lobbying policy statement found at https://www.tcenergy.com/siteassets/pdfs/sustainability/sustainability-report/2023/tce-climate-related-lobbying.pdf.

API and its members commit to delivering solutions that reduce the risks of climate change while meeting society's growing energy needs. We

support global action that drives greenhouse gas emissions reductions and economic development. The natural gas and oil industry are part of the global solution and plays a vital role in developing and deploying technologies and products that continue to reduce GHG emissions while advancing human and economic prosperity and that are essential to extending the benefits of modern life to all.
API will lead by providing platforms for industry action to reduce greenhouse gas emissions through industry-led solutions, and actively work on policies that address the risks of climate change while meeting the global need for affordable, reliable and sustainable energy.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

865,270

Describe the aim of your organization's funding

TC Energy's President and CEO is a member of the Board of Directors. Company representatives participate in technical, policy, environmental and safety committees.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Business Council of Canada

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

The Business Council of Canada (BCC) is a not-for-profit, non-partisan organization engaged in research and advocacy on policy issues that affect Canadian businesses. Its members are the chief executives of 150 of Canada's largest companies. The BCC has a series of position papers and reports related to climate change and emissions reduction. It positions itself in the following manner on climate change: supportive of a price on carbon as part of the means to achieve emissions reductions from both businesses and individuals and advocates for a clear and consistent public policy framework that would allow businesses to make major investments in emissions reduction technologies. BCC states they acknowledge that the scale of the challenge is enormous, but we are convinced that, with a supportive policy environment and sustained public and private investment, Canadians can look forward to a strong and vibrant economy that reaches the net-zero target by 2050.
When assessing BCC we identified them as aligned with our climate lobbying policy statement found:
at:https://www.tcenergy.com/siteassets/pdfs/sustainability/sustainability-report/2023/tce-climate-related-lobbying.pdf

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

84,000

Describe the aim of your organization's funding

TC Energy engages with governments and other stakeholders to support balanced policies, legislation and regulations that will play a key role in a net-zero emissions economy, while addressing global energy security, affordability and sustainability. TC Energy's President and Chief Executive Officer is a member of the Board of Directors. Company representatives participate in a variety of technical, policy, safety, and environmental committees.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Canadian Gas Association (CGA)

Is your organization's position on climate change policy consistent with theirs?

Mixed

Has your organization attempted to influence their position in the reporting year?

No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

The Canadian Gas Association (CGA) is the voice of Canada's natural gas delivery industry, and its members are distribution companies, transmission companies, equipment manufacturers and other service providers. CGA works to: build the understanding of our product, natural gas; advance efficiency and innovation in the energy and economy discourse; drive for improved regulatory engagement; ensure continuous improvements in safety and integrity management; and pursue partnerships to better deliver energy services to Canadians. While in 2022 we did not actively attempt to influence CGA's position on climate change, in early 2023 we assessed our key trade associations' climate-related activities and how their positions align with our climate lobbying policy statement. Our climate lobbying policy statement, and details of our future engagement regarding climate-related activities can be found in our 2023 Climate-related lobbying report.

In our assessment of trade association alignment, an association was identified as partially aligned if we found that it did not meet the criteria for either aligned or not aligned. When assessing CGA, we identified evidence of indirect support limiting average global warming to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C resulting in an assessment of partial alignment. As a significant advocate for the natural gas sector, we find value in membership and will maintain participation. We will urge CGA to advocate for policies and /or activities that are aligned with membership values and which limit average global warming to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C.

The CGA does not have an explicit climate change position, but commissioned a study prepared by leading experts titled Gas Pathways to Net Zero in Canada. The study identified that natural gas utilities in Canada have long been leaders in helping Canadian energy consumers reduce their GHG emissions by reducing energy consumption and shifting to lower emitting alternatives, such as renewable natural gas and hydrogen. Through investments in innovation and clean technologies, they are identifying more and more opportunities to reduce our environmental impacts.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

468,653

Describe the aim of your organization's funding

TC Energy engages with governments and other stakeholders to support balanced policies, legislation and regulations that will play a key role in a net-zero emissions economy, while addressing global energy security, affordability and sustainability. TC Energy's President, Canadian

Natural Gas Pipelines is a member of the Board of Directors. Company representatives participate in a variety of technical, policy, safety, and environmental committees.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is not aligned

Trade association

Other, please specify

Electricity Canada (formerly, the Canadian Electricity Association (CEA)

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

Electricity Canada (formerly the Canadian Electricity Association) is the national forum and voice of the evolving and innovative electricity business in Canada. The Association supports, through its advocacy efforts, the regional, national, and international success of its members. In its report Adapting to Climate Change State of Play and Recommendations for the Electricity Sector in Canada, Electricity Canada has stated electricity companies must initiate the development of systematic approaches to climate change adaptation and mitigate priority risks.
When assessing Electricity Canada, we identified them as aligned with our climate lobbying policy statement found at: https://www.tcenergy.com/siteassets/pdfs/sustainability/sustainability-report/2023/tce-climate-related-lobbying.pdf.

Strategies adopted to address these issues generally adhere to a set of principles aimed at optimizing solutions:
• Continued provision of safe, cost-effective, and reliable electricity;
• Integrated management of GHGs and other air pollutant emissions;

- Accommodation of full fuel/generation source diversity;
- Consideration of regional differences, in electricity supply and demand as well as air quality issues;
- Flexibility of implementation mechanisms, allowing a full array of market and other instruments; and
- Consideration of GHG policies of the U.S., Canada's primary trading partner.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

110,546

Describe the aim of your organization's funding

TC Energy engages with governments and other stakeholders to support balanced policies, legislation and regulations that will play a key role in a net-zero emissions economy, while addressing global energy security, affordability and sustainability. TC Energy's Executive Vice-President and President, Power & Energy Solutions is a member of the Board of Directors. Company representatives participate in a variety of technical, policy, safety, and environmental committees.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Greater Houston Partnership/Houston Energy Transition Initiative (HETI)

Is your organization's position on climate change policy consistent with theirs?

Consistent

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

The Greater Houston Partnership/ Houston Energy Transition Initiative (HETI) is dedicated to strengthening Houston's position as the Energy Capital of the World. In 2020, the Partnership prioritized efforts that will position Houston to lead the global energy transition to a more efficient and sustainable, low-carbon future and to accommodate global demand growth. In summer 2021, the organization released a strategy for how Houston can leverage its energy leadership to accelerate global solutions for an energy-abundant, low-carbon future and launched the HETI. The Partnership is committed to working alongside the business community, stakeholders, elected officials and others to identify solutions to take on the dual challenge of meeting the world's increasing energy needs while lowering the world's carbon footprint.
When assessing HETI, we identified them as aligned with our climate lobbying policy statement found at:
https://www.tcenergy.com/siteassets/pdfs/sustainability/sustainability-report/2023/tce-climate-related-lobbying.pdf.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

830,050

Describe the aim of your organization's funding

TC Energy's Executive Vice-President and Group Executive of U.S. and Mexico Natural Gas Pipelines is a member of the Board of Directors and Executive Committee.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Trade association

Other, please specify

Interstate Natural Gas Association of America (INGAA)

Is your organization's position on climate change policy consistent with theirs?

Mixed

Has your organization attempted to influence their position in the reporting year?

No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

While in 2022 we did not actively attempt to influence INGAA's position on climate change, in early 2023 we assessed our key trade associations' climate-related activities and how their positions align with our climate lobbying policy statement. Our climate lobbying policy statement, and details of our future engagement regarding climate-related activities can be found in our 2023 Climate-related lobbying report found at:
https://www.tcenergy.com/siteassets/pdfs/sustainability/sustainability-report/2023/tce-climate-related-lobbying.pdf.
In our assessment, an association was identified as partially aligned if we found that it did not meet the criteria for either aligned or not aligned. When assessing INGAA, we identified evidence of indirect support limiting average global warming to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C resulting in an assessment of partial alignment. As a key association and forum to collaborate with other midstream natural gas energy companies, we find value in membership and will maintain participation. We will urge the INGAA to advocate in support of policies and /or activities that are aligned with membership values and seek to limit average global warming to below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C.
As part of INGAA's commitment to build a cleaner energy future, members commit to: reducing their GHG emissions from their natural gas transmission and storage operations and meeting individual reduction goals; working as an industry towards reaching net-zero GHG emissions from natural gas transmission and storage operations by no later than 2050; providing consistent and transparent data collection, measurement, and reporting of emissions; reducing the carbon intensity of natural gas infrastructure, supporting the reduction of net global emissions by adopting and investing in innovative and transporting low or no carbon fuels; working together to accelerate efforts to reduce and minimize emissions across the natural gas value chain; investing in responsible environmental stewardship as part of efforts to modernize our nation's natural gas infrastructure.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

1,046,578

Describe the aim of your organization's funding

TC Energy engages with governments and other stakeholders to support balanced policies, legislation and regulations that will play a key role in a net-zero emissions economy, while addressing global energy security, affordability and sustainability.
TC Energy's Executive Vice President and Group Executive, U.S. and Mexico Natural Gas Pipelines is a member of the Board of Directors. Company representatives participate in a variety of technical, safety, policy, and environmental committees.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is not aligned

Trade association

Other, please specify

Ivey Business School at Western University

Is your organization's position on climate change policy consistent with theirs?

Mixed

Has your organization attempted to influence their position in the reporting year?

No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

The Ivey Business School at Western University develops leaders who think globally, act strategically, and address critical issues facing organizations and society, through impactful research and transformative learning experiences. The Ivey Energy Policy and Management Centre on the Energy Consortium is an independent, informed, and trusted voice on Canadian energy policy matters, in support of a thriving Canadian economy. While in 2022 we did not actively attempt to influence Ivey Business School at Western University's position on climate change, in early 2023 we assessed our key trade associations' climate-related activities and how their positions align with our climate lobbying policy statement. Our climate lobbying policy statement, and details of our future engagement regarding climate-related activities can be found in our 2023 Climate-related lobbying report, found at:
https://www.tcenergy.com/siteassets/pdfs/sustainability/sustainability-report/2023/tce-climate-related-lobbying.pdf
We will provide a progress update on our trade association alignment in our annual sustainability report.
In our assessment of trade association alignment, an association was assessed as partially aligned if we found that it did not meet the criteria for either aligned or not aligned. When assessing Ivey Business School at Western University we identified evidence of indirect support limiting average global warming to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C resulting in an assessment of partial alignment. As a trusted forum for public discussion and accessible applied research, we find value in membership and

will maintain participation. We will urge the Ivey Energy Policy and Management Centre on the Energy Consortium to publish peer-reviewed papers, reports, and/or policy briefs in support of policies and /or activities that are aligned with membership values and which limit average global warming to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

50,000

Describe the aim of your organization's funding

TC Energy engages with governments and other stakeholders to support balanced policies, legislation and regulations that will play a key role in a net-zero emissions economy, while addressing global energy security, affordability and sustainability.
TC Energy's Director, Government Relations Canada is a member of the Advisory Board. Company representatives participate in meetings of the Advisory Board and various interactions with the Centre's staff.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is not aligned

Trade association

Other, please specify

Liquid Energy Pipeline Association

Is your organization's position on climate change policy consistent with theirs?

Mixed

Has your organization attempted to influence their position in the reporting year?

No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

The Liquid Energy Pipeline Association (LEPA) strives to achieve responsible public policies, performance excellence, and public support for liquids pipelines. As the only association representing liquid pipelines on federal economic regulatory issues, LEPA advocates for responsible economic and commercial policies at the FERC and Congress. While in 2022 we did not actively attempt to influence LEPA's position on climate change, in early 2023 we assessed our key trade associations' climate-related activities and how their positions align with our climate lobbying policy statement. Our climate lobbying policy statement, and details of our future engagement regarding climate-related activities can be found in our 2023 Climate-related lobbying report found at:
https://www.tcenergy.com/siteassets/pdfs/sustainability/sustainability-report/2023/tce-climate-related-lobbying.pdf
We will provide a progress update on our trade association alignment in our annual sustainability report.
In our assessment of trade association alignment, an association was identified as partially aligned if we found that it did not meet the criteria for either aligned or not aligned. When assessing LEPA, we identified no evidence of position or activities supporting limiting average global warming to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C, or promoting access to sufficient, affordable clean energy resulting in an assessment of partial alignment. As an organization encouraging exchange of information, providing access to education and training, and promoting safety excellence, we find value in membership and will maintain participation. We will urge LEPA support of policies and /or activities that are aligned with membership values and seek to limit average global warming to below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C, and promoting access to sufficient, affordable clean energy.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

411,614

Describe the aim of your organization's funding

TC Energy engages with governments and other stakeholders to support balanced policies, legislation and regulations that will play a key role in a net-zero emissions economy, while addressing global energy security, affordability and sustainability. TC Energy's President, Liquids Pipelines is a member of the Board of Directors.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is not aligned

Trade association

Other, please specify

Northwest Gas Association

Is your organization's position on climate change policy consistent with theirs?

Mixed

Has your organization attempted to influence their position in the reporting year?

No, we did not attempt to influence their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

The Northwest Gas Association (NWGA) is a bi-national trade organization of the Pacific Northwest natural gas industry. Its core purpose is to advocate for the role of the region's gas infrastructure in safely delivering a clean, dependable and affordable energy future. While in 2022 we did not actively attempt to influence NWGA's position on climate change, in early 2023 we assessed our key trade associations' climate-related activities and how their positions align with our climate lobbying policy statement. Our climate lobbying policy statement, and details of our future engagement regarding climate-related activities can be found in our 2023 Climate-related lobbying report found at:
https://www.tcenergy.com/siteassets/pdfs/sustainability/sustainability-report/2023/tce-climate-related-lobbying.pdf
We will provide a progress update on our trade association alignment in our annual sustainability report.
In our assessment of trade association alignment, an association was identified as partially aligned if we found that it did not meet the criteria for either aligned or not aligned. When assessing NWGA, we identified No evidence of position or activities supporting limiting average global warming to well below 2°C above pre-industrial levels and pursuing efforts to limit the temperature increase to 1.5°C resulting in an assessment of partial alignment. As an assertive advocate representing the interests of the gas transmission and organizations in the Pacific Northwest, we find value in membership and will maintain participation. We will urge NWGA to support policies that are aligned with membership values and seek to limit average global warming to below 2°C above pre-industrial levels and pursue efforts to limit the temperature increase to 1.5°C.

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

138,896

Describe the aim of your organization's funding

TC Energy engages with governments and other stakeholders to support balanced policies, legislation and regulations that will play a key role in a net-zero emissions economy, while addressing global energy security, affordability and sustainability. TC Energy's Account Director, West Pipeline Assets and Director, NGTL Marketing are members of the Board of Directors. Company representatives participate in various committees and association activities.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is not aligned

Trade association

Other, please specify

Confederación Patronal de la República Mexicana (COPARMEX)

Is your organization's position on climate change policy consistent with theirs?

Unknown

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

24,186

Describe the aim of your organization's funding

Supportive of Mexico's clean energy goals (as established in Mexican legislation and its 2015 Nationally Determined Contribution submitted to the UNFCCC) and critical of the current administration's landmark projects (Maya Train, Dos Bocas Refinery etc.). Throughout 2018 and 2019 the Environmental Affairs Committee published COPARMEX's Environmental Agenda, taking UN Sustainable Development Goals as

benchmarks. We support Mexico's clean energy goals, while also respecting the Mexican government's right to define its own energy policy.
In September 2021, President Lopez Obrador introduced a bill proposing constitutional amendments to several articles of the Mexican Constitution governing energy companies, energy regulators, and the state-owned enterprises in the country. The President's bill was discussed in Congress through a series of hearings hosting experts from the sector in favor and against the reform. Coparmex was an active participant in these hearings advocating against its approval. The President's Electricity and Energy Sector Constitutional Reform Bill was rejected in April 2022, after failing to reach the two-thirds majority needed to pass the reform.
We are opposed to an increased use of high polluting fuels, such as fuel oil. We actively participate in the Confederation's Environmental and Energy Committees to this effect.
This trade association was not assessed /included in our Climate- related lobbying report as it did not meet minimum membership dues threshold. TCE energy will assess these trade associations as compared to our recently published climate lobbying policy statement and respond accordingly in future years.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

No, we have not evaluated

Trade association

Other, please specify

Canadian Chamber of Commerce in Mexico (CANCHAM)

Is your organization's position on climate change policy consistent with theirs?

Unknown

Has your organization attempted to influence their position in the reporting year?

Yes, we attempted to influence them but they did not change their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

2,142

Describe the aim of your organization's funding

We are supportive of Mexico's clean energy goals and they were critical of the current administration's energy policy. We actively participate in CANCHAM's monthly committee and executive board meetings, where the committee's agendas for discussion are set. This trade association was not assessed /included in our Climate- related lobbying report as it did not meet minimum membership dues threshold. TCE energy will assess these trade associations as compared to our recently published climate lobbying policy statement and respond accordingly in future years.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

No, we have not evaluated

Trade association

Other, please specify

Asociación Mexicana de Gas Natural (Mexican Association of Natural Gas, AMGN)

Is your organization's position on climate change policy consistent with theirs?

Unknown

Has your organization attempted to influence their position in the reporting year?

Yes, we publicly promoted their current position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

11,080

Describe the aim of your organization's funding

Representing natural gas users and companies, the Association is supportive of Mexico's environmental agenda, promoting natural gas as a transition fuel for the country, to replace more carbon-intensive fuel sources. With technical committees, the Association follows-up and make collective comments on regulatory initiatives, such as the methane directives. In addition, the Association promotes meetings with public officials in charge of environmental measures (i.e. ASEA). We are an active participant in the Association's Board Meetings and technical committees, focused on the transportation of natural gas; as well as their Annual Members' Meeting.
This trade association was not assessed/included in our Climate- related lobbying report as it did not meet minimum membership dues threshold. TCE energy will assess these trade associations as compared to our recently published climate lobbying policy statement and respond accordingly in future years.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

No, we have not evaluated

Trade association

Other, please specify

American Chamber of Commerce in Mexico (AMCHAM)

Is your organization's position on climate change policy consistent with theirs?

Unknown

Has your organization attempted to influence their position in the reporting year?

Yes, we attempted to influence them but they did not change their position

Describe how your organization's position is consistent with or differs from the trade association's position, and any actions taken to influence their position

Funding figure your organization provided to this trade association in the reporting year (currency as selected in C0.4)

3,625

Describe the aim of your organization's funding

American Chamber of Commerce of Mexico has taken a more active role by making public statements or leading discussions between private companies and US Ambassador to Mexico Ken Salazar. Ambassador Salazar has conveyed the administration's concerns over the deterioration of the business environment for foreign energy investors and current and future investments of U.S. companies in Mexico, in accordance with the country's obligations under the U.S.-Mexico-Canada Agreement (USMCA). We have participated at meetings organized by Ambassador Salazar with other private sector companies.
This trade association was not assessed/included in our Climate- related lobbying report as it did not meet minimum membership dues threshold. TCE energy will assess these trade associations as compared to our recently published climate lobbying policy statement and respond accordingly in future years.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

No, we have not evaluated

C12.3c

(C12.3c) Provide details of the funding you provided to other organizations or individuals in the reporting year whose activities could influence policy, law, or regulation that may impact the climate.

Type of organization or individual

Non-Governmental Organization (NGO) or charitable organization

State the organization or individual to which you provided funding

The Canadian Energy Partnership for Environmental Innovation (CEPEI)

Funding figure your organization provided to this organization or individual in the reporting year (currency as selected in C0.4)

111,400

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate

The Canadian Energy Partnership for Environmental Innovation (CEPEI) has been in place for over 25 years. Its members put forward specific emissions related and other programs and projects that are co-funded by members. The focus under CEPEI is to collect data that support regulatory compliance and tracking emerging environmental issues with a view to being ready to address them when they become matters of regulation or of public attention.

CEPEI represents Canada Gas Association (CGA)/ Canadian Energy Pipeline Association (CEPA) on various Technical Working Groups and actively engages with the American Gas Association's environmental committees, and on the International Gas Union's Methane Experts Group.

The CEPEI program has provided significant value to TC Energy for over twenty years. This value includes air emissions and greenhouse gas inventories that have been used extensively by the TC Energy and industry groups including Canada Gas Association (CGA) and CEPA in discussions with governments on air emissions and greenhouse gas emissions policies. In addition to the GHG and air emissions inventory programs, CEPEI also provides a critical forum for understanding and communicating environmental issues within the industry and with the regulators.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In voluntary sustainability report

Status

Complete

Attach the document

TCE_2023 Sustainability Report.pdf

Page/Section reference

Entire document

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Our Report on Sustainability has been developed with guidance from globally recognized sustainability reporting frameworks, standards and recommendations including the Task Force on Climate-Related Financial Disclosure (TCFD), Sustainability Accounting Standards Board (SASB), United Nations Sustainable Development Goals (UN SDGs) and the Global Reporting Initiative (GRI).

Publication

In mainstream reports, incorporating the TCFD recommendations

Status

Complete

Attach the document

tc-2022-annual-report.pdf

Page/Section reference

Entire document

Content elements

Governance
Strategy
Risks & opportunities
Emission targets
Other metrics
Other, please specify
Environmental compliance and liabilities, revenues, Management Discussion & Analysis

Comment

We disclose climate change and related regulation risk challenges, and our strategy to address such risks, which is aligned to TCFD recommendations.

Publication

In mainstream reports, incorporating the TCFD recommendations

Status

Complete

Attach the document

tce-2023-management-information-circular.pdf

Page/Section reference

Pages 34-69 (Governance, Strategy/Risks)
Page 6, 62 (Emission Targets)
Pages 70-121 (Compensation)

Pages 20-32 (Competencies)

Content elements

Governance
Strategy
Risks & opportunities
Emission targets
Other metrics
Other, please specify
compensation, competencies

Comment

We disclose our governance of climate change-related risks, including Board committee oversight, which is aligned to TCFD recommendations. We also disclose details of our compensation programs, which are designed to 'pay for performance' by rewarding employees, including our executives, for delivering results that meet or exceed our corporate objectives and support our overall strategy.

Publication

In voluntary sustainability report

Status

Complete

Attach the document

TCE_2023 Sustainability Report.pdf

Page/Section reference

Pages 116 - 138

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets

Comment

Recognizing the value of sustainability reporting frameworks such as the TCFD, the concordance table demonstrates the relationship between TC Energy's sustainability reporting and Implementing the Recommendations of the Task Force on Climate-Related Financial Disclosures Final Report (October 2021).

Publication

In voluntary communications

Status

Complete

Attach the document

tc-ghg-emissions-reduction-plan.pdf

Page/Section reference

Entire document

Content elements

Strategy
Risks & opportunities
Emission targets

Other metrics

Comment

Our GHG Emissions Reduction plan, published in October 2021, details our action plan to reduce the emissions intensity of our operations, while also capturing growth opportunities that meet the energy needs of the future.

Publication

In voluntary communications

Status

Complete

Attach the document

tce-sustainable-energy-forum-presentation.pdf

Page/Section reference

Entire document

Content elements

Strategy
Risks & opportunities
Emission targets
Other metrics

Comment

TC Energy hosted a Sustainable Energy Forum to highlight the Company’s role in enabling the energy transition while delivering long-term shareholder value.

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
Row 1	Task Force on Nature-related Financial Disclosures (TNFD) UN Global Compact Other, please specify ONE Future Coalition, Emerging Fuels Institute, Natural Gas STAR program, Canadian Energy Partnership for Environmental Innovation (CEPEI), & Canadian Emissions Reduction Innovation Consortium (CanERIC)	In July 2022, we were accepted to join the Task Force on Nature-based Financial Disclosures (TNFD) Forum. The mission of TNFD is to develop a risk management and disclosure framework for reporting, with the aim to shift global financial flows toward nature-positive outcomes. Participating in the TNFD Forum demonstrates alignment with TNFD's mission and provides early access to information on TNFD development and the opportunity to provide input to the framework. Working with TNFD aligns with our existing reporting alignment to the TCFD. TC Energy is an official participant of the United Nations Global Compact – the world's largest corporate sustainability initiative that unites businesses for a better world. We have also joined the Global Compact Network Canada, a key conduit to access events, raise ideas and share regional and international views. Membership in this important global forum and regional network is aligned with our values and our pursuit to develop meaningful partnerships to solve critical global sustainability issues. We are committed to making the UN Global Compact and its principles part of our company's strategy, culture, and day-to-day operations. We will also continue to engage in collaborative projects that advance the broader development goals of the United Nations, particularly the Sustainable Development Goals (SDGs). The ONE Future Coalition is a group of more than 50 natural gas companies working together to voluntarily reduce methane emissions across the natural gas value chain to 1% (or less) by 2025 and is comprised of some of the largest natural gas production,

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
		gathering & boosting, processing, transmission & storage and distribution companies in the U.S. and represents more than 20% of the U.S. natural gas value chain. We are a founding member of the Emerging Fuel Institute (EFI) whose goal is to develop a Hydrogen Pipeline Guidance Document to be used as a framework to safely convert, maintain, and operate hydrogen infrastructure. We recently became members of the Center for Hydrogen Safety group which promotes hydrogen safety and best practices worldwide by addressing concerns regarding the safe use of hydrogen. We collaborate with the U.S Environmental Protection Agency's (EPA) and other companies in the oil and gas sector through the Natural Gas STAR Program. EPA hosts workshops and webinars, shares technical resources, and directly partners with oil and gas operators. EPA hosts the Natural Gas STAR partnership to provide a forum for industry partners to share their innovative and voluntary actions to reduce methane emissions; in 2022, at a time of unprecedented action on oil and gas methane emissions in the US, EPA transitioned the Natural Gas STAR Program to end the formal partnership while retaining the information-sharing aspects of the program. EPA continues to partner with oil and gas operators through the Methane Challenge Partnership. The Canadian Energy Partnership for Environmental Innovation (CEPEI) has been in place for over 25 years. Its members put forward specific emissions related and other programs and projects that are co-funded by members. The focus under CEPEI is to collect data that support regulatory compliance and tracking emerging environmental issues with a view to being ready to address them when they become matters of regulation or of public attention.

	Environmental collaborative framework, initiative and/or commitment	Describe your organization's role within each framework, initiative and/or commitment
		Canadian Emissions Reduction Innovation Consortium (CanERIC), an initiative of the Petroleum Technology Alliance Canada (PTAC), is a pan-Canadian network of researchers and end-users created to develop and deploy technologies to reduce methane emissions. This network provides the oil and gas industry a platform to articulate and rank their most pressing methane emission challenges. Technology vendors are responding to these challenges and can understand the potential market for their products better. This creates an opportunity for the industry to work with technology vendors and develop tests for their technologies in a lab with field settings. Vendors are then able to refine their designs with the information provided by the tests. Institutional members are involved in CanERIC to offer their expertise to conduct lab tests and monitor and analyze field tests for the network. Petroleum Technology Alliance Canada (PTAC) is a Canadian hydrocarbon industry association that serves as a neutral non-profit facilitator of collaborative R&D and technology development and operates in partnership with all industry stakeholders to transform challenges into opportunities. PTAC has been able to able to support collaborative networks which advance innovative R&D and technology development projects, that address pertinent industry challenges through activities which reduce costs, improve operational efficiencies, enhance environmental stewardship, advance regulatory development, and provide our industry with the social license to operate.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues	Description of oversight and objectives relating to biodiversity
Row 1	Yes, both board-level oversight and executive management-level responsibility	The Board of Directors (the Board) has oversight over our sustainability practices, with the primary accountabilities at the committee level. The Health, Safety, Sustainability & Environment (HSSE) Committee of the Board oversees operational risk, major project execution risk, occupational and process safety, sustainability, security of personnel, environmental and climate change-related risks, as well as monitoring development and implementation of systems, programs and policies relating to health, safety, sustainability, security and environmental matters (HSSE matters) through regular reporting from management. The HSSE Committee also monitors the performance of actions and initiatives undertaken by TC Energy to prevent, mitigate and manage risks related to HSSE matters, including climate change-related risks and opportunities and any critical incidents respecting our assets, operations, personnel and public safety. The Committee also maintains oversight of significant or complex capital projects, including the monitoring or prescribed performance criteria. The Corporate HSSE Committee, comprised of management representatives from various departments, recommends strategic priorities relating to HSSE matters to the CSO, monitors HSSE developments and shapes communication strategy on HSSE matters. The Committee also ensures the adequacy and effectiveness of the Health, Safety and Environment (HSE) Management programs that are part of TC Energy's Operational Management System, TOMS. To enhance our overall governance structure, we are in the process of evolving the Corporate HSSE committee into two separate committees which will report to the Board HSSE Committee. A Sustainability Management Committee will provide strategic leadership and direction on sustainability-related issues, while an Operating Committee will be responsible for making enterprise decisions in support of management system governance, strategic system enhancements and operational risk management related to safety and some environmental considerations. Please refer to questions C1.1a and C1.2a for responsibility and oversight details of the responsibilities and accountabilities of our Board and its standing committees, and those of our CEO, CSO and CRO.

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity	Biodiversity-related public commitments	Initiatives endorsed
Row 1	Yes, we have made public commitments and publicly endorsed initiatives related to biodiversity	Adoption of the mitigation hierarchy approach Commitment to respect legally designated protected areas Commitment to avoidance of negative impacts on threatened and protected species Other, please specify a public commitment to safeguard habitat and biodiversity and minimize land use impacts, including restoring the environment to a condition equal to or better than we found it	SDG Other, please specify United Nations Global Compact

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment

Yes

Value chain stage(s) covered

Direct operations

Tools and methods to assess impacts and/or dependencies on biodiversity

Other, please specify

approved environmental assessment methodologies based on jurisdiction-specific regulatory requirements

Please explain how the tools and methods are implemented and provide an indication of the associated outcome(s)

TC Energy's Operational Management System (TOMS) provides requirements for our day-to-day work to protect us, our co-workers, our workplace and assets, the communities we work in, and the environment. TOMS applies to everyone: Corporate, Energy, Liquids and Natural Gas lines of business. TOMS has nine foundational Elements which provide standardized requirements for business activities. TOMS has 11 Mandated Programs which use the Elements to structure and manage their procedures and activities. Each Mandated Program sets requirements to manage specific risk areas. TOMS is modelled after international standards, including the ISO standard for environmental management systems, ISO 14001 and the Occupational Health and Safety Assessment Series. TOMS aligns to industry best practices and standards and incorporates applicable regulatory requirements. It applies across the organization and throughout the asset life cycle, including design, construction, operation and decommissioning with respect to the integrity of our physical assets and the safety and security of the public, our personnel and the protection of the environment. Additionally, the Environment Program, which applies to all of our operations, includes practices and procedures to manage potential adverse environmental effects to these resources during the full lifecycle of our facilities. Business Units must identify, evaluate, assess, manage, document and communicate environmental hazards and risks in alignment with TC Energy’s Risk Management Standard, Risk Management Procedure, and Environment Program standards, processes and procedures where applicable.

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment

No and we don’t plan to within the next two years

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity- sensitive areas in the reporting year?

Yes

C15.4a

(C15.4a) Provide details of your organization’s activities in the reporting year located in or near to biodiversity -sensitive areas.

Classification of biodiversity -sensitive area

Other biodiversity sensitive area, please specify

An area of protected conservation status or endangered species habitat if it is identified as such in one or more of the publicly available datasets we use

Country/area

Canada

Name of the biodiversity-sensitive area

We leverage public datasets to identify where our assets are in relation to key biodiversity areas. We consider land to be an area of protected conservation status or endangered species habitat if it is identified as such in one or more of public datasets we use. In 2022 we selected multiple publicly available datasets that included conservation status and habitat information that most closely aligned to the intent of SASB. We continue to identify critical habitat for endangered species.

Proximity

Overlap

Briefly describe your organization’s activities in the reporting year located in or near to the selected area

When it comes to protecting biodiversity, we take measures such as avoiding sensitive species habitat while planning routes, monitoring wildlife during construction, restricting work during wildlife activity periods, selecting specific construction methods designed to reduce impact on plant habitat and restoring wildlife habitat. We also work closely with local communities and Indigenous groups who know their land well. We rely on their knowledge to improve our

own planning. Before we begin any project, we assess the impacts of construction and operational activities and develop project-specific environmental protection plans, including land restoration plans. Where sensitive habitats or areas of high biodiversity value are identified, we apply the biodiversity mitigation hierarchy and avoid those areas where we can. Where we cannot we minimize our disturbance, restore and reclaim the disturbed area and provide offsets where required. Land restoration begins soon after construction activities are completed and progresses over multiple years, reflecting the natural pace of vegetation growth in the surrounding ecosystem. Our experts follow a systematic process with multiple steps to assess, design, implement, monitor, evaluate and adjust, working with landowners if issues are identified during monitoring.

Our biodiversity data currently reflects most of the land TC Energy owns, leases and/or operates that is associated with our pipeline rights-of-way, compressor stations, meter stations, pump stations and power plants in Canada, Mexico, and the U.S. This footprint also includes

abandoned assets. The footprint does not include temporary workspaces or proposed projects. Valve sites are assumed to be contained within right-of-way footprint.

Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Yes, but mitigation measures have been implemented

Mitigation measures implemented within the selected area

Site selection
Project design
Scheduling
Physical controls
Operational controls
Restoration
Biodiversity offsets

Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Our environment program follows a "Plan-Do-Check-Act" principle and outlines environmental training requirements for applicable roles to raise awareness of environmental protection commitments and requirements and sets environment performance goals that are regularly monitored. All our assets abide to rigorous environmental laws and regulations that enable predictable decisions on nature-related risks and reduce cumulative effects on biodiversity. We develop environmental protection plans, habitat conservation plans, reclamation plans, monitoring plans and surveillance plans to control and monitor the effectiveness of the mitigation measures implemented, such as those used in replanting and vegetation management, soil conservation and wildlife monitoring.

TC Energy manages risk through a centralized ERM program that identifies, evaluates and categorizes risks that could materially impact the achievement of TC Energy's strategic objectives. Environmental risks associated with impacts on protected and high biodiversity value areas are monitored and escalated as needed to senior management through TC Energy's ERM program to ensure leadership has visibility on the broader perspective, and that treatments are applied holistically and consistently. The assessment of biodiversity-related risks, for example, those related to cumulative impacts on protected or threatened habitats or valued species, aligns with this process using a hierarchy strategy of

mitigating impacts. This risk-based approach focuses on the following sequence of steps:

Avoid: We seek to avoid activities or operations that contribute to habitat loss in protected or high biodiversity value areas.

Minimize: We minimize and mitigate impacts through the implementation of best practices and engagement with multiple knowledge partners including landowners, local and Indigenous communities, conservation organizations, academia and government agencies, as applicable, to inform environmental protection plans and effective mitigation measures.

Restore: Based on the lifecycle of our assets, we reclaim and replace the structural diversity of the habitat that existed before the disturbance.

Offset: After prioritizing avoidance, minimization and restoration, offsetting measures are applied to manage residual effects to biodiversity

We have a target of restoring 100% or offsetting sensitive lands. In 2022, we met our target of restoring all sensitive habitat impacted by capital projects by the last year of their post-construction monitoring period. Our community giving programs include investments in organizations that protect and enhance the environment, including conserving, maintaining and improving land capability, promoting biodiversity, preserving important habitats and protecting species at risk. In 2022, we contributed a total of $3.3 million — exceeding our target — providing meaningful financial support for multiple environmental causes.

Classification of biodiversity -sensitive area

Other biodiversity sensitive area, please specify

An area of protected conservation status or endangered species habitat if it is identified as such in one or more of the publicly available datasets we use

Country/area

United States of America

Name of the biodiversity-sensitive area

We leverage public datasets to identify where our assets are in relation to key biodiversity areas. We consider land to be an area of protected conservation status or endangered species habitat if it is identified as such in one or more of public datasets we use. In 2022 we selected

multiple publicly available datasets that included conservation status and habitat information that most closely aligned to the intent of SASB. We continue to identify critical habitat for endangered species.

Proximity

Overlap

Briefly describe your organization's activities in the reporting year located in or near to the selected area

When it comes to protecting biodiversity, we take measures such as avoiding sensitive species habitat while planning routes, monitoring wildlife during construction, restricting work during wildlife activity periods, selecting specific construction methods designed to reduce impact on plant habitat and restoring wildlife habitat. We also work closely with local communities and Indigenous groups who know their land well. We rely on their knowledge to improve our

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Our biodiversity data currently reflects most of the land TC Energy owns, leases and/or operates that is associated with our pipeline rights-of-way, compressor stations, meter stations, pump stations and power plants in Canada, Mexico, and the U.S. This footprint also includes abandoned assets. The footprint does not include temporary workspaces or proposed projects. Valve sites are assumed to be contained within right-of-way footprint.

Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Yes, but mitigation measures have been implemented

Mitigation measures implemented within the selected area

Site selection

Project design

Scheduling

Physical controls
Operational controls
Restoration
Biodiversity offsets

Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Our environment program follows a "Plan-Do-Check-Act" principle and outlines environmental training requirements for applicable roles to raise awareness of environmental protection commitments and requirements and sets environment performance goals that are regularly monitored. All our assets abide to rigorous environmental laws and regulations that enable predictable decisions on nature-related risks and reduce cumulative effects on biodiversity. We develop environmental protection plans, habitat conservation plans, reclamation plans, monitoring plans and surveillance plans to control and monitor the effectiveness of the mitigation measures implemented, such as those used in replanting and vegetation management, soil conservation and wildlife monitoring.

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Offset: After prioritizing avoidance, minimization and restoration, offsetting measures are applied to manage residual effects to biodiversity

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Classification of biodiversity -sensitive area

Other biodiversity sensitive area, please specify

An area of protected conservation status or endangered species habitat if it is identified as such in one or more of the publicly available datasets we use

Country/area

Mexico

Name of the biodiversity-sensitive area

We leverage public datasets to identify where our assets are in relation to key biodiversity areas. We consider land to be an area of protected conservation status or endangered species habitat if it is identified as such in one or more of public datasets we use. In 2022 we selected multiple publicly available datasets that included conservation status and habitat information that most closely aligned to the intent of SASB. We continue to identify critical habitat for endangered species.

Proximity

Overlap

Briefly describe your organization’s activities in the reporting year located in or near to the selected area

When it comes to protecting biodiversity, we take measures such as avoiding sensitive species habitat while planning routes, monitoring wildlife during construction, restricting work during wildlife activity periods, selecting specific construction methods designed to reduce impact on plant habitat and restoring wildlife habitat. We also work closely with local communities and Indigenous groups who know their land well. We rely on their knowledge to improve our

own planning. Before we begin any project, we assess the impacts of construction and operational activities and develop project-specific environmental protection plans, including land restoration plans. Where sensitive habitats or areas of high biodiversity value are identified, we apply the biodiversity mitigation hierarchy and avoid those areas where we can. Where we cannot we minimize our disturbance, restore and reclaim the disturbed area and provide offsets where required. Land restoration begins soon after construction activities are completed and progresses over multiple years, reflecting the natural pace of vegetation growth in the surrounding ecosystem. Our experts follow a systematic process with multiple steps to assess, design, implement, monitor, evaluate and adjust, working with landowners if issues are identified during monitoring.

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Indicate whether any of your organization's activities located in or near to the selected area could negatively affect biodiversity

Yes, but mitigation measures have been implemented

Mitigation measures implemented within the selected area

Site selection
Project design
Scheduling
Physical controls
Operational controls
Restoration
Biodiversity offsets

Explain how your organization's activities located in or near to the selected area could negatively affect biodiversity, how this was assessed, and describe any mitigation measures implemented

Our environment program follows a "Plan-Do-Check-Act" principle and outlines environmental training requirements for applicable roles to raise awareness of environmental protection commitments and requirements and sets environment performance goals that are regularly monitored. All our assets abide to rigorous environmental laws and regulations that enable predictable decisions on nature-related risks and reduce

cumulative effects on biodiversity. We develop environmental protection plans, habitat conservation plans, reclamation plans, monitoring plans and surveillance plans to control and monitor the effectiveness of the mitigation measures implemented, such as those used in replanting and vegetation management, soil conservation and wildlife monitoring.

TC Energy manages risk through a centralized ERM program that identifies, evaluates and categorizes risks that could materially impact the achievement of TC Energy's strategic objectives. Environmental risks associated with impacts on protected and high biodiversity value areas are monitored and escalated as needed to senior management through TC Energy's ERM program to ensure leadership has visibility on the broader perspective, and that treatments are applied holistically and consistently. The assessment of biodiversity-related risks, for example, those related to cumulative impacts on protected or threatened habitats or valued species, aligns with this process using a hierarchy strategy of mitigating impacts. This risk-based approach focuses on the following sequence of steps:

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Restore: Based on the lifecycle of our assets, we reclaim and replace the structural diversity of the habitat that existed before the disturbance.

Offset: After prioritizing avoidance, minimization and restoration, offsetting measures are applied to manage residual effects to biodiversity

We have a target of restoring 100% or offsetting sensitive lands. In 2022, we met our target of restoring all sensitive habitat impacted by capital projects by the last year of their post-construction monitoring period. Our community giving programs include investments in organizations that protect and enhance the environment, including conserving, maintaining and improving land capability, promoting biodiversity, preserving important habitats and protecting species at risk. In 2022, we contributed a total of $3.3 million — exceeding our target — providing meaningful financial support for multiple environmental causes.

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity- related commitments
Row 1	Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management Species management Education & awareness

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	Yes, we use indicators	Other, please specify We monitor performance through published target to restore or offset 100% of our disturbance to sensitive habitat, as published in our Report on Sustainability. We also align with SASB standards on biodiversity reporting for our sector.

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
Other, please specify Canada Energy Regulator Filing Manual	Content of biodiversity-related policies or commitments Impacts on biodiversity	Canada Energy Regulator Filing Guide A.2, Environmental and Socio-Economic Assessment, Pages: 41-122 1

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
	Details on biodiversity indicators Risks and opportunities Biodiversity strategy Other, please specify jurisdiction-specific regulatory requirements, project-specific risks and opportunities, project-specific biodiversity strategy	
Other, please specify U.S. Federal Energy Regulatory Commission Guidance Manual For Environmental Report Preparation	Content of biodiversity-related policies or commitments Impacts on biodiversity Details on biodiversity indicators Risks and opportunities Biodiversity strategy Other, please specify jurisdiction-specific regulatory requirements, project-specific risks and opportunities, project-specific biodiversity strategy	FERC guidance manual Pages: all 2
Other, please specify Mexico Agency for Safety, Energy and Environment	Impacts on biodiversity Details on biodiversity indicators Other, please specify jurisdiction-specific regulatory requirements	ASEA Procedures No document to upload, link: https://www.gob.mx/asea/acciones-y-programas/tramites-asea-58321
In voluntary sustainability report or other voluntary communications	Content of biodiversity-related policies or commitments Impacts on biodiversity	Report on Sustainability Pages: all

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
	Details on biodiversity indicators	3
In mainstream financial reports	Content of biodiversity-related policies or commitments Governance Risks and opportunities	2022 Annual Report Page: 103 -105 4
In mainstream financial reports	Content of biodiversity-related policies or commitments Governance	2023 Management Information Circular Pages: 47, 62, 63 5
Other, please specify Safeguarding biodiversity strategy	Content of biodiversity-related policies or commitments Governance Impacts on biodiversity Details on biodiversity indicators Biodiversity strategy Other, please specify project lifecycle considerations	SAFEGUARDING BIODIVERSITY | OUR APPROACH Pages: all 6
Other, please specify Biodiversity Factsheet	Content of biodiversity-related policies or commitments Impacts on biodiversity Other, please specify project lifecycle considerations	Reducing our environmental footprint factsheet Pages: all 7

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
Other, please specify Enterprise risk management policy	Governance	Enterprise risk management policy Pages: all [8]
Other, please specify Environment Principles	Content of biodiversity-related policies or commitments Other, please specify principles to meet our obligation to being responsible environmental stewards	Environment Principles Pages: all [9]

[1] CER- filing-manual.pdf

[2] U.S. Federal Energy Regulatory Commission Guidance Manual For Environmental Report Preparation.pdf

[3] TCE_2023 Sustainability Report.pdf

[4] tc-2022-annual-report.pdf

[5] tce-2023-management-information-circular.pdf

[6] tce-safeguarding-biodiversity-our-approach.pdf

[7] tc-2020-reducing-our-environmental-footprint.pdf

[8] tc-enterprise-risk-management-policy.pdf

[9] tc-environment-principles.pdf

C16. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

This publication is one element of our environmental, social and governance (ESG) reporting. For more data and information of interest to investors, including content that is aligned with global reporting standards, we invite you to review our other disclosures:
· 2023 Report on Sustainability including our ESG Data Sheet (Performance Data), TCFD Alignment Table, SASB Alignment Table, and Materiality Assessment (publication date: July 27, 2023)
· GHG Emissions Reduction Plan (2021)
· ESG Directory
· Sustainable Energy Forum (June 20, 2023)

The content and data included in this submission has been subject to an internal review process. In addition, TC Energy has completed a limited assurance on select indicators such as enterprise-wide Scope 1 and Scope 2 GHG emissions and production data. Where relevant, 2023 developments are reflected in the discussion and analysis however, for more information please refer to our 2022 Annual report and the most recent Quarterly Report to Shareholders, which can be found on our website, and on SEDAR (www.sedar.com) and EDGAR (www.sec.gov).

FORWARD-LOOKING INFORMATION: This questionnaire response contains certain information that is forward-looking and is subject to important risks and uncertainties (such statements are usually accompanied by words such as “anticipate”, “expect”, “believe”, “may”, “will”, “should”, “estimate”, “intend” or other similar words).

Forward-looking statements do not guarantee future performance. Actual events and results could be significantly different because of assumptions, risks or uncertainties related to our business or events that happen after the date of this report.

Our forward-looking information in this document includes, but is not limited to, information relating to: statements on our financial and operational performance, including the performance of our subsidiaries, expectations about strategies and goals for growth, our anticipated capital program and expenditures, our expected emission and methane reductions from planned projects, expected costs and schedules for planned projects, including

expected in-service dates and regulatory approvals, our planned restoration/remediation projects, the installation, adoption and integration of new technologies into our business, including those relating to renewables, RNG transportation hubs, hydrogen and carbon capture utilization and storage and methane reduction, monitoring and recapture technologies, our future plans and prospects overall, including those statements relating to energy transition, expected scenario outcomes and our ability to leverage the value of existing assets, climate-related risks and opportunities, including those statements relating to the transition from fuel oil, diesel, biomass and coal power to natural gas, absolute and intensity based GHG emissions targets and methane reduction targets, expected energy consumption, demand and trends, number of assets subject to GHG regulation, expected future approach to emission and methane measurement, carbon pricing, climate engagement strategies, expected association membership and alignment to such association's policies, including anticipated advocacy activities, government policies, regulation and stakeholder expectations, planned R&D investments, biodiversity and land impacts , and how climate-change risks have informed our business strategy and financial planning.

Our forward-looking information is based on certain key assumptions and is subject to risks and uncertainties, including but not limited to: our ability to successfully implement our strategic priorities and whether they will yield the expected benefits, our ability to develop, access or implement some or all of the technology and infrastructure necessary to efficiently and effectively achieve GHG emissions reductions, the commercial viability and scalability of GHG emission reduction strategies and related technology and products, the development and execution of implementing strategies to meet our GHG reduction targets and ambitions, our ability to implement a capital allocation strategy and portfolio management and divestiture program aligned with maximizing shareholder value, the operating performance of our pipeline and power generation and storage assets, amount of capacity sold and rates achieved in our pipeline businesses, the amount of capacity payments and revenues from our power generation assets due to plant availability, production levels within supply basins, construction and completion of capital projects, cost and availability of, and inflationary pressure on, labour, equipment and materials, the availability and market prices of commodities, access to capital markets on competitive terms, interest, tax and foreign exchange rates, performance and credit risk of our counterparties, regulatory decisions and outcomes of legal proceedings, including arbitration and insurance claims, our ability to effectively anticipate and assess changes to government policies and regulations, including those related to environmental, social and governance (ESG) matters, competition in the businesses in which we operate, unexpected or unusual weather, acts of civil disobedience, cyber security and technological developments, ESG related risks, the impact of energy transition on our business, economic conditions in North America as well as globally, and global health crises, such as pandemics and epidemics, and the continued unexpected impacts related thereto. In addition, there are risks that the effect of actions taken by us in implementing targets, commitments and ambitions for sustainability may have a negative impact on our existing business, growth plans and future results from operations.

For additional information about the assumptions made, and the risks and uncertainties which could cause actual results to differ from the anticipated results, refer to the most recent Quarterly Report to Shareholders and Annual Report filed under TC Energy's profile on SEDAR and with the U.S. Securities and Exchange Commission (SEC). As actual results could vary significantly from the forward-looking information, you should not put undue

reliance on forward-looking information and should not use future oriented information or financial outlooks for anything other than their intended purpose. We do not update our forward-looking statements due to new information or future events, unless we are required to by law.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Vice President, Sustainability & Social Impact	Other, please specify Vice President, Sustainability & Social Impact