

Sharing the

Numbers



Forward-looking information

This document 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, statements related to climate-related risks, climate-related opportunities, GHG intensity reduction targets, GHG emission reduction targets, biodiversity and land capability targets, focus on safety and asset integrity, further integration of sustainability into strategy, decision-making, performance-tracking and assessment, R&D and innovation investments to enhance energy sector sustainability, strengthening local community, Indigenous group and employee resilience, becoming a partner of choice for Indigenous groups, maintaining mutually beneficial partnerships with our landowners, supporting inclusion and diversity, and demonstrating the importance of mental health and psychological well-being, among other things. 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 necessary to efficiently and effectively achieve GHG emissions targets and ambitions, 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 sustainability commitments and GHG emissions targets and ambitions, our ability to implement a capital allocation strategy aligned with maximizing shareholder value, the operating performance of our pipeline and power 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 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 the environment and COVID-19, competition in the businesses in which we operate, unexpected or unusual weather, acts of civil disobedience, cyber security and technological developments, economic conditions in North America as well as globally, and global health crises, such as pandemics and epidemics, including the recent outbreak of COVID-19 and the 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. 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.

Table of Contents

1	Forward-looking information
3	Sustainability Approach
4	Climate-Related Governance
9	Climate-Related Strategy
15	Climate-Related Risk Management
17	Climate-Related Targets and Metrics
18	Performance Data



Land acknowledgement

Embedded in the lands on which TC Energy operates are the histories, cultures and traditions of Indigenous groups across North America. TC Energy thanks the original inhabitants of these lands—generations past, present and future—for sharing your homelands with us.

Environmental, social and governance reporting

This publication is one element of our environmental, social and governance (ESG) reporting. More information and data of interest to investors, including content that is aligned with global reporting standards, can be found in these documents:

[2021 Report on Sustainability](#)

[GHG Emissions Reduction Plan](#)

[2021 Reconciliation Action Plan](#)

[2021 CDP Climate Change Questionnaire Response](#)

[2020 Materiality Assessment](#)

[ESG Directory](#)

Please refer to the forward-looking information statement on [page 1](#). You can also find more information about TC Energy in our [Annual Report](#), [Management Information Circular \(MIC\)](#) and [Annual Information Form](#) available on our website and SEDAR. Our website also hosts select corporate policies and other governance documents, including our oversight and policies on lobbying, political contributions and corporate memberships information sheet. We are committed to delivering energy responsibly, being a good neighbour and a top employer. We are proud to be recognized by respected third-party agencies for multiple [awards](#) within our industry and in the community.

The terms “we”, “us”, “our” and “TC Energy” as used in this ESG Data Sheet refer collectively to TC Energy Corporation and its subsidiaries unless indicated otherwise. Unless otherwise noted, all amounts are in Canadian dollars and all data reflects 2020 numbers. Where relevant, 2021 developments are addressed in the discussion and analysis.



We'd like to hear what you think about our ESG Data Sheet. Please send questions or comments to communications@tcenergy.com.

Sustainability Approach



Our purpose

Delivering the energy people need, every day. Safely. Innovatively. Responsibly. Collaboratively. With integrity.



Our vision

To be North America’s premier energy infrastructure company, now and in the future.

ESG reporting frameworks

Recognizing the value of ESG reporting frameworks such as the Task Force on Climate-Related Financial Disclosure (TCFD), Sustainability Accounting Standards Board (SASB), United Nations Sustainable Development Goals (UN SDGs) and Global Reporting Initiative (GRI), this ESG Data Sheet demonstrates alignment to TCFD and SASB and complements the content in our 2021 Report on Sustainability. Where non-standard measures are required, we have disclosed in alignment with internal standards.

Material topics

TC Energy’s sustainability reporting covers topics that reflect our significant economic, environmental, and social impacts; or substantively influence the assessments and decisions of our rightsholders and stakeholders. In this context, our impacts are the positive or negative contributions we make to sustainable development including the economy, the environment and society.

We conducted our first materiality assessment in 2012 and have regularly reviewed the topics identified to ensure they remain relevant to both us and our stakeholders. This continuous process includes research and stakeholder identification, engagement ranging from formal interviews to informal

discussions around specific requests and validation of the resulting recommendations. Since 2012, we’ve connected with landowners, community investment partners, community leaders, suppliers, peers, customers, representatives from Indigenous groups, employees, investors, senior leadership and board members seeking to learn from their perspectives. We also engage with our report readers, directly inviting their feedback and updating both our indicators and methods of communication to respond to their needs.

In 2016 and 2020 we engaged third-party consultants to refresh our materiality assessment with an external perspective and the strong correlation between our material topics and corporate sustainability commitments and targets is no coincidence. For a full listing of our material topics please refer to the [2020 Materiality Assessment](#).

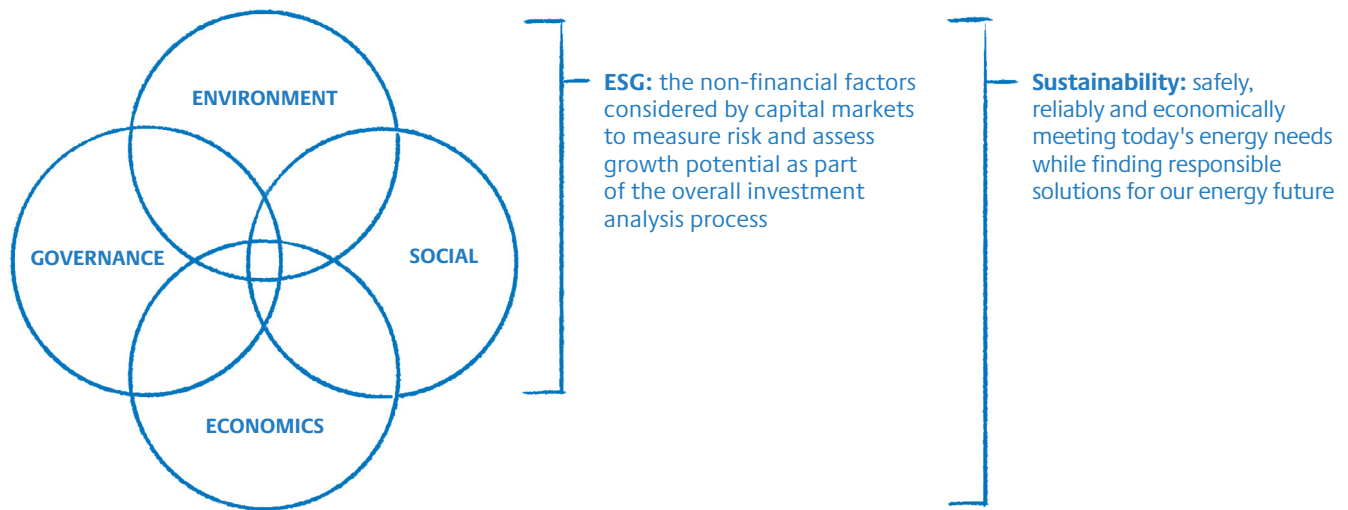
Materiality in terms of sustainability, and our sustainability reporting materials, is intended to provide information on TC Energy’s identification and assessment of these issues. The risks described in these reports may include risks that are not material from a securities law perspective, but relevant from a sustainability perspective. For disclosure on risks that are material to TC Energy from a securities law perspective, please refer to the most recent Quarterly Report to Shareholders and Annual Report.

Climate-Related Governance

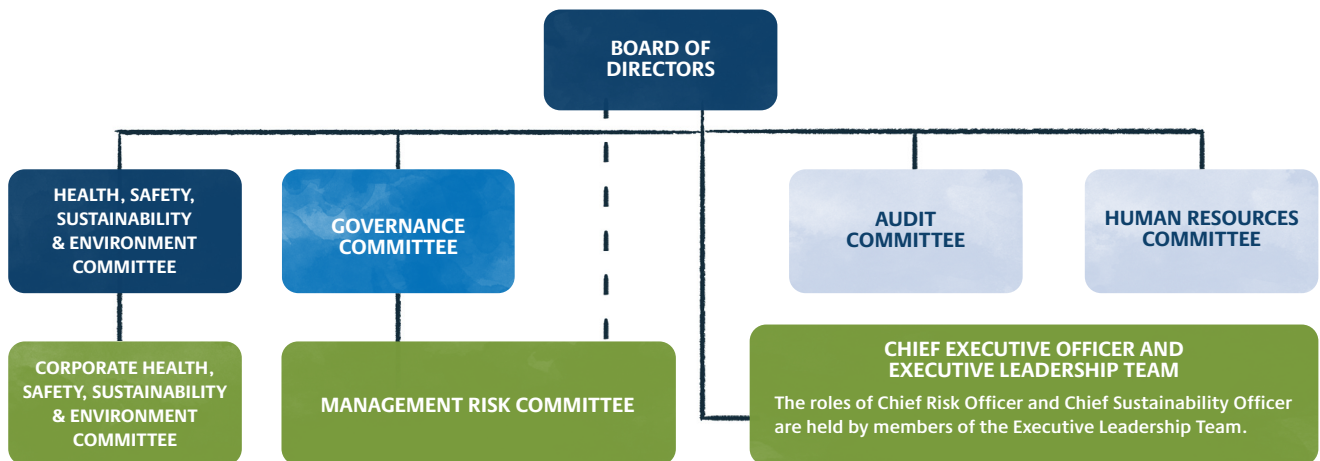
TC Energy’s governance structure provides a framework for accountability, management and mitigation of the risks and opportunities facing the company, including on the topics of sustainability and ESG matters. The Board has oversight over our sustainability and ESG practices, with the primary accountabilities at the Board committee level. Management’s sustainability governance framework includes the Chief Sustainability Officer and a management-level health, safety, sustainability and

environment committee in addition to the activities described below. At TC Energy, sustainability includes ESG considerations and the financial health of the organization and means safely, reliably and economically meeting today’s energy needs while finding responsible solutions for our energy future.

Our [2021 MIC](#) contains further details on our governance structure and characteristics, including board member competencies to interpret and understand climate related issues.



Oversight structure for climate risk and opportunities



———— Primary oversight - - - - - Management Risk Committee outputs are reported to the Board of Directors

Summary of climate-related governance

	Role	Sustainability Accountabilities
Board Oversight	Board of Directors ¹	<p>The 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, now and in the future, and purpose of safely and reliably delivering the energy people need, every day.</p> <p>The Board is provided with regular "deep-dives" throughout the year on key enterprise risks, including those pertaining to sustainability.</p> <p>The Board and its committees are also responsible for risk oversight, including ESG-related risks, and oversee management systems and processes for identification, evaluation, prioritization, mitigation and monitoring of risk. Our directors have a broad range of experience and skills in risk management and, as a result, the Board is highly engaged and qualified to participate in a meaningful discussion of key business risks with management at Board and committee meetings.</p>
	Health, Safety, Sustainability & Environment (HSSE) Committee	<p>Responsible for oversight of health, safety, sustainability, security and environmental matters.</p> <p>Reviews and monitors the performance and activities of TC Energy HSSE matters including compliance with applicable and proposed legislation, conformance with industry standards and best practices. Reviews reports on proposed climate change-related laws and regulations and their potential impact on TC Energy.</p> <p>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.</p> <p>Reviews and monitors significant regulatory audit findings, orders, reports and/or recommendations issued by or to TC Energy related to HSSE matters, incidents or issues, together with management's corresponding response.</p>
	Governance Committee	<p>Oversees the Enterprise Risk Management (ERM) program and framework and meets with management annually to ensure there is proper Board and committee oversight according to the terms of their charters. 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 change) are elevated for discussion with the entire Board as part of the strategy development process.</p>

¹ Our [Corporate Governance Guidelines](#), [Board of Directors Charter](#) and the Charter for each committee can be found on our [website](#).

	Role	Sustainability Accountabilities
Management Oversight	Chief Executive Officer (CEO)	The CEO and 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.
	Executive Leadership Team (ELT) ¹	The CEO and ELT develop and implement TC Energy’s strategy. In addition, ELT members hold the roles outlined below including membership of applicable committees.
	Chief Sustainability Officer (CSO)	In 2019, we appointed a CSO to provide 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, communication and management of sustainability-related issues for TC Energy, particularly the intersection of risk, governance, environmental and social issues.
	Chief Risk Officer (CRO)	The CRO is responsible for our ERM framework and centralizes a pragmatic approach to prioritizing risks (For further details of our ERM framework see page 15)
	Corporate HSSE Committee	The HSSE Management Committee recommends strategic priorities relating to HSSE matters to the CSO, monitors HSSE developments and shapes communication strategy on HSSE matters. It also ensures the adequacy and effectiveness of the Health, Safety and Environment (HSE) Management Programs and sub-programs that are part of TC Energy's Operational Management System, TOMS (see page 16 for further details). The committee is composed of management representatives from various departments.
	Management Risk Committee	Chaired by the CRO, the Management Risk Committee comprises the ELT and is responsible for the management of climate-related risks including alignment of energy transition plans with enterprise risk mitigation plans. In addition to their primary oversight by the Governance Committee, the outputs of the Management Risk Committee are also reported to the full Board of Directors.

¹ Employees currently on our executive leadership team are named on our [website](#).

Governance characteristics

We believe that effective corporate governance improves corporate performance and benefits all shareholders and that honesty and integrity are vital to ensuring strong corporate governance. The Board has formally adopted the corporate governance guidelines recommended by the Governance Committee. These guidelines address the structure and composition of the Board and its committees and clarify the responsibilities of the Board and management. Based on the current directorship, our governance characteristics are noted below.

Indicator	Unit	2016	2017	2018	2019	2020
Board of Directors						
Size of Board ¹	number	13	13	12	12	14
Independent directors ²	per cent	92	92	92	92	86
Women on Board	per cent	23	23	25	25	29
Board diversity policy ³	Y/N	Yes	Yes + target of 30% women	Yes + target of 30% women	Yes + target of 30% women	Yes + target of 30% women
Number of board interlocks ⁴	number	0	0	0	1	1
External board service limits for independent directors	number	6 public company boards in total	4 public company boards in total	4 public company boards in total	4 public company boards in total	4 public company boards in total
Average director age	years	62	63	62	61	62
All committees independent ⁵	Y/N	Yes	Yes	Yes	Yes	Yes
Annual director elections	Y/N	Yes	Yes	Yes	Yes	Yes
Individual director elections	Y/N	Yes	Yes	Yes	Yes	Yes
Majority voting policy	Y/N	Yes	Yes	Yes	Yes	Yes
Independent executive compensation consultant	Y/N	Yes	Yes	Yes	Yes	Yes
Clawback policy	Y/N	Yes	Yes	Yes	Yes	Yes
Double-trigger vesting on change of control	Y/N	Yes	Yes	Yes	Yes	Yes
Separate chair and CEO	Y/N	Yes	Yes	Yes	Yes	Yes
Director retirement age	years	70	70	70	70	The earlier of a director turning 73 years of age or 15 years of service
Director share ownership requirement	x retainer	4x retainer	4x retainer	4x retainer	4x retainer	4x retainer
Executive share ownership requirements	x base salary	5x (CEO), 2x (other named executives)	5x (CEO), 2x (other named executives)	5x (CEO), 3x (executive vice-presidents), 2x (senior vice-presidents), 1x (vice-presidents)	5x (CEO), 3x (executive vice-presidents), 2x (senior vice-presidents), 1x (vice-presidents)	5x (CEO) 3x (EVPs) 2x (SVPs) 1x (VPs)
CEO share ownership post-retirement hold period	years	-	-	1 year	1 year	1 year
In-camera sessions at every Board and committee meeting	Y/N	Yes	Yes	Yes	Yes	Yes
Annual say on pay	Y/N	Yes	Yes	Yes	Yes	Yes
Code of business ethics	Y/N	Yes	Yes	Yes	Yes	Yes
Board, committee and director evaluations annually	Y/N	Yes	Yes	Yes	Yes	Yes
Board orientation and education program	Y/N	Yes	Yes	Yes	Yes	Yes

¹ As of Dec. 31, 2020. See [MIC](#) and [website](#) for subsequent updates.

² Effective Jan. 1, 2021 we believe that all of our directors except the President & CEO are independent in accordance with applicable Canadian legal requirements and guidelines, and consistent with the applicable independence criteria of the regulations of the U.S. Securities and Exchange Commission and rules of the New York Stock Exchange.

³ Our Board diversity policy, including the gender diversity target, can be found on our [website](#).

⁴ Dr. Samarasekera and Ms. Power both serve on the board of The Bank of Nova Scotia. It has been determined that this interlock will not impair the exercise of their independent judgment. Following Dr. Samarasekera's retirement from the board of The Bank of Nova Scotia in April 2021, there are no Board interlocks.

⁵ Audit, Governance and Human Resources Committees are entirely independent and HSSE Committee must be a majority independent.

Climate-Related Strategy

Climate change presents potential financial impacts to TC Energy's business and strategy which are mitigated by strong governance and strategic planning. Key components of our strategy, set out in our [2020 Annual Report](#) (highlights most relevant to ESG considerations excerpted below) support our ability to be competitive, responsible and innovative, enhance our value proposition for our shareholders and safely deliver the energy people need today and in the future.



Cultivate a focused portfolio of high-quality development and investment options

- We assess opportunities to develop and acquire energy infrastructure that complements our existing portfolio, enhances future resilience under a changing energy mix, and diversifies access to attractive supply and market regions within our risk preferences.
- 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. These results contribute to the identification of opportunities that contribute to our resilience, strengthen our asset base or improve diversification.

Maximize our competitive strengths

- 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 ensure we deliver shareholder value.

Maximize the full-life value of our infrastructure assets and commercial positions

- Maintaining safe, reliable operations and ensuring asset integrity, while minimizing environmental impacts, continues to be the foundation of our business.

Commercially develop and build new asset investment programs

- Safety, executability, profitability and responsible ESG performance are fundamental to our investments.

Climate-related risks and opportunities

A summary of the climate-related risks and opportunities that affect our company are shown below. These are a subset of the risks identified through our enterprise risk management processes, which are continuously monitored. The climate-related risks and opportunities listed below may not be material under securities laws. Information on the material risks that we manage for the company as a whole, in addition to the material risks for each operating business segment, can be found in the [2020 Annual Report](#) and our most recent quarterly report, available on our [website](#), SEDAR and EDGAR.

In addition to the specifics below, the 10 sustainability commitments and targets, including those in the Climate-related Metrics and Targets section, our Report on Sustainability, and the GHG Emissions Reduction Plan demonstrate actions we are taking to manage climate-related risks and opportunities.

Legend:

	Low Financial Impact	Short Term (S/T): 1-2 years
	Medium Financial Impact	Medium Term (M/T): 3-10 years
	High Financial Impact	Long Term (L/T): 11-20 years

TC Energy’s time horizons are aligned with the TOMS Risk Standard and our ERM framework.

Summary of climate-related risks

Risk definition	Potential negative financial impact			Mitigation measures
Reputational risk				
<p>Our operations and growth prospects require us to have strong relationships with rightsholders and stakeholders such as customers, Indigenous communities, landowners, suppliers, investors, governments and government agencies, and environmental non-governmental organizations.</p>	S/T	M/T	L/T	<p>Specific stakeholder programs and policies shape our interactions, clarify expectations, assess risks and facilitate mutually beneficial outcomes.</p> <p>In addition to our annual sustainability reporting, the central hubs to access comprehensive climate change and ESG communications are our ESG Directory and the Sustainability page on TCEnergy.com.</p>
<p>Decisions and evolving policies by government authorities, including changes in regulation, can affect the approval, timing, construction, operation and financial performance of our assets.</p> <p>We own assets and have business interests in several regions subject to greenhouse gas (GHG) emissions regulations and there are a variety of new and evolving initiatives aimed at reducing GHG emissions that could affect our business.</p> <p>Increasing climate-related concerns could result in an increased risk of associated litigation.</p>	S/T	M/T	L/T	<p>We continuously monitor regulatory and government developments and decisions to determine their possible impact on our businesses by building scenario analysis into our strategic outlook and by working closely with our rightsholders and stakeholders in the development and operation of our assets.</p>

Summary of climate-related risks continued

Risk definition	Potential negative financial impact			Mitigation measures
Technology risk				
<p>Uncertainty around traditional and energy transition technology development and deployment is relevant to our operations and growth, including energy efficiency, electrification (in transportation, heating, etc.), industrial decarbonization, renewable and alternative energy sources, batteries and other electricity storage, low-carbon fuels (such as renewable natural gas (RNG) and hydrogen), and digitalization.</p>	S/T	M/T	L/T	<p>Our successful and long-standing research programs are carefully managed to mitigate technology risks while allowing us to realize the potential opportunities (please refer to summary of climate-related opportunities table).</p> <p>Our dedicated Energy Transition team's mandate includes assessing relevant technologies for implications and opportunities for our business and our Technology & Innovation Management Office drives solutions to pipeline management and operational challenges through research and innovation.</p>
Market risk				
<p>Emerging decarbonization policies could affect North American energy consumption patterns and preferences, affecting long-term energy supply and demand trajectories.</p> <p>Extreme temperature and weather can also affect market demand for power and natural gas and can lead to significant price volatility.</p>	S/T	M/T	L/T	<p>We conduct analyses to identify resilient supply sources as part of our energy fundamentals and strategic development reviews.</p> <p>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.</p> <p>We monitor signposts including customer, regulatory and government decisions as well as innovative technology development to inform our capital allocation strategy and adapt to changing market conditions.</p>
Physical risk				
<p>Significant changes in temperature and weather, including the potential impacts of climate change, have effects on our business ranging from the impact on demand, availability and commodity prices, to efficiency and output capability.</p>	S/T	M/T	L/T	<p>Our engineering standards are regularly reviewed to ensure assets continue to be designed and operated to withstand the potential impacts of climate change.</p> <p>The procedures included in our Emergency Management Program (within TOMS) manage our response to natural disasters, which include catastrophic events such as forest fires, tornadoes, earthquakes, floods, volcanic eruptions and hurricanes. The procedures are designed to help protect the health and safety of our employees, minimize risk to the public and limit the potential for adverse effects on the environment.</p> <p>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.</p>

Summary of climate-related opportunities

Opportunity definition	Potential positive financial impact			Realization measures
Technology opportunities				
<p>Technological innovation is critical to managing the complex and inter-related issues surrounding GHG emissions. Taking advantage of the opportunities posed by technological development is closely integrated with mitigating its risks, as described above.</p>	S/T	M/T	L/T	<p>We have expertise across the energy spectrum including in liquids, wind, solar, hydro and nuclear. We are taking advantage of the vast opportunities that energy transition technology development provides, including investing in a world-scale carbon transportation and sequestration system, purchasing power from new renewables coming into service and seeking wind, solar and battery storage capacity to electrify parts of our natural gas pipelines.</p> <p>We also have dedicated resources to advance and study opportunities including pumped storage, hydrogen, carbon capture and other innovations.</p>
Market opportunity: diverse energy sources				
<p>We continue to look at all forms of energy to balance energy demand with global emission reduction goals and we continue to demonstrate commitment to sustainable energy across our footprint.</p> <p>We are uniquely positioned to capture energy transition opportunities through a variety of future scenarios, building on our existing experience and assets.</p> <p>Looking forward, we believe we will be opportunity-rich and need to carefully allocate our capital to build out an ever more modern, robust and responsible energy system.</p>	S/T	M/T	L/T	<p>While the types of energy we deliver may change, how we continue to invest and grow will be very familiar. We continue to watch for signposts and test the resiliency of our asset base against various energy outlooks (see below) and maintain adherence to our tried-and-tested risk tolerances.</p> <p>Our Strategy, Energy Transition, and business teams collaborate to assess how the pace, scale and types of change in the energy system introduce opportunities for us.</p>
Market opportunity: natural gas and electrification				
<p>Transporting natural gas—the cleanest-burning fossil fuel—in our pipelines continues to support the significant shift away from coal-fired power generation occurring in North America and beyond, including through exporting liquefied natural gas.</p>	S/T	M/T	L/T	<p>Even the widest ranging scenarios show the world will continue to rely upon large quantities of natural gas and oil for the foreseeable future. As we look ahead, it is from our irreplaceable footprint that we will grow our energy offerings as we participate in the energy transition.</p> <p>Key focus areas in 2021 include continued execution of our existing capital program that includes further investment in the NGTL System, continued construction of Coastal GasLink as well as the completion and initiation of new pipeline projects in the U.S. and Mexico.</p>

Summary of climate-related opportunities continued

Opportunity definition	Potential positive financial impact			Realization measures
Policy opportunities				
<p>Effective policy development is an opportunity for government and industry to partner in driving timely, cost-effective emission reductions.</p> <p>Current and emerging climate-related regulations are also an opportunity to facilitate meaningful emissions reductions and support market-based policies to promote industry innovation.</p>	S/T	M/T	L/T	<p>We know that strong climate change policy will take a collective effort among industry, governments, communities and consumers to see true change in actions against climate change. We continue to advance our efforts to work with policymakers and industry peers to help our industry fully participate in the North American climate change discussion.</p> <p>Existing infrastructure and corridors are among the lowest lifecycle cost, easiest paths to reducing North America’s GHG emissions and are therefore in the interest of all stakeholders.</p> <p>Our dedicated public policy and advocacy teams’ mandates include ensuring we present policy proposals that build positive outcomes for our business, rightsholders and stakeholders, including governments.</p>

Climate-related scenarios

Our vision is to be North America’s premier energy infrastructure company, now and in the future. To deliver this vision, our five-year strategic plan, which we update and extend annually, is presented to the Board for review, discussion and approval every year.

We recognize that future energy systems will evolve. For many years we have evaluated 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. In this context, resilience refers to our ability to tolerate disruptions and adapt to external changes or uncertainties that may affect our ability to meet our long-term goals and remain effective under most situations and conditions.

We monitor the pace and magnitude of energy transition through various signposts and look for material shifts that pose threats or create opportunities; each year evaluating the scenarios that will best inform our strategy. By examining outcomes within this broad hypothetical context, we gain perspective on the implications for our footprint, growth

opportunities and portfolio optimization; it also plays a critical part in understanding how we can manage several of our key enterprise risks.

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

Using a scenario created by a third-party, our efforts in 2020 focused on supplementing our past scenario work by developing a deeper understanding of an accelerated transition to a lower carbon energy future. The figure below illustrates how this scenario compares against the International Energy Agency (IEA) STEPS¹ and SDS² for global primary energy demand. We recognize the impacts of the COVID-19 pandemic have yet to completely unfold and we must consider these changing dynamics accordingly.

¹ 'IEA STEPS' refers to the Stated Policies Scenario published by the IEA and it reflects the impact of existing policy frameworks and policy intentions on the global energy systems.
² 'IEA SDS' refers to the Sustainable Development Scenario published by the IEA and it is aligned with the Paris agreement. It assumes transformation of the global energy systems with accelerated renewables growth, higher electric vehicles penetration and carbon capture growth.



Scenario overview

The accelerated energy transition scenario assumes reliance on multiple technologies to solve the world’s emissions problems and account for a pathway to lower emissions levels that would keep the global temperature rise to below 2°C. Technology assumptions include a major role for renewables in the power sector, a prominent role for hydrogen in the aviation and shipping sectors, battery standardization driving rapid adoption in the light-duty vehicle fleet along with the usage of some carbon capture and storage to address industrial process emissions. Governments around the world set clear regulations to drive low GHG emission outcomes, aggressive emission standards and efficiency regulations. Foundational to this scenario is a global carbon tax and emission standard that is imposed later this decade and accelerates over time. Developed countries take a leading role followed by emerging and developing countries.

Scenario outcomes

Testing our portfolio against the accelerated energy transition scenario indicates our assets would be largely insulated from fossil fuel demand destruction to 2030. Post-2030, when policy aspirations are expected to materially reduce demand for fossil fuels, TC Energy’s positioning in the lowest cost gas basins and projected liquefied natural gas (LNG) growth out of North America are still expected to maintain the resiliency of our assets. We remain observant of the future dependence on LNG exports as North American demand declines from reduced gas-fired power demand. Existing Canadian oil sands production remains resilient, but future growth would stall. Our existing liquids pipelines are expected to maintain value given their direct access and competitive toll structures. Our current Power and Storage business, centered around Bruce Power, is not materially impacted in this scenario.

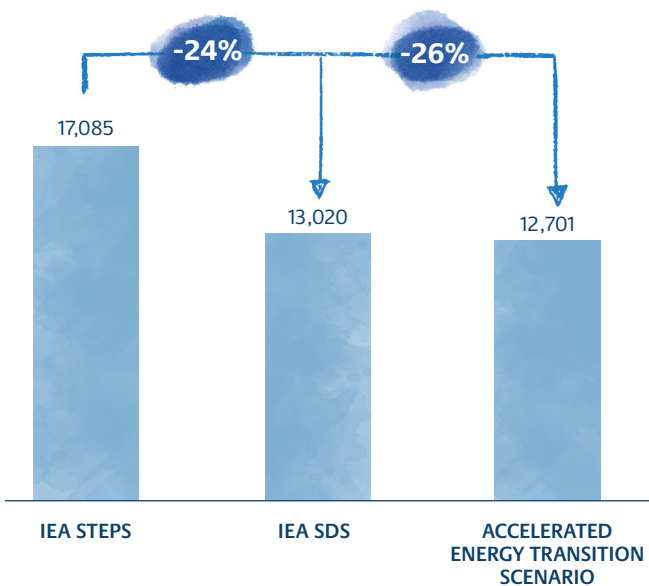
The need for new forms of clean energy is expected to generate investment opportunities in the future. New growth prospects include either leveraging our existing assets (e.g. for hydrogen or RNG) or capitalizing on our capability to execute complex and capital-intensive projects (e.g. in carbon capture and storage). We also see the opportunity to participate in the growing electrification movement through our Power and Storage 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 pathways in how the energy transition could unfold and our strategies are built to ensure we deliver enduring value no matter the future direction.

TC Energy operates under a low-risk business model that maximizes the value of our long-life assets and commercial positions through all points in the business cycle. We have a demonstrated track record in responding to a constantly evolving external environment and our three major lines of business provide diversification as the energy future unfolds, allowing us to allocate capital to various opportunities across the energy infrastructure sector, within our risk preferences, as signposts indicate.

Primary energy demand - world (2040)

Million tonnes of oil equivalent



Climate-Related Risk Management

Enterprise risk management

Risk management is integral to successfully operating our business. Our strategy is to ensure our risks and related exposures are aligned with our business objectives and risk tolerance. Recognizing many risks are interrelated and should be managed across the enterprise, we manage risk through a centralized enterprise risk management (ERM) process that identifies and assesses key enterprise risks, including ESG-related risks, that have the potential to materially impact TC Energy’s ability to meet or support its business, operational or strategic objectives. Specifically, the ERM program and framework provides a framework and 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.

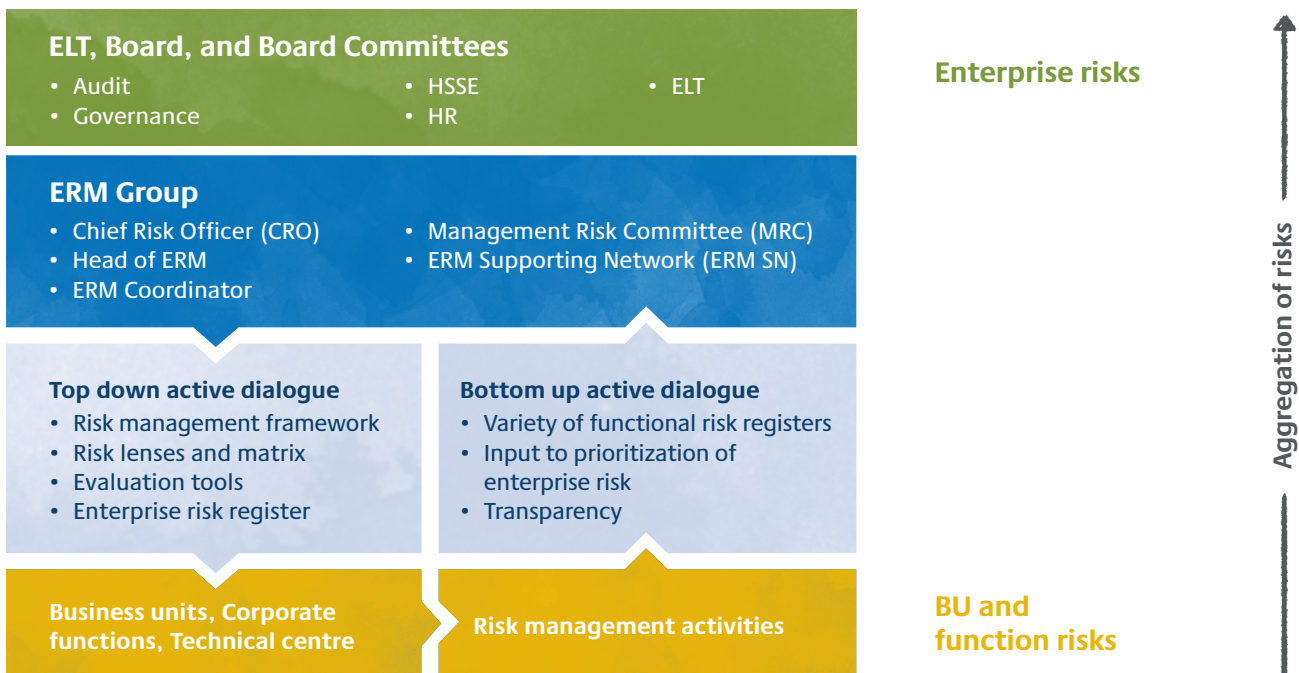
Our **Board of Directors’** Governance Committee oversees our ERM activities and ensures adequate Board oversight of our risk management policies, programs and practices. Other Board committees oversee specific classifications of risk:

- the Human Resources Committee oversees executive resourcing, organizational capabilities and compensation risk to ensure human and labour policies and remuneration practices align with our overall business strategy.
- the HSSE Committee oversees operational, health, safety, sustainability, including climate-related and environmental risk.
- the Audit Committee oversees management’s role in managing financial risk, including market risk, counterparty credit risk and cyber security.

Our **ELT** is accountable for developing and implementing risk management plans and actions, and effective risk management is reflected in their compensation. Select members of the ELT are identified as enterprise risk governance and execution owners, reporting quarterly to our Board of Directors and as appropriate, this includes discussion of climate-related risks.

The **Management Risk Committee** comprises our ELT and receives support from the ERM team and the ERM supporting network. These teams continuously review the company’s activities and provide expertise to inform policy response strategies and ensure consistency. Members of several corporate functions, such as environment, stakeholder relations, legal, regulatory services and business segments are represented to ensure risks from across the organization are identified, shared and discussed. Risks, including those associated with climate policy, are monitored and escalated to senior management through TC Energy’s ERM process to ensure leadership has visibility on the broader perspective, and that treatments are applied in a holistic and consistent manner.

TC Energy's Enterprise Risk Management Framework



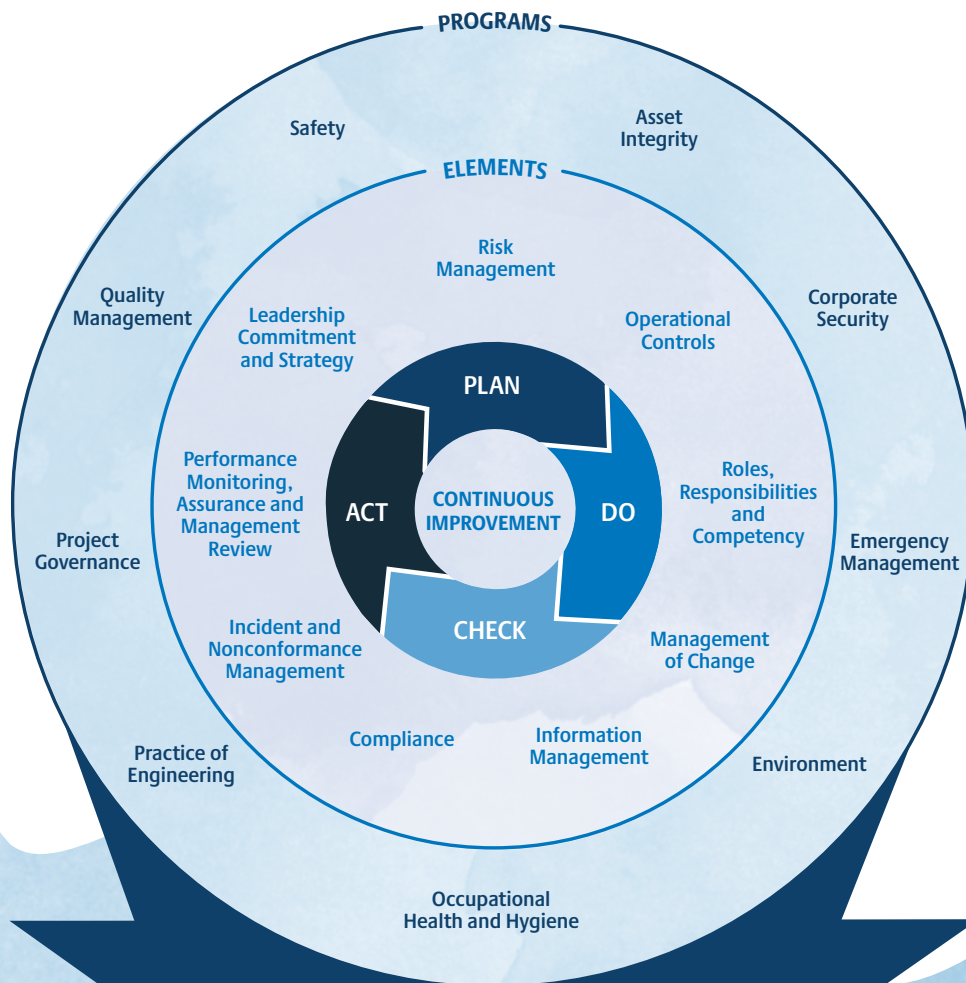
TC Energy’s operational management system

TOMS is our overarching management system that enables operational excellence through a structured set of requirements and processes to manage risk and continually improve through the plan, do, check, act cycle. It is modeled after international standards, including the International Organization for Standardization (ISO) standard for environmental management systems, ISO 14001, and the Occupational Health and Safety Assessment Series for occupational health and safety. TOMS aligns to industry best practices and standards and incorporates applicable regulatory requirements.

It applies across the organization and throughout the asset lifecycle, including design, construction, operation and decommissioning, to ensure the integrity of our physical assets and the safety and security of the public, our personnel and the protection of the environment.

Under TOMS, **elements** provide standardized requirements for business activities including risk management. These requirements drive our approach to identify, analyze, evaluate, monitor and communicate risks and implement barriers for the asset lifecycle, including climate-related risks. Operational risks are communicated annually through the corporate ERM process.

Under TOMS, **mandated programs** set requirements to manage specific risk areas including asset integrity, safety, health and industrial hygiene, emergency management and environment. These requirements for our day-to-day work protect us, our co-workers, our workplace and assets, the communities we work in, and the environment.



**RISK MANAGEMENT, GOVERNANCE,
COMPLIANCE AND SUSTAINABILITY**

For people and throughout
the life cycle of our assets

DESIGN

CONSTRUCT

OPERATE

DECOMMISSION



Climate-Related Targets And Metrics

Last year, we published 10 commitments describing our path to continuously driving toward a more sustainable organization, aligned to the UN SDGs. We also set our first suite of voluntary targets specifically aligned to sustainability – and we pledged that in 2021, we would set targets for every commitment and measure and demonstrate our progress. Below we have included details of our climate-related targets and metrics. For a full list of our sustainability targets, please refer to our [2021 Report on Sustainability](#).

Metrics	Targets
Reduce GHG emissions intensity from our operations	30% by 2030
Position to achieve zero emissions from our operations on a net basis	Net zero by 2050

TC Energy set GHG emissions reduction targets in 2021. For planning purposes, progress will be measured relative to a 2019 baseline year (adjusted for material changes in our asset portfolio and calculated on an operational control boundary¹). We have completed an extensive review and analysis to make sure these targets are meaningful and our decisions are informed by the most recent, partially assured, dataset available.

¹ Values in the GHG emissions performance data table on page 21 are reported on an equity share basis, reflecting TC Energy's traditional reporting boundary.

Performance Data

About our ESG performance data

Our goal is to address the information needs of our stakeholders by providing clear and useful ESG data.

- ESG data represents the period of Jan. 1 to Dec. 31, 2020, or status as of Dec. 31, 2020, whichever is applicable, unless otherwise noted.
- Performance data is included for the five years ending Dec. 31, 2020. For brevity, historical data from 2010 through 2015 is available on our website.
- ESG data reported in the performance data tables reflect all assets that we operate, unless otherwise noted. Operational control is defined as the authority to introduce and implement its operating policies at the operation. Data reflects 100 per cent for facilities where TC Energy, or one of its subsidiaries, has operational control regardless of percentage of financial ownership. GHG emissions are reported on an equity share basis, defined in alignment with the GHG Protocol.
- Full listings of the assets we operate are contained in the [2020 Annual Report](#), on pages 35-37 for our natural gas assets, page 53 for our liquids pipeline assets and page 62 for our power and storage assets.
- Financial data is reported in Canadian dollars. Foreign currencies are converted based on the average exchange rates published in our [2020 Annual Report](#).
- Footnotes provide additional contextualization information on 2020 data boundaries, definitions and methodology where applicable. Further discussion is also contained in the [2021 Report on Sustainability](#). Data exclusions or additions are noted throughout the report.
- Totals may not add up due to rounding.
- The indicators reported in our performance data tables reflect both external reporting frameworks and the interests of our stakeholders. Where we add indicators, for example to align with new sustainability targets, it may not be reasonable to calculate historical data points. Where historical data for a directly comparable scope is not available, this has been indicated as 'N/A'.

Operational overview

With over 70 years of experience, TC Energy is a leader in the responsible development and reliable operation of North American energy infrastructure including natural gas and liquids pipelines, power generation and natural gas storage facilities.

Indicator	Unit	2016	2017	2018	2019	2020	Related framework indicator ID
Operational overview							
Natural Gas Pipelines							
Natural gas transmission network	km	91,500	91,900	92,600	93,250	93,421	
Natural gas pipeline throughput	Bcf	N/A	N/A	N/A	14,210	14,390	
Liquids Pipelines							
Liquids pipeline network	km	4,324	4,874	4,874	4,900	4,946	
Liquids pipeline throughput ¹	million bbls	N/A	N/A	N/A	442	415	
Power and Storage							
Power							
Number of power facilities	number	17	11	9	7	7	
Power generation capacity	MW	10,700	6,100	5,200	4,197	4,197	
Net power generation ²	MWh	N/A	N/A	29,003,004	27,396,190	24,060,721	
Storage							
Natural gas storage capacity	Bcf	653	653	653	653	653	
Total natural gas volume injected and withdrawn ³	Bcf	N/A	N/A	58	54	115	
Liquids storage capacity	bbl	N/A	N/A	N/A	Over 6.5 million	Approximately 7 million	

¹ Liquids pipeline throughput is a new indicator that represents the net standard volume (NSV) receipt volume inventory for the Liquids Pipelines business segment pipelines and tank terminals, across Canada and the U.S.

² Reduction in net power generation is attributable to lower overall plant generation at Bruce Power with the January 2020 commencement of the life extension project on unit 6, partially offset by fewer outage days on the remaining units, as well as the April 2020 sale of our Halton Hills and Napanee power plants and our 50 per cent interest in Portlands Energy Centre.

³ Substantially higher volumes were injected into our storage facilities during 2020 than preceding years. Gas storage is measured through a variety of metrics. Total gas injected and withdrawn is a meaningful complement to storage capacity because the former represents the total flow through the facilities for a specific time period and the latter is a fixed value representing the maximum volume of natural gas that can be stored at a point in time.

Protecting our Planet



GHG emissions

As an energy infrastructure company, we recognize our role in the larger energy system, including the ongoing management of our own GHG emissions. We are committed to managing our GHG emissions, reducing our GHG emissions intensity and continuing to integrate climate considerations into our overall business strategy.

TC Energy quantifies GHG emissions using a combination of methods required by various regulations in the different jurisdictions where 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 (EPA), 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. Quantification for voluntary reporting is done on an equity share boundary and aligns to GHG Protocol guidance. 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, GHG emissions reported include those considered below reporting thresholds under regulatory reporting regimes.

Continuous improvement in our quantification methodology and best available data, informed by internal and external validation and assurance processes, have resulted in select 2019 GHG emission values, including intensities being reissued. Please refer to our [climate related-targets section](#) and GHG Reduction Emissions Plan for more information on our 2019 GHG emissions baseline.

Indicator	Unit	2016	2017	2018	2019	2020	Related framework indicator ID
Scope 1 GHG emissions¹							
Total Scope 1 GHG emissions²	thousand tonnes CO ₂ e	16,118	12,500	13,749	16,198	15,811	SASB EM-MD-110a.1
Breakdown by operating segment							
Scope 1 GHG emissions: Canadian Natural Gas Pipelines	thousand tonnes CO ₂ e				6,979	6,437	
Scope 1 GHG emissions: U.S. Natural Gas Pipelines ²	thousand tonnes CO ₂ e	8,300	8,700	10,699	6,476	7,391	
Scope 1 GHG emissions: Mexico Natural Gas Pipelines	thousand tonnes CO ₂ e				78	96	
Scope 1 GHG emissions: Liquids Pipelines	thousand tonnes CO ₂ e	0	0	1	1	1	
Scope 1 GHG emissions: Power and Storage	thousand tonnes CO ₂ e	7,800	3,800	3,015	2,631	1,853	
Scope 1 GHG emissions: Corporate ³	thousand tonnes CO ₂ e	18	62	34	34	33	
Breakdown by source⁴							
Scope 1 GHG emissions: stationary combustion	thousand tonnes CO ₂ e	N/A	N/A	12,285	12,870	12,629	
Scope 1 GHG emissions: venting	thousand tonnes CO ₂ e	N/A	N/A	969	1,263	1,004	
Scope 1 GHG emissions: fugitive ²	thousand tonnes CO ₂ e	N/A	N/A	449	2,006	2,124	
Scope 1 GHG emissions: flaring	thousand tonnes CO ₂ e	N/A	N/A	12	21	16	
Scope 1 GHG emissions: transportation ³	thousand tonnes CO ₂ e	N/A	N/A	34	34	33	
Additional							
Scope 1 (direct) methane emissions	thousand tonnes CO ₂ e	N/A	N/A	1,467	3,323	3,183	SASB EM-MD-110a.1
Portion of Scope 1 GHG emissions covered by reduction regulations ⁵	per cent	N/A	N/A	72	59	52	SASB EM-MD-110a.1
Scope 2 GHG emissions							
Total Scope 2 GHG emissions	thousand tonnes CO ₂ e	350	344	2,343	2,118	2,050	
Breakdown by operating segment							
Scope 2 GHG emissions: Canadian Natural Gas Pipelines	thousand tonnes CO ₂ e				101	92	
Scope 2 GHG emissions: U.S. Natural Gas Pipelines	thousand tonnes CO ₂ e	350	335	430	222	235	
Scope 2 GHG emissions: Mexico Natural Gas Pipelines	thousand tonnes CO ₂ e				2	2	
Scope 2 GHG emissions: Liquids Pipelines	thousand tonnes CO ₂ e	N/A	N/A	1,874	1,765	1,670	
Scope 2 GHG emissions: Power and Storage ⁶	thousand tonnes CO ₂ e	7	9	40	28	52	

GHG emissions continued

Indicator	Unit	2016	2017	2018	2019	2020	Related framework indicator ID
Scope 3 GHG emissions⁷							
Total Scope 3 GHG emissions	thousand tonnes CO ₂ e	N/A	N/A	3,026	3,146	2,703	
Breakdown by Scope 3 category							
Fuel and energy related activities (category 3)	thousand tonnes CO ₂ e	N/A	N/A	2,985	3,072	2,613	
Waste generated in operations (category 5) ⁸	thousand tonnes CO ₂ e	N/A	N/A	N/A	50	75	
Business travel (category 6)	thousand tonnes CO ₂ e	N/A	N/A	11	12	5	
Upstream leased assets (category 8) ⁹	thousand tonnes CO ₂ e	N/A	N/A	31	13	11	
Scope 1 and 2 GHG emissions intensities¹⁰							
GHG emissions intensity: Canada Natural Gas Pipelines	Scope 1+2 tonnes CO ₂ e / throughput Bcf	991	779	895	980	910	
GHG emissions intensity: U.S. Natural Gas Pipelines ¹¹	Scope 1+2 tonnes CO ₂ e / throughput Bcf	N/A	N/A	N/A	1,002	1,117	
GHG emissions intensity: Mexico Natural Gas Pipelines	Scope 1+2 tonnes CO ₂ e / throughput Bcf	136	145	211	197	198	
GHG emissions intensity: Liquids Pipelines	Scope 1+2 tonnes CO ₂ e / Receipt Volume NSV bbls	N/A	N/A	N/A	0.0040	0.0040	
GHG emissions intensity: Power ¹²	Scope 1 + 2 tonnes CO ₂ e / net generation MWh	0.19	0.12	0.10	0.09	0.07	
GHG emissions intensity: Natural Gas Storage ¹³	Scope 1 + 2 tonnes CO ₂ e / total volume injected + withdrawn Bcf	N/A	N/A	858	768	492	

Scope 1 GHG Emissions

¹ Approximately 80 per cent of our total Scope 1 emissions are from stationary combustion sources at our natural gas pipeline assets. The most significant changes in our Scope 1 GHG emissions profile between 2019 and 2020 are due to divestitures reducing our absolute emissions and increased customer demand for natural gas, primarily in the U.S. and Mexico, which contributes to increased combustion of natural gas in operating our transmission pipelines and in turn increased GHG emissions.

² In 2021, TC Energy undertook a project to improve quantification of pipeline emissions from the Columbia Gas low pressure system. The project leveraged the latest available technologies combined with standard techniques to provide field measurements and develop system-specific 'emission factors'. Applying these system-specific factors to the standard and accepted methodology to calculate our 2019 and 2020 emission values improves accuracy over that historically achieved using generic emission factors published by the U.S. EPA.

³ Scope 1 GHG emissions related to transportation sources (aviation and vehicles) are reported under our Corporate operating segment.

⁴ Emissions by source do not total the reported total Scope 1 GHG emissions as the following negligible emission sources have not been broken out: hydrofluorocarbon (HFC) emissions and sulphur hexafluoride (SF6) emissions. We also have a small representation of emissions that are not available by source that are included in our emissions by operating segment.

⁵ We estimate the portion of Scope 1 emissions covered by reduction regulations through use of assumptions based on GHG policies. Methodology is based on inclusion of Scope 1 GHG emissions from all sources associated with Natural Gas Pipelines and Power and Storage business segment assets in Canada. Alberta-based assets' transportation emissions are excluded under the applicable regulation.

Scope 2 GHG Emissions

⁶ Increased Scope 2 emissions at our Storage assets is attributed to increased electricity consumption for the electric reciprocating compressors used for both well withdrawal and well injection activities, as the result of increased storage demand.

Scope 3 GHG Emissions

⁷ Scope 3 GHG emissions cover 15 categories of emissions and of these, TC Energy reports on four relevant categories (fuel- and energy-related activities, business travel, waste generated in operations and upstream leased assets). Fuel- and energy-related activities emissions relate to fuel supplied for combustion during operational (combustions) activities that are not included in our Scope 1 or Scope 2 emissions. Scope 3 emission reductions from the previous year are largely attributed to business continuity disruptions related to the COVID-19 pandemic.

⁸ TC Energy has estimated Scope 3 emissions associated with waste using the spend-based method from the GHG Protocol Scope 3 Guidance and the emission factors within the Quantis Suite Scope 3 Evaluator. Annual invoiced spend data is sourced from internal systems to waste management vendors, defined as third-parties who provide disposal and treatment services of waste that is generated in the reporting company's owned or controlled operations in the reporting year, associated with environmental hazardous and non-hazardous waste categorizations.

⁹ TC Energy does not own or operate our corporate offices; emissions associated with operation of those leased spaces are included as Scope 3 emissions.

GHG Intensities

¹⁰ TC Energy's calculated GHG emission intensities for our natural gas business segments are based on a throughput denominator. Throughput within each operational jurisdiction is calculated based on regionally distinct regulatory 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 GHG emissions 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.

¹¹ In 2021 we shifted our approach on reporting throughput volumes for the U.S. Natural Gas Pipelines business segment to reflect commercially tracked deliveries. This is not comparable to historical methodology and we have therefore chosen not to report U.S. Natural Gas GHG emissions intensity for years prior to 2019.

¹² Many of TC Energy's power generation assets generate both electricity and useful heat. Intensity calculations do not account for this useful heat generated and therefore represent a conservative estimation of emissions intensity.

¹³ When operating our gas storage assets, typically more GHG emissions are generated during withdrawal than injection. Natural gas is combusted during gas withdrawal and injection. Injection uses incremental electricity consumption to compress and push the gas into the storage reservoir. In 2020, substantially higher volumes of gas were injected into our storage facilities than preceding years, resulting in higher absolute Scope 2 emissions but a greater relative increase in the total volume of gas injected and withdrawn, resulting in a net overall intensity reduction from previous years.

Air emissions

Protecting our shared air quality is important to TC Energy. Our assets are subject to federal, state, provincial and local environmental statutes and regulations governing environmental protection including air emissions and we work to reduce these emissions through a variety of approaches including operational optimisation.

Indicator	Unit	2016	2017	2018	2019 ³	2020	Related framework indicator ID
Air Quality^{1,2}							
Nitrogen oxide (NO _x)	metric tonnes	13,221	12,889	14,247	45,099	40,421	GRI 305-7 SASB EM-MD-120a.1
Sulfur oxides (SO _x)	metric tonnes	N/A	N/A	N/A	74	98	GRI 305-7 SASB EM-MD-120a.1
Volatile organic compounds (VOCs)	metric tonnes	18	54	21	1,544	1,528	GRI 305-7 SASB EM-MD-120a.1
Particulate matter 10 micrometers (PM ₁₀)	metric tonnes	15	18	22	675	686	GRI 305-7 SASB EM-MD-120a.1

¹ Air quality emissions data is calculated based on the regulatory requirements where we operate and includes emissions at, or above, regulatory reporting thresholds. This methodology can lead to year-on-year variations as some facilities oscillate between falling above or below the reporting threshold.

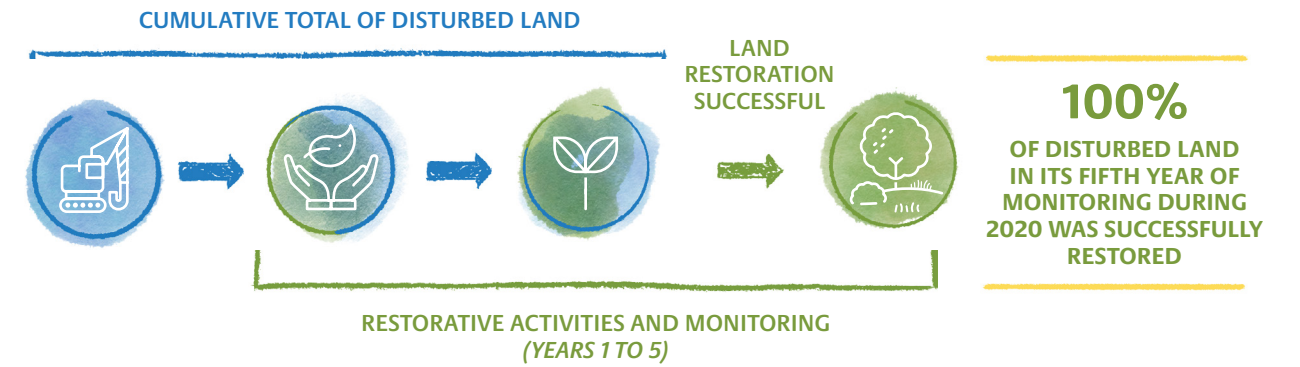
² 2016 to 2018 emissions data is limited to our Canadian operations. 2019 emissions data onwards reflects all operated assets, including our U.S. and Mexico operations.

³ 2019 was the first year our U.S. and Mexico operations were included in voluntary reporting. 2019 values have been reissued to correct errors made when establishing these new voluntary reporting processes.

Ecological impacts

Maintaining safe, reliable operations and ensuring asset integrity, while minimizing environmental impacts, continues to be the foundation of our business and how we interact with the environment is as important to our communities as it is to us. Guided by our [Environment Principles](#), we see it as our responsibility to conserve and [protect the land](#) and ecosystems throughout the life of our projects and beyond. We also recognize our interactions with water aren't just about the water we use, it's also about how we ensure our activities don't impact the water quality around our projects and operations.

This year, we are introducing indicators related to restoration of disturbed land. This reflects our ongoing commitment to restore the land that is disturbed as we construct and maintain the assets needed to deliver energy. This restoration process begins soon after construction activities are completed and progresses over multiple years reflecting the natural pace of vegetation growth in the surrounding ecosystem, as shown in the graphic on the right. Our experts follow a systematic, multiple step process to assess, design, implement, monitor, evaluate and adjust; assisting if issues are identified during monitoring.



Indicator	Unit	2016	2017	2018	2019	2020	Related framework indicator ID
Biodiversity^{1,2}							
Percentage land owned, leased, and/or operated within areas of protected conservation status or endangered species habitat ³	per cent	N/A	N/A	N/A	N/A	13	SASB EM-MD-160a.2.
Land capability⁴							
Cumulative total of disturbed land ^{5,6,7}	acres	N/A	N/A	N/A	N/A	4,503	SASB EM-MD-160a.3.
Land restoration completed ^{8,9}	acres	N/A	N/A	N/A	N/A	2,449	SASB EM-MD-160a.3.
Percentage of disturbed area restored within 5 years ¹⁰	per cent	N/A	N/A	N/A	N/A	100	
Water							
Water consumption ¹¹	million cubic metres	7.80	4.50	2.20	5.10	3.20	SASB IF-EU-140a.1
Waste							
Hazardous waste generated ^{12,13,14}	metric tonnes	N/A	N/A	N/A	N/A	10,129	GRI 306-3

Biodiversity

¹ Our new biodiversity indicator currently reflects most of the land TC Energy owns, leases and/or operates that is associated with our pipeline right-of-way, compressor stations, meter stations, pump stations, and power plants in Canada, Mexico, and the U.S. The footprint does not include temporary workspaces or proposed projects. Valve sites are assumed to be contained within right-of-way footprint.
² TC Energy considers land to be 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. While not an exact match, in 2020 we selected multiple publicly available datasets that included conservation status and habitat information that most closely aligned to the intent of SASB indicator EM-MD-160a.2.
³ This indicator excludes our footprint that is near but not within land identified as having protected conservation status or endangered species habitat.

Land capability

⁴ 2020 is the first year TC Energy has reported on these specific indicators and our organization only has partial data available. The cumulative total of disturbed land currently includes gas pipeline projects across Canada, the U.S. and Mexico that underwent post-construction reclamation monitoring in 2020 to determine restoration success. These indicators include sensitive habitat, as defined in footnote 2, and private lands.
⁵ The cumulative total of disturbed lands includes land disturbed from projects constructed in preceding years that have not yet achieved restoration, and that are being monitored annually for restoration status.
⁶ Data currently available does not reflect all disturbances related to TC Energy's construction, operations and maintenance activities and excludes small disturbances, recently decommissioned, and abandoned sites. We intend to capture these types of activities in future years of reporting. We do not include operating facilities that are above-ground (fenced and graveled sites) in our disturbed lands or restoration reporting until they undergo decommissioning and abandonment.
⁷ Projects are typically monitored annually following final clean-up after construction is completed, for five years, or until restoration has been achieved.
⁸ Restoration is defined as the process of returning disturbed land to equivalent land capability, which is the ability of the land to support various land uses similar to the ability that existed prior to disturbance. This includes ensuring stable, non-hazardous, non-erodible soil conditions, and seeding or enabling the re-establishment of vegetation, as appropriate and in accordance with applicable regulatory requirements and permit conditions.
⁹ Includes previously disturbed land that achieved restoration during 2020. This includes projects in years one through to five being monitored for restoration success.
¹⁰ While the cumulative total of land disturbed and restored in acres reflect 2020 data, the percentage of land restored has been defined using a 5-year timeframe to better reflect the longer-term nature of our restoration activities. While much of the land is restored in the first two to three years following construction, we achieved 100 per cent restoration for land that is in the fifth year of monitoring following construction.

Water

¹¹ Water consumption volume reflects management's best estimate. TC Energy considers water consumed unless it is discharged to the same source at equal or higher quality. The volume reported includes water used during hydrostatic testing of pipelines and liquids storage tanks and water used for power asset operations (excluding once-through cooling water). Water used during construction or operational activities (e.g. for dust control on access roads, withdrawn for construction of winter access, or to assist in hydrovac operations) is excluded. Water consumed at our cogeneration plant Mackay River is also excluded for 2020 as it is accounted for by the third-party host. The volume of water consumed for hydrostatic testing data is highly dependent on the number of new pipeline assets constructed or scheduled pipe integrity hydrostatic tests in the reporting year. In 2020, there was a 60 per cent decrease in water consumption for pipeline hydrotests from the previous year. Reported water consumption also decreased due to the 2020 sale of the Napanee and Halton Hills power assets (data included for Q1 2020).

Waste

¹² We have chosen to focus reporting on the generation of hazardous wastes for 2020 and going forward. Most of TC Energy's hazardous wastes consist of recyclable hydrocarbons from our storage operations, recovered from the natural gas in our gas pipelines or used lube oils and glycols from turbines, pumps and engines. Any hazardous wastes that cannot be recovered or recycled are disposed of at licensed, secure disposal facilities.
¹³ 2020 data includes operations, project and remediation waste for TC Energy operated assets across Canada, the U.S. and Mexico, with the exception of the construction of the Coastal GasLink project, for which data from the prime contractors is not available at this time.
¹⁴ Requirements for tracking and reporting of waste as well as the waste classifications and types themselves vary by jurisdiction. TC Energy also relies on multiple third-party vendors and/or government databases for tracking of hazardous waste. Internal subject matter experts familiar with our waste streams review and reconcile waste data often utilizing assumptions and/or estimations to consolidate the data into a single, corporate-wide value.

Asset integrity and process safety

Our pipeline and power and storage assets are some of the most technologically advanced in the industry. One way we manage the safety of these assets is through integrity and preventative maintenance programs.

Indicator	Unit	2016	2017	2018	2019	2020	Related framework indicator ID
Pipeline inspection							
Percentage of natural gas pipelines inspected ¹	per cent	26	18	16	20	24	SASB EM-MD-540a.2
Percentage of liquids pipelines inspected ²	per cent	32	140	159	125	202	SASB EM-MD-540a.2
Number of in-line inspections	number	201	277	279	313	323	
Length of in-line inspections	km	18,074	21,914	22,091	24,890	30,895	
Completed integrity digs	number	799	936	1,133	846	865	
Investment in integrity programs							
Investment in pipeline integrity programs ³	Cdn\$ B	0.8	1.1	1.3	1.3	1.5	

¹ The substantially higher percentage of liquids pipelines inspected can primarily be attributed to the large pipeline inspection campaigns on our Keystone liquids pipeline system. The percentage of natural gas pipeline we inspect each year is within industry norms of inspection and varies in response to multiple considerations. For more information please view our [website](#).

² Values above 100 per cent indicate that some pipeline sections were inspected multiple times using different technologies.

³ In 2020, we spent \$1.5 billion for pipeline integrity on the natural gas and liquids pipelines we operate, an increase from 2019 in part due to increased capital expenditures related to pipeline replacements to address population growth adjacent to our pipeline systems, modifications to facilitate the in-line inspection of additional pipeline segments, an increased number of in-line inspections and corresponding excavations plus repairs on some pipeline systems. Pipeline integrity spending will fluctuate based on multiple factors including the results of annual risk assessments conducted on our pipeline systems and evaluations of information obtained from recent inspections, incidents and maintenance activities.

Asset integrity and process safety incidents

We believe zero is real, and today—for us—zero means: **All harm, loss and incidents are preventable.**

In line with this commitment, we believe that expanding our voluntary reporting to include incidents across our diverse asset base, beyond our pipelines, is the right thing to do. For 2020, we have chosen to report on Tier 1 and Tier 2 process safety incidents, guided by CSA Z260 - an industry wide standard. To support transparency against previously disclosed targets we have retained the significant incidents indicator, which is specific to TC Energy.

Indicator	Unit	2016	2017	2018	2019	2020	Related framework indicator ID
Process safety incidents							
Significant process safety incidents ¹	number	N/A	N/A	N/A	4	0	
Tier 1 process safety incidents ²	number	N/A	N/A	N/A	N/A	14	
Tier 2 process safety incidents ³	number	N/A	N/A	N/A	N/A	22	
Reportable gas releases							
Number of reportable gas releases ⁴	number	31	37	37	50	69	
Volume of reportable gas releases ⁵	cubic metres	2,252,447	4,538,083	2,222,034	6,383,452	16,771,363	
Hydrocarbon spills							
Number of hydrocarbon spills ⁶	number	N/A	N/A	N/A	4	9	SASB EM-MD-160a.4
Volume of hydrocarbon spills ⁷	bbl	N/A	N/A	N/A	4,847	750	SASB EM-MD-160a.4
Volume of hydrocarbon spills: in unusually sensitive areas ⁸	bbl	N/A	N/A	N/A	0	0	SASB EM-MD-160a.4
Volume of hydrocarbon recovered ⁹	bbl	N/A	N/A	N/A	4,847	690	SASB EM-MD-160a.4
Third-party incidents							
One Calls per 1,000km of right-of-way ¹⁰	number	2.56	5.81	6.62	5.82	4.79	
Unauthorized pipeline encroachments per 1,000 km of right-of-way ¹¹	number	4.62	3.93	3.42	4.64	2.36	
Unauthorized excavations per 1,000 km of right-of-way ¹²	number	1.28	1.68	1.46	1.90	1.56	

Process Safety incidents

¹ Significant process safety incidents are defined by TC Energy as unplanned or uncontrolled spills or releases that result in major consequences to people or the environment. They are a subset of Tier 1 process safety incidents. In evaluating the severity of the incident, we also consider the potential risk of legal, financial or reputational impacts to our company.

² Tier 1 process safety incidents are unplanned or uncontrolled releases that result in either greater consequences and/or higher release volumes. These incidents may result in a serious injury to a person, an officially declared community evacuation or shelter in place, a fire or an explosion. Our reporting of Tier 1 incidents is guided by CSA Z260, an industry wide standard.

³ Tier 2 process safety incidents are unplanned or uncontrolled releases with lesser consequences. These incidents may result in a recordable injury to a person, a fire or explosion that can be contained and extinguished with little to no damage, or localized environmental damage. Our reporting of Tier 2 incidents is guided by CSA Z260, an industry wide standard.

Reportable gas releases

⁴ A reportable gas release is defined as one that is reportable to an external agency or authority, such as a federal, provincial or state regulator. Thresholds for reporting of gas releases are lower in the U.S. than Canada with respect to the cost of damage to operators and/or adjacent facilities. Reporting thresholds are variable depending on jurisdiction and therefore releases are not wholly comparable by jurisdiction or year over year.

⁵ The large increase in reportable gas release volume for 2020 is largely attributable to a leak on the Albersun Lateral, Canada. In line with the applicable reporting guidelines, the quantity reported assumes the leak was present for 30 days.

Hydrocarbon spills

⁶ Hydrocarbon spills are defined as an unintentional release of liquid hydrocarbons, in excess of one barrel, to the environment, and that is reportable to an authority. Releases from the company's operating assets (e.g., pipeline, storage tank, process facility) are included in this disclosure while releases from construction equipment and vehicles are excluded.

⁷ Hydrocarbon spill volume represents the total estimated amount spilled that reached the environment and is not reduced by the amount of such hydrocarbon subsequently recovered, evaporated, or otherwise lost. The significantly higher hydrocarbon spill volume reported in 2019 is largely attributable to a release along our [Keystone Pipeline System](#) in Edinburg, North Dakota, on October 29, 2019. Remediation and restoration of this site began within days and monitoring continues.

⁸ An Unusually Sensitive Area (USA) in this metric means a drinking water or ecological resource area that is unusually sensitive to environmental damage from a hazardous liquid pipeline release. 2019 values have been reissued to reflect confirmation that the reported hydrocarbon release did not breach secondary containment.

⁹ The volume of spill recovered represents the spilled hydrocarbons removed from the environment through short-term spill response activities, excluding amounts recovered during longer term remediation at spill sites and amounts that evaporated, burned, or were dispersed.

Third-party incidents

¹⁰ Local One Call centres field requests to have all underground utilities located and marked free of charge, prior to any commercial or residential project involving digging. These requests are received via telephone or online.

¹¹ TC Energy defines unauthorized encroachments as those that include activities carried out without authorization from local One Call centres.

¹² TC Energy defines unauthorized excavations as those that include more serious activities than other encroachments, with greater potential to cause impact or exposure that would result in a need to repair an underground facility.

Emergency preparedness and response

Ensuring we are prepared for the unlikely event of an emergency is also part of our commitment to safety. By working with our communities through regular emergency drills and exercises, we build relationships with local first responders and community officials to achieve co-ordinated and effective response.

Indicator	Unit	2016	2017	2018	2019	2020	Related framework indicator ID
Emergency preparedness and response exercises							
Total exercises completed	number	117	172	196	192	171	
Annual field exercises ¹	number	22	23	26	28	12	
Tabletop exercises	number	85	137	159	146	151	
Equipment deployment exercises ²	number	10	12	11	8	0	
Additional exercises	number	0	0	0	10	8	
Emergency preparedness and response training							
First responder training ³	number	0	253	510	747	1,429	
Incident Command System training ⁴	number	2,537	2,548	3,387	4,797	4,321	

¹ The number of exercises completed in 2020 was reduced in support of public safety restrictions in place due to the global COVID-19 pandemic.

² Equipment deployment exercises are required on a three-year cycle and involve the physical deployment of spill response equipment and a large personnel response. In 2020 it was determined that these exercises would not be held to ensure safety of employees, the public, and to follow federal, state, and local health guidelines in place due to COVID-19, with no compliance impacts.

³ First responder training is a specialized course for company personnel identified in the role of the Company First Responder to an emergency event. The internal demand for this training has increased as well as our ability to train more personnel across the business virtually.

⁴ The Incident Command System (ICS) is the standardized on-site emergency management system employed by TC Energy. It is designed to efficiently integrate internal and external stakeholders as required.

Shared Prosperity



A thriving economy

We're proud of the role we've played in empowering businesses and families for more than 70 years and we know the world's appetite for safe, reliable and affordable energy continues to grow. The crux of our challenge in a changing energy landscape is

to safely deliver the energy the world needs in an economically, environmentally and socially responsible manner. We are well positioned to deliver on that challenge by investing in a balanced and sustainable energy future.

Indicator	Unit	2016	2017	2018	2019	2020	Related framework indicator ID
Direct economic value generated and distributed							
Direct economic value generated	Cdn\$ M	12,547	13,449	13,679	13,255	12,999	GRI 201-1
Economic value distributed: operating costs	Cdn\$ M	N/A	N/A	2,088	2,262	2,213	GRI 201-1
Economic value distributed: employee wages and benefits	Cdn\$ M	N/A	N/A	1,505	1,651	1,665	GRI 201-1
Economic value distributed: payments to providers of capital ¹	Cdn\$ M	3,534	3,952	4,308	4,439	5,643	GRI 201-1
Economic value distributed: payments to government	Cdn\$ M	660	816	907	1,437	1,205	GRI 201-1
Economic value distributed: payments to governments in Canada	Cdn\$ M	N/A	N/A	429	466	555	
Economic value distributed: payments to governments in U.S. ²	Cdn\$ M	N/A	N/A	533	1,217	625	
Economic value distributed: payments to governments in Mexico	Cdn\$ M	N/A	N/A	23	45	25	
Economic value distributed: community investments	Cdn\$ M	17	15	24	30	29	GRI 201-1
Economic value retained	Cdn\$ M	4,475	4,760	4,847	3,436	2,244	GRI 201-1
Technology and Innovation Spend							
R&D program spend	Cdn\$ M	N/A	N/A	N/A	N/A	7	
Capital and operating optimization and revenue opportunities achieved ³	Cdn\$ M	N/A	N/A	N/A	13	23	
Political contributions⁴							
Political contributions made by TC Energy Corporation in Canada	Cdn\$	54,350	22,500	5,150	6,000	5,000	GRI 415-1
Political contributions made by TC PAC, a separate segregated fund in the U.S. ⁵	Cdn\$	86,050	392,753	274,495	270,270	387,750	GRI 415-1
Political contributions made by TC Energy U.S. subsidiaries ⁶	Cdn\$	57,235	19,463	84,240	0	0	GRI 415-1
Competitive behaviour							
Total monetary losses that relate to violations of regulations governing competitive behaviours ⁷	Cdn\$	N/A	N/A	N/A	641,000	0	SASB EM-MD-520a.1.
Significant environmental fines^{8,9}							
Number of significant environmental fines	number	N/A	0	2	0	2	GRI 307-1
Value of significant environmental fines	Cdn\$	42,893	0	175,942	0	253,429	GRI 307-1

Economic benefits

¹ Year-over-year increases are largely driven by higher common share dividends paid as a result of no longer satisfying the dividend reinvestment plan in 2020 with shares issued from treasury at a discount but rather acquiring them on the open market at the 100 per cent weighted average purchase price.

² The significant decrease in payments to governments in the U.S. is largely due to reduced taxes as a result of the sale of certain midstream assets in 2019.

Technology and Innovation

³ This optimization value indicator includes cost avoidance, savings and incremental revenue gains realized within the reporting period for two specific programs. Our Canadian Natural Gas Pipelines business unit recently rolled out an optimization initiative that leverages data and algorithms to identify operational issues and optimize maintenance; balancing cost, reliability, integrity and commercial needs. Another initiative is driving a systematic approach to improve efficiencies across our U.S. Natural Gas Pipelines business unit. Additional, similar initiatives may be included in the future and would be reported accordingly. This new indicator aligns to sustainability targets published in the 2021 Report on Sustainability.

Political contributions

⁴ Political contributions are often related to the election cycle and as such may vary depending on the volume and status of elections ongoing in any given year.

⁵ The TransCanada USA Services Inc. Political Action Committee (TC PAC) is a separate segregated fund (SSF) established under US federal election law by TransCanada USA Services Inc., a U.S. subsidiary of TC Energy. The TC PAC is funded solely through contributions from U.S. employees.

⁶ Political contributions in the U.S. were made by U.S. subsidiaries of TC Energy or the TC PAC. Variance from 2018 onwards reflects the shift away from U.S. subsidiary contributions in favor of making political contributions through the TC PAC. This was due in part to leaders requesting a uniform contribution policy across the various state jurisdictions in which we operate.

Competitive behaviour

⁷ This indicator represents the total amount of monetary losses incurred during the reporting period as a result of legal proceedings associated with alleged breaches of regulations governing competitive behaviour.

Significant environmental fines

⁸ In July 2019, Columbia Gas Transmission received a notice of violation from the Pennsylvania Department of Environmental Protection on the Leach Xpress Project. A fine was issued to the company in October 2020 in the amount of US\$157,126. As a result of a rupture on the TC Energy Keystone Pipeline on October 29, 2019 in Edinburg, North Dakota, the company paid a US\$32,000 administrative penalty in July 2020 to the North Dakota Department of Environmental Quality.

⁹ Historical environmental fine values have been reissued to exclude insignificant events.

Supplier diversity

Our Supplier Diversity program enhances opportunities for diverse, local and Indigenous communities to participate in our projects and operations. The result creates positive outcomes for TC Energy, rightsholders, and stakeholders; expands our access to competitive, qualified suppliers; provides economic benefits for businesses and individuals in our host communities; and, boosts confidence in our projects and operations. Our refreshed indicators include both Tier 1 and Tier 2 spends. Some of the dollars we spend directly with diverse suppliers (Tier 1), are in turn used to purchase labour or materials from diverse subcontractors (Tier 2) boosting our overall impact for each dollar spent.

Indicator	Unit	2016	2017	2018	2019	2020	Related framework indicator ID
Supplier diversity¹							
Tier 1 diverse spend²	Cdn\$ M	N/A	N/A	N/A	N/A	300.8	
Canadian diverse spend: Tier 1 ³	Cdn\$ M	N/A	N/A	N/A	N/A	201.1	
Canadian Indigenous spend: Tier 1 ⁴	Cdn\$ M	35.5	17.7	8.6	70.0	189.4	
U.S. diverse spend: Tier 1 ⁵	Cdn\$ M	N/A	N/A	N/A	N/A	99.7	
U.S. Native American spend: Tier 1 ⁶	Cdn\$ M	18.3	0.04	9.5	5.0	5.9	
Tier 2 diverse spend⁷	Cdn\$ M	N/A	N/A	N/A	N/A	705.5	
Canadian diverse spend: Tier 2 ³	Cdn\$ M	N/A	N/A	N/A	N/A	566.4	
Canadian Indigenous spend: Tier 2 ⁴	Cdn\$ M	106.3	57.8	151.0	380.0	503.0	
U.S. diverse spend: Tier 2 ⁵	Cdn\$ M	N/A	N/A	N/A	N/A	98.5	
U.S. Native American spend: Tier 2 ⁸	Cdn\$ M	0.03	0.01	9.5	2.0	27.4	
Contingent workforce diverse spend: Tier 2	Cdn\$ M	N/A	N/A	N/A	N/A	40.5	

¹ While we plan to expand our supplier diversity program to Mexico, this is still underway, and data is not yet available.

² Tier 1 spend represents expenditure that TC Energy is directly invoiced for by suppliers and/or general contractors and is directly linked to contractual agreement(s) or purchases.

³ Our diverse spend in Canada includes spend with suppliers who self identify as Indigenous, a visible minority, women, LGBT+ and/or veterans.

⁴ Our Coastal GasLink project actively seeks opportunities to award contracts to Indigenous suppliers; combined with construction ramping up during 2020, this resulted in a large portion of the increase demonstrated in these indicators in recent years.

⁵ Our diverse spend in the U.S. includes spend with suppliers who self identify as Native American, Asian-American, Hispanic-American, African-American, women, LGBT+, and/or veterans.

⁶ To demonstrate our performance against the March 2021 [Reconciliation Action Plan](#), our spend with Native American suppliers is shown as a subset of our broader U.S. diverse spend that includes other groups as indicated in footnote 5.

⁷ Tier 2 spend represents expenditures that TC Energy's prime suppliers and/or general contractors spend for services and/or products that directly supply TC Energy business needs. Examples of indirect, Tier 2 expenditures may consist of prime labour, subcontractors, materials and/or expense spend. Tier 1 and Tier 2 spending should not be added together as there is potential for double counting.

⁸ Keystone XL construction ramped up mid-2020 resulting in an increase in Native-American Tier 2 spend. The Project was terminated in June 2021.

Thriving communities

With operations spanning Canada, the U.S. and Mexico, investing in and giving back to the communities where we operate are important parts of being a good neighbour, a trusted community partner and an employer of choice. We believe that when we develop and nurture lasting relationships and give back in the communities where we live and work, we will build a stronger future together.



Indicator	Unit	2016	2017	2018	2019	2020	Related framework indicator ID
Community investment							
Direct community investment ¹	Cdn\$ M	16.6	15.1	23.9	29.7	29.1	GRI 201-1
Indirect community investment ²	Cdn\$ M	N/A	N/A	1.8	2.5	3.2	
Total community investment	Cdn\$ M	N/A	N/A	25.7	32.1	32.3	
Community investment directed towards the environment ³	Cdn\$ M	N/A	N/A	N/A	N/A	1.0	
Total community investments as a percentage of pre-tax profits ⁴	per cent	N/A	N/A	0.5	0.6	0.6	
External resources leveraged ⁵	Cdn\$ M	N/A	N/A	1.9	2.0	2.7	
Total value of investment in the community ⁶	Cdn\$ M	21.9	17.0	27.6	34.1	35.0	
Employee giving & volunteering							
Workforce donations ⁷	Cdn\$ M	0.8	0.9	1.0	1.1	1.6	
Total corporate donations through the workforce giving program ⁸	Cdn\$ M	N/A	N/A	1.9	2.1	3.9	
Total volunteer hours logged by employees and contractors ⁹	hours	11,150	14,736	25,695	36,583	22,567	
Volunteer hours logged during paid time	hours	2,233	2,908	4,438	7,324	1,413	
Volunteer hours logged during non-paid time	hours	8,916	11,828	21,257	29,258	21,154	
Overall participation in workforce giving program	per cent	N/A	N/A	N/A	N/A	84	
Local community engagement plans							
Percentage of operations with local community engagement, impact assessments and development programs	per cent	100	100	100	100	100	GRI 413-1

¹ Direct community investments include cash grants and sponsorships made through our [Build Strong](#) program, as well as TC Energy donations such as matching or seed donations made through [Empower](#), our workforce giving program. TC Energy made donations to many communities and causes to support them through the pandemic in 2020, with a focus on food security and first responders. The company also rolled out a holiday seeding campaign in lieu of holiday celebrations that allowed employees to donate more funds to more causes at a critical time.

² This includes in-kind giving, the value of volunteer hours during paid work time and program management costs. In-kind giving includes donations of equipment or resources to support community programs. This kind of giving can vary widely year over year and in 2020 was significantly higher. In addition, we directed additional resources to support our team as they worked safely through the COVID-19 pandemic and rolled out a new grant management program.

³ Investments made by TC Energy to our environment focus area, excluding program management costs.

⁴ The total community investments as a percentage of pre-tax profits. This includes direct investments, in-kind giving, volunteering during paid working hours and program management costs.

⁵ External resources leveraged represents community contributions from outside sources that can be directly linked to our involvement such as employee donations and time volunteered during non-working hours or funds matched from governments or other partners.

⁶ The total value of TC Energy's investments in the community. This includes cash investments, in-kind giving, volunteering during paid working hours, program management costs and community contributions from outside sources that can be directly linked to our involvement.

⁷ The increase in workforce donations was a result of the COVID-19 pandemic and our people's attempt to contribute to relief efforts, an intrinsic call to action like we have never seen before.

⁸ Total corporate donations through our workforce giving program includes company matching donations, Dollars for Doers, donation credits from TC Energy and corporate donations from Empower directly to causes.

⁹ COVID-19 severely impacted our people's ability to volunteer in their communities. In partnership with the COVID-19 task force, TC Energy advised against in-person individual and group volunteering during work hours to keep our workforce safe. This led to a significant decrease in the number of hours volunteered during work time.

Empowering People



Occupational safety, health and industrial hygiene

Our commitment to safety isn't just a mantra – it's how we work 24/7, 365 days a year. By reinforcing a disciplined set of rules and providing rigorous training, we aim to ensure all employees and contractors make it home safely every day.

Indicator	Unit	2016	2017	2018	2019	2020	Related framework indicator ID
Core Workforce							
Employee fatalities ¹	number	0	1	0	0	1	GRI 403-9
Employee recordable case rate ²	recordable cases per 200,000 hours worked	0.90	0.59	0.58	0.42	0.50	GRI 403-9
Employee away from work case rate ³	away from work cases per 200,000 hours worked	0.25	0.19	0.16	0.10	0.07	GRI 403-9
Employee high potential incident rate ⁴	high potential incidents per 200,000 hours worked	0.28	0.16	0.42	0.30	0.29	GRI 403-9
Employee vehicle incident frequency ⁵	vehicle incidents per 1,000,000 km driven	1.07	2.07	1.84	1.94	1.55	
Contractor Workforce⁶							
Contractor fatalities ⁷	number	0	0	0	0	0	GRI 403-9
Contractor recordable case rate ²	recordable cases per 200,000 hours worked	1.38	0.95	0.99	1.13	0.64	GRI 403-9
Contractor away from work case rate ³	away from work cases per 200,000 hours worked	0.13	0.10	0.15	0.11	0.09	GRI 403-9
Contractor high potential incident rate ⁴	high potential incidents per 200,000 hours worked	0.49	0.55	0.93	0.74	0.60	GRI 403-9
Contractor vehicle incident frequency ⁵	vehicle incidents per 1,000,000 km driven	2.52	2.45	2.41	1.80	1.38	
Employee Absences							
Casual absence rate ⁸	average number of days absent / employee / year	2.05	1.89	1.84	1.81	1.40	
Short term disability absence rate ⁹	average number of days absent / employee / year	2.33	2.51	2.15	2.27	2.20	
Workers compensation absence rate ¹⁰	average number of days absent / employee / year	0.13	0.09	0.07	0.05	0.03	
Total employee absence rate ¹¹	average number of days absent / employee / year	4.51	4.49	4.06	4.13	3.63	

Occupational Health and Safety Incidents

- ¹ At TC Energy, each of us work incredibly hard to ensure our colleagues return home safely every single day. That dedication made it especially tough when in 2020, one of our employees in the U.S. was struck by an oncoming highway vehicle and died of their injuries. An individual lost control of their semi-truck and was found criminally responsible for the resulting accident. TC Energy offered support to the employee's family and impacted colleagues through our employee family assistance program.
- ² TC Energy defines total recordable case rate as the number of recordable cases normalized to a common exposure base of 200,000 hours (equivalent to 100 full-time employees working for one year). Recordable cases are all work-related deaths and illnesses, and those work-related injuries that result in a loss of consciousness, restriction of work or motion, transfer to another job or require medical treatment beyond first aid. 2020 total recordable case rates exclude work-related cases of COVID-19.
- ³ TC Energy defines away from work case rate as an incident resulting in an occupational injury or illness that prevents a worker from returning to work on the next scheduled shift normalized to a common exposure base of 200,000 hours. 2020 away from work case rates exclude work-related cases of COVID-19.
- ⁴ TC Energy defines high potential incidents as incidents with a high potential to result in a serious, debilitating injury to the worker normalized to a common exposure base of 200,000 hours.
- ⁵ TC Energy defines vehicle incident frequency rate as the number of recordable vehicle incidents normalized to a common exposure base of 1,000,000 km driven. A recordable vehicle incident is any incident (regardless of fault) involving a fleet, rental motor vehicle, or a personal vehicle being used for TC Energy business which results in an injury to any person or damage to any vehicle or property, unless the vehicle was safely and properly parked at the time of the incident.
- ⁶ TC Energy hires contractors for project and highly specialized work activities that are often inherently more complex. These types of work can be associated with higher safety risks and exposures and this is reflected in the performance data. There is also more variation in the reported safety rates, reflecting the flux in the types of project work currently being performed. Our safety performance targets reflect our desire to continuously improve our current performance, support open reporting of all incidents to promote collaborative best practice sharing and learning as well as acknowledging the nature of work being performed.
- ⁷ Contractor fatalities outside of TC Energy's control, for example a prime contractor, would be included in the contractor's health and safety reporting rather than TC Energy's.

Employee Absences

- ⁸ TC Energy defines casual absences as when an employee is medically unable to work for up to 36 continuous work hours due to a non-work-related illness or injury. From 2020 onward, casual absence data includes our employees in Mexico.
- ⁹ TC Energy defines short-term disability absences as a medical absence lasting more than 36 consecutive hours away from work due to a non-occupational illness or injury. Short-term disability is a company-funded income continuance program from which qualifying employees can derive income replacement for a non-work-related illness or injury from the first day to twenty-six weeks of absence. Mexico data is excluded from this indicator since occupational and non-occupational disabilities are covered primarily by government programs.
- ¹⁰ TC Energy defines Workers' Compensation absences as a work-related illness or injury requiring medical aid and/or medical absence of more than a day, involving a provincial or state Company-sponsored income replacement program operated through the various provincial or state Workers' Compensation boards or U.S. insurance carriers. Mexico data is excluded from this indicator since occupational and non-occupational disabilities are covered primarily by government programs.
- ¹¹ TC Energy defines the average number of days absent per employee as the sum of the casual absence rate, short-term disability absence rate and Workers' Compensation absence rate.

Workforce demographics

TC Energy is committed to building an inclusive and diverse workforce for our 7,000+ employees across Canada, the U.S. and Mexico. Across our footprint, we support people and the communities in which we live and work – providing opportunity, purchasing from local businesses and suppliers, and partnering with communities to help them be vibrant, prosperous and resilient.

Indicator	Unit	2016	2017	2018	2019	2020	Related framework indicator ID
Workforce Demographics							
Core Workforce							
Total number	number	7,147	6,771	7,094	7,387	7,358	GRI 102-8
Canada	number	3,374	3,390	3,550	3,728	3,677	GRI 102-8
U.S.	number	3,563	3,112	3,269	3,344	3,355	GRI 102-8
Mexico	number	210	269	275	315	326	GRI 102-8
<30 years of age	per cent	N/A	N/A	N/A	N/A	10	GRI 405-1
30-50 years of age	per cent	N/A	N/A	N/A	N/A	63	GRI 405-1
>50 years of age	per cent	N/A	N/A	N/A	N/A	27	GRI 405-1
Employees represented by independent trade union or covered by collective bargaining agreements	per cent	5	5	5	5	5	GRI 102-41
Leadership¹							
Total number	number	679	817	864	910	936	
<30 years of age	per cent	N/A	N/A	N/A	N/A	0	
30-50 years of age	per cent	N/A	N/A	N/A	N/A	66	
>50 years of age	per cent	N/A	N/A	N/A	N/A	33	
Executive leadership team	number	8	9	10	10	9	
Contractor Workforce							
Total number	number	3,586	3,252	4,348	3,211	3,515	GRI 102-8
Canada	number	1,857	1,757	2,190	2,037	2,223	GRI 102-8
U.S.	number	1,312	958	1,744	901	1,081	GRI 102-8
Mexico	number	417	537	414	273	211	GRI 102-8
New Hires (core workforce)							
Total	number	302	751	899	886	663	GRI 401-1
Canada	number	147	281	402	417	364	GRI 401-1
U.S.	number	117	385	428	387	257	GRI 401-1
Mexico	number	38	85	69	82	42	GRI 401-1
Women	per cent	30	26	31	29	32	GRI 401-1

Workforce demographics continued

Indicator	Unit	2016	2017	2018	2019	2020	Related framework indicator ID
Core Workforce Turnover							
Overall turnover rate	per cent	12	15	7	8	10	GRI 401-1
Canada	per cent	8	8	6	7	11	GRI 401-1
U.S.	per cent	8	21	7	9	8	GRI 401-1
Mexico	per cent	7	10	10	15	9	GRI 401-1
Women	per cent	7	12	8	8	9	GRI 401-1
Men	per cent	8	15	7	8	10	GRI 401-1
Voluntary turnover rate ²	per cent	4	4	5	5	4	GRI 401-1
Involuntary turnover rate ³	per cent	8	11	2	3	6	GRI 401-1

¹ Our leadership includes core workforce employees classified as managers and above.

² Voluntary turnover includes employees who retired or resigned from employment at TC Energy.

³ Involuntary turnover includes divestitures, severances, discharges and layoffs.

Workforce diversity

We believe our workforce should reflect the communities in which we live and work. From head office to our field operations, we actively seek out a wide range of candidates for all positions because diverse backgrounds, opinions and skills strengthens our teams, drives innovation and enhances a performance culture. We actively strive to promote a culture of inclusion, where there is sense of belonging, we have a respectful workplace and encourage employees to contribute their full potential.

Indicator	Unit	2016	2017	2018	2019	2020	Related framework indicator ID
Inclusion and Diversity¹							
Gender							
Women; core workforce ²	per cent	28	28	28	28	29	GRI 405-1
Women; contractor workforce	per cent	28	27	23	26	26	GRI 405-1
Women; leadership	per cent	28	26	27	28	30	GRI 405-1
Women; leadership positions in our corporate locations ³	per cent	N/A	N/A	32	34	34	GRI 405-1
Visible Minorities in Leadership							
Visible minorities in leadership positions across our Canadian and U.S. workforce	per cent	N/A	N/A	12	13	13	GRI 405-1
Protected Groups by Jurisdiction							
Canadian Core Workforce							
Women	per cent	37	36	37	37	38	GRI 405-1
Indigenous	per cent	2	2	3	2	3	GRI 405-1
Persons with disabilities	per cent	3	3	3	3	3	GRI 405-1
Visible minorities ⁴	per cent	21	22	21	21	23	GRI 405-1
U.S. Core Workforce							
Women	per cent	19	19	19	19	19	GRI 405-1
Minorities ⁵	per cent	13	13	13	13	14	GRI 405-1
Individuals with disabilities	per cent	2	2	3	3	3	GRI 405-1
Veterans	per cent	7	6	6	6	6	GRI 405-1
Mexican Core Workforce							
Women	per cent	30	28	30	27	28	GRI 405-1
Inclusion and Diversity Training							
Leaders and employees trained on how to recognize and mitigate unconscious bias and how to create and sustain an inclusive workplace	per cent	N/A	N/A	N/A	N/A	58	

¹ Diversity data is categorized by protected groups as defined by regional compliance requirements: in Canada under the Employment Equity Act and in the U.S. as a condition of the Office of Federal Contract Compliance Programs. There are no such compliance requirements in Mexico, however, we track and voluntarily report Mexico gender workforce representation.

² For our 2021 reporting we consolidated our workforce data to promote transparency. Our historical data has been updated to reflect these improvements.

³ Our corporate locations include Calgary, Houston, Charleston and Mexico City.

⁴ In Canada, Indigenous groups are reported separately from visible minorities.

⁵ In the U.S., American Indians and Alaska Natives are included in minorities reporting.

Table of Alignment with the TCFD Recommendations

Recognizing the value of environmental, social and governance (ESG) reporting frameworks such as the Task Force on Climate-Related Financial Disclosure (TCFD), the concordance table shown below demonstrates the relationship between TC Energy's sustainability reporting and the Recommendations of the Task Force on Climate-Related Financial Disclosures Final Report (June 2017).

Topic and Recommended Content	Select TC Energy Material
Governance	
a) Describe the board's oversight of climate-related risks and opportunities	2021 ESG Data Sheet; governance, page 5 2020 Annual Report; page 90 2021 Management Information Circular; page 63 CEO Terms of Reference Board of Directors Terms of Reference 2021 CDP Climate Change Questionnaire Response; C1.1b
b) Describe management's role in assessing and managing climate-related risks and opportunities	2021 ESG Data Sheet; governance, page 6 2020 Annual Report; page 90 2021 CDP Climate Change Questionnaire Response; C1.2, 1.2a
Strategy	
a) Describe the climate-related risks and opportunities the organization has identified over the short, medium and long-term	2021 ESG Data Sheet; strategy – risks and opportunities table, page 10 2020 Annual Report; page 88 2021 CDP Climate Change Questionnaire Response; C2.1, 2.1a, 2.3, 2.3a, 2.4, 2.4a
b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning	2021 ESG Data Sheet; strategy, page 9 2020 Annual Report; page 88 2021 CDP Climate Change Questionnaire Response; C2.2, 2.3, 2.3a, 2.4, 2.4a, 3.1, 3.1a, 3.1b, 3.2a, 3.3, 3.4, 3.4a
c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, include a 2°C or lower scenario	2021 ESG Data Sheet; strategy – climate-related energy scenario analysis, page 13 2020 Annual Report; page 15, 96 2021 CDP Climate Change Questionnaire Response; C3.2, 3.2a
Risk management	
a) Describe the organization's processes for identifying and assessing climate-related risks	2021 ESG Data Sheet; risk management - ERM, page 15 2020 Annual Report; page 88 2021 CDP Climate Change Questionnaire Response; C2.1, 2.1a, 2.2, 2.2a
b) Describe the organization's processes for managing climate-related risks	2021 ESG Data Sheet; risk management - TOMS, page 16 2020 Annual Report; page 88 2021 CDP Climate Change Questionnaire Response; C2.1, 2.1a, 2.2, 2.2a
c) Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	2021 ESG Data Sheet; risk management - ERM, page 15 2020 Annual Report; page 88 2021 CDP Climate Change Questionnaire Response; C2.1, 2.1a, 2.2, 2.2a
Metrics and targets	
a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process	2021 ESG Data Sheet; performance data tables, page 21 2021 ESG Data Sheet; climate-related target and metrics, page 17 2021 CDP Climate Change Questionnaire Response; C4.2, 4.2a, 4.2b GHG Emissions Reduction Plan
b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions, and the related risks	2021 ESG Data Sheet; performance data tables, page 21 2021 CDP Climate Change Questionnaire Response; Section 6, Section 7
c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets	2021 Report on Sustainability; Embracing the energy transition commitment and targets, page 10 2021 CDP Climate Change Questionnaire Response; Section 4 GHG Emissions Reduction Plan <i>Note: TC Energy is publishing climate-related targets in 2021 and therefore performance against targets will be reported in future years.</i>

Table of Alignment with the SASB Standards

Recognizing the value of environmental, social and governance (ESG) reporting frameworks such as the Sustainability Accounting Standards Board (SASB), the concordance table shown below demonstrates the relationship between TC Energy's sustainability reporting and the SASB Oil & Gas – Midstream industry standard (October 2018). For a limited number of metrics, non-standard measures are required, and we have disclosed similar indicators in alignment with internal standards.

Topic and Accounting Metric	Indicator ID	Select TC Energy Material
Greenhouse Gas Emissions		
Gross global Scope 1 emissions, percentage methane, percentage covered under emissions-limiting regulations	EM-MD-110a.1	2021 ESG Data Sheet; performance data tables, page 21 2020 CDP Climate Change Questionnaire Response; C6.1, C71a
Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	EM-MD-110a.2	2021 Report on Sustainability; embracing the energy transition commitment and targets, page 10 2021 ESG Data Sheet; strategy, page 9 2020 CDP Climate Change Questionnaire Response; C4 GHG Emissions Reduction Plan
Air Quality		
Air emissions of the following pollutants: (1) NO _x (excluding N ₂ O), (2) SO _x , (3) volatile organic compounds (VOCs), and (4) particulate matter (PM ₁₀)	EM-MD-120a.1	2021 ESG Data Sheet; performance data tables, page 25
Ecological Impacts		
Description of environmental management policies and practices for active operations	EM-MD-160a.1	2020 Annual Report; environmental risk, compliance and liabilities, page 91 TCEnergy.com; Health, Safety and Environment Commitment Statement, Environment principles 2021 Report on Sustainability, integration of Sustainability, page 21 2021 ESG Data Sheet; TOMS, page 16
Percentage of land owned, leased, and/or operated within areas of protected conservation status or endangered species habitat	EM-MD-160a.2	2021 ESG Data Sheet; performance data tables, page 27
Terrestrial acreage disturbed, percentage of impacted area restored	EM-MD-160a.3	2021 ESG Data Sheet; performance data tables, page 27
Number and aggregate volume of hydrocarbon spills, volume in Arctic, volume in Unusually Sensitive Areas (USAs), and volume recovered	EM-MD-160a.4	2021 ESG Data Sheet; performance data tables, page 31
Competitive Behaviour		
Total amount of monetary losses as a result of legal proceedings associated with federal pipeline and storage regulations	EM-MD-520a.1	2021 ESG Data Sheet; performance data tables, page 35 <i>Note: TC Energy interprets this indicator as representing the total amount of monetary losses incurred during the reporting period as a result of legal proceedings associated with alleged breaches of regulations governing competitive behaviour.</i>
Operational Safety, Emergency Preparedness & Response		
Number of reportable pipeline incidents, percentage significant	EM-MD-540a.1	Please note this indicator requests information on pipeline incidents only. To transparently communicate integrity incidents related to our diverse asset base, including our power and storage facilities, we have chosen to publicly report on Tier 1 and Tier 2 process safety incidents guided by industry standard CSA Z260. TC Energy believes this approach is congruent with the intent of SASB EM-MD-540a.1 to promote increased, comparable reporting of integrity incidents. Tier 1 and Tier 2 process safety incidents are reported in our 2021 ESG Data Sheet. 2021 ESG Data Sheet; performance data tables, page 31
Percentage of (1) natural gas and (2) hazardous liquid pipelines inspected	EM-MD-540a.2	2021 ESG Data Sheet; performance data tables, page 29
Number of (1) accidents releases and (2) non-accident releases (NARs) from rail transportation	EM-MD-540a.3	Not applicable to TC Energy's operations.
Discussion of management systems used to integrate a culture of safety and emergency preparedness throughout the value chain and throughout project lifecycles	EM-MD-540a.4	2021 Report on Sustainability; zero is real commitment and targets, page 13 2021 Report on Sustainability; mental health commitment and targets, page 29 TCEnergy.com; Health, Safety and Environment Commitment Statement, Asset Integrity Commitment Statement, and Quality Commitment Statement
Activity Metric		
Total metric ton-kilometers of: (1) natural gas, (2) crude oil, and (3) refined petroleum products transported, by mode of transport	EM-MD-000.A	2021 ESG Data Sheet; performance data tables, page 19 <i>Note: TC Energy does not report activity in these units.</i>



Corporate Head Office

450 – 1 Street S.W. Calgary, AB
Canada T2P 5H1
1-800-661-3805
Toll-Free (North America)

TCEnergy.com