



## Table of contents











#### **INTRODUCTION**

- **04** About TC Energy
- 05 Portfolio at a glance
- 06 Letter from the CEO & Chair
- **08** Q&A with the CSO
- **10** Focused on performance and transparency
- 10 About this report
- 11 Reporting standards
- 11 Reporting boundaries
- 11 Material topics
- 11 Assurance
- 11 Invitation for feedback
- **12** Our approach to sustainability
- 12 2022 target performance
- 15 United Nations Sustainable Development Goals
- **16** Our sustainability journey

#### **ENVIRONMENT**

- **19** Climate change and the energy transition
- 20 Greenhouse gas emissions
- 24 Special focus: reducing our methane emissions
- 26 Operational management
- 26 Asset integrity and resilience
- 27 Emergency preparedness and response
- 29 Environmental management
- 29 Air quality
- 30 Ecological impacts
- 32 Waste
- 32 Water
- Environmentally-focused community giving

#### **SOCIAL**

- 37 Workforce
- 37 Employee and contractor safety
- 39 Employee attraction, retention, development and engagement
- 44 Mental health and psychological safety
- 45 External relationships
- 45 Community investment priorities
- 47 Landowner relations
- 48 Employee giving
- 49 Indigenous engagement and reconciliation
- 49 Reconciliation Action Plan update
- 50 Community-led reconciliation efforts
- 51 Human rights
- 52 Supplier Diversity

#### **GOVERNANCE**

- **55** Corporate and sustainability governance
- 55 Executive compensation
- 56 Accountability and decision-making
- 59 Board diversity
- **60** Advancing sustainability and innovation
- 61 Enhancing energy sector sustainability with technology
- **63** Supply chain
- 63 Responsible procurement
- 64 Business ethics and compliance
- 64 Trade association alignment
- 64 Political engagement
- 65 Enterprise risk management
- 66 Privacy and cybersecurity
- 66 Operational management system
- 67 Customer experience and satisfaction

#### **APPENDIX**

- **69** Sustainability commitment statements
- 70 Performance data

#### 100 Content indices

- 100 Global Reporting Initiative alignment
- 113 Sustainability Accounting Standards Board alignment
- 116 Task Force on Climate-Related Financial Disclosures comprehensive alignment
- 136 Task Force on Climate-Related Financial Disclosures summarized alignment
- 139 United Nations Sustainable Development Goals alignment
- 141 Forward-looking information





**TC ENERGY** 



## **About TC Energy**

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

#### **OUR VALUES**

Our corporate values form the foundation of how we do business.

#### **SAFETY**

Do it right – Today's quality is tomorrow's safety.

#### **INNOVATION**

Do things differently – Turn challenge into opportunity and ideas into creative solutions.

#### RESPONSIBILITY

Focus on what matters – Consider sustainability in everything we do.

#### **COLLABORATION**

Play as one team – Find win-win outcomes for rightsholders and stakeholders.

#### **INTEGRITY**

Do the right thing - Keep promises and commitments to stakeholders.

#### **OUR BUSINESS**

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

#### LAND ACKNOWLEDGMENT

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 stewards of these lands – generations past, present and future – for sharing their homelands with us.





#### Portfolio at a glance

#### A CONTINENTAL ENERGY COMPANY

As we look to the future, <u>TC Energy's asset map</u> showcases the company's unique value proposition. Our well-connected network of assets delivers the energy North Americans need while enabling the technologies of the future.

**93,700 KM** 

**OF NATURAL GAS PIPELINES** 

**650** BCF

**OF NATURAL GAS STORAGE** 

4,900 KM

**OF LIQUIDS PIPELINES** 

4,300 mw

**AND 7 POWER PLANTS** 

As of June 11, 2023 Natural gas pipeline In development/construction •••••• Liquids pipeline Regulated natural gas storage CANADA Liquids tank terminal CALGARY -TORONTO ( **UNITED STATES** CHARLESTON Natural gas power generation (A) HOUSTON Nuclear power generation Wind power generation **MEXICO** Solar power generation Renewable Natural Gas Unregulated natural gas storage REPORT ON SUSTAINABILITY | 5 MEXICO CITY

**TC ENERGY** 



TC ENERGY

# Letter from the CEO & Chair

As we reflect on the past year, we continue to see a critical need for solutions that balance the increasing demand for safe, reliable and affordable energy with the determination to reduce emissions. Ongoing geopolitical instability and supply chain disruptions have led many countries to reassess their energy infrastructure and systems, seeking better ways to improve energy supply, security and resiliency while maintaining affordability.

While the future holds uncertainty, it is clear that demand for all forms of energy is growing and each will continue to be evaluated in the context of the present energy trilemma–security, affordability and sustainability–none of which can be ignored or sacrificed.

## NORTH AMERICA OFFERS A SOLUTION TO LOCAL AND GLOBAL ENERGY CHALLENGES

North America is well-positioned to create a more stable and secure future for the continent and through its exports, the world. Its interconnected infrastructure, diverse energy sources and a strong focus on socioeconomic development offer solutions the world needs. As an energy infrastructure company that operates in all three countries in North America, we are uniquely positioned to play a central role in this mission.

Our team of over 7,000 energy problem solvers is working diligently to connect natural gas supply to global markets, particularly those that rely on higher-emitting fuels. In the U.S., we safely transport approximately 30 per cent of the country's liquefied natural gas (LNG) feed gas. Our increasing and record deliveries to LNG export facilities highlight the criticality of our natural gas system in supporting global energy markets. In Canada, our Coastal GasLink pipeline will establish the first direct route for Canadian LNG deliveries. Once complete, this project will contribute to LNG displacing those higher-emitting fuels and reducing 60 to 90 million tonnes of global CO<sub>2</sub> emissions annually. In addition, our historic partnership with Mexico's Comisión Federal de Electricidad to develop the Southeast Gateway pipeline contributes to shared economic and social prosperity. Through access to cleaner, more reliable and affordable energy, this project will help enable the country's growth and address existing energy poverty.



#### François Poirier

President and Chief Executive Officer

REPORT ON SUSTAINABILITY | 6



We also acutely recognize the importance of reducing methane emissions, which have higher concentrations of greenhouse gases, to increase the environmental benefits of natural gas and LNG. We continue to take positive action to address sources of methane emissions throughout our operations by adopting new practices and technologies.

Our efforts don't end there. We recognize the need to develop, use and offer lower-carbon-intensive energy as we collectively move toward net zero. We are exploring and investing in zero or low-emission infrastructure technologies, including nuclear, pumped hydro, hydrogen, renewables and carbon capture, utilization and storage (CCUS). These initiatives will help reduce carbon footprints for us and others and concurrently extend the longevity and economic sustainability of our existing assets.

#### STRENGTHENING OUR SAFETY CULTURE

Our relentless drive for innovation extends to our value of safety. In 2022, we conducted a third-party assessment of our safety approach, culture and the experiences of our front-line workers to see how we can enhance and evolve our approach to safety. The assessment validated many of the safety-related initiatives already underway and identified three key areas for improvement: reinforcing leadership practices and behaviours that will foster a strong safety culture; simplifying our management systems and front-line procedures; and improving operational discipline in those areas where we don't benchmark to the top quartile. We are implementing these recommendations as part of our commitment to learning and continuous improvement.

Serious or critical workplace incidents are never acceptable to us. If an incident does occur, however, how we respond matters. We will always take direct accountability and do what is necessary and right to address the situation. This commitment was evident throughout our values-led response, recovery and continued remediation of the Milepost 14 incident on the Keystone Pipeline System in Washington County, Kansas.

We prioritize safety in everything we do, from day-to-day operations to long-term planning. We know that safety excellence and operational excellence are inextricably linked. They are the drivers of superior business performance and enablers of long-term, sustainable growth.

## LISTENING TO AND LEARNING FROM DIVERSE VOICES: THE POWER OF INCLUSION

People are at the heart of delivering safe, reliable and sustainable energy solutions. To shape our shared energy future, we are bringing diverse minds, partners and communities to the table. We actively promote an inclusive culture in our workplaces through access to training and development and we strive to cultivate an environment where everyone can achieve their full potential. In early 2023, we launched employee inclusion networks to encourage connection around shared values and identities. We continue to evolve our programs and resources to reflect the increasingly diverse needs of our workforce.

We are deeply grateful for the feedback, insight and guidance we receive from Indigenous groups that work with us as rightsholders and community members. Through an Indigenous Advisory Council, we are fortunate to learn from the knowledge, experiences and perspectives of Indigenous leaders to promote mutual understanding and

respect. With their counsel and guidance, we established six long-term focus areas, with an immediate concentration on: talent and employment; hiring and contracting; and relationships and partnerships, driving meaningful progress in the spirit of reconciliation.

## ENHANCING BALANCE SHEET STRENGTH TO DELIVER SUSTAINABLE, SUPERIOR RETURNS

Our focus on sustainability is intrinsically linked to our 2023 strategic priorities, which include strengthening our financial discipline and advancing our \$5+ billion capital rotation program. We firmly believe these efforts will enhance our long-term sustainability, unlock value and maximize shareholder returns.

Our decades of experience in the energy infrastructure business, unparalleled asset base, disciplined project management and proven capital allocation model continue to set TC Energy apart. We remain acutely focused on our purpose – to deliver the energy people need, today and in the future. We will deliver on our strong value proposition safely, responsibly, innovatively, collaboratively and with integrity as we continue to navigate a changing energy landscape.

We are energy problem solvers and together with rightsholders, stakeholders and partners, we are creating a sustainable energy future.

Sincerely,

François Poirier

President and Chief Executive Officer

July 2023

Zam verselle

Siim A. Vanaselja

Chair of the Board



## Q&A with the CSO

#### What changes has TC Energy made in the sustainability space this year?

We know that active and effective management of environmental, social and governance (ESG) risks and opportunities is not only the right thing to do but is critical to the viability and longevity of our business. Strengthening our sustainability approach, we have implemented several initiatives that reflect our valuesbased mindset.

In 2022, we expanded our governance model, creating new structures and processes to promote and centralize responsible decision-making at more levels within our organization. For example, our governance framework now includes sustainability considerations in our decision-making processes, from strategic planning to project management.

To ensure that our sustainability commitments remain relevant, we refreshed them based on our latest comprehensive materiality assessment. This exercise enabled us to identify and prioritize key sustainability areas to report progress on. We have also enhanced our transparency by expanding our reporting on political lobbying activities and methane emissions, areas we know are important to stakeholders.

We also combined the Report on Sustainability and ESG Data Sheet into a single, integrated document and made the information easier to navigate. In addition, we enhanced our governance section and organized our content under environmental, social and governance chapters to better reflect and align with the way sustainability issues are currently referred to by investors and other stakeholders. And over the last year, we also issued our first sustainability-linked loan tied to clear, measurable metrics.

We continuously look for ways to improve the scope, depth and overall reporting of our sustainability commitments and measures. We recognize this is a journey that necessitates ongoing improvement,

#### How has the increased demand for energy and your ongoing capital rotation program impacted TC **Energy's GHG emissions trajectory?**

Reducing GHG emissions is a significant challenge – not just for us but for the energy industry collectively. Recent geopolitical events and economic uncertainty have reinforced that we can't solve for emissions reductions in a silo. To the contrary, we must responsibly balance often competing objectives to ensure our energy systems, sources and supplies remain safe, reliable, secure and affordable.

Demand for energy in all forms has continued to grow over the past year, which in turn, has created increased demand for our services and increased utilization of our infrastructure. A contributing factor is a growing global demand for LNG, particularly from stable and reliable jurisdictions like North America, which is a key driver in reducing global GHG emissions as it displaces higheremitting fuels.

We have established record throughput levels on our natural gas systems to meet immediate societal needs, which has created upward pressure on our near-term GHG emissions intensity trajectory, notably of our Scope 1 emissions. The primary source of these emissions results from higher utilization rates of our natural gas pipeline compressor stations, which move natural gas from low-cost supply basins to key markets where demand continues to grow.

In the face of this increased demand, I am pleased with the progress we have made in reducing methane emissions between 2019 and 2022. During that time, we reduced our absolute methane emissions—a powerful short-lived GHG—by 14 per cent<sup>1</sup> in spite of an 11 per cent increase in overall throughput. Reducing our methane emissions is an important component of our overall plan to limit the environmental impact of our natural gas systems, and we continue our work to further reduce these emissions.



<sup>&</sup>lt;sup>1</sup> Absolute methane emissions (tonnes CH<sub>a</sub>) as compared to 2019



We knew that our path to achieving our ambitious 2030 emission intensity goal would neither be easy nor linear. However, we remain committed to reducing GHG emissions, both our own and at a global level. We continue to assess our emissions reduction targets and the major components of our longer-term reduction plan, against various criteria, including policy, regulatory, commercial and economic developments and the outcomes of our capital rotation program. We also plan to undertake a deeper scenario analysis to further test the financial resilience of our business portfolio against a 1.5-degree scenario.

Our dedication to advancing a lower-carbon, lower-netemissions economy is unwavering. In the near term, I am optimistic that government policy incentives will help unlock the potential of several emerging technologies, such as hydrogen and carbon capture utilization and storage (CCUS), but I also recognize that these technologies require time to scale.

Overall, we remain committed and positioned to achieve net-zero emissions from our operations by 2050. Our long-term view is grounded in energy fundamentals and our industry-leading footprint, scope and scale of energy infrastructure spanning North America presents the essential building blocks needed to advance an orderly energy transition.

# Sustainability governance requirements and related stakeholder expectations continue to develop. What is TC Energy doing to evolve and mature its governance practices and processes?

We have always considered corporate governance to be a critical component in the successful management of our businesses. As such, we have recently implemented several initiatives to enhance our governance structures, focusing on the issues that matter most to our stakeholders and our business.

Among other things, we have increased board diversity and representation, strengthened our compliance functions, bolstered reporting lines and risk and reputation management procedures and prioritized opportunities for stakeholder engagement.

In 2022, we updated our Code of Business Ethics, directly and expressly incorporating human rights best practices. We are committed to upholding these principles and ensuring that our employees and partners adhere to them in all aspects of our operations.

In 2023, to enhance alignment with our corporate strategy, we more closely tied our sustainability performance to our corporate scorecard and compensation for all employees, including executives, increasing our weighting of ESG considerations from 25 to 30 per cent.

To enhance our overall governance structure, we have transformed our corporate Health, Safety, Sustainability and Environment (HSSE) Committee into two separate enterprise committees that will enable a sharper focus in the respective areas by the best-positioned and accountable internal leaders. The new Sustainability Management Committee focuses on managing and achieving the objectives of our corporate sustainability strategy and provides strategic leadership and direction on sustainability-related issues. Meanwhile, the new Operating Committee is responsible for enterprise decisions in support of management system governance, strategic system enhancements and operational risk management related to safety and environmental considerations. Both committees report to the HSSE Committee of our Board to ensure continued strategic oversight and accountability.

## Do you anticipate any impacts on TC Energy's sustainability targets because of the company's capital rotation plan?

Operating sustainably is of critical importance to us, our stakeholders, and the continued success of our business. We remain firm on our approach to continuously drive sustainability deeper into our organization as we deliver our business priorities, whether executing our major projects, advancing our capital rotation program or managing our capital spending.

Decisions made to strengthen our balance sheet or fund our growth will not change our approach. While we cannot know the future with certainty, we remain dedicated to ensuring that any potential implications to our sustainability commitments are carefully considered and managed as our plans evolve. Part of this management includes conducting a comprehensive sustainability materiality assessment every two to three years, with annual internal refreshes in between, ongoing assessments and as appropriate, the evolution of our sustainability commitments.

The transition to a lower-carbon energy future is a pressing matter that demands the attention of everyone around the world – from individuals to companies to governments – and our expert team of energy problem solvers is truly "all in." We have an obligation and accountability to play a vital role in the energy transition. We see this evolution as a catalyst for growth – exploring all forms of responsible energy and infrastructure that strongly align with our strategic objectives and complement our stakeholder value proposition and core values.

Sincerely,

**Patrick Keys** 

Patrick Key

Executive Vice-President and General Counsel Chief Sustainability Officer (CSO)

July 2023





## Focused on performance and transparency

#### About this report

TC Energy produces a variety of publications representing our ongoing commitment to the transparency and disclosure of environmental, social and governance information relevant to our business, rightsholders and stakeholders. These publications highlight our sustainability matters and focus on reporting meaningful and measurable results. In this report, we provide a consolidated view of our sustainability efforts with the aim to provide a balanced summary of our performance.

This report contains forward-looking information or forward-looking statements. For more details, please refer to the forward-looking information statement.

We work to continuously improve our sustainability reporting, including increasing its accessibility. This year our new brand colour selections, which are used throughout the report, meet Web Content Accessibility Guidelines (WCAG) 2.0 accessibility standards. We have also reoriented the content into environmental, social and governance related sections for ease of reference. Additionally, we have combined the former Report on Sustainability and ESG Data Sheet into one comprehensive document.

#### Related publications:

2022 Annual Report

2023 Management Information Circular

2022 Annual Information Form

Reconciliation Action Plan and 2022 Reconciliation Action Plan Update

**GHG Emissions Reduction Plan** 

2022 CDP Climate Change Questionnaire

United Nations Global Compact (UNGC) Communication on Progress (CoP) Questionnaire<sup>2</sup>

ESG webpage

<sup>&</sup>lt;sup>2</sup> Submission date has been deferred by the UNGC due to technical issues.





#### **Reporting standards**

This report has been developed with guidance from globally-recognized sustainability reporting frameworks, standards and recommendations including the Task Force on Climate-Related Financial Disclosure (TCFD), Sustainability Accounting Standards Board (SASB), United Nations Sustainable Development Goals (UN SDGs) and the Global Reporting Initiative (GRI). Where non-standard measures are required, we have disclosed the information in alignment with our internal standards. Please refer to the alignment tables in the Appendix.

#### **Reporting boundaries**

The scope of this report reflects all assets we operate, unless otherwise noted. This report focuses on performance and activities from Jan. 1 to Dec. 31, 2022 or status as of Dec. 31, 2022, whichever is applicable, unless otherwise noted. Details of some significant events that

occurred in early 2023 have also been included. Data exclusions or additions are noted where applicable in the report.

#### **Material topics**

As we refine our sustainability strategy, it is critical for us to understand what aspects of sustainability are most relevant and of greatest importance to stakeholders<sup>3</sup>. We complete sustainability materiality assessments<sup>4</sup> on a regular basis to focus on the sustainability topics that matter most to our stakeholders and our business. The results of our 2022 assessment led us to refresh our sustainability commitments in 2023<sup>5</sup>.

#### **.....** WANT TO LEARN MORE?:

2022 sustainability materiality assessment

#### **Assurance**

The information in this report has been closely reviewed by internal subject matter experts and senior leaders, including our Executive Leadership Team, with oversight from our Board of Directors. As part of our practice to continually improve our reporting, we have obtained independent third-party limited assurance of select 2022 environmental indicators, which are identified with the symbol ^ throughout this document. To read the third-party limited assurance statement, please refer to our ESG webpage.

#### Invitation for feedback

We'd like to hear what you think. Please send questions or comments to <u>communications@tcenergy.com</u>.

- <sup>3</sup> Sustainability materiality assessments are a moment-in-time snapshot of current topics of importance.
- <sup>4</sup> References and use of the terms "materiality," "material," and similar terms throughout this document are in the context of economic, environmental, social and governance topics. For ESG topics, materiality is based on definitions in referenced sustainability frameworks, standards and guidelines and do not correspond to the concept of materiality under Canadian or U.S. securities laws.
- <sup>5</sup> Please refer to the Appendix for further details on our refreshed sustainability commitment statements.



# Our approach to sustainability

#### 2022 target performance

Our success is achieved through the capabilities and expertise of our workforce, the extent to which we embrace technology and encourage innovation, and our commitment to provide long-term value to all our stakeholders. First introduced in 2020, our sustainability metrics and targets ensure we are positioned to grow

year-over-year as we continue to progress and set targets for each of our sustainability commitments. The progress we made in 2022 is captured below, with further information and details provided throughout this report and related documents.

To hold ourselves accountable, we have <u>linked ESG priorities</u> to our compensation in our internal corporate scorecard.

Commitment		nitment	Metric	Target	2022 Performance	Page
ENVIRONMENT		Embracing the energy transition	Reduce GHG emissions intensity from our operations	30% by 2030 <sup>6</sup>	0%	23
			Position to achieve zero emissions from our operations on a net basis	By 2050 <sup>6</sup>	0%	23
	(Þ)	Leaving the environment as we found it	Restore or offset disturbances to sensitive habitat resulting from construction and operation of our North American assets <sup>7</sup>	100%	100%	30
			Restore disturbances to private lands resulting from construction and operation of our North American assets <sup>7</sup>	100%	98%	47
			Restore or offset all land disturbances resulting from construction and operation of our North American assets <sup>7</sup>	100%	New	18
			Invest in activities that restore biodiversity and reduce the impacts of climate change	\$1.2 million through 2022	\$3.3 million	34
				\$10 million invested through 2025	New	18
		Committed to safe, reliable, sustainable operations	Maintain our dedication to zero harm, loss and incidents by improving personal and process safety performance	Zero	1	26

<sup>&</sup>lt;sup>6</sup> For planning purposes, target progress is measured relative to a 2019 baseline year, adjusted for material changes in our asset portfolio and quantified on an operational control boundary.

Restoration activities are multi-year efforts with end-of-activity targets rather than annual targets. Further information is provided in the Appendix: Performance data.



	Commitment		Metric	Target	2022 Performance	Page
		Continuous safety improvement	Maintain our dedication to zero harm, loss and incidents by improving personal and process safety performance	Employee and contractor combined: 0.50 in 2022	0.76	37
				Employee and contractor combined: 0.50 in 2023	New	36
		Focus on mental health	Increase mental health awareness by providing leader and employee training and other topical resources	100% of leaders trained by end of 2022	99%	44
				100% of employees trained by end of 2023	8%	44
		Fostering mutually beneficial relationships	Increase annual workforce participation in our workforce giving and volunteering program, to strengthen workforce resiliency	60% workforce participation in 2022	61%	48
	<i>(</i> 7)		Sustain annual employee participation in our social impact program, to strengthen workforce and community well-being	60% workforce participation through 2025	New	36
			Maintain annual giving percentage of pre-tax profits to help strengthen local community, Indigenous group and workforce resiliency	0.5% to 1% of pre-tax profits through 2022	0.70%	45
			Grow social impact investments to help strengthen local community, Indigenous group and workforce resilience	\$25 million (annually) through 2023	New	36
SOCIAL				Increasing to \$30 million (annually) by end of 2025	New	36
		Fostering enduring, mutually beneficial relationships with Indigenous groups	Identify and support community-led reconciliation initiatives through partnerships with Indigenous groups	Ongoing	Ongoing	50
			Establish an external Indigenous Business Advisory Council to advise our Business Units, Supply Chain, and Indigenous Relations group on best practices and obstacles to working with TC Energy	Established by Q3/2023	New	36
				Operationalized in Q4/2023	New	36
		Furthering inclusion and diversity	Diversity of our Board of Directors	30% women on Board	<b>38%</b> <sup>8</sup>	59
			Leaders and employees to be trained on how to recognize and mitigate unconscious bias and how to create and sustain an inclusive workforce	100% by 2022	99.8%	39
			Women in leadership positions in our corporate location <sup>9</sup>	40% by 2025	35%	40
			Members of visible minorities in leadership positions across our Canadian and U.S. workforce <sup>10</sup>	17% by 2025	17%	39
			Increase spending with diverse suppliers in Canada and the U.S	5% year-over-year increase through 2022 [Tier 1]	148%	52
				5% year-over-year increase through 2022 [Tier 2]	-21%	52
				Increase percentage of diverse influenceable procurement spend 5% year-over-year through to 2027 <sup>11</sup>	132%	52

 <sup>8 38.5</sup> per cent women on the Board of Directors (5 of 13 members), as of March 1, 2023.
 9 Leadership positions in our corporate locations of Calgary, Houston, Charleston and Mexico City.
 10 Leadership positions across our workforce in Canada and the U.S.

Influenceable procurement spend is defined as purchase order procurement spend and release order procurement spend of Tier 1 suppliers.



	Commitment	Metric	Target	2022 Performance	Page
		Optimize operational and project effectiveness and efficiency through organizational, digital and technological innovations	\$115 million to \$120 million by 2023	\$88 million	61
			\$80 million per year engineering R&D value creation <sup>12</sup>	\$229 million	61
GOVERNANCE	Further integrate and contribute to	Incorporate sustainability drivers and measures in enterprise- wide Integrated Asset Investment Planning Framework,	Pilot various measures to express sustainability value by end of 2023 <sup>13</sup>	In progress	60
	sustainability	leveraged in program planning for existing assets	Determine portfolio contributions by end of 2024	In progress	60
		Adopt voluntary social impact measurement criteria and establish a 2024 baseline for metrics and targets in 2025, and beyond	Establish baseline in 2024	New	54
			Launch metrics and targets in 2025	New	54

<sup>&</sup>lt;sup>12</sup> "Value creation" includes value realized through engineering research and development (R&D) initiatives implemented in TC Energy programs. Engineering R&D creates accuracy, precision, and efficiency in decision-making tools and processes which creates smarter and sharper decisions that enable both safety and economy leading to sustainability.

<sup>13</sup> Asset Management measures include, but are not limited to, quality of life, reliability, and safety and environmental risk reduction.



#### **United Nations Sustainable Development Goals**

The United Nations Sustainable Development Goals (UN SDGs) are a call to action for government and non-state entities to address current and future global challenges to promote a better, more sustainable world. The 17 SDGs provide a blueprint to address challenges, including inequality, climate change, environmental degradation, peace and justice. Contributing to the SDGs offers us the opportunity to align our sustainability efforts to a globally-recognized framework and play a meaningful role in the shared advancement of these goals. On the following pages, we indicate our contributions and alignment to the SDGs.

























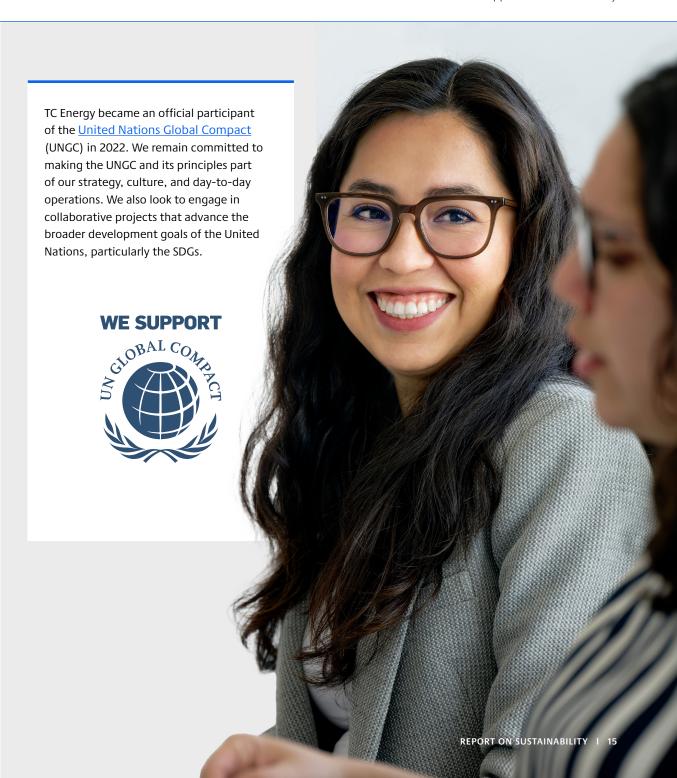
















## Our sustainability journey

#### 2017

- TCFD releases Final Report
- Elevated safety as a corporate value to advance our safety culture

#### 2016

- Management system integration and TOMS introduction
- Introduced Chief **Diversity Officer**
- Materiality assessment refresh
- Established Life Saving Rules
- First aligned reporting with GRI G4 Core option Guidelines

#### 2015

- Paris Agreement formalized
- UN SDGs formalized
- Developed Supplier Diversity & Local Participation Program
- Materiality assessment refresh

### management system

 Established formal pipeline integrity program

1990's

First HSE

 Voluntary climate change and GHG reporting

## 2010's

- Inaugural materiality assessment
- Inaugural ESG Data Sheet
- Committed to third party-aligned GRI reporting

- 2000's
- Introduced asset management system
- First Corporate Social Responsibility report
- Purchased first GHG offset
- Svstem-wide risk assessment process for pipeline integrity

#### 2018

- SASB approves industry standards
- Adopted Board Diversity policy
- Added sustainability to Board Health, Safety and **Environment Committee**
- Introduced 2°C case into strategic planning scenario analysis
- Introduced Chief Risk Officer
- Adopted Enterprise Risk Management system
- Inaugural SASB-aligned data sheet

#### 2019

- Introduced Chief Sustainability Officer
- Inaugural TCFDinformed reporting

#### 2020

- Internal materiality refresh
- TCFD-aligned reporting
- Developed sustainability commitments and released targets
- UN SDG-aligned reporting

#### 2021

- Set targets for every commitment
- Published Reconciliation Action Plan
- Published **GHG** Emissions Reduction Plan

#### 2022+

- Linked compensation to progress on our ESG priorities
- Became a signatory to the Women's Empowerment Principles (WEP)
- Formed Indigenous Advisory Council
- Joined Catalyst
- Joined the UN Global Compact
- Refreshed our sustainability commitments
- Joined the Task Force on Nature-based Financial Disclosures (TNFD) forum
- Obtained third-party limited assurance on select ESG indicators



## ENVIRONMENT Caring for the environment and minimizing our impact on the land are core to our values. From our day-to-day activities to our **IN THIS SECTION** commitment to supporting the energy transition, our approach Climate change and the is founded on working together with our rightsholders and energy transition stakeholders to help find solutions to important environmental Operational management issues. We are dedicated to investing in innovation to manage **Environmental management** our environmental footprint and achieve a net-zero future.



## **Environment commitments & metrics**

pg 23

pg 23



Contribute to global efforts to address climate change and manage the risks and opportunities of the energy transition

GHG emission intensity reduction from our operations

Position to achieve net-zero from operations



Systematically manage risk to continuously improve the integrity and safety of our assets and operations

Significant process safety incidents

pg 26

#### **NEW METRICS AND TARGETS**

Metric: Restore and/or offset all land disturbances resulting from construction and operation of our North American assets.

Target: 100% restoration14

Metric: Invest in initiatives that restore biodiversity and reduce the impacts of climate change.

Target: Invest \$10 million CAD to support environmentally focused social impact partnerships by end of 2025.



Safeguard habitat and biodiversity and minimize land use impacts, including restoring the environment to a condition equal to or better than we found it

Sensitive habitat restoration pg 30

Private land restoration pg 47

Environmentally-focused community giving

pg 34

<sup>&</sup>lt;sup>14</sup> Restoration activities are multi-year efforts with end-of-activity targets rather than annual targets











## Climate change and the energy transition

Throughout our long history, TC Energy has successfully responded to many challenges related to evolving energy markets, scientific breakthroughs and rising social expectations. Climate change presents risks and opportunities that could have potential impacts to our business, which we manage through strong governance and strategic planning.

Key components of our strategy, set out in our 2022 Annual Report, demonstrate that climate considerations are embedded in our business practices. including analyzing a range of potential energy supplyand-demand outcomes, also known as scenario analysis, as part of our strategic planning cycle. We continue to improve our understanding and management of evolving climate-related risks and opportunities.

Since 2010, the World Energy Council has used the term "energy trilemma" as a way to describe the competing interests of energy accessibility and affordability, energy security and environmental sustainability. In 2022, the economic and political disruptions that caused debilitating fuel shortages and crippling energy price increases around the world were stark reminders of the importance of maintaining a stable global energy system. For TC Energy, this means pursuing a methodical and balanced energy transition - one that delivers energy that is secure, affordable and less carbon-intensive.



Our vision for a North American energy strategy supports an orderly and balanced energy transition focused on:

- leveraging North America's strategic position and comparative advantage to expand global access to lower emission-intensive energy at an affordable rate to consumers.
- increasing our offering of alternative energy resources to help reduce the demand for carbon-intensive fuels,
- seeking opportunities to reduce the emissions intensity of our own operations while ensuring that we continue providing customers with access to reliable and affordable energy,
- harmonizing North American regulatory policies,
- enhancing cross-border coordination,
- driving investment in early-stage research, development and deployment, and
- providing a technology- and resource-neutral policy environment focused on innovation and emissions reductions while promoting technology-neutral commercial diplomacy,

For TC Energy, achieving a secure energy transformation begins at home, in North America. Together with our customers and industry partners, we must:

- identify and focus on a shared alignment toward a partnership for a stronger North American region,
- build North American energy solutions together, and
- offer North American abundance to a world of scarcity.

This strategy recognizes and respects a common, realistic vision to reduce global greenhouse gas (GHG) emissions by leveraging appropriate resources and prioritizing regional economic growth.

As of April 28, 2023, our \$34 billion secured capital program is over 60 per cent weighted towards enabling energy transition. This includes \$2.8 billion to decarbonize our own asset base, \$14.2 billion in projects displacing higher emitting fuels, and \$4.4 billion in low carbon investments including increasing capacity and extending the life of our Bruce Power nuclear facility. Our existing footprint, our financial resiliency, and our unique blend of experience and strong relationships with partners and customers positions us to seize the opportunities that the global energy transition presents.

#### **..... WANT TO LEARN MORE?**

- + TC Energy's GHG Emissions Reduction Plan
- + Disclosure against the four pillars of the TCFD
- + Our vision for North American energy

**TC ENERGY** 



#### **Greenhouse gas emissions**

We're acting – making changes to our own operations and working with partners inside and outside the energy sector to find responsible solutions for our shared energy future. We are upgrading our infrastructure and processes and collaborating with suppliers, customers and peers to effectively measure, monitor and reduce GHG emissions. In line with our 2030 and 2050 emission reduction targets, each of our business segments is continuing to execute on emission reduction strategies and identify new opportunities to reduce emissions.

TC Energy's long-term GHG emissions reduction success depends on our ability to meet society's sustainable energy challenge – to deliver more energy, in new and better ways, for a low-carbon future. In 2021, we set our 2030 and 2050 emission reduction targets, which are considered in our strategic planning and operational decision-making, particularly when we are evaluating investment opportunities.

Our GHG emissions reduction targets focus on five main areas:



## MODERNIZING OUR EXISTING SYSTEMS AND ASSETS

Modernization initiatives are primarily focused on reducing fugitive emissions and venting emissions associated with regular operations and maintenance activities. We are reducing methane emissions through a robust equipment maintenance program to minimize fugitive emissions and at the same time, we are implementing new technologies to minimize venting of methane during inspection and maintenance work.





## HELPING MEXICO GENERATE CLEANER ELECTRICITY

We continue to invest and build energy infrastructure in Mexico to reduce its reliance on burning carbonintensive fuels like heavy oil to generate electricity by building natural gas pipelines. In August 2022, we entered into a first-of-its-kind, long-term strategic partnership with Mexico's state-owned electric utility, Comisión Federal de Electricidad (CFE). The partnership is expected to benefit millions of people through increased access to clean and reliable energy. Extending through 2055, the agreement will lead to the development and construction of a new offshore natural gas pipeline designed to supply vital natural gas to the densely populated central and southeast regions of Mexico.

The first critical milestones were achieved in early 2023 with the acquisition of land for the main offshore pipe landfalls and compressor stations, as well as obtaining key federal environmental authorizations and local permits. We anticipate commencing onshore construction for our compressor stations this summer and offshore pipe installation toward the end of 2023. Critical long-lead items and the offshore vessel have been secured, pipe and equipment are being delivered, and approximately 70 per cent of total project costs are under fixed price contracts.

**.....** WANT TO LEARN MORE?

Partnership with CFE





#### **DECARBONIZING OUR ENERGY CONSUMPTION**

We are seeking low-carbon energy sources to support our operations. By our continued replacement of gas-powered motors to electric motors at natural gas pipeline compressor stations, advancing carbon capture technology and shifting the company fleet to electric vehicles, we're reducing GHG emisisons from our operations.

In November 2022, we sanctioned the \$600 million Valhalla North and Berland River project, which will allow us to use non-emitting electric compression of natural gas to increase system capacity without growing our Scope 1 emissions. By selecting electric motor drives over gas turbines, we anticipate Scope 1 emissions avoidance of approximately 100,000 tonnes of carbon dioxide equivalent (tCO<sub>2</sub>e) per year for the Berland River compressor station portion of the project.

On our Canadian Mainline, we are upgrading our existing fleet of electric compressor units to displace gas-powered units and in Québec, we plan to leverage our installed electric-driven compressors as primary drivers across our Trans Québec & Maritimes (TQM) pipeline.

In 2022, we secured 600 megawatts (MW) in the U.S. and 416 MW in Canada of power purchase agreements (PPAs) from wind and solar facilities. These agreements allow us to offer renewable power products to our customers, contributing to their decarbonization efforts. We also began using a solar array to power a meter station in Michigan where RNG feeds into one of our pipelines. Three more arrays will be installed at other renewable natural gas (RNG) interconnects in Michigan and Iowa, allowing these facilities to use 100 per cent renewable energy.



#### **INVESTING IN LOW-CARBON ENERGY** AND INFRASTRUCTURE

We are developing a broad range of new low-carbon energy solutions for today and for the future. Drawing on our expertise and vast infrastructure, we continue to add nuclear, solar, pumped storage, hydrogen and RNG technologies to our portfolio.

In 2022, we entered into production of RNG for the first time by investing in a facility near the Jack Daniel Distillery in Lynchburg, Tennessee. The facility will break down a byproduct of whiskey production to generate RNG, which will then be sold to a local natural gas utility. The RNG produced by the project is anticipated to have half the carbon intensity of traditional natural gas.

We continue to pursue opportunities in carbon capture and storage to further demonstrate our pursuit of being a trusted and reliable source of lower-carbon energy in North America. In May 2022, we joined other industry partners to invest in Carbon Clean, an innovative pointsource carbon capture company. In October 2022, through our Alberta Carbon Grid partnership, we signed a carbon sequestration evaluation agreement with the Government of Alberta to further evaluate one of the largest geographical Areas of Interest (AOI) for safely storing carbon from industrial emissions in the province.

#### **.....** WANT TO LEARN MORE?

- + News release: RNG at Jack Daniel Distillery
- + News release: record carbon capture funding at Carbon Clean
- + Energy solutions: Alberta Carbon Grid





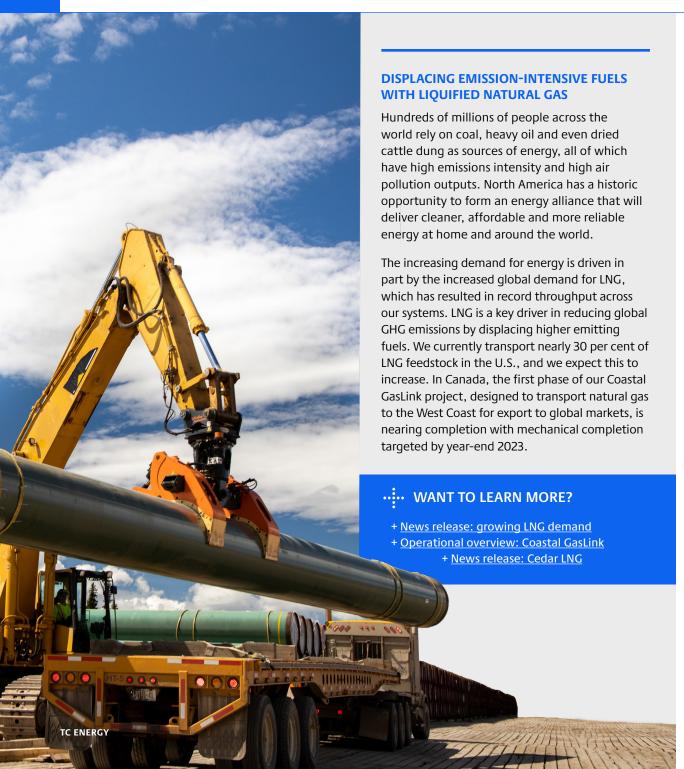
#### **OUR FIRST CANADIAN SOLAR PROJECT**

In late 2022, we began pre-construction activities of the Saddlebrook Solar + Storage project located near Aldersyde, Alberta. We are investing \$146 million to build our first Canadian solar power project, which will have the capacity to generate 81 MW - enough energy to power 20,000 homes annually. The initial construction includes installing solar panels on TC Energy property in the local industrial park. This phase of the project is expected to be in-service by the end of 2023, providing direct benefits through the generation of emissions-free renewable power.

#### **..... WANT TO LEARN MORE?**

Saddlebrook Solar + Storage Project







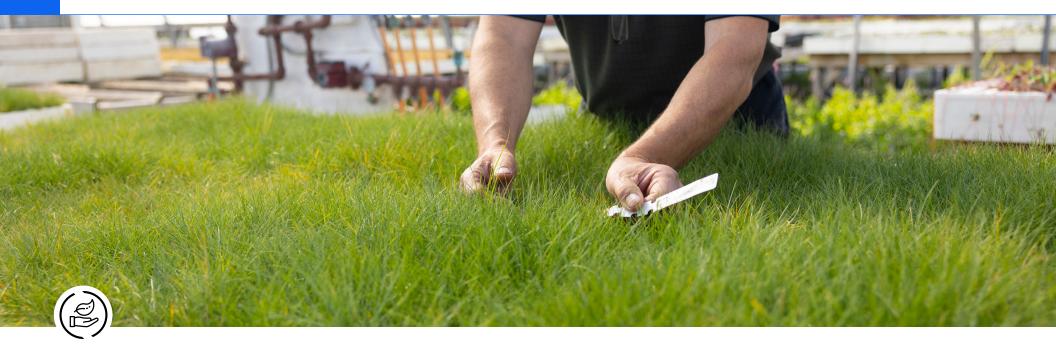
## DRIVING DIGITAL SOLUTIONS AND TECHNOLOGIES

We operate in three countries and 42 jurisdictions, with asset vintages spanning a century. Significant effort is underway to create a centralized data management system that will enhance our ability to make data-driven decisions and gain greater insights as we work towards our GHG emissions reduction targets. Amalgamating different emissions data and reporting systems into one central enterprise-wide reporting platform and data repository will allow us to decrease timelines between data generation to data utilization while improving data availability and streamlining reporting processes.

In addition to centralizing emissions data management, we are developing and deploying software and systems to digitize our operations and monitor emissions, including system automation, artificial intelligence (AI) and machine learning applications. We have created a machine learning application to provide predictive forecasts and recommendations for our U.S. natural gas pipeline operators. The application collects critical realtime data from sensors and systems along our pipeline to evaluate millions of potential scenarios and predict operational outcomes.

We have also developed and launched an operational business intelligence program that uses AI and machine learning to detect and predict potential anomalies on our Canadian natural gas pipeline system faster and more efficiently than current computer systems. We are now completing studies to determine which other assets are suited for this technology.





## LEVERAGING CARBON OFFSETS AND CREDITS

To meet our GHG emissions reduction targets, we will leverage a diversified portfolio of abatement activities, which may also include investments in offset projects and carbon credit purchases.

When participating in the Voluntary Carbon Market, we will work to adopt a set of guiding principles to help us identify and assess opportunities that improve the livelihoods of those around us and make a meaningful contribution to reducing greenhouse gases:

**Think local, act local** – where possible, prioritize projects that maximize the socio-economic and environmental benefits for our company and the communities in which we operate.

**Focus on quality** - invest in durable offsets that are verified by internationally recognized standards such as Verra, Gold Standard, the Climate Action Reserve, and the American Carbon Registry.

**Bring others along with us** – find carbon offset opportunities that not only support our decarbonization ambitions but those of our customers and partners too.

**Listen and learn** – the Voluntary Carbon Market is evolving rapidly, and so are the standards and methodologies used to verify projects. We plan to actively engage with subject matter experts and other recognized leaders in this space to help build a robust strategy and deep expertise around carbon offsets.

Going forward, we will continue to assess how our company can contribute to building and scaling voluntary carbon markets. We strongly believe that carbon offsets will play a major role in helping to avoid and reduce emissions globally, and it remains a critical solution to creating a prosperous energy future for all of us.

**2030 target:** Reduce GHG emissions intensity from our operations by 30% by 2030<sup>15</sup>.

**2050 target:** Position to achieve net zero by 2050 from our operations on a net basis<sup>15</sup>.

**Status:** The path to achieving our GHG emissions targets was not expected to be linear, and we continue to assess the various options and the optimal path to achieving these goals.

#### **IN PROGRESS**

<sup>15</sup> For planning purposes, our progress will be measured relative to a 2019 base year, adjusted for material changes in our asset portfolio and quantified on an operational control boundary.



## Special focus: reducing our methane emissions

Cleaner-burning natural gas is helping to displace higher-carbon energy sources that make a greater contribution to climate change and air pollution. In order to maximize the value of natural gas in contributing to the energy transition, we need to minimize releases of methane directly to atmosphere as much as possible through effective methane management practices. We have a long and successful history of working to reduce methane emissions, which make up an estimated 17 per cent of our Scope 1 GHG emissions profile. Our 2022 methane emissions have decreased by approximately 14 per cent as compared to our 2019 baseline year. Over the same period, our natural gas throughput increased by 11 per cent.

Methane emissions from our operations fall primarily into two distinct categories: fugitive emissions and vented emissions. Fugitive emissions are unintentional releases of methane. Vented emissions may occur during the normal course of operations and maintenance, as well as in upset or emergency conditions. Most vented releases of methane from our operations come from controlled pipeline blowdowns to allow maintenance or integrity work to be done safely.

#### **FUGITIVE EMISSIONS**

In 2022, we continued to actively manage methane emissions through our Leak Detection and Repair (LDAR) program in Canada. This program has resulted in emission reductions both through expanded use of direct measurement techniques and timely equipment repairs. Equipment upgrade and replacement activities are also contributing to reductions in this area and in 2022, we piloted new valve models to reduce fugitive emissions on devices where we identified leak recurrences through the LDAR program.

#### **VENTED EMISSIONS**

To address vented emissions, we developed a program to reduce methane emissions from blowdown events across our Canadian pipeline operations. The program details technologies and procedures designed to reduce vented emissions. Options such as inline isolation tools allow work to be completed while the pipeline remains operational, significantly reducing the need for venting. Emission recovery technologies divert gas from pipeline sections that have been isolated for maintenance and transfer that gas to an adjacent active line, also reducing vented emissions. A new portable emissions recovery system, which offers easier and more flexible application than conventional transfer compressors, is being piloted in 2023, further expanding our use of emission recovery technologies.

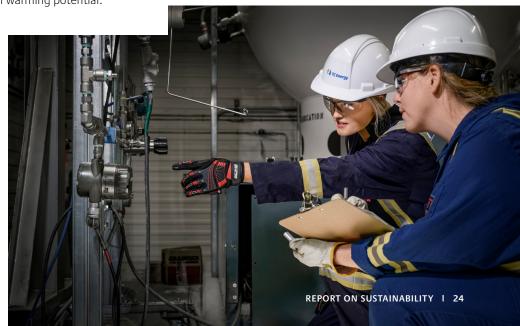
We also piloted mobile incinerators for conversion of residual natural gas on two pipeline blowdowns in Alberta. For decades, we have employed specialized compressors to capture and recycle methane that must be evacuated from the pipe for maintenance, however residual gas remains. The mobile incineration technology enables conversion of the residual methane to carbon dioxide, which has a much lower global warming potential.

#### **EMISSIONS SURVEILLANCE**

We continue to modernize our equipment, enhance our leak detection and repair programs and develop and implement other new practices and technologies. This work includes implementing robust emissions surveillance technology to better detect, measure, monitor and report our methane emissions. To keep up to date on advances in leak detection, we are piloting a wide range of solutions, from continuous on-site monitoring to satellite imaging. This will help to determine which technologies best compliment our asset footprint. Program findings will allow us to strategically deploy technologies that support our GHG emissions reduction goals while improving our operations.

#### **.....** WANT TO LEARN MORE?

Report on Reliability of Methane Emissions Disclosure





#### **WORKING TOGETHER TO REDUCE METHANE EMISSIONS**

TC Energy is a member of Our Nation's Energy Future Coalition, Inc. (ONE Future), a group of U.S. energy companies voluntarily working to reduce methane emissions by identifying policy and technical solutions that better manage emissions associated with production, processing, transmission and distribution. We committed to the ONE Future 2025 methane intensity goals, which means reducing the methane intensity at our U.S. natural gas transmission and storage operations to 0.301 percent. Our U.S. natural gas pipelines methane intensity is

more than two times below the ONE Future sector target, and we continue to find ways to drive down these emissions.

We are also a signatory to the Methane Guiding Principles, which were developed collaboratively in 2017 by a coalition of industry and civil society organizations. The principles, which are consistent with our own environmental values, drive efforts and focus on actions to reduce methane emissions across the natural gas supply chain and provide signatories with a framework for reporting progress. As a signatory, we have committed to investing in innovative technologies for monitoring and reducing emissions, improving emissions data collection methodologies, and working with key stakeholders to improve approaches to methane management.





We continue to collaborate with our industry peers on methane reduction initiatives and developing best practices through industry groups including:

- Interstate Natural Gas Association of America (INGAA) ONE Future Coalition
- U.S Environmental Protection Agency's (EPA) Natural Gas STAR program
- Canadian Energy Partnership for Environmental Innovation (CEPEI), an associated program of the Canadian Gas Association (CGA)
- **Canadian Emissions Reduction** Innovation Consortium (CanERIC), an initiative of the Petroleum Technology Alliance Canada (PTAC)











## **Operational management**

Our pipeline networks are a safe, responsible and reliable way to deliver energy to the millions of North Americans who use it every day. Our wellestablished asset integrity programs are designed to maintain and optimize pipeline performance and minimize environmental impacts throughout the lifecycle of our assets. We continually invest in new and innovative ways to assess and maintain pipeline integrity, all the way from initial design and construction to monitoring and inspection.

#### Asset integrity and resilience

In 2022, we successfully completed several challenging pipeline inspections, including Sur de Texas in Mexico, our first sub-sea natural gas pipeline. The inspection – the first of its kind at TC Energy – used acoustic resonance technology, an ultrasonic sensor-based approach designed to work inside high-pressure, heavy-wall offshore pipelines. The technology required extensive technical review, testing and qualification prior to running in the TC Energy system. This, and other technological advancements, are allowing us to diversify and improve our in-line inspection crack and corrosion management programs.

Our target: Zero significant process safety incidents<sup>16</sup>.

**Status:** We are disappointed that we did not meet our 2022 target of zero significant process safety incidents. We continue to learn from the investigative findings of the Milepost 14 incident on our Keystone Pipeline System.



We believe all harm, loss and incidents are preventable. In line with this commitment, we believe expanding our voluntary reporting to include incidents across our diverse asset base, beyond our pipelines, is the right thing to do. We have chosen to report on Tier 1 and Tier 2 process safety incidents quided by CSA Z260, a pipeline system-wide standard. To support transparency against our commitment, we have an annual target focused on significant process safety incidents, which are not widely reported by our peers.

<sup>&</sup>lt;sup>16</sup> 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. Further information is provided in the Appendix: Performance data. **TC ENERGY** 



#### **..... WANT TO LEARN MORE?**

- + Fact sheet: asset integrity (Canada)
- + Fact sheet: asset integrity (U.S.)



## Emergency preparedness and response

We prioritize the safety of our employees, contractors, the public and the environment. Our robust emergency response plans are focused on quickly and effectively responding to emergencies and mitigating impacts in a timely manner. While incidents are rare, we work year-round on hazard identification, risk assessments, training programs, emergency exercises and public awareness activities.

Our planning considers the needs of our business, our workforce and the community at large, as well as regulatory and legislative requirements. Whenever post-incident cleanup is required, our comprehensive environmental remediation program aims to ensure the most beneficial and leading-edge remedial strategies are applied.

**.....** WANT TO LEARN MORE?

Fact sheet: emergency preparedness and response

2,001

FIRST RESPONDER
TRAINING COURSES
COMPLETED

3,657

INCIDENT
COMMAND SYSTEM
TRAINING COURSES
COMPLETED







## MILEPOST 14 INCIDENT RESPONSE IN WASHINGTON COUNTY, KANSAS

We initiated a shutdown within seven minutes of detecting a volume imbalance on the Cushing Extension of our Keystone Pipeline System, and activated our emergency response protocols, shutting down the pipeline and closing isolation valves while field resources located the incident and installed containment booms.

Our recovery and remediation efforts continue as we work closely with landowners, Tribal Nations and local, state and federal agencies. We have made significant progress on our remediation and, in June we completed the recovery of all released volumes. Creek restoration is underway.

TC Energy and the Pipeline and Hazardous Materials Safety Administration (PHMSA) have received the independent, third-party Root Cause Failure Analysis (RCFA) for the Milepost 14 incident. This is a critical milestone in the ongoing Milepost 14 response and

concludes the third-party investigation as outlined by PHMSA's Amended Corrective Action Order (ACAO). The RCFA revealed that a unique set of circumstances occurred at this location, which originated during the construction of the pipeline segment, and led to the failure at Milepost 14.

We are in the process of implementing a comprehensive plan to enhance our pipeline integrity program and overall safety performance with the inclusion of the RCFA's recommendations and integrity program enhancements. Our unwavering priority is the safe operations of our pipeline system and to act on the findings and recommendations from the RCFA. This work will play a critical role in the long-term safety and reliability of the Keystone System to meet North American energy needs and prevent further incidents.

We are committed to full remediation, investigation, learning and actions related to the Milepost 14 incident. We will not stop until we have completed this work.





#### **OUR TEAM MADE ALL THE DIFFERENCE**

"The action of our frontline emergency response team was nothing short of outstanding. I witnessed firsthand the incredible preparation, the training and the decisive action that took place. Every day may not always go according to plan, but how we respond as an organization impacts the extent of an event and defines who we are."

#### **JAWAD MASUD**

Senior Vice President, Technical Centre

#### **.....** WANT TO LEARN MORE?

For the key findings of the third-party RCFA and our active response, please see our <u>Milepost 14 incident page</u>.









## **Environmental management**

Our environmental principles of stewardship, protection and performance reflect our culture and quide our decisions when building, maintaining and operating energy infrastructure. We are committed to protecting the environment throughout the lifecycle of our assets, from business development to project planning and design, through construction and operations to final decommissioning and land reclamation.

Our commitment to the environment goes beyond regulatory and legal compliance. Our success in environmental stewardship comes from joint efforts to proactively address environmental impacts that occur during the course of energy infrastructure development and operations. We partner with Indigenous groups and community and regulatory agencies to develop solutions to environmental issues. As part of our environmental management program, we complete environmental impact assessments for our projects and develop project-specific environmental protection plans that include detailed operating procedures, employee training and routine inspections and audits.

**.....** WANT TO LEARN MORE?

**Commitment: environmental principles** 

At TC Energy, we take a multi-faceted approach to our proactive maintenance and monitoring programs, including aerial and ground-based patrol programs to monitor pipelines for indications of leaks. These programs, coupled with our comprehensive public awareness program, help minimize impacts on stream and wetland ecosystems, wildlife habitat, cultural resources and the human environment.

Our evidence-based environmental assessments consider scientific information and Indigenous and stakeholder knowledge, helping us develop and apply effective mitigation strategies and improve our management practices.

#### Air quality

Protecting air quality is important to us. Our assets are subject to federal, state, provincial and local environmental statutes and regulations governing environmental protection including air emissions. We are reducing these emissions through a variety of approaches, including operational optimization. We closely monitor the air emissions associated with our operations, such as sulphur dioxide (SO<sub>2</sub>), nitrogen oxides (NO<sub>2</sub>) and particulate matter (PM), and take ongoing steps to prevent or minimize them. Our methods for mitigating these emissions include implementing operational best practices and controls, maximizing operational efficiency and monitoring compliance with applicable laws and regulations.





#### **Ecological impacts**

With over 70 years of experience, we are experts in successful land reclamation. We have reclaimed thousands of acres of land in many different ecological regions following pipeline and facility construction throughout North America. As part of our commitment to environmental stewardship, we work to minimize our environmental footprint as we strive to meet the energy needs of North Americans. When our work is done whether in forests, native prairie land, wetlands, farmland and more - the result is the same: plants can flourish, wildlife can thrive in their natural environment on land or in water and farmers can plant healthy crops. When it comes to protecting biodiversity, we take measures such as avoiding sensitive species habitat while planning routes, monitoring wildlife during construction, restricting work during wildlife activity periods, selecting specific construction methods designed to reduce impact on plant habitat and restoring wildlife habitat. We also work closely with local communities and Indigenous groups who know their land well. We rely on their knowledge to improve our own planning.

# CUMULATIVE TOTAL OF DISTURBED LAND RESTORATION SUCCESSFUL \*\*TOTAL OF DISTURBED LAND \*\*TOTAL OF DIST

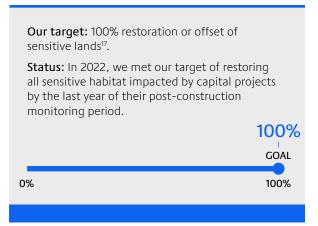
RESTORATIVE ACTIVITIES AND MONITORING (YEARS 1 TO 5)

#### **.....** WANT TO LEARN MORE?

- + Fact sheet: Protecting biodiversity
- + Fact sheet: Reducing our environmental footprint

#### LAND RESTORATION

The reality of large capital projects is that they disrupt land. We work to minimize that disruption and return the land to a condition equal to or better than we found it, which includes ensuring stable soil conditions and topography, employing a variety of revegetation techniques, working with land management agencies to ensure appropriate seed mixes are used and enhancing or creating wildlife habitat. Before we begin any project, we assess the impacts of construction and operational activities and develop project-specific environmental protection plans, including land restoration plans. Where sensitive habitats or areas of high biodiversity value are identified, we apply the biodiversity mitigation hierarchy and avoid those areas where we can. Where we cannot we minimize our disturbance, restore and reclaim the disturbed area and provide offsets where required. Land restoration begins soon after construction activities are completed and progresses over multiple years, reflecting the natural pace of vegetation growth in the surrounding ecosystem. Our experts follow a systematic process with multiple steps to assess, design, implement, monitor, evaluate and adjust, working with landowners if issues are identified during monitoring.



#### **Biodiversity mitigation hierarchy**

We seek to avoid activities or operations that contribute to habitat loss in protected areas or high biodiversity value areas to the fullest extent possible

We minimize impacts through the implementation of best practices and engagement with knowledge partners including landowners, Indigenous groups, local communities, conservation organizations, academia and government agencies

Based on the lifecycle of our assets, we restore and replace the structural diversity of the habitat that existed before the disturbance

After prioritizing avoidance, minimization and restoration, offsetting measures are applied to achieve nature-positive outcomes

Offset

<sup>17</sup> Restoration activities are multi-year efforts with end-of-activity targets rather than annual targets. Further information is provided in the Appendix: Performance data.





We also invest in environmentally focused community projects and offset impacts through additional habitat restoration efforts and financial support for conservation agencies and organizations. We are committed to a community giving target of \$1.2 million per year on projects and activities that restore biodiversity and reduce the impacts of climate change. In 2022, we donated \$3.3 million to agencies and organizations across North America who create, restore, enhance, or preserve biodiversity, vastly exceeding our 2022 target. Please refer to our environmentally-focused community giving section for more information.

In Canada, a combined total of 14,580 seedlings were planted in caribou habitat in 2022. Caribou habitat restoration efforts along our pipeline rights of way are enhanced by our Caribou Habitat Indigenous Participation Program. The program facilitates technical in-field training of Indigenous crew members as they work alongside our staff and technical consultants. Our specialized technical personnel cover worker safety, vegetation identification, vegetation plot establishment and measurements, access

controls and line-of-sight assessments and installation of wildlife cameras. While conducting this field work, they gain insights into First Nations traditional priorities and practices from Indigenous crew members.

In the U.S., we provided over U.S. \$550,000 to agencies and organizations across the country for the purpose of creating, restoring, enhancing or preserving biodiversity. These contributions and activities helped to protect around 130 acres of sensitive area, including preserving bat habitat, seeding native pollinator plants, installing nesting habitats, installing signage to alert the public of habitat improvements and mitigating wildfire risks.

In Mexico, to address biodiversity impacts, we use flora and fauna rescue, relocation and reforestation programs. In March of 2022, remediation work was done along the Tamazunchale Gas Pipeline. During the work, and in collaboration with local officials, several endangered species – 19 charales, 42 sardines, 42 poshta and three tadpoles – were identified and relocated to the nearby San Pedro River. The species were moved five minutes away from their original site and can thrive in their new home.



In 2022, we funded a habitat improvement project in Clark County, Ohio along a section of our Columbia Gas Transmission pipeline. We are working in collaboration with Clark County Parks and Recreation on habitat enhancements that include seeding of native pollinator plants, installation of nesting habitat for birds and bees and control of pre-existing invasive plants. This work builds on vegetation management activities that took place in early 2022. The project is the beginning of a long-term partnership with Clark County Parks and Recreation.

PROJECT IN THE U.S.



#### Waste

Our capital projects and ongoing operations do not generate significant amounts of hazardous waste. We take care to manage and minimize the waste we do produce. Most of our hazardous wastes consist of recyclable hydrocarbons from our storage operations, recovered oily liquids from the natural gas in our gas pipelines, or used lube oils and glycols from turbines, pumps and engines. Waste that cannot be recovered or recycled is disposed of at licensed, secure disposal facilities in accordance with applicable laws and regulations. Members of our workforce who may be engaged in cleanup, treatment, storage and disposal of hazardous substances are required to participate in specific training and emergency response exercises.

#### Water

The protection of water resources is of the utmost importance to both the environment and our business. We recognize water as a fundamental component of the ecosystems where we operate. Our primary water consumption is at our cogeneration facilities, where water is converted to steam for the generation of electricity. Residual steam is either sold, recycled or treated prior to discharge.

We also take care to avoid impacting the quality of water near our assets and we comply with applicable regulatory standards, environmental laws and permitting requirements. Whenever the potential exists for a proposed facility or pipeline to interact with water resources, we conduct evaluations to understand the nature and extent of potential interactions, including fish and fish habitat, vegetation and wetlands, hydrology and water quality and quantity.

#### **CROSSING WATER SAFELY**

When planning to build a new pipeline, information is gathered about water bodies along a proposed route. This information, along with regulatory requirements, industry best practices, constructability and economic feasibility, are used to determine the pipeline construction method, including water crossing locations and potential trenchless installations. Prior to construction at any water crossing, environmental assessments take place, including water flow, bank stability and the quantity and quality of fish habitat, wildlife and vegetation. Information gathered through the assessments, along with regulatory requirements and constructability, allows for the selection of the most appropriate pipeline installation method.

For example, the Coastal GasLink project has recently completed the tunneling portion of its 10th and final major water crossing, a 847 metre micro-tunnel. This crossing method was selected together with subject matter experts and input from Indigenous communities as the most technologically advanced and safest forms of trenchless crossing. This marks the latest of over 800 water crossings to be safely completed – a major milestone for Coastal GasLink as the project moves towards mechanical completion in 2023.

Trenchless crossing methods are a proven technique that allow the pipeline to be installed under the water body, without touching the stream bed or banks.

#### **.....** WANT TO LEARN MORE?

Read our <u>water crossing fact sheet</u> and watch this <u>video</u> to learn more about the techniques we use to cross rivers and streams when installing new pipelines. Visit the <u>CGL water crossing webpage</u> and watch this <u>video</u> to learn more on how we safely implement trenchless water crossings.



## HYDROSTATIC TESTING HELPS ENSURE PIPELINE INTEGRITY

While we rarely use water in our pipeline operational activities, we do use water for hydrostatic testing to verify pipeline integrity during commissioning or as part of our Pipeline Maintenance Program. Water is typically withdrawn from nearby natural or municipal sources in accordance with applicable permits and regulatory requirements. Prior to discharge, the water may be filtered and sampled as needed to confirm it meets the permitted requirements and applicable federal and/or provincial and state water quality standards. The used water is usually discharged to land, or in or near the same watershed.

**.....** WANT TO LEARN MORE?

Fact sheet: hydrostatic testing







#### **LAKE HURON WATER KEEPS BRUCE POWER COOL**

TC Energy is co-owner of Ontario's Bruce Power<sup>18</sup> nuclear facility, which provides safe, reliable, clean energy to businesses and families across Ontario, as well as life-saving medical isotopes to the world's health-care community. The facility supplies 30 per cent of the province's power market with emission-less electricity and plays an important role in our portfolio.

Each year, Bruce Power uses approximately two million cubic metres of cold, deep Lake Huron water to cool and condense steam generated by nuclear reactors and supply the plants' operational needs. More than 99.99 per cent of the fresh water used across the site is returned to the lake. Bruce Power has a strong water quality monitoring program that verifies effluent and emissions, as well as physical stressors as a result of facility operations, have little-to-no effect on the surrounding water body and that strong and effective containment and effluent control measures are in place.

#### **.....** WANT TO LEARN MORE?

**Bruce Power 2023 Sustainability Report** 

<sup>18</sup> TC Energy holds a 48.3 per cent ownership interest in Bruce Power. Further details can be found in our 2022 Annual Report, page 73.



## Environmentally-focused community giving

Our community giving programs include investments in organizations that protect and enhance the environment, including conserving, maintaining and improving land capability, promoting biodiversity, preserving important habitats and protecting species at risk. We prioritize funding to organizations that can clearly articulate anticipated community impact on their funding application and are able to report on their impact post-funding.

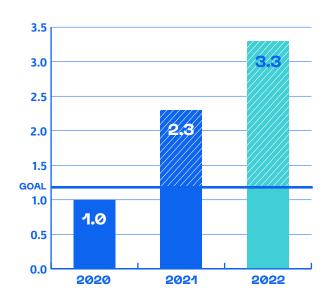
Because protecting the environment is a top priority for us, we set specific spending targets for our environmentrelated community giving.

**Our target:** \$1.2 million spend, per year, to support environmentally focused social impact partnerships through 2022.

**Status:** In 2022, we contributed a total of \$3.3 million — exceeding our target — providing meaningful financial support for multiple environmental causes.



#### **Environment-focused community investment (\$M)**



As can be seen by our 2022 result, we are focusing heavily on increasing our environmental spend across Canada, the U.S. and Mexico and on building partnerships that have a positive environmental impact on species and habitats at risk. In recognition of this focus, we have set a new target to invest \$10 million dollars to support environmentally focused social impact partnerships by end of 2025.

## BUILDING HABITAT, ONE ACRE AT A TIME IN CANADA

Through a multi-year New Acre<sup>TM</sup> Project sponsorship led by <u>ALUS</u>, a charitable organization previously known as Alternative Land Use Services, we are highlighting the vital role corporations, farmers, ranchers and rural communities can play in building and sustaining a healthy environment for all Canadians. The project supports farmers and ranchers to build natural habitat on their land, one acre at a time. Each acre delivered through the project produces

a suite of benefits to local ecosystems. Projects funded through TC Energy's sponsorship are taking direct action against the effects of climate change by sequestering carbon, improving water quality and enhancing wildlife habitats. Since 2021, we have invested in 105 acres of marginal or environmentally sensitive farmland in Grey-Bruce County, Ontario and Montéregié region, Quebec, enabling these communities to become more resilient and empowering farmers and ranchers to build nature-based solutions on their land.

## MITIGATING THE IMPACT OF ACID RAIN IN THE U.S.

The U.S. Forest Service is working to mitigate the impacts of acid rain in the St. Mary's River watershed in George Washington and Jefferson National Forest. To support these efforts, we funded a project that included aerial application of limestone into streams that flow into the river to improve water quality and reduce acidity in order to improve conditions for native brook trout and other species. The project was completed in March 2022.

#### **HELPING CONSERVE MEXICO'S FORESTS**

For more than a year, we have supported conservation activities for El Gogorrón National Park in Central Mexico near Villa del Reyes, the northern terminus of our Tula-Villa de Reyes pipeline. The funding provided helps to support activities related to the conservation and protection of watersheds and species of flora and fauna across 38,000 hectares as part of conservation programs for golden eagles and the monarch butterflies in the country.

**..... WANT TO LEARN MORE?** 

Social Impact at TC Energy



# SOCIAL

Our commitment to social responsibility is woven into the fabric of our business. It starts with a relentless focus on workplace health and safety that extends across our North American footprint. From helping build vibrant, healthy communities and businesses to co-creating value with Indigenous communities, we are finding meaningful ways to work with stakeholders and rightsholders, attract top talent and empower our people.

#### **IN THIS SECTION**

- **37** Workforce
- **45** External relationships
- **49** Indigenous engagement and reconciliation
- **51** Human rights

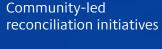


## Social commitments & metrics



Continuously improve our systems to protect people and consistently demonstrate safety as our number one value

Total Recordable Case Rate (TRCR) pg 37



Promote wellbeing for our communities and maintain mutually beneficial external relationships

Workforce giving participation pg 48
Annual giving pg 45



Demonstrate actions enhancing employee psychological safety and emotional well-being

Mental health awareness pg 44



Strengthen collaboration and performance by promoting inclusion and diversity across our organization and supply chain

Be the partner of choice for Indigenous groups

pq 50

Women on Board of Directors	pg 59
Unconscious bias training	pg 39
Women in leadership	pg 40
Visible minorities in leadership	pg 39
Diverse supplier spending	pg 52

#### **NEW METRICS AND TARGETS**

Metric: Maintain our dedication to zero harm, loss and incidents by improving personal and process safety performance.

Target: Combined (employee and contractor) total recordable case rate (TRCR): 0.50 in 2023.

Metric: Sustain annual employee participation in our social impact program, to strengthen workforce and community well-being.

Target: Maintain at least 60% employee participation each year through 2025.

Metric: Grow social impact investments to help strengthen local community, Indigenous groups, and workforce resilience.

Target: Invest \$25 million by the end of 2023, increasing to \$30 million annually by 2025.

Metric: Establish an external Indigenous Business Advisory Council to advise our Business Units, Supply Chain, and Indigenous Relations group on best practices and obstacles to working with TC Energy

Target: Established by Q3 of 2023 and operationalized in Q4 of 2023.













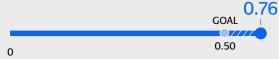


Our highly-skilled workforce are our most valuable asset and come from diverse backgrounds, with each person possessing unique, individual skills that contribute to delivering value across our business. We engage and invest in our people to create a positive, respectful, professional, inclusive and rewarding workplace that is focused on their individual wellbeing. Our approach generates value through the creation of a thriving and productive workplace that champions and supports our business.

## **Employee and** contractor safety

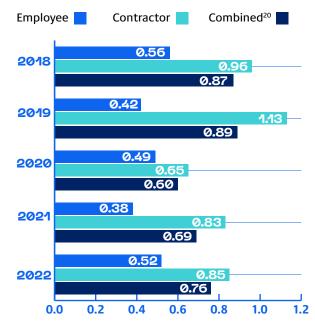
Safety is at the heart of what it means to be a sustainable enterprise and we embed safety into our culture, behaviors and habits. Safety excellence is the starting point of our ongoing efforts to reinforce key leadership practices and behaviours, simplify our management systems and improve our operational discipline. 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 have all employees and contractors make it home safely every day. Our target: Combined (employee and contractor) total recordable case rate (TRCR): 0.5 in 2022.

**Status:** Despite our organization's increased focus on safety in recent years, we have seen an increase in recordable injuries.



In February 2022, we were both saddened and reminded of the hazards of our business when a subcontractor was fatally injured in a workplace incident at a construction point on our Tula-Villa de Reyes pipeline in central Mexico. Following any such incident, we conduct a thorough investigation to identify and apply lessons learned. We promptly address deficiencies revealed through these activities and communicate what we learn across the organization to strengthen our systems and make our workplace safer.

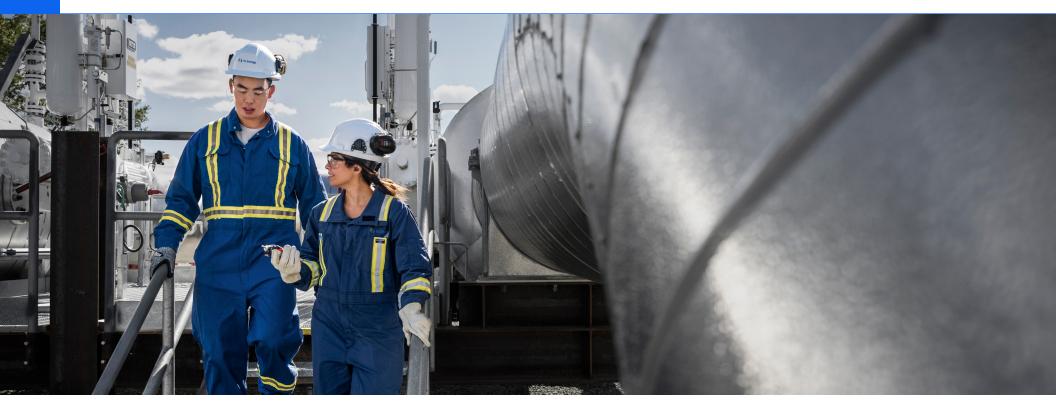




<sup>19</sup> TC Energy defines total recordable case rate as the number of recordable cases related to a common exposure base of 200,000 hours (100 fulltime employees). Recordable cases are all work-related deaths and illnesses and those work-related injuries that result in a loss of consciousness, restriction of work or motion, transfer to another job or require medical treatment beyond first aid.

<sup>&</sup>lt;sup>20</sup> Combined TRCR is a new 2022 target however for transparency, we have also included historical data.





#### A DISCIPLINED APPROACH TO SAFETY

We engage everyone at TC Energy to keep our pipelines and energy facilities operating safely, fostering safety excellence through partnerships, training and a systematic approach to compliance that gives us the tools we need to work safely – every day. In 2022, we sought additional support and independent expertise to conduct a candid companywide assessment to understand our current state with respect to safety. This assessment, completed in October, included interviews with senior leaders and focus group sessions as well as a broad systems review. The findings and recommendations were shared broadly with our workforce and externally with peer companies and industries.

The assessment found that our organization has a sincere desire for safety excellence and a highly capable workforce on the frontline. Good practices and excellence were found in many parts of the organization, along with opportunities to improve. Three key opportunities were identified: reinforcing the key leadership practices and behaviours of a strong safety culture and a psychologically safe environment; simplifying our management systems; and improving our operational discipline.

While we have prioritized a number of opportunities, our immediate focus is to have the right tools in place to identify and control high energy hazards in an effective manner.

#### **ADVANCING OUR SAFETY CULTURE**

Planning and preparedness are essential to a safe work environment. These activities include hazard identification, risk assessments, response plans, training programs, exercises and public awareness elements of emergency management that consider the needs of TC Energy, our employees and the community at large, as well as regulatory and legislative requirements.

We conduct equipment deployment exercises on a threeyear cycle that involve the physical deployment of spill response equipment and a large personnel response. Personnel that could be the first on the scene of an emergency event complete a specialized First Responder training course focused on how to assess, respond and activate our emergency management system as the first company representative on site.



# Employee attraction, retention, development and engagement

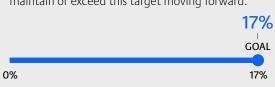
Every day, more than 7,000 employees support our business across North America as we deliver safe, reliable energy to our customers. From the day-to-day tasks of operating our assets to the planning and construction of new projects, our workforce is the heart and soul of TC Energy. We value their contributions and support their personal growth.

We take pride in fostering professional development and engagement. Our employees have the opportunity to advance their careers through on-the-job experiences, partnering with peers and leaders for informal coaching, and accessing formal training.

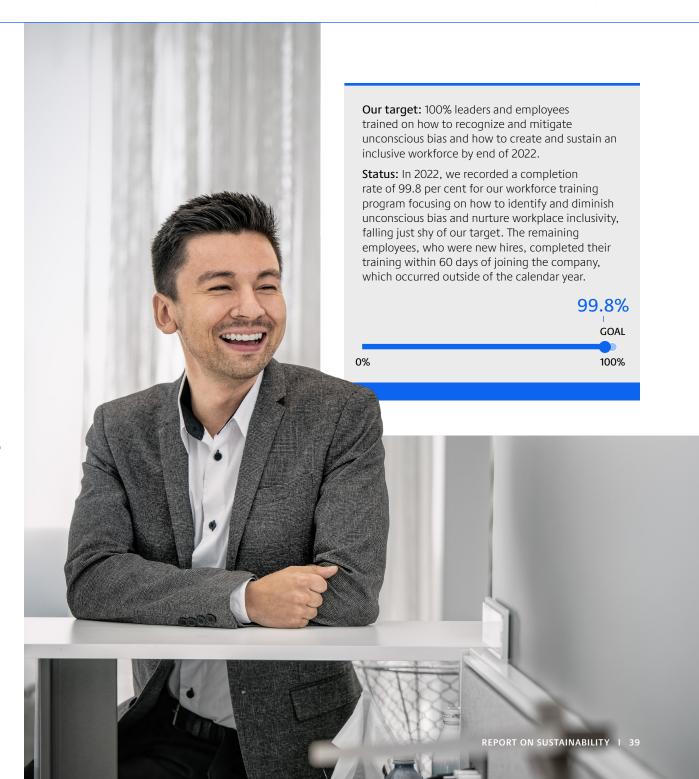
We recognize an inclusive and diverse workforce is important to our success, and accountability starts at the top. We have set ambitious targets to change the composition of leadership team to include more women and visible minorities.

Our target: 17% members of visible minorities in leadership<sup>21</sup> positions across our Canadian and U.S. workforce.

**Status:** In 2022, we met our target achieving 17 per cent of visible minorities in leadership positions across our Canadian and U.S. workforce, a notable increase from 14 per cent in 2021. We will strive to maintain or exceed this target moving forward.



<sup>&</sup>lt;sup>21</sup> Leadership positions in our corporate locations of Calgary, Houston, Charlestown and Mexico City.





#### **EMBRACING OUR DIFFERENCES**

Diversity drives high performance; it makes us better. We know when we bring different people, ideas, backgrounds, opinions and skills to the table and embrace our differences we can nurture creative, innovative and high-performing teams.

We all want to be part of an inclusive workplace where every member of our team is respected and feels they can reach their full potential. When everyone feels safe and empowered to bring their very best — that's when we spark innovation. That is why we work hard to foster a culture of belonging by being open, transparent and respectful with each other.

Our inclusion and diversity action plan guides our commitment and encourages continued progress and sustained performance. In 2022 we took steps forward on all fronts, using our own internal resources as well as working with support organizations that promote equality and other forms of inclusion in our workplace and communities. Areas of focus range from recruiting strategies that are designed to attract a broad and diverse talent pool, to reinforcing a non-discriminatory, equitable, accessible and respectful work environment. Established in 2021, our Chief Inclusion and Diversity Officer (CIDO) serves as a champion and advocate for inclusion and diversity, both in the workplace and in our communities.

#### **PROMOTING GENDER EQUITY** AND WOMEN'S EMPOWERMENT

As we work toward our targets, we are actively creating and promoting opportunities for our team members to engage in activities that help boost careers and spark positive change. An example is our Women's Leadership Network, which gives female-identifying leaders a chance to connect, share experiences, learn from others and build a stronger women's leadership community. The network facilitates events throughout the year, including a speaker series that showcases Board members, prominent authors and community leaders who share their leadership lessons and inspiring stories.

Our target: 40% women in leadership positions in our corporate locations<sup>22</sup> by end of 2025.

**Status:** We achieved mixed results in advancing our leadership diversity targets, highlighting we have more to do in this area. Changes in the organization decreased women in leadership to 35 per cent in 2022 which was a 1.5 per cent decrease from the previous year. While we lost a little ground this past year, we have not lost focus of our 2025 target.

#### **IN PROGRESS**

<sup>22</sup> Leadership positions in our corporate locations of Calgary, Houston, Charlestown and Mexico City.





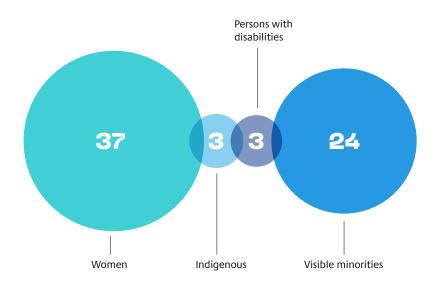
#### Canadian core workforce (%)<sup>23</sup>

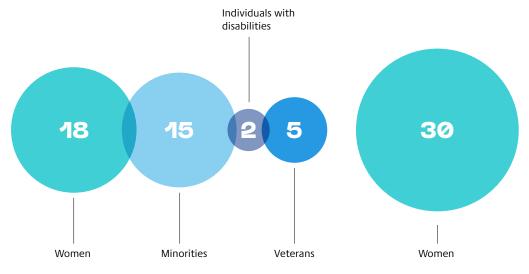


U.S. core workforce (%)<sup>23</sup>



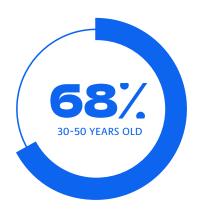
Mexico core workforce (%)<sup>23</sup>





#### **Workforce Demographics**







## **.....** WANT TO LEARN MORE?

- + Inclusion and Diversity Action Plan
- + Code of Business Ethics Policy
- + <u>Equal Employment Opportunity and Non-Discrimination policy</u>
- + Reasonable Workplace Accommodation policy
- + Harassment-free workplace policies for <u>Canada</u>, <u>U.S.</u> and <u>Mexico</u>

<sup>&</sup>lt;sup>23</sup> Further information is provided in the Appendix: Performance data

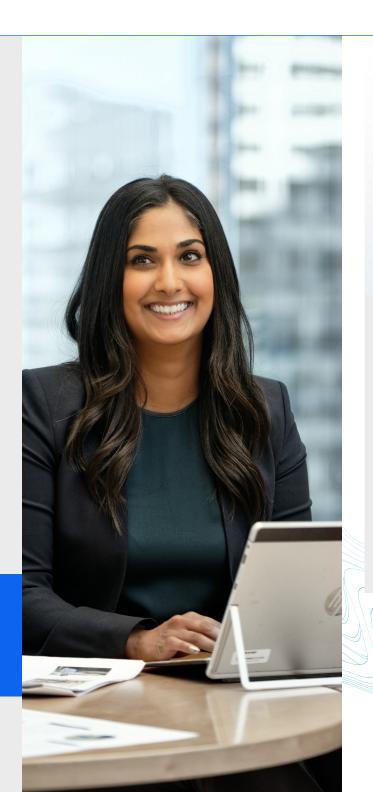


Recently, TC Energy became a signatory to the Women's Empowerment Principles (WEP), which have been established by the UNGC and UN Women. The principles serve as guidance to companies on how to promote gender equality and empower all women in the workplace, marketplace and community. By adopting the principles, we also gain access to a wealth of events, tools and resources to help bring the principles to life, including the WEPs Gender Gap Analysis Tool, a confidential online platform that is helping us assess our current policies and platforms and identify opportunities for improvement.

We also joined Catalyst, a global non-profit organization supporting companies with solutions and strategies to accelerate progress for women through workplace inclusion. The strategies focus on areas such as increasing the representation of women—particularly women from racially and ethnically marginalized groups—in corporate leadership, engaging men to leverage their influence to advocate for gender equity in the workplace and equipping organizations to remedy inequities across intersections of identity. Through our partnership, our team members have access to a wide range of resources, research and events to help build an inclusive workplace that benefits us all.

## **.....** WANT TO LEARN MORE?

- + United Nations Global Compact (UNGC)
- + Women's Empowerment Principles (WEP)
- + WEP Gender Gap Analysis tool
- + <u>Catalyst</u>





"Pursuing these voluntary initiatives further establishes TC Energy's commitment to fostering a positive workplace for employees who are looking to cultivate belonging and achieve their full potential. We value our energy problem solvers and want to ensure we care about the well-being of each of them by addressing gender and racial disparities, making work more flexible in terms of location and time, and distributing opportunities and benefits fairly."

#### **SUSANNE BEATON**

Vice President of People and Culture







"The TC Energy Pride Network's mission is to make the company a safe place for discussions on 2SLGBTQIA+ topics that support education and the celebration of diversity. It's important to create a psychologically safe and open environment to have discussions about what makes us unique. Everyone should come into work feeling like their identity is a source of strength."

#### **COLE THOMSON**

Manager of our Community Relations Canada team and one of three co-leads for TC Energy's Pride Network.



Building on the success of our Women's Leadership Network, in March of 2023, we launched our Employee Inclusion Networks. Also commonly known as employee resource groups, these employee-led networks span a broad range of demographics such as race/ethnicity, gender identity, age, sexual orientation, mental health, veteran status and physical ability. The groups are meant to encourage connection around shared values and identities, further allowing underrepresented voices to be heard and valued by their peers and leadership. The first four newly launched Employee Inclusion Networks focus on 2SLGBTQIA+, women, Indigenous Peoples and veterans.

TC Energy also works externally to demonstrate leadership in inclusion and diversity. We fund post-secondary education programs supporting visible minorities, Indigenous Peoples and women and sponsor conferences such as:

- American Indian Science and Engineering Society
- Society of Women Engineers
- Society of Hispanic Professional Engineers
- Houston LGBTQ Chamber of Commerce
- Pride at Work Canada



## DRIVING A HIGH-PERFORMANCE CULTURE THROUGH RECRUITMENT AND DEVELOPMENT

We work to attract the best people into our company by providing competitive total rewards, a dynamic work environment and growth opportunities. Our hiring practices are geared toward building a workforce that reflects the diversity of the communities in which we live and work and we are committed to being an industry leader in training and employee expertise.

Our philosophy focuses on providing developmental opportunities for all as we work together to create a sustainable energy future. In 2022, we welcomed 973 new employees into our workforce and delivered an average of 39 hours of training and development per full-time-equivalent employee through a wide range of channels, including self-directed e-learning programs, live interactive skill-building sessions and core programs designed to support emerging leaders. Training programs cover health, safety, environment, Indigenous awareness, inclusion and diversity, leadership, compliance, cybersecurity and mental health and psychological safety.





# Mental health and psychological safety

At TC Energy, we focus on four key pillars of employee well-being: physical health, emotional health, social fitness and financial security. During the tumultuous years of COVID-19, mental health surfaced as a pressing issue. In 2020, as the pandemic continued, we increased attention to mental health and psychological safety by launching our Mental Health Champions program focusing on improving resilience and decreasing stigma. Over 40 employees across our company took on the challenge of leading the program, taking in-depth mental health training by external experts and then leading projects focused on increasing mental health awareness and psychological safety throughout our workforce.

As our workforce returned to the office in 2022, our program remained strong:

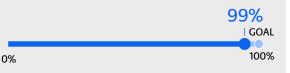
• 20 intensive training sessions were held for leaders to enhance their knowledge and understanding of mental health and psychological safety.

- Our Mental Health Champions participated in quarterly working sessions that included project work, training, guest speakers and updates on initiatives specific to mental health.
- Profiles of our Mental Health Champions were featured quarterly on TC Energy's intranet.
- Mental health-themed events were held across the company, including Pink Shirt Day in February to support psychological safety and respect in the workplace, and a range of special guest speakers talking about mental health issues and the celebration of World Mental Health Day in March, signified by green ribbons.
- In December, we provided leaders with an additional toolkit to supplement the mental health training they had received earlier in the year.

All of these activities were in the service of normalizing conversations about mental health and fostering a culture of psychological safety. Ranging from informal activities such as the sharing of personal challenges and anxieties by our leaders and Mental Health Champions to the formal adoption of key performance indicators, these efforts contribute to our progress.

**Our target:** Mental health awareness training; 100% of leaders in 2022 and 100% of employees by end of 2023.

**Status:** In 2022, we achieved a completion rate of 99 per cent for our workforce training program focusing on the importance of mental health, just shy of our 100 per cent target. In 2023, we expect to capture leaders missed and are on track to achieve our target of 100 per cent of employees trained by the end of 2023.

















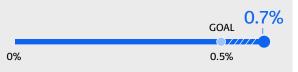
Strengthening relationships with landowners, Indigenous groups, communities and other stakeholders across our business is essential to our success. These positive, long-lasting relationships build the trust and support we need to remain a sustainable energy company.

## Community investment priorities

Our community investments are directed to organizations that are integral to our local communities and our business. Whether we are providing grants, awarding scholarships to future energy problem solvers or supporting local events that bring community members together, our goal is mutually beneficial relationships that help communities overcome social challenges. We believe that when we develop and nurture lasting relationships and give back to the communities where we live and work, we build a stronger future together.

Our target: Invest 0.5% to 1% of pre-tax profits through 2022.

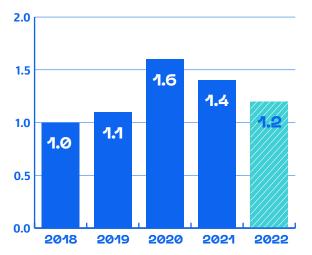
**Status:** We continue to meet our community investment targets. In 2022, we invested 0.70 per cent of our pre-tax profits through giving programs across the North American continent, all with a focus on helping strengthen local community, Indigenous groups and workforce resiliency.



#### **FOCUSING ON SOCIAL IMPACT**

Our Build Strong social impact program focuses on four key areas: community, safety, environment and education. It is a powerful way for us to maintain good relationships with neighbours where we have operations, build new relationships, help create more resilient communities and position us as an employer of choice in regions where we have many employees.

#### Workforce donations year-over-year (\$M)





#### **CALGARY POLICE YOUTH FOUNDATION HELPS AT-RISK CHILDREN SUCCEED AT SCHOOL**

TC Energy has been supporting the Calgary Police Youth Foundation since 2011 and in 2016, became the leading donor and one of the founders of the Foundation's Integrated School Support Program. The program's primary purpose is to eliminate barriers for children experiencing significant challenges to achieving personal and academic success. In 2022, for the third consecutive year, the foundation provided backpacks loaded with school supplies and department store gift cards to up to 800 Indigenous and marginalized students in Calgary.

In 2022, the program model was recognized by the Government of Alberta, which committed \$42 million over three years to support child and youth health initiatives across the province. Through the Government's funding, an abridged program is being introduced in up to 22 schools that will provide a dedicated mental health professional in selected schools and locations.

## **.....** WANT TO LEARN MORE?

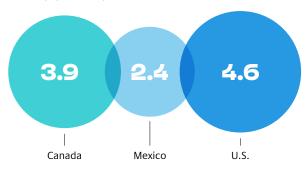
Find out more about **Backpacks for Brighter Futures** 



#### SCHOLARSHIPS SUPPORT STUDENTS ACROSS THE CONTINENT

Since the inception of our Build Strong Scholarships program in 2017, we have awarded 4,254 scholarships to students living in communities that host our projects and operations across Canada, the U.S. and Mexico. In 2022, the program received over 3,400 applications and awarded over 800 scholarships, valued at more than \$2.1 million to recipients across North America. The recipients included women, Indigenous peoples, and students pursuing studies in energy-related disciplines such as trades. STEM or vocational studies.

#### 2022 distribution of scholarship dollars in each country (\$M CAD)



GRAND TOTAL \$10.9M

# of scholarships awarded

**CANADA** 

**MEXICO** 

2,062

**GRAND TOTAL** 



#### TC ENERGY CONTINUES TO STRENGTHEN ITS COMMITMENT TO MEXICO SCHOLARSHIP **PROGRAM**

The rapid growth of our natural gas pipelines business in Mexico over the last decade has spawned our strong commitment to supporting young people who want to further their education. Since it was launched in 2018, our scholarship program has awarded more than 2,000 scholarships, valued at approximately \$2.4 million. A number of recipients have also been hired to help further grow our business in Mexico. Thanks to our long-term strategic alliance with the country's state-owned electric utility, Comisión Federal de Electricidad, the future of our new student hires is looking even brighter. When Mariana, a resident of Ixmiguilpan, Hidalgo, saw the construction of our Tula-Villa de Reyes pipeline, she found out about the scholarship program. In 2022, she was awarded one of our scholarships for women, which will help her continue her studies to become a health professional and contribute to the well-being of her community.



To learn more about Mariana's story, watch this video.





#### TC ENERGY SCHOLARSHIP RECIPIENT **BECOMES AN EMPLOYEE**

For Max Jarvie, everything came full circle in 2021 when he was hired as a Gas Controller at TC Energy in Houston, Texas. Three years earlier, while he was completing his undergraduate degree in engineering at the University of Texas, Jarvie received a TC Energy scholarship. The funding helped him expand his academic pursuits, which culminated in a Master of Business Administration from the University of Houston. As a proud employee, he is an advocate for the scholarship program and our industry.

## **WANT TO LEARN MORE?**

Learn more about Max's story here.





### Landowner relations

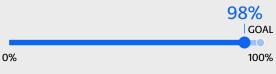
As an energy infrastructure company with operations in three countries, we are proud of the relationships we have built with close to 100,000 landowners across our pipeline and asset network. All employees, contractors, agents and representatives are our ambassadors, responsible for our relationships with landowners and abiding by these principles throughout the life of our assets. Building and maintaining relationships is critical to our success. We have developed a set of guiding principles for our interactions with landowners so that they are conducted in a positive, consistent and collaborative manner, starting with an imperative to build trust and respect, along with commitments to honesty, transparency, fairness and accountability.

## **.....** WANT TO LEARN MORE?

- + Commitment: landowner guiding principles
- + Building positive relationships with landowners

Our target: 100% private land restoration<sup>24</sup>.

**Status:** In 2022, we restored 98 per cent of disturbances to private lands. The remaining two per cent was not achieved due to additional repair work required in localized sites due to challenging terrain and weather conditions. These sites will be restored when conditions permit, and we will continue active engagement with landowners until restoration is achieved.



## LANDOWNERS AND COMMUNITIES In November of 2022, we responded to con-

RESPONDING TO FEEDBACK FROM

In November of 2022, we responded to concerns of local landowners and residents of Medina Township in Northern Ohio by funding an upgrade to the property surrounding a compressor station on our Columbia Pipeline system. Though it will take some time for the pine trees planted around the site to fully block the view of the compressor station and serve as a sound barrier, initial feedback has been positive. The Medina landscaping project is one of many initiatives we take to maintain strong relationships with landowners and communities.



<sup>&</sup>lt;sup>24</sup> Restoration activities are multi-year efforts with end-of-activity targets rather than annual targets. Further information is provided in the Appendix: Performance data.



## **Employee giving**

We understand the importance of having a diverse and inclusive economy that benefits everyone - and we are working to make it happen. Our social impact program provides employees paid time off to volunteer. It further supports employee community involvement by matching donations and assigning monetary value to volunteer hours for employees to contribute to charities and nonprofit organizations of their choice. Over the past decade, our workforce has helped to contribute more than \$30.6 million and logged over 194,000 volunteer hours to deserving causes across Canada, the U.S. and Mexico. Our social impact program is a deep source of pride for TC Energy and in 2022 it was as strong as ever.

Our target: 60% workforce giving participation in 2022.

Status: In 2022, we achieved this target with 61 per cent participation in our workforce giving and volunteering program.

GOAL 61% 60%

#### LEAVE YOUR LEGACY CAMPAIGN BRINGS OUR **WORKFORCE TOGETHER**

In 2022, our annual fall employee participation campaign was themed "Leave Your Legacy." It encouraged our workforce to consider the legacy they wanted to leave in their communities and at TC Energy. The campaign brought our workforce back together after being apart during the pandemic lockdowns, showcasing everyone's commitment to creating a positive impact in the places we live and work. During this September campaign we saw:

# **OVER\$1.15** M

**COMMITTED TO ORGANIZATIONS ACROSS NORTH AMERICA VIA EMPLOYEE DONATIONS AND CORPORATE MATCHING** 

**11,238 VOLUNTEER HOURS LOGGED BY OUR WORKFORCE** 

UNIOUE CAUSES SUPPORTED THROUGH GIVING AND VOLUNTEERISM ACROSS NORTH AMERICA

INDIVIDUALS VOLUNTEERED FOR CAUSES **ACROSS OUR FOOTPRINT** 



#### **EMPLOYEE'S PASSION FOR GIVING BACK**

Tanner Moulton, a Public Affairs Advisor for the Coastal GasLink project in Prince George, has a true passion for giving back. His efforts have been instrumental to the Coastal GasLink Legacy of Giving Campaign, which aims to remove barriers by providing funding to recipients to address socio-economic issues facing their local community, raising more than \$220,000 for charities across Northern British Columbia. Additionally, Tanner started the Coastal GasLink bottle donation program and in a period of 26 months has raised over \$400,000 for local non-profit and charitable organizations across the project route. Tanner is not stopping there. He anticipates reaching the half a million-dollar mark this year.

### **..... WANT TO LEARN MORE?**

Learn more about the **Coastal Gaslink Legacy of Giving Campaign** 

**TC ENERGY** 

0%













# Indigenous engagement and reconciliation

Since we began our reconciliation journey, we have listened and learned and we have made progress along the way. Through internal and external engagement activities, we made mindful decisions to embed reconciliation into how we work. However, we recognize that we have much more work to do. From feedback, encouragement and collaboration, we are learning to approach reconciliation with humility.

## **Reconciliation Action** Plan update

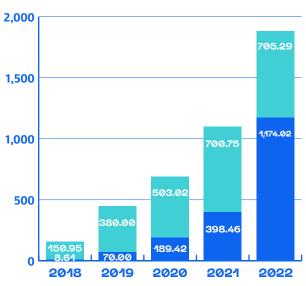
In November 2022, we published a Reconciliation Action <u>Plan update</u> reporting on our progress against the goals we set out in our inaugural Reconciliation Action Plan, published in March 2021. Here are some highlights of our progress:

• We learned the importance of having a flexible approach as there is no "one size fits all." As a result, our Indigenous Advisory Council is initially focused on our Canadian footprint.

- Every Director on our Board completed cultural awareness training in 2021, followed by 99.82 per cent of the Canadian workforce completing a mandatory cultural awareness training module for employees and contractors in 2022. The training program was customized for our Coastal GasLink pipeline project in B.C. A draft version of the training materials was shared with Indigenous groups along the pipeline route, and the feedback from 500+ comments received helped to shape the course content.
- Canadian Indigenous leaders have communicated that our support is critical to help build the skills and capabilities of Indigenous people in the areas where our work is taking place. We are now conducting a review of our hiring and contracting processes and developing a comprehensive framework to guide our efforts moving forward, with the goal of setting targets to drive increased participation of Indigenous peoples and businesses in the execution of our projects and operational activities for 2024 and beyond<sup>25</sup>.
- We also committed to developing a framework to identify project equity opportunities with Indigenous groups across our footprint. We have established a cross-functional team for this purpose and continue to pursue Indigenous equity ownership opportunities on projects and existing assets.







#### **U.S. Native American**



<sup>25</sup> As a result of our continued engagement, we've pivoted our focus from Indigenous contracting to Indigenous hiring and participation.

<sup>&</sup>lt;sup>26</sup> Further information is provided in the Appendix: Performance data



# Community-led reconciliation efforts

We have a long history of providing support for community-led priorities and are committed to partnering with Indigenous groups to identify the initiatives that matter most to them. In addition, through our community giving program, we support Indigenous-led organizations and non-profits through our long-standing community legacy programming, which addresses priorities identified by communities in four focus areas: safety, education and training, environment and community.

**Our target:** Identify and support community-led reconciliation initiatives through partnerships with Indigenous groups.

**Status:** In 2022, we continued to make meaningful progress in our engagement with Indigenous groups.

#### **ONGOING**



#### CANADIAN INITIATIVES FOCUS ON SAFETY, PROJECT DESIGN AND EVALUATION

In 2022, we supported the Youth Education and Career Pathways program developed by Montana First Nation. The innovative summer program supports Indigenous students in identifying and planning their education and career life pathways. In 2022, 25 on-reserve Indigenous students, ranging from grades seven to 12, participated in a land-based environmental education and career pathways summer camp, which included a two-week learning experience with Maskwacis Traditional Knowledge

holders. The program links students with caring, connected and competent mentors and support people, helping to ensure students are better able to conceive and achieve their academic and career aspirations. The robust exchange of knowledge from Elders to youth was captured in <u>a short and impactful film</u> by an Indigenous filmmaker.

In September 2022, Sunchild First Nation celebrated the grand opening of its 100 per cent community-led daycare, funded by TC Energy. Historically, First Nations people living on remote reserves experience limited access to essential services. Access to high-quality early learning and childcare provides a solid foundation for children's future success. Creating a solid foundation is crucial to developing a child's cultural identity and sense of worth. The daycare aims to provide culturally appropriate programs, language, traditions, values and customs of Sunchild First Nations for its members. Sunchild First Nation culture was visibly integrated and displayed beautifully into their space, creating a warm and safe space for community members and children. The successful endeavour took two years to be realized from conception to implementation.

In January 2023, we took action to bolster community resources with Carry the Kettle Nakoda First Nations. The Nation, located in Saskatchewan's Treaty 4 Territory, held a ribbon-cutting ceremony to celebrate the grand opening of its new Emergency Response building. The \$3.2 million facility, which TC Energy funded, will serve as a central location for emergency response equipment and training in the community. With several of our pipelines traversing the Nation's main reserve, we have been working closely with the Nation to continue strengthening our relationship, prioritizing the health and safety of community members. This includes working with the Nation to understand their priorities and collaborating on several initiatives that help bring better awareness for safety measures. The new Emergency Response building is just one of those initiatives and there are plans in place to continue those efforts.

Our collaborative approach to design is helping engage Indigenous groups early in the life of projects. TC Energy's Ontario Pumped Storage Project is committed to supporting independent environmental surveys conducted by our prospective partner, the Saugeen Ojibway Nation and supporting other Indigenous groups, communities and interested parties. In this instance, we provided funding for the survey and welcomed the opportunity to review and consider potential impacts as part of our project development activities. Our Design in the Public Eye approach has been to support a collaborative, inclusive, community-based process to gather feedback and reflect it in our project design.



# U.S. INITIATIVES FOCUS ON SAFETY AND EDUCATION

Emergency response and safety are key focus areas for TC Energy's relationships with Tribal nations in the U.S. We have assets on the lands of eight Tribes, as well as assets on or within 10 miles (16 kilometres) of 92 parcels of lands under the jurisdiction of 73 Tribal nations. In June 2022, we sponsored the annual Inter-Tribal Emergency Management Coalition conference and shared our emergency response preparedness protocol with attendees. The event served as a unique way to build relationships with Tribal, county and state emergency managers in the region. Two of TC Energy's assets, the ANR natural gas pipeline and the Keystone liquids pipeline, traverse the state of Oklahoma and the coalition's regional coverage.

## **.....** WANT TO LEARN MORE?

Our Indigenous Relations <u>policy</u>, <u>strategy</u> and <u>guiding principles</u> inform our work with Indigenous groups.







# **Human rights**

TC Energy does not tolerate human rights abuses. In our business activities — including engaging with Indigenous groups and stakeholders across Canada, the U.S. and Mexico — we support access to basic human rights, such as fresh water and will not tolerate any activity that solicits or encourages abuse of human rights, such as forced labour, child labour, or physical or mental abuse.

As a participant of the UN Global Compact, TC Energy supports the 10 Principles of the UN Global Compact on human rights, labour, environment and anti-corruption. We are committed to making the UN Global Compact and its principles part of our strategy, culture and day-to-day operations and to engage in collaborative projects that advance the broader development goals of the United Nations, particularly the Sustainable Development Goals.

## **.....** WANT TO LEARN MORE?

Code of Business Ethics (COBE) webpage

#### **HUMAN RIGHTS PRACTICES**

#### **Employment Policies and Standards:**

Cover topics related to diversity, equal opportunities, health and safety, labour conditions and discrimination and harassment

### **Supplier Standards and Audits:**

We promote human rights in our supply chain through our <u>Contractor Code of Business Ethics Policy</u>

### **Community Engagement:**

Includes environmental and social-economic impact assessments, when required, as well as support for community programs and initiatives that create positive societal impacts

### **Indigenous Relations Programs:**

Aim to build and sustain positive relationships through early, ongoing and honest communication, mitigating impacts, and establishing mutually beneficial partnerships

# **Collective Bargaining and Union Agreements:**

Focus on fair and respectful work conditions





## **Supplier diversity**

We work to create opportunities for qualified, competitive and diverse local businesses and individuals that are most impacted by our projects and operations. Our commitment to supplier diversity and enabling social and economic opportunities for local communities and individuals is reflected in our business practices. Our Supplier Diversity and Local Participation Business Policy is designed to contribute to the social and economic wellbeing of communities and individuals that are adjacent to, or are potentially impacted by, our business activities. The result is mutually beneficial for both TC Energy and our rightsholders and stakeholders as it expands our access to competitive, innovative, qualified suppliers and creates economic benefits for local businesses and individuals. Increased supplier diversity contributes directly to our sustainability commitments and creates a supply chain that reflects our corporate values.

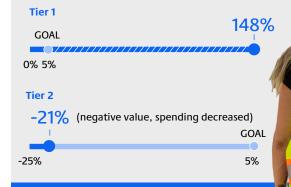
**Our target:** Increase percentage of diverse influenceable procurement<sup>27</sup> spend of Tier 1 suppliers 5% year-over-year through to 2027.

**Status:** In 2022, we exceeded our target of five per cent year-over-year increase in the per cent of diverse influenceable procurement spend with an increase of approximately 132 per cent. The exponential growth in spend is directly due to leveraging diverse partnerships on our Coastal GasLink project and our expanded efforts to identify Tier 1 diverse suppliers in our businesses.



**Our target:** Increase diverse annual spend of Tier 1 and Tier 2 suppliers<sup>28</sup> in Canada and the U.S. 5% year-over-year through to 2022.

**Status:** In 2022, we exceeded our Tier 1 diverse spend targets with a year-over-year increase spend of approximately 148 per cent; however, missed our Tier 2 target with a year-over-year spend decrease of approximately 21 per cent. This increase in Tier 1 diverse supplier spend is attributed to expanded supplier reporting and Coastal GasLink project diverse spend. Tier 2 diverse supplier spend decreased in 2022 as final activities related to Keystone XL came to a close, following its cancellation.



### **..... WANT TO LEARN MORE?**

<u>Supplier Diversity and Local Participation</u> <u>Business Policy</u>



<sup>&</sup>lt;sup>28</sup> Further details, including definitions of Tier 1 and Tier 2, suppliers can be found in the Appendix: Performance data.





# GOVERNANCE

Our commitment to the highest standards of ethics and corporate governance helps us do what we do best — anticipate the energy needs of North American communities. At the heart of good governance is effective decision-making. The right governance structure and policy framework, with clear accountabilities and disciplined oversight, allows us to confidently move forward on our sustainability journey and integrate sustainability and innovation across all aspects of our business. It is also the foundation for doing the right thing.

#### **IN THIS SECTION**

- **55** Corporate and sustainability governance
- **60** Advancing sustainability and innovation
- **63** Supply chain
- **64** Business ethics and compliance
- **65** Enterprise risk management
- **67** Customer experience and satisfaction



# **Governance commitments & metrics**



Advance sustainability and innovation across our business and value chain, including our strategic planning and decision-making

Innovation driven optimization pg 61

Incorporate sustainability in enterprise-wide integrated Asset Investment Planning Framework

pg 60

#### **NEW METRICS AND TARGETS**

Metric: Adopt voluntary social impact measurement criteria and establish a 2024 baseline for metrics and targets in 2025, and beyond.

Target: Commence implementation of a social impact measurement framework and establish a baseline in 2024. Launch social impact metrics and targets in 2025.







# Corporate and sustainability governance

Our governance structure provides a framework for accountability, management and mitigation of the risks and opportunities facing the company, including on sustainability matters. The Board has oversight over our sustainability strategy and practices, with the primary accountabilities at the Board committee level.

The Board has formally adopted and published a set of corporate governance guidelines, a Charter for the Board and for each of its committees, as well as Terms of Reference which set out position descriptions for the Chair of the Board and the CEO. This affirms TC Energy's commitment to maintaining a high standard of corporate governance. The guidelines and Charters address the structure and composition of the board and its committees and also provide quidance to both the Board and management in clarifying their respective responsibilities.

## **.....** WANT TO LEARN MORE?

- + Charter of the Board of Directors
- + Corporate governance guidelines
- + Terms of Reference for the Chair of the Board of Directors
- + President and CEO Terms of Reference

## **Executive compensation**

Our compensation plans are designed to encourage disciplined decision-making in the balanced pursuit of near-term financial performance and responsible longterm facilities development. The Board's Human Resources Committee periodically conducts a comprehensive review of our compensation program to ensure it aligns well to market practices and has a strong link between performance achieved and compensation delivered. Annually, we review market trends to ensure our compensation programs remain aligned with our strategy and are consistent with emerging governance and peer group best practices. We evaluate executive compensation levels relative to market to ensure they remain competitive in order to attract and retain the critical talent required to run our business now and into the future.

Starting in 2022, we have embedded ESG goals into our corporate scorecard. Key performance areas that we track to measure success against these goals include achieving top personal safety, maintaining safe, reliable operations and asset integrity while minimizing environmental impacts and developing solutions for a lower-carbon energy future. Our 2023 corporate scorecard further embeds ESG into our goals with a 30 per cent weighting to ESG including targets for human and process safety, diversity of women and visible minorities in leadership and GHG-emissions reduction.

#### Corporate scorecard weighting

Strategic priorities including strengthening the balance sheet, finding operational efficiencies, and effective execution of divestitures and sanctioned growth



ESG including targets for human and process safety, diversity of women and visible minorities in leadership and GHGemissions reduction





# Accountability and decision-making

TC Energy has established a clear governance structure to effectively communicate and respond to emerging sustainability topics, while proactively implementing our sustainability commitments and practices. The Board maintains ultimate oversight over TC Energy's ESG matters, including risks and opportunities related to material capital project decisions and other matters not specifically covered in a committee mandate, such as Indigenous relations.

## BOARD OVERSIGHT OF SUSTAINABILITY INITIATIVES

Our Board of Directors' primary responsibilities are to foster TC Energy's long-term success and sustainability, oversee our business affairs and management and to act honestly, in good faith and in the best interests of TC Energy. The Board's main objectives are to promote our best interests, to maximize long-term shareholder value and to enhance shareholder returns. The Board has key duties and responsibilities, delegates some duties to its four standing committees and discharges others to management for managing the day-to-day affairs of the business.

The Board operates through four committees:

#### **AUDIT COMMITTEE**

The Audit Committee oversees financial risk management, financial reporting, auditor independence and the execution of internal and external audits. The committee oversees cybersecurity and related risks and reviews climate change and sustainability disclosure in financial disclosure documents.

## **.....** WANT TO LEARN MORE?

**Audit Committee charter** 

## HEALTH, SAFETY, SUSTAINABILITY AND ENVIRONMENT COMMITTEE

The Health, Safety, Sustainability and Environment (HSSE) Committee receives updates to TC Energy's environmental management program, including biodiversity and land management, climate change related risks and opportunities and GHG emission targets. The committee reviews TC Energy's implementation of a safety conscious culture, including emergency preparedness plans, landowner and community relationships and mental health and psychological safety initiatives, as well as our risk management matrix and voluntary ESG reporting and disclosure.

## **.....** WANT TO LEARN MORE?

<u>Health, Safety, Sustainability and Environment</u> <u>Committee charter</u>

#### **GOVERNANCE COMMITTEE**

The Governance Committee is responsible for monitoring updates to securities law and proxy advisor policies and reviewing Board skills matrices and enterprise risk management program implementation. The committee also monitors Board diversity targets and lobbying practices.

## **.....** WANT TO LEARN MORE?

**Governance Committee charter** 

#### **HUMAN RESOURCES COMMITTEE**

The Human Resources Committee oversees TC Energy's Inclusion and Diversity targets and action plan, employee engagement levels, executive compensation levels, employee compensation and benefits programs and our overall corporate scorecard.

### **.....** WANT TO LEARN MORE?

**Human Resources Committee charter** 



#### **Board of Directors**

The Board maintains ultimate oversight over TC Energy's sustainability matters, including risks and opportunities related to material capital project decisions and other matters not specifically covered in a committee mandate, such as Indigenous relations. The Board also maintains oversight of business strategy alignment, progress against our most significant sustainability objectives and commitments and our overall sustainability communications strategy.

#### **Board Committees**

The various Board committees are involved in sustainability issue oversight in their respective areas to ensure a robust management process with appropriate expertise, attention and diligence is given to each key business topic. The committees, comprised entirely of independent directors, receive updates regularly from management.

	Audit Committee	Governance Committee	Health, Safety, Sustainability and Environment Committee	Human Resources Committee
Ε	Reviews climate change and sustainability disclosure in financial disclosure documents and monitors regulatory developments affecting financial disclosure.		Receives updates to TC Energy's environmental management program, including biodiversity and land management, climate change related risks and opportunities and GHG emission targets.	
S		Monitors TC Energy's Board diversity targets, lobbying practices and information on climate-related management and shareholder proposals and voting trends.	Reviews TC Energy's implementation of a safety conscious culture, including emergency preparedness plans, landowner and community relationships, mental health and psychological safety initiatives and Indigenous group engagement.	Oversees TC Energy's Inclusion and Diversity targets and action plan and employee engagement levels.
G	Oversees financial risk management, financial reporting, auditor independence and the execution of internal and external audits as well as cybersecurity and related risks and the corporate compliance program. requirements, structure and results.	Monitors updates to securities law and proxy advisor policies, reviews Board skills matrices and enterprise risk management program implementation.	Reviews risk management matrix and voluntary ESG reporting and disclosure and corporate security updates.	Reviews executive compensation levels, employee compensation, and benefits programs, leadership development and executive level succession planning programs and reviews overall Corporate Scorecard.

#### **Executive Leadership Team (ELT)**

Responsible for developing and implementing TC Energy's strategy including integration of sustainability matters into decision-making and financial plans and advancing key strategic priorities including growth and energy transition.

#### Chief Sustainability Officer (CSO; member of ELT)

Provides strategic leadership of sustainability-related issues such as climate change, energy and resource conservation, environmental stewardship, stakeholder issues and awareness.

Responsible for directing the coordination, communication and management of sustainability-related issues, including climate change, particularly the intersection of risk, governance, environmental and social issues.

#### Chief Risk Officer (CRO; member of ELT)

Centralizes a pragmatic approach to facilitating the annual enterprise risk assessment and management of the enterprise risk register.

Responsible for ensuring the enterprise risk management (ERM) program governance model, framework and processes are established, properly documented and maintained in a manner that is suitable for our culture and operating model.

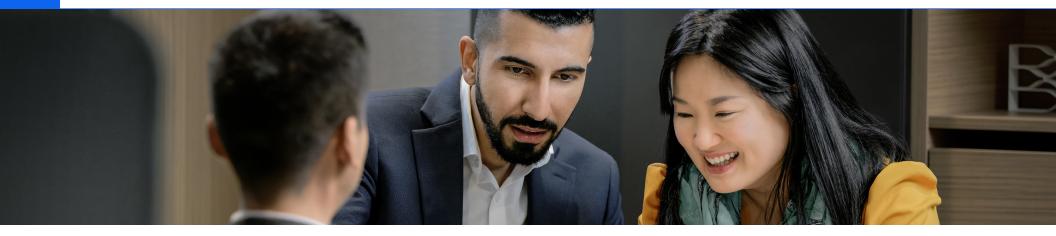
#### Management

Integrating sustainability strategy and risk management into daily functional and operational accountabilities, developing, overseeing and implementing corporate initiatives, policies, and processes, and measuring the performance and success of programs.

#### **Employees**

Continued contribution to organizational success through adherence to policies, and upholding corporate values of safety, responsibility, collaboration, integrity and innovation in a socially responsible and ethical manner.





In 2022, the Board of Directors and its committees regularly discussed sustainability matters including:

- adding a commitment to the Board Diversity Policy to increase gender diversity prior to the next annual meeting if the proportion of women on the Board falls below 30 per cent during the year,
- climate-related management and shareholder proposals,
- lobbying policies, activities and expenditures,
- effectiveness of HSSE policies, management systems, programs, procedures and practices through the receipt of reports on four levels of assurance activities related to internal and external audit findings,
- status of critical incidents, root cause analysis and incident follow-up,
- corporate compliance program requirements, structure and results, including policies related to foreign corrupt practices and anti-bribery statutes and policies, and
- updates to Canadian and U.S. air emissions and greenhouse gas legislation, climate change initiatives and related compliance matters.

The Board also participates in an annual strategy session to evaluate and update our extended five-year strategic plan, including top risks that could affect execution of the company strategy. As part of this annual

review, management includes an assessment of energy fundamentals, the competitive environment and the stakeholder landscape to identify opportunities and threats to our business strategy.

#### MANAGEMENT OVERSIGHT

Management's sustainability governance framework includes the CSO, CRO and a dedicated Health, Safety, Sustainability and Environment Committee.

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

The CSO provides strategic leadership of sustainability-related issues such as climate change, energy and resource conservation, environmental stewardship, stakeholder issues and awareness at the highest level of TC Energy. The CSO is responsible for directing the coordination, communication and management of sustainability-related issues, including climate change, for TC Energy, particularly the intersection of risk, governance, environmental and social issues.

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

Currently, the CSO, Chief Compliance Officer and CRO roles are held by the same individual, which creates alignment in the oversight of sustainability, compliance and enterprise risks.

To enhance our overall governance structure, we are in the process of evolving our corporate HSSE committee into two separate committees that will report to the Board HSSE Committee. A Sustainability Management Committee will provide strategic leadership and direction on sustainability-related issues, while an Operating Committee will be responsible for making enterprise decisions in support of management system governance, strategic system enhancements and operational risk management related to safety and some environmental considerations.

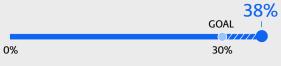


## **Board diversity**

TC Energy has long been committed to promoting diversity on our Board. In 1999, we revised our corporate governance guidelines to include a variety of diversity criteria for Board membership. Under these guidelines, when selecting new members for nomination to the Board, the Governance committee takes into account the desirability of maintaining a balanced diversity of backgrounds, skills and experience and personal characteristics such as age, gender and the geographic residence of directors. In addition to our corporate governance guidelines, and a further commitment to promoting Board diversity, in February 2018, the Board adopted and endorsed a Board diversity Policy, which relates to the identification and nomination of directors generally.

Our target: 30% women on our Board of Directors.

Status: We continue to meet our board diversity target for female representation with 38 per cent of women on the Board (5 of 13 members).





**Board Diversity Policy** 













# **Advancing sustainability** and innovation

We view sustainability as an integral component of our business planning and strategy. We know sustainability helps to drive innovation in our organization, including transformation of key processes that we rely on. At TC Energy, innovation means doing things differently - turning challenges into opportunities and ideas into creative solutions.

We know embracing new ideas enhances shareholder value, which is why we consider not only changing the way we work, but also inventing new value propositions, business models and growth engines. We see a significant opportunity to use sustainability to drive innovation and improve how we do business. We are proud of the methods, tools and mindsets we have developed to help accelerate TC Energy towards a more desirable economic, environmental and societal future.

Our target: By end of 2023, pilot various measures<sup>29</sup> to express sustainability value across all business units.

Our target: By end of 2024, determine portfolio sustainability contributions, informing future planning decisions aligned to corporate and business unit objectives.

**Status:** TC Energy continues to advance the adoption and integration of the enterprise-wide Integrated Asset Investment Planning (IAIP) Framework, leveraged in program planning for existing assets. Pilot use of value drivers and measures, such as quality of life, reliability, and safety, and environmental risk reduction is currently underway, aligned to operational risk management thresholds.

**IN PROGRESS** 

<sup>&</sup>lt;sup>29</sup> Asset management measures include, but are not limited to, quality of life, reliability, and safety and environmental risk reduction.





# Enhancing energy sector sustainability with technology

TC Energy invests in research and development (R&D) projects that make our assets and operations safer, more efficient and sustainable. In 2022, over 100 projects spanning a diverse range of technologies, including emission reduction pilots, machine learning and advanced analytics tools, were being considered for implementation.

**Our target:** Achieve \$115 million to \$120 million in capital and operating optimization and revenue opportunities by continuously improving our processes and systems by the end of 2023<sup>30</sup>.

**Status:** Between 2019 and 2022, approximately \$88 million of capital and operating optimization and revenue opportunities have been realized. While we continue to benefit from previously identified efficiencies implemented we have shifted our focus to safety, management of change and other competing organizational initiatives

**IN PROGRESS** 

Our target: \$80 million per year engineering R&D in value creation<sup>31</sup>.

**Status:** In 2022, we exceeded this target by generating a total value of \$229 million in 2022 through strategic engineering research and development, particularly cutting-edge technology and data analysis.

GOAL \$229M \$0 \$80 million

The direction of our future investments in R&D will be focused on three priorities: asset integrity performance, cost competitiveness and supporting the energy transition. We are continually working to improve the performance of our assets; making them safer and more efficient is how we remain a leader in our industry. R&D will be a critical component of how we reach our sustainability goals as we move toward to a lower-carbon energy future. Our portfolio of investments in R&D is positioned to deliver value for decades to come.

#### **PARTICIPATION IN KEY RESEARCH PARTNERSHIPS**

With our sights set on the future, we continue to collaborate and partner with key organizations inside and outside the energy industry, including the:

- <u>Pipeline Research Council International</u> (PRCI), a community of the world's leading pipeline companies established to develop and deploy research solutions improving pipeline safety and performance,
- PIPE SAFE Group (PSG), an international group of gas transmission companies established to collaborate in the study of the hazards and risks involved in gas transmission by pipelines,
- Emerging Fuels Institute (EFI), of which we are a founding member, addressing the most pressing knowledge gaps in hydrogen,
- <u>Center for Hydrogen Safety</u> group promoting hydrogen safety and best practices worldwide, and
- Intelligent Pipeline Integrity Program (iPIPE) focused on advancing detection of pipeline hazards and leaks.

<sup>&</sup>lt;sup>30</sup> Further details about this target can be found in <u>Appendix: Performance data</u>.

<sup>&</sup>lt;sup>31</sup> 'Value creation' includes value realized through engineering R&D initiatives implemented in our programs. Engineering R&D creates accuracy, precision, and efficiency in decision-making tools and processes which creates smarter and sharper decisions that enable both safety and economy leading to sustainability.





# PARTNERSHIP HIGHLIGHT: EMERGING FUELS INSTITUTE (EFI)

TC Energy is one of four founding members of the EFI established in 2021, which offers a platform for industry to collaborate and share global knowledge on emerging fuels for the safe transportation and storage of hydrogen. The objective of the EFI is to develop guidelines for natural gas/hydrogen blended transmission pipelines and dedicated greenfield hydrogen transmission. Last year, the EFI published eight technical white papers consolidating global research on key technical topics related to hydrogen and natural gas blends. This partnership gives us unlimited access to the global state-of-the-art in research on hydrogen and prepares us for future emerging fuels projects.

#### **DRONE USE ADVANCES**

We continue to work with third party vendors in Canada, Mexico and the U.S to develop and commercialize beyond visual line of sight (BVLOS) drone operations. The potential benefits of BVLOS implementation have implications for many parts of our business, including the potential to conduct supplemental instrumented aerial patrols at a lower cost than conventional aircraft. With more frequent patrolling, BVLOS implementation stands to expedite leak detection and improve security. We are also exploring the technology as a means of reducing response times for nighttime pipeline emergencies, as BVLOS drones can fly at night using thermal imagery.

We are funding a multi-year research and development project in Alberta focused on development of drone technology that could lead to more frequent patrols and lower costs. In August 2022, under the watchful eye of NAV Canada and Transport Canada, a drone we trialed covered 193 kilometers in three hours and successfully demonstrated the reliability and viability of long-range BVLOS technology. With each successful flight, we inch closer to having access to this powerful technology.

#### **HYDROGEN ON THE MOVE**

As the use of hydrogen grows, it will need to be transported. We believe it is possible to blend hydrogen with methane to transport through existing natural gas pipelines, but more research is needed on measurement, blending station design and pipe integrity to determine how we would efficiently accommodate it in our system. In 2022, we funded seven strategic internal hydrogen R&D projects and the results of these studies are already being leveraged for further research. In February 2023, we received a grant of \$600,000 from Alberta Innovates to conduct a feasibility study of hydrogen blending in high pressure transmission pipelines on our NGTL pipeline system.

**.....** WANT TO LEARN MORE?

Alberta Innovates











# Supply chain

Our commitment to social responsibility and environmental protection extends across our entire supply chain. We rely on our valued suppliers to help maintain our existing operations and construct the projects that will define our future.

In 2022, we engaged more than 4,700 suppliers across North America. They are expected to share our commitment to ethics and compliance as stated in our Contractor COBE Policy. Our Contractor COBE Policy details the minimum expectations we have for conducting business with us, or for conducting business on our behalf, including ethical business conduct, the health and safety of suppliers and their employees, employment equity and stakeholder relationships. We also expect our contractors to share TC Energy's commitment to human rights and compliance with all applicable laws, regulations, policies and rules.

## Responsible procurement

Whenever surplus material is identified, we do our best to find opportunities to redeploy the material internally to prevent unintended repurchasing of the same materials, materials. If we cannot reuse surplus material, we often donate it to community partners and agencies.





() TC Energy

FIND ANSW







# **Business** ethics and compliance

We pride ourselves on being an ethical company. Our COBE Policy reinforces behavioral requirements and expectations and provides guidance to ensure our daily business activities and decisions are consistent with our values. Doing business ethically, fairly and responsibly is a commitment we make every day. The COBE Policy functions in conjunction with our other policies and applies to all employees, directors, officers and contingent workforce contractors and our wholly-owned subsidiaries and/ or operated entities in the countries in which we conduct business.

We have a confidential Ethics Help Line operated by an independent third-party service. The Ethics Help Line is available 24/7 for anyone to report a concern about any perceived accounting irregularities, legal or ethical violations, harassment or other suspected breaches of the Code of Business Ethics.

## Trade association alignment

TC Energy is a member of trade associations focused on energy industry issues and the interests of our stakeholders. Our participation in these associations exposes us to differing views and enables us to obtain feedback and, ultimately, voice our perspectives on proposed legislation and regulations. Some of these associations also engage in lobbying activities.

We believe that our indirect lobbying activities through these associations are consistent with a transition to a lower-carbon energy system and generally align with our positions on issues, including the aspirational pursuit of limiting a global temperature increase to 1.5°C and other sustainability topics.

of the membership, so at times the policy positions and with our positions on a particular issue, in which case we work to mitigate risks associated with such misalignment. In such cases, we expect to engage further with these trade associations to understand their positions better and assess whether formal company participation or endorsement should continue.

## Political engagement

Political contributions by corporations are not permitted in most jurisdictions in Canada except Saskatchewan, where we contributed \$14,250 to political events in 2022.

TC Energy makes corporate political contributions in the U.S. by U.S. subsidiaries of TC Energy as permitted by law. Our employees can also take an active role in the political environment through the voluntary TransCanada USA Services Inc. Political Action Committee (TC PAC), which is a separate segregated fund and is funded solely through contributions from U.S. employees<sup>32</sup>.

Trade association policies generally reflect a compromise lobbying activities of these associations may not fully align



- + Our Governance
- + COBE Policy



Report on Climate-related Lobbying

<sup>32</sup> Further details about our political contributions can be found in Appendix: Performance data.







# **Enterprise risk** management

Risk management is integral to the successful operation of our business. Our strategy is to align our risks and related exposures with our objectives as well as our risk tolerances. We manage risk through a centralized ERM program that systematically identifies enterprise risks, including sustainability-related risks, that could materially impact the achievement of our objectives. The ERM program provides an end-to-end process for risk identification, analysis, evaluation and mitigation and the ongoing monitoring and reporting to the Board, CEO and executive vice-presidents, including the CRO.

Our Board retains general oversight of all enterprise risks and has direct oversight of reputation and relationships, political and regulatory uncertainty, capital allocation strategy and project execution and capital costs. The Board reviews the enterprise risk register annually and oversees how these risks are being managed and mitigated in accordance with TC Energy's risk appetite and tolerances. The Board also participates in detailed presentations on each enterprise risk as required or requested.

## **..... WANT TO LEARN MORE?**

See our comprehensive section outlining our risk oversight and enterprise management in our 2023 Management Information Circular.





## Privacy and cybersecurity

## ADDRESSING THE EVER-CHANGING LANDSCAPE OF PROTECTING PERSONAL INFORMATION

We are committed to providing excellent service and to conducting our stakeholder relationships with integrity and in a responsible, fair, honest and ethical manner. Consistent with these objectives, we maintain high standards of confidentiality with respect to the personal information in our possession.

To uphold this responsibility, we have a designated Chief Privacy Officer (CPO) who oversees organizational compliance with jurisdictional privacy legislation through the Privacy Office, and who is supported by dedicated subject matter experts. The CPO and all Privacy Office team members maintain globally-recognized professional certifications with the International Association of Privacy Professionals. The mandate of the Privacy Office is to foster a culture of privacy that enables us to handle and safeguard our stakeholders' personal information, including customer, personnel and landowner personal information, in accordance with our core values. The Privacy Office sets privacy policies and standards driven by our commitment to maintain stakeholder trust.

Our Privacy Management Program comprises various elements, including a formal intake and privacy risk assessment process, vendor contract review protocol, training, a mechanism for addressing privacy-related questions and a Privacy Office Procedures Manual. In 2022, additional work began on formalizing governance and program management documentation for the Privacy Office, one element of which is a Privacy Office Charter. It is anticipated that this documentation, which will proactively position TC Energy to meet the requirements of a variety of anticipated new privacy legislation, will be ready by mid-2023. A multi-stakeholder Privacy

Committee, which meets quarterly, also provides an important forum for various key stakeholders across the enterprise to work together on addressing critical privacy-related issues and developments.

Other highlights for 2022 include:

- completion of a rigorous privacy impact assessment on Workday, TC Energy's new Human Resources platform,
- comprehensive revision of the Privacy Office's Privacy Risk Matrix tool,
- key updates to the Protection of Personal Information Policy.
- updates to the annual corporate privacy training module, and
- development of enhanced standard privacy and cybersecurity provisions for vendor contracts.

## **.....** WANT TO LEARN MORE?

<u>Protection of Personal Information Policy</u>

#### PROACTIVELY PROTECTING DIGITAL ASSETS

Cyberattacks represent a potentially significant risk to our company and industry. Cybersecurity is overseen by our Chief Information Security Officer, who manages the Cybersecurity Office. Its mission is to enable TC Energy to sustain safe, secure and resilient digital assets. We maintain a comprehensive cybersecurity strategy and program that aligns to regulatory and industry standards including, but not limited to, requirements under the Transportation Security Administration, Canada Energy Regulator and North American Electric Reliability Corporation. We also follow cybersecurity best practices outlined by the National Institute of Standards and

Technology. Our cybersecurity program includes policies, threat monitoring, external assessments, insurance and training. Our cybersecurity strategy is regularly reviewed and updated and the status of our cybersecurity program is reported to the Board on a quarterly basis.

**.....** WANT TO LEARN MORE?

**Cybersecurity Policy** 

# Operational management system

The ability to deliver on our sustainability commitments is founded on operational excellence. TC Energy's Operational Management System (TOMS) provides a structured set of requirements and processes to manage risk and continually improve our day-to-day work.

TOMS is modelled 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. The system aligns to industry best practices and standards and incorporates applicable regulatory requirements. It applies to the entire 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, mandated programs set requirements to manage specific risk areas including asset integrity, safety, health and industrial hygiene, emergency management and environment. These requirements protect our people, our workplace and assets, the communities we work in and the environment.







# **Customer experience and satisfaction**

We strive to provide competitive, reliable and efficient transportation services and value to our customers. We continually work to have available the right capacity at the right time, while enabling customers to efficiently transact on our systems. Our commitment to deliver exceptional customer service also includes collaborating with our customers to identify the most effective solutions to meet their specific needs.

We engage in regular one-on-one meetings with our customers to understand their requirements and discuss any potential issues or concerns. By listening to our customers' feedback and taking their perspectives into account, we are able to provide comprehensive and effective solutions. Our participation in conferences and industry events also provides us with valuable opportunities to build strong relationships with our customers and stay informed about industry trends and best practices.

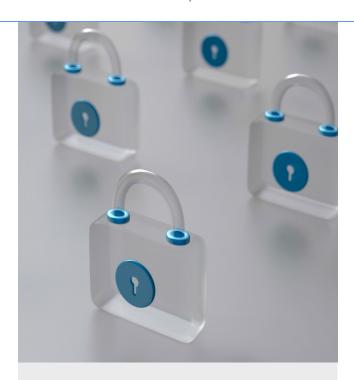
Overall, our goal is to maintain a strong relationship with our customers by providing exceptional service and support, as well as working closely with them to understand and meet their evolving needs. We believe that our commitment to customer engagement and satisfaction is a key component of our sustainability strategy and helps us maintain our position as a responsible, sustainable and reliable transportation service provider.

In this digital age, data is a powerful tool when it can be organized and analyzed in ways that give us insights into our own operations in order to anticipate and solve problems. TC Energy is continually working to integrate its many data streams so the wealth of information coming into our systems can be leveraged to improve efficiency, create value and help us achieve sustainability. Data analytics enables us to shape our business future with insights and innovation.

#### **CREATING A VIRTUAL COPY OF OUR BUSINESS**

One big step we are taking in 2023 is driving an integrated Digital Twin strategy across our business that will digitize and visualize assets and processes through the entire value chain. This is an ecosystem of connected programs that work in harmony and touch daily operations, asset management and energy transition areas of our business.

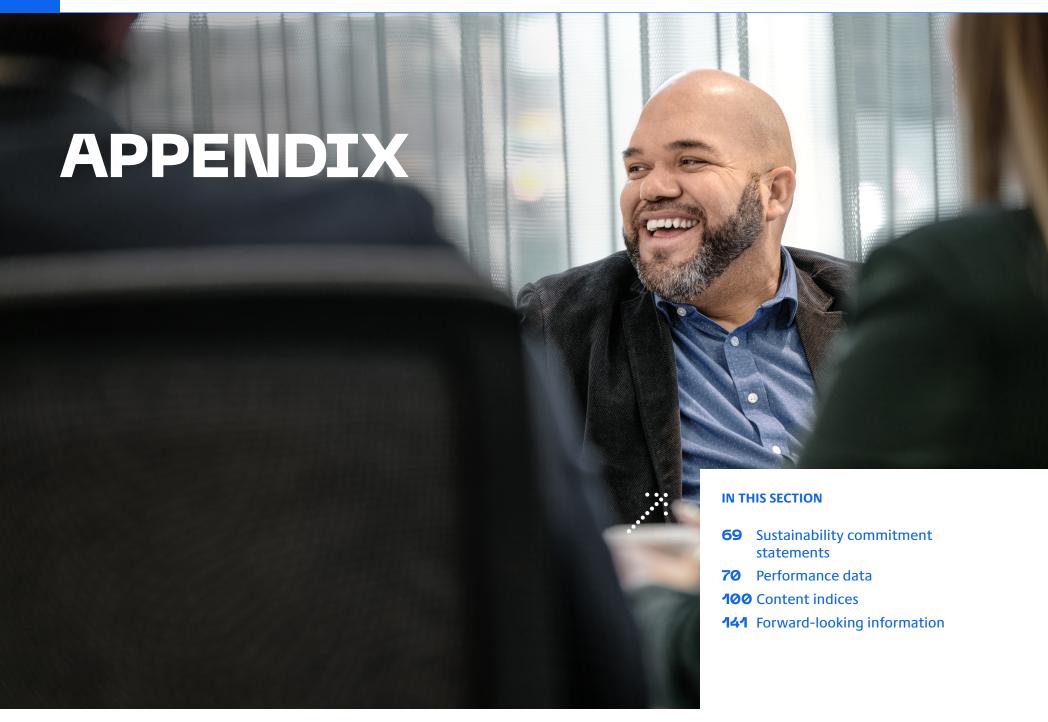
In the operations portion of the strategy, data from the field is digitized and leveraged by Al technology to provide real-time optimization suggestions, improving the performance of our entire system. This operational information is then improved by technology that creates visualizations of our field assets, which our workforce can access from anywhere, greatly improving business efficiency. In addition to information access, Digital Twin technology will help us to decrease risk by centralizing project information, enhancing data handover and acting as a single source of truth.



## USING BLOCKCHAIN TO TRACK PROJECT PROGRESS

We are testing blockchain technology through a recent proof of concept at our Steele City terminal project to achieve near real-time digitalization and validation of project progress received by contractors. The technology also formulates automated sharing of information with select parties to provide higher visibility over the progress of the process. Overall, this technology enables us to achieve progress tracking that is secure, transparent and more efficient; helping to ensure accountability, reduce risk and streamline the project management and tracking process.







#### Original sustainability commitments (2021/2022)

#### Refreshed sustainability commitments (2023)

#### **Environment**



#### Embracing the energy transition

To contribute to global efforts to reduce climate change





#### Embracing the energy transition

Contribute to global efforts to address climate change and manage the risks and opportunities of the energy transition



#### Leaving the environment as we found it

To leave the environment where we work in a condition equal to or better than we found it, including biodiversity and land capability





#### Leaving the environment as we found it

Safeguard habitat and biodiversity and minimize land use impacts, including restoring the environment to a condition equal to or better than we found it



#### Zero is Real

To achieve our Zero is Real safety commitment





#### Committed to safe, reliable, sustainable operations

Systematically manage risk to continuously improve the integrity and safety of our assets and operations

#### Social



#### Zero is Real

To achieve our Zero is Real safety commitment





#### Continuous safety improvement

Continuously improve our systems to protect people and consistently demonstrate safety as our number one value



#### Strengthening community resilience

To strengthen local, community, Indigenous group, and employee resilience, including in recovery and moving forward from the COVID-19 pandemic





#### Fostering mutually beneficial relationships

Promote wellbeing for our communities and maintain mutually beneficial external relationships



#### Focus on landowner relationships

To maintain mutually beneficial partnerships with our landowners



#### Focus on mental health

To demonstrate in words and actions the importance of mental health and psychological safety





#### Focus on mental health

Demonstrate actions that enhance employee psychological safety and emotional wellbeing



#### Fostering inclusion and diversity

To embed a culture of inclusion across our organization and ensure the diversity of employees reflects the communities in which we live and work





#### Furthering inclusion and diversity

Strengthen collaboration and performance by promoting inclusion and diversity across our organization and supply chain



#### Fostering relationships with Indigenous groups

To become a partner of choice for Indigenous groups





#### Fostering enduring, mutually beneficial relationships with Indigenous groups

Be the partner of choice for Indigenous groups

#### Governance



#### Enhancing energy sector sustainability with technology

To enhance energy sector sustainability through research and development (R&D) and innovation investments





#### Further integrate and contribute to sustainability

Advance sustainability and innovation across our business and value chain, including our strategic planning and decision-making



#### Integrating sustainability

To further integrate sustainability into our strategy, management decisionmaking and performance tracking and assessment





## Performance data

OUR GOAL IS TO

ADDRESS THE

INFORMATION NEEDS

OF OUR STAKEHOLDERS

BY PROVIDING CLEAR

AND USEFUL ESG DATA.

- Performance data represents the period of Jan. 1 to Dec. 31, 2022, or status as of Dec. 31, 2022, whichever is applicable, unless otherwise noted.
- Performance data is included for the five years ending Dec. 31, 2022, as available.
- 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 operating policies at the facility. Data reflects 100 per cent for facilities where TC Energy, or one of its subsidiaries, has operational control regardless of percentage of financial ownership.
- Full listings of the assets we operate are contained in the 2022 Annual Report, on <u>page 40</u> for our natural gas assets, <u>page 62</u> for our liquids pipelines assets and <u>page 71</u> 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 <u>2022 Annual Report</u> (1.30 U.S. to Canadian dollars).
- Footnotes provide additional information on 2022 data boundaries, definitions and methodology where applicable. Data exclusions or additions are noted throughout the report.
- Totals may not add up due to rounding. In select instances, values have been reissued reflecting updated IS-based solution rounding rules and may differ slightly from values reported in previous years.

- GHG emissions are reported both on an equity share and operational control approach, defined in alignment with the World Resources Institute and the World Business Council for Sustainable Development GHG Protocol in order to illustrate the difference in GHG emission footprint between the two organizational boundaries of reporting. The equity share reporting boundary best reflects TC Energy's corporate GHG emission footprint in relation to the percentage of ownership held across our operated and non-operated assets and more closely aligns with our financial performance results. The operational control boundary data represents the GHG emission footprint from assets that are operated by TC Energy and therefore are influenced under TC Energy's operational practices.
- GHG emissions reported have been normalized to carbon dioxide equivalents (CO<sub>2</sub>e) based on the Intergovernmental Panel on Climate Change (IPCC) 100-year Global Warming Potentials (GWPs) in its Fourth Assessment Report.

The indicators reported in our performance data tables reflect both external reporting frameworks and the interests of our stakeholders. Where we add indicators to align with new sustainability targets, for example, 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'.

Report on Sustainability performance data tables



## **Governance characteristics**





Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Board of Directors							
Size of Board <sup>1</sup>	number	12	12	14	14	13	
Independent directors	per cent	92	92	86	93	92	GRI 2-9
Board diversity policy <sup>2</sup>	yes/no	yes + a target of 30% women	yes + a target of 30% women				
Women on Board	per cent	25	25	29	33	38	GRI 2-9
Number of Board interlocks	number	0	1	1	0	0	
External Board service limits for independent directors	number	4 public company boards in total	4 public company boards in total <sup>3</sup>				
Average Director age	years	62	61	62	63	62	
All committees independent <sup>4</sup>	yes/no	yes	yes	yes	yes	yes	
Annual Director elections	yes/no	yes	yes	yes	yes	yes	
Individual Director elections	yes/no	yes	yes	yes	yes	yes	
Majority voting policy	yes/no	yes	yes	yes	yes	yes	
Independent executive compensation consultant	yes/no	yes	yes	yes	yes	yes	
Clawback policy	yes/no	yes	yes	yes	yes	yes	
Double-trigger vesting on change of control	yes/no	yes	yes	yes	yes	yes	
Separate Chair and CEO	yes/no	yes	yes	yes	yes	yes	
Director retirement age	years	70	70	73	73	73 <sup>5</sup>	
Director share ownership requirements	x retainer	4	4	4	4	4	

As of Dec. 31, 2022. See Management Information Circular and TC Energy's website for subsequent updates.
 Target achieved with 38.5 per cent women on the Board of Directors (5 of 13 members), as of March 1, 2023. See Board Diversity Policy for additional details
 In February 2023, the Governance committee approved amendments to TC Energy's overboarding policy to reflect that, for the purposes of counting public company boards, each non-executive board chair role will be counted as two board seats.

<sup>&</sup>lt;sup>4</sup> Audit, Governance and HR committees are entirely independent and the HSSE committee must be a majority independent.

<sup>&</sup>lt;sup>5</sup> The earlier of a director turning 73 or attaining 15 years of service. Notwithstanding age limits, a director is eligible to serve a term of five years.



## **Governance characteristics continued**

Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Executive share ownership requirements	x base salary	5x CEO 3x EVP 2x SVP 1x VP	GRI 2-9				
CEO share ownership post- retirement hold period	years	1	1	1	1	1	
In-camera sessions at every Board and committee meeting	yes/no	yes	yes	yes	yes	yes	
Annual say on pay	yes/no	yes	yes	yes	yes	yes	
Code of business ethics	yes/no	yes	yes	yes	yes	yes	
Board, committee and director evaluations annually	yes/no	yes	yes	yes	yes	yes	
Board orientation and education program	yes/no	yes	yes	yes	yes	yes	



## **Operational overview**



Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Operational overview							
Natural gas pipelines							
Natural gas transmission network	kilometres	92,600	93,250	93,421	93,294	93,731	SASB EM-MD-000.A
Natural gas pipeline throughput - equity share¹	billion cubic feet	N/A	14,933	14,684	17,096	18,273²	SASB EM-MD-000.A
Natural gas pipeline throughput - operational control <sup>1</sup>	billion cubic feet	N/A	17,267	17,052	18,040	19,208 <sup>2</sup>	SASB EM-MD-000.A
Liquids pipelines							
Liquids pipeline network	kilometres	4,874	4,900	4,946	4,856	4,856	SASB EM-MD-000.A
Liquids pipeline throughput - equity share³	million barrels	N/A	433	409	392	366	SASB EM-MD-000.A
Liquids pipeline throughput - operational control <sup>3</sup>	million barrels	N/A	440	413	396	371	SASB EM-MD-000.A
Liquids storage capacity	barrels	N/A	Over 6.5 million	Approximately 7 million	Approximately 7 million	Approximately 7 million	
Power							
Number of power facilities	number	9	7	7	7	7	
Power generation capacity	megawatt	5,200	4,197	4,197	4,258	4,339	
Net power generation - equity share	megawatt hour	29,003,004	25,888,462	24,060,721	24,283,977	24,259,790	
Net power generation - operational control	megawatt hour	N/A	3,566,382	3,292,281	3,823,799	3,790,201	
Storage							
Natural gas storage capacity	billion cubic feet	653	653	653	653	650	
Natural gas volume injected and withdrawn - equity share	billion cubic feet	58	54	115	133	133	
Natural gas volume injected and withdrawn - operational control	billion cubic feet	N/A	54	115	133	133	

<sup>&</sup>lt;sup>1</sup> The reporting methodology for natural gas pipeline operations throughput values has been consistently applied to the 2019 through 2022 operational periods. The historical 2018 natural gas throughput values were not recalculated to reflect the current methodology.

<sup>&</sup>lt;sup>2</sup> The increase in natural gas pipeline throughput for 2022 is a result of increased demand across the Canada, U.S. and Mexico operations.

<sup>&</sup>lt;sup>3</sup> This indicator represents the net standard volume (NSV) receipt volume inventory for the Liquids pipelines business segment and tank terminals, across Canada and the U.S.







#### **GHG** emissions: Scope 1

Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Absolute Scope 1 GHG emissions <sup>1, 2</sup>							
Equity share approach							
Total Scope 1 GHG emissions	thousand tonnes CO <sub>2</sub> e	13,749	16,262	16,438	19,352	20,542	GRI 305-1 SASB EM-MD-110a.1 SASB IF-EU-110a.1
Breakdown by operating segment							
Scope 1 GHG emissions: natural gas pipelines	thousand tonnes CO <sub>2</sub> e	10,699	14,202	14,551	17,132	18,439³	
Scope 1 GHG emissions: Canadian natural gas pipelines	thousand tonnes CO <sub>2</sub> e	N/A	6,979	6,437	7,267	8,587 <sup>3</sup>	
Scope 1 GHG emissions: U.S. natural gas pipelines <sup>4</sup>	thousand tonnes CO <sub>2</sub> e	N/A	7,145	8,018	9,785	9,741	
Scope 1 GHG emissions: Mexico natural gas pipelines	thousand tonnes CO <sub>2</sub> e	N/A	78	96	80	1115	
Scope 1 GHG emissions: liquids pipelines	thousand tonnes CO <sub>2</sub> e	1	0	0	0	0	
Scope 1 GHG emissions: power and storage	thousand tonnes CO <sub>2</sub> e	3,015	2,025	1,853	2,189	2,063	
Scope 1 GHG emissions: power	thousand tonnes CO <sub>2</sub> e	N/A	2,005	1,840	2,177	2,051	
Scope 1 GHG emissions: storage	thousand tonnes CO <sub>2</sub> e	N/A	20	13	13	12	
Scope 1 GHG emissions: corporate <sup>6</sup>	thousand tonnes CO <sub>2</sub> e	34	34	33	30	39	

**TC ENERGY** 

¹ The quantification of GHG emissions follows the methodologies prescribed by various regulations in the different jurisdictions in which we operate. We report our emissions to British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Québec, Environment and Climate Change Canada (ECCC), the U.S. Environmental Protection Agency (EPA), California, Oregon, Maryland, Washington and Mexico's Ministry of Environment and Natural Resources. These methods can include, but are not limited to, direct measurement, use of emissions factors in conjunction with activity data and mass balance. We report greenhouse gases emitted to the atmosphere before accounting for offsets, credits, or other similar attributes that have reduced or compensated for emissions. In alignment with the World Research Institute GHG Protocol, Corporate Accounting and Reporting Standard, GHG emissions reported by TC Energy include those emissions from sources considered below regulatory reporting thresholds or from sources not required to be reported under regulatory methodologies. Please refer to the Climate change and the energy transition section of this report and GHG Emissions Reduction Plan for more information on our 2019 GHG emissions baseline.

<sup>&</sup>lt;sup>2</sup> Approximately 80 per cent of our total Scope 1 GHG emissions are associated with stationary combustion sources at our natural gas pipeline assets. The most significant changes in our Scope 1 GHG emissions profile between 2021 and 2022 are due to increases in throughput and production resulting in increased energy and fuel consumption in 2022.

<sup>&</sup>lt;sup>3</sup> Increased fuel combustion contributed to the increased emissions between 2021 and 2022.

In 2022, the 2019 and 2020 GHG emissions were recalculated to align with the updated methodology for corporate GHG reporting. This same methodology has been consistently applied to the 2021 and 2022 operational periods, which includes emission sources that are beyond the regulatory reporting.

<sup>&</sup>lt;sup>5</sup> Increased stationary combustion and vented emissions due to a new asset coming online, as well as maintenance activities, contributed to an increase in 2022 emissions at our Mexico natural gas pipeline assets.

<sup>&</sup>lt;sup>6</sup> Scope 1 GHG emissions related to transportation sources (aviation and vehicles) and buildings such as offices, are reported under our corporate operating segment. In 2022, Scope 1 emissions from all material building spaces are captured in this reporting.



### **GHG** emissions: Scope 1 continued

Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Breakdown by source <sup>7</sup>							
Scope 1 GHG emissions: stationary combustion	thousand tonnes CO <sub>2</sub> e	12,285	12,287	12,635	15,429	16,993	
Scope 1 GHG emissions: venting	thousand tonnes CO <sub>2</sub> e	969	1,785	1,530	1,709	1,4078	
Scope 1 GHG emissions: fugitive	thousand tonnes CO <sub>2</sub> e	449	2,130	2,220	2,153	2,041	
Scope 1 GHG emissions: flaring	thousand tonnes CO <sub>2</sub> e	12	22	16	27	<b>70</b> <sup>9</sup>	
Scope 1 GHG emissions: transportation <sup>10</sup>	thousand tonnes CO <sub>2</sub> e	34	34	33	30	32	
Additional							
Scope 1 (direct) methane emissions	thousand tonnes CO <sub>2</sub> e	1,467	3,963	3,804	3,917	3,521	SASB EM-MD-110a.1
Portion of Scope 1 GHG emissions covered by reduction regulations <sup>11</sup>	per cent	72	55	50	49	52	SASB EM-MD-110a.1

<sup>7</sup> GHG emissions by source category may not add up to the reported total Scope 1 GHG emissions as certain negligible emission sources have not been broken out to individual GHG constituents.

<sup>8</sup> In 2022 operations, vented emissions decreased predominately in U.S. natural gas operations, due in part to concerted efforts to conserve product during project and maintenance activities.

<sup>&</sup>lt;sup>9</sup> Increased flaring emissions in 2022 are attributable to increased use of temporary flares on our Canadian natural gas pipelines to mitigate vented emissions from construction and planned maintenance activities. Flaring emissions also increased in 2022 due to a refinement in the calculation methodology for emissions from glycol dehydration units located at the U.S. natural gas storage facilities. The methodology for flaring emissions from these U.S. storage facilities were not applied to reporting periods prior to 2022.

<sup>10</sup> GHG emissions from transportation-related activities include corporately owned and operated aircraft as well as vehicle transportation.

<sup>&</sup>lt;sup>11</sup> This indicator represents the portion of total Scope 1 GHG emissions covered by reduction regulations based on provincial, state or federal GHG policies. The methodology used to determine this indicator is based on the inclusion of Scope 1 GHG emissions from all sources associated with natural gas pipelines and power and storage assets that are regulated under GHG reduction-based regulations in Canada and the U.S. Asset emissions covered under legislation such as the BC Carbon Tax or the Canadian federal Fuel Charge are not included in the emission reduction regulation coverage.



#### **GHG** emissions: Scope 1 continued

Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Absolute Scope 1 GHG emissions <sup>1, 2</sup>							
Operational control approach							
Total Scope 1 GHG emissions	thousand tonnes CO <sub>2</sub> e	N/A	18,284	18,172	19,888	21,13212^	GRI 305-1 SASB EM-MD-110a.1 SASB IF-EU-110a.1
Breakdown by operating segment							
Scope 1 GHG emissions: natural gas pipelines	thousand tonnes CO <sub>2</sub> e	N/A	16,228	16,289	17,671	19,031 <sup>3</sup>	
Scope 1 GHG emissions: Canadian natural gas pipelines	thousand tonnes CO <sub>2</sub> e	N/A	6,983	6,446	7,280	8,609 <sup>3</sup>	
Scope 1 GHG emissions: U.S. natural gas pipelines <sup>4</sup>	thousand tonnes CO <sub>2</sub> e	N/A	9,167	9,745	10,308	10,307	
Scope 1 GHG emissions: Mexico natural gas pipelines	thousand tonnes CO <sub>2</sub> e	N/A	78	98	83	1145	
Scope 1 GHG emissions: liquids pipelines	thousand tonnes CO <sub>2</sub> e	0	1	1	0	0	
Scope 1 GHG emissions: power and storage	thousand tonnes CO <sub>2</sub> e	N/A	2,021	1,849	2,186	2,060	
Scope 1 GHG emissions: power	thousand tonnes CO <sub>2</sub> e	N/A	2,002	1,837	2,173	2,048	
Scope 1 GHG emissions: storage	thousand tonnes CO <sub>2</sub> e	N/A	20	13	13	12	
Scope 1 GHG emissions: corporate <sup>6</sup>	thousand tonnes CO <sub>2</sub> e	N/A	34	33	30	41	

<sup>&</sup>lt;sup>1</sup> The quantification of GHG emissions follows the methodologies prescribed by various regulations in the different jurisdictions in which we operate. We report our emissions to British Columbia, Alberta, Saskatchewan, Manitoba, Ontario, Québec, Environment and Climate Change Canada (ECCC), the U.S. Environmental Protection Agency (EPA), California, Oregon, Maryland, Washington and Mexico's Ministry of Environment and Natural Resources. These methods can include, but are not limited to, direct measurement, use of emissions factors in conjunction with activity data and mass balance. We report greenhouse gases emitted to the atmosphere before accounting for offsets, credits, or other similar attributes that have reduced or compensated for emissions. In alignment with the World Research Institute GHG Protocol, Corporate Accounting and Reporting Standard, GHG emissions reported by TC Energy include those emissions from sources considered below regulatory reporting thresholds or from sources not required to be reported under regulatory methodologies. Please refer to the Climate change and the energy transition section of this report and GHG Emissions Reduction Plan for more information on our 2019 GHG emissions baseline.

<sup>&</sup>lt;sup>2</sup> Approximately 80 per cent of our total Scope 1 GHG emissions are associated with stationary combustion sources at our natural gas pipeline assets. The most significant changes in our Scope 1 GHG emissions profile between 2021 and 2022 are due to increases in throughput and production resulting in increased energy and fuel consumption in 2022.

<sup>&</sup>lt;sup>3</sup> Increased fuel combustion contributed to the increased emissions between 2021 and 2022.

<sup>&</sup>lt;sup>4</sup> In 2022, the 2019 and 2020 GHG emissions were recalculated to align with the updated methodology for corporate GHG reporting. This same methodology has been consistently applied to the 2021 and 2022 operational periods, which includes emission sources that are beyond the regulatory reporting.

<sup>&</sup>lt;sup>5</sup> Increased stationary combustion and vented emissions due to a new asset coming online, as well as maintenance activities, contributed to an increase in emissions in 2022 emissions at our Mexico natural gas pipeline assets.

<sup>&</sup>lt;sup>6</sup> Scope 1 GHG emissions related to transportation sources (aviation and vehicles) and buildings such as offices, are reported under our corporate operating segment. In 2022, Scope 1 emissions from all material building spaces are captured in this reporting.

<sup>&</sup>lt;sup>12</sup> TC Energy has obtained independent limited assurance of operational control boundary Scope 1 GHG emissions for the year ended December 31, 2022.



#### **GHG** emissions: Scope 1 continued

Indicator	Units	2018	2019	2020	2021	2022	Related frameworl indicator ID
Breakdown by source <sup>7</sup>							
Scope 1 GHG emissions: stationary combustion	thousand tonnes CO <sub>2</sub> e	N/A	14,117	14,190	15,935	17,541	
Scope 1 GHG emissions: venting	thousand tonnes CO <sub>2</sub> e	N/A	1,952	1,678	1,745	1,4398	
Scope 1 GHG emissions: fugitive	thousand tonnes CO <sub>2</sub> e	N/A	2,158	2,254	2,151	2,050	
Scope 1 GHG emissions: flaring	thousand tonnes CO <sub>2</sub> e	N/A	22	16	27	<b>70</b> <sup>9</sup>	
Scope 1 GHG emissions: transportation <sup>10</sup>	thousand tonnes CO <sub>2</sub> e	N/A	34	33	30	32	
Additional							
Scope 1 (direct) methane emissions	thousand tonnes CO <sub>2</sub> e	N/A	4,161	3,989	3,959	3,563	SASB EM-MD-110a.1
Portion of Scope 1 GHG emissions covered by reduction regulations <sup>11</sup>	per cent	N/A	49	46	48	50	SASB EM-MD-110a.1

<sup>7</sup> GHG emissions by source category may not add up to the reported total Scope 1 GHG emissions as certain negligible emission sources have not been broken out to individual GHG constituents.

<sup>8</sup> In 2022 operations, vented emissions decreased predominately in U.S. natural gas operations, due in part to concerted efforts to conserve product during project and maintenance activities.

<sup>&</sup>lt;sup>9</sup> Increased flaring emissions in 2022 are attributable to increased use of temporary flares on our Canadian natural gas pipelines to mitigate vented emissions from construction and planned maintenance activities. Flaring emissions also increased in 2022 due to a refinement in the calculation methodology for emissions from glycol dehydration units located at the U.S. natural gas storage facilities. The methodology for flaring emissions from these U.S. storage facilities were not applied to reporting periods prior to 2022.

<sup>10</sup> GHG emissions from transportation-related activities include corporately owned and operated aircraft as well as vehicle transportation.

This indicator represents the portion of total Scope 1 GHG emissions covered by reduction regulations based on provincial, state or federal GHG policies. The methodology used to determine this indicator is based on the inclusion of Scope 1 GHG emissions from all sources associated with natural gas pipelines and power and storage assets that are regulated under GHG reduction-based regulations in Canada and the U.S. Asset emissions covered under legislation such as the BC Carbon Tax or the Canadian federal Fuel Charge are not included in the emission reduction regulation coverage.



## **GHG** emissions: Scope 2







Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID			
Absolute Scope 2 GHG emissions										
Equity share approach										
Total Scope 2 GHG emissions	thousand tonnes CO <sub>2</sub> e	2,343	2,066	1,949	2,081	2,0871	GRI 305-2			
Breakdown by operating segment										
Scope 2 GHG emissions: natural gas pipelines	thousand tonnes CO <sub>2</sub> e	430	313	333	277	376				
Scope 2 GHG emissions: Canadian natural gas pipelines	thousand tonnes CO <sub>2</sub> e	N/A	101	92	79	138				
Scope 2 GHG emissions: U.S. natural gas pipelines	thousand tonnes CO <sub>2</sub> e	N/A	210	238	196	236				
Scope 2 GHG emissions: Mexico natural gas pipelines	thousand tonnes CO <sub>2</sub> e	N/A	2	2	2	2				
Scope 2 GHG emissions: liquids pipelines	thousand tonnes CO <sub>2</sub> e	1,874	1,660	1,485	1,659	1,566				
Scope 2 GHG emissions: power and storage	thousand tonnes CO <sub>2</sub> e	40	94	131	145	140				
Scope 2 GHG emissions: power <sup>2</sup>	thousand tonnes CO <sub>2</sub> e	N/A	72	87	104	93				
Scope 2 GHG emissions: storage	thousand tonnes CO <sub>2</sub> e	N/A	21	44	41	47³				
Scope 2 GHG emissions: corporate <sup>4</sup>	thousand tonnes CO <sub>2</sub> e	N/A	N/A	N/A	N/A	4				

<sup>&</sup>lt;sup>1</sup> In 2022, power consumption across our pipeline assets increased almost 9 per cent year-over-year however, the corresponding Scope 2 GHG emissions across our Canada, U.S. and Mexico operations were marginally higher than 2021. As our Scope 2 GHG emissions are calculated using the location-based methodology, the relatively flat Scope 2 GHG emissions indicates a generalized improvement towards a lower carbon intensive power grid across most of our operational footprint.

<sup>&</sup>lt;sup>2</sup> Scope 2 GHG emissions include the import of "net" consumed heat in addition to electricity consumption. The Scope 2 methodology also excludes self-generated power, which is captured under Scope 1 GHG emissions, and power imported to TC Energy facilities but is flowed through to service receiving customers. This exclusion of self-generated and imported power is informed by measured/metered data.

<sup>3</sup> Scope 2 GHG emissions increased in 2022 due to increased injection of natural gas volumes which requires additional electric compression relative to withdrawal activities.

<sup>&</sup>lt;sup>4</sup> In 2022, Scope 2 emissions from building spaces under TC Energy's operational control, are included in a new indicator representing the Corporate business segment. Operational data used to quantify Scope 2 GHG emissions from these corporate building spaces was not available prior to 2022.



#### **GHG** emissions: Scope 2 continued

Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID			
Operational control approach										
Total Scope 2 GHG emissions	thousand tonnes CO <sub>2</sub> e	N/A	2,132	1,996	2,104	2,1141,51	GRI 305-2			
Breakdown by operating segment										
Scope 2 GHG emissions: natural gas pipelines	thousand tonnes CO <sub>2</sub> e	N/A	360	363	294	396 <sup>6</sup>				
Scope 2 GHG emissions: Canadian natural gas pipelines	thousand tonnes CO <sub>2</sub> e	N/A	101	92	79	138				
Scope 2 GHG emissions: U.S. natural gas pipelines	thousand tonnes CO <sub>2</sub> e	N/A	257	269	213	256				
Scope 2 GHG emissions:  Mexico natural gas pipelines	thousand tonnes CO <sub>2</sub> e	N/A	2	2	2	2				
Scope 2 GHG emissions: liquids pipelines	thousand tonnes CO <sub>2</sub> e	N/A	1,681	1,505	1,668	1,573				
Scope 2 GHG emissions: power and storage	thousand tonnes CO <sub>2</sub> e	N/A	91	128	142	136				
Scope 2 GHG emissions: power <sup>2</sup>	thousand tonnes CO <sub>2</sub> e	N/A	69	84	101	89				
Scope 2 GHG emissions: storage	thousand tonnes CO <sub>2</sub> e	N/A	21	44	41	<b>47</b> <sup>3</sup>				
Scope 2 GHG emissions: corporate <sup>4</sup>	thousand tonnes CO <sub>2</sub> e	N/A	N/A	N/A	N/A	8				

In 2022, power consumption across our pipeline assets increased almost 9 per cent year-over-year however, the corresponding Scope 2 GHG emissions across our Canada, U.S. and Mexico operations were marginally higher than 2021. As our Scope 2 GHG emissions are calculated using the location-based methodology, the relatively flat Scope 2 GHG emissions indicates a generalized improvement towards a lower carbon intensive power grid across most of our operational footprint.

<sup>&</sup>lt;sup>2</sup> Scope 2 GHG emissions include the import of "net" consumed heat in addition to electricity consumption. The Scope 2 methodology also excludes self-generated power, which is captured under Scope 1 GHG emissions, and power imported to TC Energy facilities but is flowed through to service receiving customers. This exclusion of self-generated and imported power is informed by measured/metered data.

Scope 2 GHG emissions increased in 2022 due to increased injection of natural gas volumes which requires additional electric compression relative to withdrawal activities.

<sup>&</sup>lt;sup>4</sup> In 2022, Scope 2 emissions from building spaces under TC Energy's operational control, are included in a new indicator representing the Corporate business segment. Operational data used to quantify Scope 2 GHG emissions from these corporate building spaces was not available prior to 2022.

<sup>&</sup>lt;sup>5</sup> TC Energy has obtained independent limited assurance of operational control boundary Scope 2 GHG emissions for the year ended Dec. 31, 2022.

<sup>&</sup>lt;sup>6</sup> Increased Scope 2 GHG emissions in 2022 is attributed to increased power consumption from our electrified compressor units relative to 2021 operations.



# 7 AFFORMABLE AND CLEAN ENERGY





#### **GHG** emissions: Scope 3

Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Absolute Scope 3 GHG emissions							
Equity share approach							
Total Scope 3 GHG emissions 11	thousand tonnes CO <sub>2</sub> e	3,026	3,136	2,688	3,178	3,519 <sup>2</sup>	GRI 305-3
Breakdown by Scope 3 category							
Fuel- and energy-related activities (category 3)	thousand tonnes CO <sub>2</sub> e	2,985	3,062	2,598	3,115	3,481	
Waste generated in operations (category 5) <sup>3</sup>	thousand tonnes CO <sub>2</sub> e	N/A	50	75	49	234	GRI 306-3
Business travel (category 6)	thousand tonnes CO <sub>2</sub> e	11	12	5	4	6	
Upstream leased assets (category 8) <sup>5</sup>	thousand tonnes CO <sub>2</sub> e	31	13	11	10	9	

<sup>2</sup> Increase from the previous year is largely attributed to increased fuel and electricity consumption across most of our operational footprint.

4 Waste-related expenditures in 2022 were down relative to 2021 operations due to the exclusion of construction related waste handling and disposal costs.

<sup>&</sup>lt;sup>1</sup> Scope 3 GHG emissions cover 15 categories of emissions and of these, we report on four relevant categories: fuel- and energy-related activities, business travel, waste generated in operations and upstream leased assets. Emissions under Category, 3 fuel- and energy-related activities, include emissions related to the upstream activities attributed to the fuel supplied for combustion during our operational activities, that are not included in our Scope 1 or Scope 2 GHG emissions. Category 3 also includes the emissions attributed to the transmission and distribution loss of power that is purchased and consumed by TC Energy's operational activities.

<sup>&</sup>lt;sup>3</sup> Scope 3 GHG emissions associated with waste have been estimated using the spend-based method from the GHG Protocol Scope 3 Guidance and the emission factors within the Quantis Suite Scope 3 Evaluator.

<sup>&</sup>lt;sup>5</sup> Category 8 emissions are attributed to the utility energy (i.e., fuel and electricity) that is consumed within TC Energy building/office spaces that are leased and the utilities administered by third party building services or building owners. Emissions from building spaces where the associated utility energy falls under our operational control, are allocated to our Scope 1 and Scope 2 GHG emissions.



# 7 AFFORMABLE AND CLEAN ENERGY





### **GHG** emissions: Scope 1 and 2 emissions intensities

Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Scope 1 and 2 GHG emissions	intensities						GRI 305-4
Equity share approach <sup>1</sup>							
GHG emissions intensity: Canada natural gas pipelines <sup>2</sup>	Scope 1+2 tonnes CO <sub>2</sub> e / throughput Bcf	895	891	874	909	994	
GHG emissions intensity: U.S. natural gas pipelines <sup>2</sup>	Scope 1+2 tonnes CO <sub>2</sub> e / throughput Bcf	291	1,117	1,229	1,176	1,119	
GHG emissions intensity: Mexico natural gas pipelines <sup>2</sup>	Scope 1+2 tonnes CO <sub>2</sub> e / throughput Bcf	211	197	198	155	195	
GHG emissions intensity: Canada and U.S. liquids pipelines <sup>3</sup>	Scope 1+2 tonnes CO <sub>2</sub> e / receipt volume NSV bbls	N/A	0.0038	0.0036	0.0042	0.0043	
GHG emissions intensity: power⁴	Scope 1+2 tonnes CO <sub>2</sub> e / net generation MWh	0.1036	0.0803	0.0801	0.0939	0.0884	
GHG emissions intensity: storage	Scope 1+2 tonnes CO <sub>2</sub> e / total volume injected + withdrawn Bcf	858	768	492	404	445	

<sup>&</sup>lt;sup>1</sup> Equity share GHG emission intensity calculations are based on Scope 1 and Scope 2 GHG emissions net to TC Energy, divided by net production (generation or throughput) metrics. Net emissions and production are based on the total gross values multiplied by the per cent ownership of facilities by TC Energy as of Dec. 31, 2022, as published in our 2022 Annual Report.

<sup>&</sup>lt;sup>2</sup> Calculated GHG emissions intensities for our natural gas business segments are based on a throughput denominator. Throughput volumes from the natural gas pipelines are based on nominated (scheduled) delivery volumes and/or measured (allocated) delivery volumes from each pipeline system.

<sup>&</sup>lt;sup>3</sup> The GHG emission intensity indicator for the liquids pipelines business segment represents the net standard volume (NSV) receipt volumes on the pipeline systems and select tank terminals across Canada and the U.S.

<sup>4</sup> Many of TC Energy's power generation assets generate both electricity and useful heat. The intensity calculations specific to the power business segment do not account for this useful heat generated in the denominator and therefore, represent only a conservative estimation of emissions intensity for power generation.



#### GHG emissions: Scope 1 and 2 emissions intensities continued

Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Operational control approach	5						
GHG emissions intensity: total corporate <sup>6</sup>	Scope 1+2 kg CO <sub>2</sub> e / GJ	N/A	0.96	0.96	1.00	1.01 <sup>7</sup> ^	
GHG emissions intensity: Canada natural gas pipelines <sup>2</sup>	Scope 1+2 tonnes CO <sub>2</sub> e / throughput Bcf	N/A	879	863	899	983	
GHG emissions intensity: U.S. natural gas pipelines <sup>2</sup>	Scope 1+2 tonnes CO <sub>2</sub> e / throughput Bcf	N/A	1,073	1,129	1,144	1,100	
GHG emissions intensity: Mexico natural gas pipelines <sup>2</sup>	Scope 1+2 tonnes CO <sub>2</sub> e / throughput Bcf	N/A	185	166	128	164	
GHG emissions intensity: Canada and U.S. liquids pipelines <sup>3</sup>	Scope 1+2 tonnes CO <sub>2</sub> e / receipt volume NSV bbls	N/A	0.0038	0.0036	0.0042	0.0042	
GHG emissions intensity: power⁴	Scope 1+2 tonnes CO <sub>2</sub> e / net generation MWh	N/A	0.5807	0.5833	0.5947	0.5638	
GHG emissions intensity: storage	Scope 1+2 tonnes CO <sub>2</sub> e / total volume injected + withdrawn Bcf	N/A	768	492	404	445	

and therefore, represent only a conservative estimation of emissions intensity for power generation.

<sup>&</sup>lt;sup>2</sup> Calculated GHG emissions intensities for our natural gas business segments are based on a throughput denominator. Throughput volumes from the natural gas pipelines are based on nominated (scheduled) delivery volumes and/or measured (allocated) delivery volumes from each pipeline system.

The GHG emission intensity indicator for the liquids pipelines business segment represents the net standard volume (NSV) receipt volumes on the pipeline systems and select tank terminals across Canada and the U.S.
Many of TC Energy's power generation assets generate both electricity and useful heat. The intensity calculations specific to the power business segment do not account for this useful heat generated in the denominator

<sup>&</sup>lt;sup>5</sup> Operational control GHG emission intensity calculations are based on gross Scope 1 and Scope 2 emissions from assets operated by TC Energy, divided by gross production (generation or throughput) metrics of those operated assets. Assets partially owned but not operated by TC Energy are excluded from the Scope 1, Scope 2 and production/throughput calculations that determine the emission intensity.

<sup>&</sup>lt;sup>6</sup> TC Energy's corporate emissions intensity is based on an operational control reporting boundary. The production data from operational business segments are converted to a common unit of energy (GJ) to calculate this corporate intensity value. The production metrics from the Power and Energy Solutions co-generation facilities include the generation of useful heat exported to customers. Business segment emission intensities are not directly comparable to the corporate emissions intensity value without the conversion of production and throughput metrics to a common unit of measure, gigajoules (GJ).

<sup>&</sup>lt;sup>7</sup> TC Energy has obtained independent limited assurance of this indicator for the year ended Dec. 31, 2022.



## **Air quality**





Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Air quality <sup>1,2</sup>							
Nitrogen oxide (NO <sub>x</sub> )	metric tonnes	14,247	45,099	40,421	40,054 <sup>3</sup>	41,131	GRI 305-7 SASB EM-MD-120a.1 SASB IF-EU-120a.1
Sulfur oxides (SO <sub>x</sub> )	metric tonnes	N/A	74	98	165³	1444	GRI 305-7 SASB EM-MD-120a.1 SASB IF-EU-120a.1
Volatile organic compounds (VOCs)	metric tonnes	21	1,544	1,528	1,549³	1,385	GRI 305-7 SASB EM-MD-120a.1 SASB IF-EU-120a.1
Particulate matter 10 micrometers (PM <sub>10</sub> )	metric tonnes	22	675	686	718³	694	GRI 305-7 SASB EM-MD-120a.1 SASB IF-EU-120a.1

<sup>&</sup>lt;sup>1</sup> Air quality emissions data is calculated based on the regulatory requirements in jurisdictions where we operate. The data reported within includes emissions at, or above, regulatory reporting thresholds.
<sup>2</sup> 2018 air quality emissions data is limited to our Canadian operations. 2019 air quality emissions data onwards reflects all operated assets, including our U.S. and Mexico operations.

<sup>&</sup>lt;sup>3</sup> The 2021 U.S. natural gas pipeline air quality emissions have been restated from the previously published values to reflect updated quantification methodologies. <sup>4</sup> The reported quantity of SO<sub>x</sub> emissions decreased from the prior year, largely as a result of lower operational activity.







#### **Ecological impacts**

Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Biodiversity <sup>1</sup>							
Total land owned, leased and/or operated	acres	N/A	N/A	378,888	380,286	381,779	
Acreage of land (owned, leased and/or operated) within areas of protected conservation status or endangered species habitat <sup>2</sup>	acres	N/A	N/A	47,713³	56,543	84,665 <sup>4</sup>	GRI 304-3 SASB EM-MD-160a.2
Percentage land owned, leased, and/or operated within areas of protected conservation status or endangered species habitat <sup>2</sup>	per cent	N/A	N/A	13	15	22	SASB EM-MD-160a.2
Land capability							
Cumulative total of disturbed land⁵	acres	N/A	N/A	4,503	11,512³	21,460 <sup>6</sup>	SASB EM-MD-160a.3
Land restoration completed <sup>7</sup>	acres	N/A	N/A	2,449	8,303 <sup>3</sup>	18,419 <sup>8</sup>	SASB EM-MD-160a.3
Percentage of disturbed area restored within 5 years <sup>9</sup>	per cent	N/A	N/A	100	99	9810	
Percentage of disturbances to sensitive habitat restored or offset within five years	per cent	N/A	N/A	N/A	100	100	
Percentage of disturbances to private lands restored within five years	per cent	N/A	N/A	N/A	99	98	

<sup>1</sup> Our biodiversity indicator currently reflects most of the land TC Energy owns, leases and/or operates that is associated with our pipeline rights-of-way, compressor stations, meter stations, pump stations and power plants in Canada, Mexico and the U.S. This footprint also includes abandoned assets. The footprint does not include temporary workspaces or proposed projects. Valve sites are assumed to be contained within the right-of-way

<sup>3</sup> This value has been reissued to correct an error made in prior year data collection processes.

<sup>6</sup> The increase is attributed to improved access to data.

<sup>8</sup> The increase is attributed to improved access to data.

**TC ENERGY** 

<sup>&</sup>lt;sup>2</sup> 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 2022 we selected multiple publicly available datasets that included conservation status and habitat information that most closely aliqued to the intent of SASB indicator EM-MD-160a.2. We continue to identify critical habitat for

<sup>&</sup>lt;sup>4</sup> Year-over-year variance between 2022 and 2021 is due to dataset refinement as well as newly identified critical habitat or protected areas within existing datasets.

<sup>&</sup>lt;sup>5</sup> The cumulative total of disturbed land currently includes land disturbed by gas and liquids pipeline and maintenance projects across Canada, the U.S. and Mexico that underwent post-construction monitoring in 2022 to determine restoration success. The cumulative total of disturbed lands includes land disturbed from projects constructed in preceding years that have not yet achieved restoration and are being monitored annually for restoration status. 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. Projects are typically monitored annually following final clean-up after construction is completed, for five years, until restoration has been achieved. Due to ongoing unforeseen circumstances, we were only able to access one project's right-of-way in 2022 in our Mexico business unit to monitor for restoration success. We continue to work with the appropriate agencies in Mexico to ensure we meet our commitments for restoration. We do not have a specific start date to begin monitoring activities again but remain committed to maintaining compliance and restoring these lands to their equivalent land capability.

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.

<sup>9</sup> While the cumulative total of land disturbed and restored in acres reflects projects monitored in the reporting year, the percentage of land restored has been defined using a five-year timeframe to better reflect the longer-term nature of our restoration activities. Although much of the land is restored by the fifth year following construction, localized issues may arise that do not achieve restoration success within that five-year timeframe. We are committed to monitoring these issues until they are resolved. This means our data may reflect restoration activities beyond the fifth year.

<sup>10</sup> Although much of the land is restored by the fifth year following construction, localized issues may arise that do not achieve restoration success within that five-year timeframe. We are committed to monitoring these issues until they are resolved. This means our data may reflect restoration activities beyond the fifth year.



#### **Ecological impacts continued**

Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Water							
Water withdrawal: fresh surface water	million cubic metres	N/A	N/A	2.96	2.05	1.75	GRI 303-3 SASB IF-EU-140a.1
Water withdrawal: fresh groundwater	million cubic metres	N/A	N/A	0.00	0.00	0.00	GRI 303-3 SASB IF-EU-140a.1
Water withdrawal: municipal/utility	million cubic metres	N/A	N/A	0.38	0.27	0.43	GRI 303-3 SASB IF-EU-140a.1
Water discharge	million cubic metres	N/A	N/A	0.14	0.16	0.20	GRI 303-4 SASB IF-EU-140a.1
Water consumption <sup>11</sup>	million cubic metres	2.20	5.10	3.20	2.16	1.97	GRI 303-5 SASB IF-EU-140a.1
Waste							
Hazardous waste generated <sup>12</sup>	million cubic metres	N/A	N/A	10,129	13,157	<b>5,711</b> <sup>13</sup>	GRI 306-3

<sup>&</sup>quot; Water consumption volume reflects management's best estimate. TC Energy considers water consumed unless it is discharged directly 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 for hydrostatic testing is typically discharged in or near the same watershed from which it was withdrawn according to permitted requirements and applicable water quality standards. Water used during construction or operational activities (e.g. for dust control on access roads, construction of winter access or to assist in hydrovac operations) is excluded. In 2022, while there was an increase in water consumption for pipeline hydrotests from the previous year, there was a decrease in water consumption on our power assets, resulting in an overall decrease in water consumption.

<sup>&</sup>lt;sup>12</sup> We have chosen to focus reporting on the generation of hazardous wastes for 2020 onward. 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. 2022 data includes operations, project and remediation waste for TC Energy operated assets across Canada, the U.S. and Mexico. 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 using assumptions and/or estimations to consolidate the data into a single, corporate-wide value.

<sup>&</sup>lt;sup>19</sup> The year-over-year decrease can be attributed to improved categorizing of waste in Canada and completion of waste intensive projects in the U.S. during the 2021 calendar year.



# 9 INCUSTRY, INNOVATION AND INFRASTRUCTURE





## Asset integrity and process safety

Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Pipeline inspection							
Percentage of natural gas pipelines inspected <sup>1</sup>	per cent	16	20	24	26	32	SASB EM-MD-540a.2
Percentage of liquids pipelines inspected <sup>1,2</sup>	per cent	159	125	202	58 <sup>3</sup>	<b>34</b> <sup>3</sup>	SASB EM-MD-540a.2
Number of in-line inspections <sup>1</sup>	number	279	313	323	288	335	
Length of in-line inspections <sup>1</sup>	kilometres	22,091	24,890	30,895	23,019	31,927	
Completed integrity digs	number	1,133	846	865	841	957	
Investment in integrity programs							
Investment in pipeline integrity programs⁴	dollars (billions)	1.3	1.3	1.5	1.4	1.4	

<sup>&</sup>lt;sup>1</sup> The pipeline integrity inspection program will vary to some degree from year-to-year based on several factors, which include performing inspections based on our annual system-wide risk assessments of our pipeline system as well performing the prescribed regulatory inspections. The intervals for regulatory inspections vary depending on the regulatory jurisdiction.

<sup>&</sup>lt;sup>2</sup> Values over 100 per cent indicate that some pipeline sections were inspected multiple times using different technologies.

<sup>&</sup>lt;sup>3</sup> Based on the results of the in-line inspections in 2019 and 2020, additional inspections were not required in 2021 and 2022.

<sup>&</sup>lt;sup>4</sup> Pipeline integrity spending will fluctuate based on 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

Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Process safety incidents							
Significant process safety incidents <sup>1</sup>	number	N/A	4	0	0	1	SASB EM-MD-540a.1
Tier 1 process safety incidents <sup>2</sup>	number	N/A	N/A	14	5	17	SASB EM-MD-540a.1
Tier 2 process safety incidents <sup>3</sup>	number	N/A	N/A	22	11	14	SASB EM-MD-540a.1
Reportable gas releases							
Number of reportable gas releases <sup>4</sup>	number	435	50	69	59	58	
Volume of reportable gas releases <sup>6</sup>	cubic metres	4,883,1915	6,383,452	16,771,363	4,674,919 <sup>5</sup>	10,055,790 <sup>7</sup>	
Hydrocarbon spills							
Number of hydrocarbon spills <sup>8</sup>	number	N/A	4	9	2	3	SASB EM-MD-160a.4
Volume of hydrocarbon spills <sup>9</sup>	bbl	N/A	4,847	750	5	12,939	SASB EM-MD-160a.4
Volume of hydrocarbon spills: in unusually sensitive areas <sup>10</sup>	bbl	N/A	0	0	0	0	SASB EM-MD-160a.4
Volume of hydrocarbon recovered <sup>11</sup>	bbl	N/A	4,847	690	5	<b>2</b> <sup>12</sup>	SASB EM-MD-160a.4

- 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.
- <sup>2</sup> 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 order, a fire or an explosion. Our reporting of Tier 1 incidents is guided by CSA ZZ60, an industry wide standard.
- <sup>3</sup> 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 extinquished with little to no damage, or localized environmental damage. Our reporting of Tier 2 incidents is guided by CSA Z260, an industry wide standard.
- 4 A reportable 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. In the U.S., a release resulting in damages of \$50,000 to the operator is considered a reportable release. In Canada, a release resulting in damages of \$50,000 is below the reporting threshold for a reportable release.
- <sup>5</sup> This value has been reissued to correct an error made in prior year data collection processes.
- <sup>6</sup> Reporting thresholds are variable depending on jurisdiction and therefore releases are not wholly comparable by jurisdiction or year-over-year.
- <sup>7</sup> The increase in reportable gas release volume for 2022 is largely attributable to a release from our NGTL system, near Fox Creek, AB.
- <sup>8</sup> 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.
- 9 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 volume increase experienced in 2022 is attributed to a release of 12,937 barrels of oil from our Keystone Pipeline System in Washington County, KS, identified in December 2022. An emergency shutdown and response was initiated immediately. The affected segment was isolated and booms were deployed to control downstream migration of the release. Two additional barrels are attributed to two events where crude oil impacted soils were discovered during maintenance activities.
- 10 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.
- 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. We continue to focus on our remediation and restoration efforts at the Keystone Milepost 14 incident site. In June, we completed the recovery of all released volumes. Creek restoration is underway
- <sup>12</sup> Volume represents hydrocarbon recovered as of Dec. 31, 2022. This does not include the volume of hydrocarbon recovered from the Keystone Milepost 14 incident; volumes will be reported in next year's publication.



## Asset integrity and process safety incidents continued

Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Third-party incidents							
One Calls per 1,000km of right-of-way <sup>13</sup>	number	6,620	5,820	4,790	4,865	4,926	
Unauthorized pipeline encroachments per 1,000 km of right-of-way <sup>14</sup>	number	3.4415	4.6115	3.9715	3.3215	3.85	
Unauthorized excavations per 1,000 km of right-of-way <sup>16</sup>	number	1.46	1.8615	1.56	1.3315	1.36	

<sup>&</sup>lt;sup>19</sup> Local One Call centres field requests, received via telephone or online, to have all underground utilities located and marked free of charge, prior to any commercial or residential project involving digging.

<sup>14</sup> TC Energy defines unauthorized encroachments as those that include activities carried out without authorization from local One Call centres.

<sup>15</sup> This value has been reissued due to updated incident classification and quantification methodology and correcting for errors.

<sup>&</sup>lt;sup>16</sup> 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**





Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID		
Emergency preparedness and response exercises									
Total exercises completed	number	196	192	171	211	196			
Annual field exercises	number	26	28	12	19	18			
Tabletop exercises	number	159	146	151	159	149			
Equipment deployment exercises <sup>1</sup>	number	11	8	0	10	9			
Additional exercises	number	0	10	8	23	20			
Emergency preparedness and response	e training								
First responder training <sup>2</sup>	number	510	747	1,429	1,999	2,001	GRI 404-1		
Incident Command System training <sup>3</sup>	number	3,387	4,797	4,321	4,107	3,657	GRI 404-1		

<sup>&</sup>lt;sup>1</sup> 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 the safety of employees, the public and to follow federal, state and local health guidelines in place due to COVID-19, with no compliance impacts.

<sup>&</sup>lt;sup>2</sup> Personnel that could be the first on the scene of an emergency event are profiled to complete the First Responder Training course. This is a specialized training course on how to assess, respond and activate the emergency management system in an emergency event as the first company representative on site.

<sup>&</sup>lt;sup>3</sup> The Incident Command System (ICS) is a standardized on-site management system designed to enable effective and efficient emergency response. This system is used across North America and is the standard response system within multiple industries and public safety response organizations.



### A thriving economy









Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Direct economic value generated and distrib	uted						
Direct economic value generated	dollars (millions)	13,679	13,255	12,999	13,387	14,977	GRI 201-1
Economic value distributed: operating costs	dollars (millions)	2,088	2,262	2,213	2,467	4,769	GRI 201-1
Economic value distributed: employee wages and benefits	dollars (millions)	1,505	1,651	1,665	1,631	1,687	GRI 201-1
Economic value distributed: payments to providers of capital	dollars (millions)	4,308	4,439	5,643	5,779	5,751	GRI 201-1
Economic value distributed: payments to government	dollars (millions)	907	1,437	1,205	1,282	1,395	GRI 201-1
Economic value distributed: payments to governments in Canada	dollars (millions)	429	466	555	438	441	GRI 201-1
Economic value distributed: payments to governments in U.S.	dollars (millions)	533	1,217	625	758	722	GRI 201-1
Economic value distributed: payments to governments in Mexico	dollars (millions)	23	45	25	86	232	GRI 201-1
Economic value distributed: community investments	dollars (millions)	24	30	29	24	25	GRI 201-1
Economic value retained	dollars (millions)	4,769 <sup>1</sup>	3,145 <sup>1</sup>	2,244	2,204	1,350	GRI 201-1
Technology and innovation spend							
R&D program spend	dollars (millions)	N/A	N/A	7	10	<b>11</b> <sup>2</sup>	
Capital and operating optimization and revenue opportunities achieved <sup>3</sup>	dollars (millions)	N/A	13	23	47	5	

<sup>1</sup> This value has been reissued to correct an error made in prior year data collection processes. <sup>2</sup> The 2022 spend of \$10.8 million includes \$1.3 million of corporate membership fees paid to associations with a research and/or technology focus.

<sup>&</sup>lt;sup>3</sup> The capital and operating optimization 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 has an optimization initiative that leverages data and algorithms to identify operational issues and optimize maintenance, balancing cost, reliability, integrity and commercial needs. Another initiative driving a systematic approach to improve efficiencies across our U.S. Natural Gas Pipelines business unit ended in 2021, although process and work improvements identified from this initiative, continue. Additionally, similar initiatives may be made in the future and would be reported accordingly.



#### A thriving economy continued

Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Political contributions							
Political contributions made by TC Energy Corporation in Canada <sup>4</sup>	dollars	5,150	6,000	5,000	0	14,250	GRI 415-1
Political contributions made by TC Energy U.S. subsidiaries <sup>5</sup>	dollars	84,240	0	0	243,180	563,875 <sup>6</sup>	GRI 415-1
Political contributions made by TC PAC, a separate segregated fund in the U.S. <sup>7</sup>	U.S. dollars	211,150	207,900	302,930	240,650	398,225	GRI 415-1
Competitive behaviour							
Total monetary losses that relate to violations of regulations governing competitive behaviours <sup>8</sup>	dollars	N/A	641,000	0	0	0	SASB EM-MD-520a.1
Significant environmental fines							
Number of significant environmental fines <sup>9</sup>	number	2	0	2	2	3	
Value of significant environmental fines <sup>10</sup>	dollars	175,942	0	253,429	916,421	317,958	

<sup>&</sup>lt;sup>4</sup> Political contributions by corporations are not permitted in most jurisdictions in Canada. Corporate political contributions are permissible in Saskatchewan; after event cancellations in 2021 due to the COVID-19 pandemic, TC Energy began participating in political events in Saskatchewan again in 2022.

<sup>&</sup>lt;sup>5</sup> 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 TC Energy operates.

<sup>6</sup> Political contributions in the U.S. were made by U.S. subsidiaries of TC Energy and the higher year-over-year variance is due to the number of gubernatorial inaugurations following the 2022 elections.

<sup>&</sup>lt;sup>7</sup> The TransCanada USA Services Inc., Political Action Committee (TC PAC) is a separate segregated fund (SSF) established under U.S. 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. In many cases, amounts such as receipts, disbursements and cash on hand differ from what we report internally to what is found on FEC. This is because the FEC also records disbursements that include bank fees, registration fees, and voided checks from the prior year. The historical contribution values have been reissued to reflect U.S. dollars. The PAC is directed entirely out of the United States, by U.S. residents.

<sup>8</sup> 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.

<sup>9</sup> A significant environmental fine is a fine or penalty of >\$5,000 that is paid to a regulatory agency within the reporting year. In some cases, the year the fine was paid may differ from the year the fine was issued.

<sup>10</sup> The company was issued three fines from environmental regulatory agencies in Canada and the United States, with U.S.-based fines converted per the exchange rate as of Dec. 31, 2022 in the 2022 Annual Report.



#### **Supplier diversity**







Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Supplier diversity <sup>1</sup>							
Tier 1 diverse spend <sup>2</sup>	dollars (millions)	N/A	N/A	300.8	529.9	1,312.04	
Canadian diverse spend: Tier 1 <sup>3</sup>	dollars (millions)	N/A	N/A	201.1	409.4	1,184.64	
Canadian Indigenous spend: Tier 1	dollars (millions)	8.6	70.0	189.4	398.5	1,174.04	
U.S. diverse spend: Tier 1 <sup>5</sup>	dollars (millions)	N/A	N/A	99.7	120.5	127.4	
U.S. Native American spend: Tier 1	dollars (millions)	9.5	5.0	5.9	3.8	6.3 <sup>6</sup>	
Year-over-year change in diverse influenceable procurement spend <sup>7</sup>	per cent	N/A	N/A	N/A	N/A	132	GRI 204-1
Tier 2 diverse spend <sup>8</sup>	dollars (millions)	N/A	N/A	705.5	906.5	718.2	
Canadian diverse spend: Tier 2 <sup>3</sup>	dollars (millions)	N/A	N/A	566.4	840.3	714.0	
Canadian Indigenous spend: Tier 2⁴	dollars (millions)	151.0	380.0	503.0	700.7	705.3	
U.S. diverse spend: Tier 2 <sup>5</sup>	dollars (millions)	N/A	N/A	98.5	66.2	4.29	
U.S. Native American spend: Tier 2	dollars (millions)	9.5	2.0	27.4	4.1	0.035 <sup>9</sup>	

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

<sup>&</sup>lt;sup>2</sup> Tier 1 spend represents a classification of expenditure data that TC Energy spends directly with prime suppliers and/or general contractors and is directly linked to contractual agreement(s) or purchases.

<sup>&</sup>lt;sup>3</sup> Our diverse spend in Canada includes spend with suppliers who self-identify as Indigenous, visible minorities, women, LGBTQ+ and/or veterans.

The exponential growth in spend from 2021 is directly attributed to leveraging diverse partnerships on our Coastal GasLink project. Construction projects of this nature and scope inherently have more diverse spend than maintenance and integrity projects. The increase also reflects our expanded efforts to identify Tier 1 diverse suppliers in our businesses including self-disclosure validation.

<sup>&</sup>lt;sup>5</sup> Our diverse spend in the Ú.S. includes spend with suppliers who self-identify as Native American, Asian-American, Hispanic-American, African-American, women and/or veterans.

<sup>&</sup>lt;sup>6</sup> The year-over-year increase reflects changes to project scope and our expanded efforts to identify Tier 1 diverse suppliers in our businesses.

<sup>&</sup>lt;sup>7</sup> Influenceable procurement spend is defined as purchase order procurement spend and release order procurement spend of Tier 1 suppliers.

<sup>&</sup>lt;sup>8</sup> Tier 2 spend represents expenditures that TC Energy's prime suppliers and/or general contractors spend for services and/or products that directly support TC Energy's business needs. Indirect expenditures may consist of labour, subcontractors, materials and/or expense spend.

<sup>&</sup>lt;sup>9</sup> The continued year-over-year decrease reflects cancellation of Keystone XL in 2021.



**Thriving communities** 









Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Community investment							
Direct community investment	dollars (millions)	23.9	29.7	29.1	23.8	24.9	GRI 201-1
Indirect community investment <sup>1</sup>	dollars (millions)	1.8	2.5	3.2	2.8	3.2	
Total community investment	dollars (millions)	25.7	32.1	32.3	26.5	28.0	
Community investment directed towards the environment <sup>2</sup>	dollars (millions)	N/A	N/A	1.0	2.3	3.3	
Total community investments as a percentage of pre-tax profits <sup>3</sup>	per cent	0.5	0.6	0.6	0.6	0.7	
External resources leveraged <sup>4</sup>	dollars (millions)	1.9	2.0	2.7	1.8	2.4	
Total value of investment in the community <sup>5</sup>	dollars (millions)	27.6	34.1	35.0	28.3	30.4	

<sup>&</sup>lt;sup>1</sup> This includes in-kind giving, the value of volunteer hours during paid work time and program management costs.

<sup>&</sup>lt;sup>2</sup> TC Energy is focusing on increasing its environmental spend across Canada, the U.S. and Mexico and on building partnerships that have a positive environmental impact on species and habitats at risk.

<sup>&</sup>lt;sup>3</sup> The total value of TC Energy's community investments as a percentage of revenue varies depending on how the business performs. The value reported was calculated based on TC Energy's pre-tax profit before taking into account the 2022 CGL asset impairment charge.

<sup>&</sup>lt;sup>4</sup> External resources leveraged include 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.

<sup>&</sup>lt;sup>5</sup> The total value of TC Energy's investments in the community 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.



### Thriving communities continued

Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Employee giving & volunteering							
Workforce donations <sup>6</sup>	dollars (millions)	1.0	1.1	1.6	1.4	1.2	
Total corporate donations through the workforce giving program <sup>7</sup>	dollars (millions)	1.9	2.1	3.9	2.9	2.7	
Total volunteer hours logged by employees and contractors	hours	25,695	36,583	22,567	24,186	32,0378	
Volunteer hours logged during paid time	hours	4,438	7,324	1,413	1,714	4,2498	
Volunteer hours logged during unpaid time	hours	21,257	29,258	21,154	22,471	27,7888	
Overall participation in workforce giving program	per cent	N/A	N/A	84	55	61	
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

<sup>&</sup>lt;sup>6</sup> Funds donated to causes through the employee participation program are dependent on personal donations from our employee base and naturally fluctuate year-over-year based on various internal and external factors. Employees gave ~\$216K less in 2022 than in 2021. The slight decrease in donations from 2021 are attributed to ongoing inflation concerns and increased cost of living coupled with the continued wind-down of donations after the COVID-19 pandemic.

<sup>&</sup>lt;sup>7</sup> Total corporate donations through our employee giving program includes company matching donations, employee participation campaigns, donation credits from TC Energy and corporate donations from Empower directly to causes.

<sup>8</sup> With COVID-19 restrictions being lifted, we were able to re-introduce in-person volunteer activities during work hours via employee participation campaigns. Additionally, employees were able to stand-up their own volunteer activities as part of team building events.



## Workforce demographics



Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Workforce demographics							
Core workforce							
Total	number	7,094	7,387	7,358	7,083	7,350	GRI 2-7
Canada	number	3,550	3,728	3,677	3,587	3,694	GRI 2-7
U.S.	number	3,269	3,344	3,355	2,993	3,111	GRI 2-7
Mexico	number	275	315	326	503	545	GRI 2-7
Employees represented by independent trade union or covered by collective bargaining agreements	per cent	5	5	5	4	5	GRI 2-30
Leadership <sup>1</sup>							
Total	number	864	910	936	944	1,049	
Executive leadership team	number	10	10	9	9	9	
Contractor workforce							
Total	number	4,348	3,211	3,515	3,466	3,545	GRI 2-8
Canada	number	2,190	2,037	2,223	2,409	2,619	GRI 2-8
U.S.	number	1,744	901	1,081	1,057	926	GRI 2-8
Mexico	number	414	273	211	O <sup>2</sup>	0	GRI 2-8
New hires (core workforce)							
Total	number	899	886	663	884	973	GRI 401-1
Canada	number	402	417	364	336	430	GRI 401-1
U.S.	number	428	387	257	326	416	GRI 401-1
Mexico	number	69	82	42	222 <sup>2</sup>	127	GRI 401-1
Women	per cent	31	29	32	32	30	GRI 401-1

<sup>&</sup>lt;sup>1</sup> Our leadership includes core workforce employees classified as leaders and above. <sup>2</sup> Due to Mexico labour reform, in 2021, we converted our contractors to core employees.



## Workforce demographics continued

Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Core workforce turnover							
Overall turnover rate	per cent	7	8	10	16	9	GRI 401-1
Canada	per cent	6	7	11	11	8	GRI 401-1
U.S.	per cent	7	9	8	22	9	GRI 401-1
Mexico	per cent	10	15	9	10	16	GRI 401-1
Women	per cent	8	8	9	14 <sup>3</sup>	13	GRI 401-1
Men	per cent	7	8	10	16³	8	GRI 401-1
Voluntary turnover rate⁴	per cent	5	5	4	11	7	GRI 401-1
Involuntary turnover rate⁵	per cent	2	3	6	4	2	GRI 401-1

This value has been reissued to correct an error made in prior year data collection processes.
 Voluntary turnover includes employees who retired or resigned from employment at TC Energy.
 Involuntary turnover includes divestitures, severances, discharges and layoffs.



## **Workforce diversity**





Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Inclusion and diversity¹							
Gender							
Women: core workforce	per cent	28	28	29	30	29	GRI 405-1
Women: contractor workforce	per cent	23	26	26	24	22	GRI 405-1
Women: leadership	per cent	27	28	30	32	30	GRI 405-1
Women: leadership positions in our corporate locations <sup>2</sup>	per cent	32	34	34	36	35	GRI 405-1
Visible minorities in leadership							
Visible minorities in leadership positions across our Canadian and U.S. workforce	per cent	12	13	13	14	17	GRI 405-1
Protected groups by jurisdiction							
Canadian core workforce							
Women	per cent	37	37	38	38	37	GRI 405-1
Indigenous³	per cent	3	2	3	3	3	GRI 405-1
Persons with disabilities	per cent	3	3	3	3	3	GRI 405-1
Visible minorities <sup>3</sup>	per cent	21	21	23	24	24	GRI 405-1
U.S. core workforce							
Women	per cent	19	19	19	19	18	GRI 405-1
Minorities⁴	per cent	13	13	14	14	15	GRI 405-1
Individuals with disabilities	per cent	3	3	3	2	2	GRI 405-1
Veterans	per cent	6	6	6	5	5	GRI 405-1
Mexican core workforce							
Women	per cent	30	27	28	31	30	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	58	99	100	GRI 404-1

<sup>&</sup>lt;sup>1</sup> 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.

<sup>&</sup>lt;sup>2</sup> Leadership positions in our corporate locations of Calgary, Houston, Charleston and Mexico City.

<sup>&</sup>lt;sup>3</sup> In Canada, Indigenous groups are reported separately from visible minorities.

<sup>&</sup>lt;sup>4</sup> In the U.S., American Indians and Alaska Natives are included in minorities reporting.







#### Occupational safety, health and industrial hygiene

Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Core workforce							
Employee fatalities	number	0	0	1	1	0	GRI 403-9 SASB IF-EU-320a.1
Employee recordable case rate <sup>1</sup>	recordable cases per 200,000 hours worked	0.56 <sup>2</sup>	0.42	0.49 <sup>2</sup>	0.382	0.52	GRI 403-9 GRI 403-10 SASB IF-EU-320a.1
Employee away-from-work case rate <sup>3</sup>	away from work cases per 200,000 hours worked	0.152	0.10	0.07	0.13 <sup>2</sup>	0.20	GRI 403-9 GRI 403-10
Employee vehicle incident frequency <sup>4</sup>	vehicle incidents per 1,000,000 km driven	1.93 <sup>2</sup>	1.90²	1.53 <sup>2</sup>	1.54²	1.51	GRI 403-9
Contractor workforce							
Contractor fatalities	number	0	0	0	0	<b>1</b> <sup>5</sup>	GRI 403-9 SASB IF-EU-320a.1
Contractor recordable case rate <sup>1</sup>	recordable cases per 200,000 hours worked	0.96 <sup>2</sup>	1.13	0.65²	0.83²	0.85	GRI 403-9 GRI 403-10 SASB IF-EU-320a.1
Contractor away-from-work case rate <sup>3</sup>	away from work cases per 200,000 hours worked	0.142	0.11	0.09	0.10 <sup>2</sup>	0.08	GRI 403-9 GRI 403-10
Contractor vehicle incident frequency <sup>4</sup>	vehicle incidents per 1,000,000 km driven	2.56 <sup>2</sup>	1.78 <sup>2</sup>	1.38	1.09 <sup>2</sup>	1.55	GRI 403-9

**TC ENERGY** 

<sup>&</sup>lt;sup>1</sup> TC Energy defines total recordable case rate as the number of recordable cases related to a common exposure base of 200,000 hours (100 full-time employees). 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.

<sup>&</sup>lt;sup>2</sup> This value has been reissued to correct an error made in prior year data collection processes.

<sup>&</sup>lt;sup>3</sup> TC Energy defines away-from-work case rate as an incident resulting in an injury or illness that prevents an employee from returning to work on the next scheduled shift. The number of away-from-work cases, where the employee would have worked but could not because of an occupational injury or illness, is related to a common exposure base of 200,000 hours (100 full-time workers).

<sup>&</sup>lt;sup>4</sup> TC Energy defines vehicle incident frequency rate as the number of recordable vehicle incidents related 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.

<sup>5</sup> At TC Energy, we are committed to safety; it's our primary core value. Nothing is more important than the well-being of our people and ensuring every person goes home safety at the end of each day. That dedication made it especially tough when in 2022, we experienced a tragic incident at a construction site in Mexico where a colleague working on the Tula-Villa de Reyes project, was fatally injured. TC Energy offered support to our colleague's family and other impacted colleagues through our Employee Family Assistance Program.



### Occupational safety, health and industrial hygiene continued

Indicator	Units	2018	2019	2020	2021	2022	Related framework indicator ID
Combined (employee and contractor) v	vorkforce						
Combined (employee and contractor) recordable case rate	recordable cases per 200,000 hours worked	0.87	0.89	0.60	0.69	0.76	GRI 403-9 GRI 403-10 SASB IF-EU-320a.1
Employee absences							
Casual absence rate <sup>6</sup>	average number of days absent per employee per year	1.84	1.81	1.40	0.99	1.03	
Short-term disability absence rate <sup>7</sup>	average number of days absent per employee per year	2.15	2.27	2.20	2.66	2.23	
Workers compensation absence rate <sup>8</sup>	average number of days absent per employee per year	0.07	0.05	0.03	0.03	0.03	
Total employee absence rate <sup>9</sup>	average number of days absent per employee per year	4.06	4.13	3.63	3.68	3.29	

<sup>&</sup>lt;sup>6</sup> TC Energy defines casual absence as when an employee is unfit for work for up to five consecutive work shifts due to a non-work related illness or injury.

<sup>&</sup>lt;sup>7</sup> TC Energy defines short term disability as a medical absence lasting longer than five consecutive work shifts away from work due to a non-occupational illness or injury.

TC Energy defines Workers' Compensation Board (WCB) 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.

<sup>&</sup>lt;sup>9</sup> TC Energy defines the average number of days absent per employee as the sum of the casual absence rate, short-term disability (STD) absence rate and WCB absence rate.



## **Content indices**

## **Global Reporting Initiative alignment**

The concordance table below demonstrates the relationship between TC Energy's sustainability reporting and the Global Reporting Initiative (GRI).

Applicable GRI Sector Standard: GRI 11: Oil and Gas Sector 2021

Disclosure	Description	Reference	GRI Sector Standard Reference Number
		GRI 2: General Disclosures 2021	
2-1	Organizational details	TCEnergy.com; Contact  2022 Annual Report  2022 Annual Information Form  2022 CDP Climate Change Questionnaire; CO.1, CO.3, C-EUO.7, C-OGO.7	
2-2	Entities included in the organization's sustainability reporting	2022 CDP Climate Change Questionnaire; C0.5, C-EU0.7, C-OG0.7	
2-3	Reporting period, frequency and contact point	Publication date: July 2023, annual frequency In this report > Invitation for feedback, Performance data 2022 CDP Climate Change Questionnaire; C0.2	
2-4	Restatements of information	Included in footnotes In this report > Performance data 2022 CDP Climate Change Questionnaire; C5.1a, C5.1b, C5.1c	
2-5	External assurance	In this report > <u>Assurance</u> TCEnergy.com; <u>Limited assurance report</u> 2022 CDP Climate Change Questionnaire; C10 Verification section	
2-6	Activities, value chain and other business relationships	In this report > Focused on Performance and Transparency  2022 Annual Report, page 15  2022 CDP Climate Change Questionnaire; C0.3, C- EU0.7, C-OG0.7, C12 Engagement	



Disclosure	Description	Reference	GRI Sector Standard Reference Number
2-7	Employees	In this report > Workforce demographics	
2-8	Workers who are not employees	In this report > Workforce demographics	
2-9	Governance structure and composition	In this report > Governance characteristics  2023 Management Information Circular; Governance  2022 CDP Climate Change Questionnaire; C1 Governance	
2-10	Nomination and selection of the highest governance body	2023 Management Information Circular; Governance	
2-11	Chair of the highest governance body	2023 Management Information Circular; Governance	
2-12	Role of the highest governance body in overseeing the management of impacts	2023 Management Information Circular; Governance 2022 CDP Climate Change Questionnaire; C1.1, C1.1a, C1.1b	
2-13	Delegation of responsibility for managing impacts	2023 Management Information Circular; Governance 2022 CDP Climate Change Questionnaire; C1.2	
2-14	Role of the highest governance body in sustainability reporting	In this report > Message from the CEO & Board Chair, Q&A with the CSO	
2-15	Conflicts of interest	2023 Management Information Circular; Conflicts of interest and related party transactions, page 39	
2-16	Communication of critical concerns	2023 Management Information Circular, page 124, 125	
2-17	Collective knowledge of the highest governance body	2023 Management Information Circular, page 52, 63 2022 CDP Climate Change Questionnaire; C1.1d	
2-18	Evaluation of the performance of the highest governance body	2023 Management Information Circular, page 52-57 2022 CDP Climate Change Questionnaire; C1.3	



Disclosure	Description	Reference	GRI Sector Standard Reference Number
2-19	Remuneration policies	2023 Management Information Circular; Compensation	
2-20	Process to determine remuneration	2023 Management Information Circular; Compensation	
2-22	Statement on sustainable development strategy	In this report > <u>Our approach to sustainability</u>	
2-23	Policy commitments	2023 Management Information Circular, page 38 Code of Business Ethics Policy	
2-24	Embedding policy commitments	In this report > Our approach to sustainability	
2-25	Processes to remediate negative impacts	In this report > Forward-looking information  2022 Annual Report  2022 CDP Climate Change Questionnaire; C2 Risks and Opportunities, C3 Business Strategy	
2-26	Mechanisms for seeking advice and raising concerns	2023 Management Information Circular, page 38	
2-27	Compliance with laws and regulations	In this report > <u>Business ethics and compliance</u> 2023 Management Information Circular, page 42, 133, 134  Code of Business Ethics Policy  Contractor Code of Business Ethics Policy	
2-28	Membership associations	2022 CDP Climate Change Questionnaire; C12.3b  Lobbying Information Sheet  Report on Climate-related Lobbying	
2-29	Approach to stakeholder engagement	In this report > Material topics, Our approach to sustainability 2022 Management Information Circular, page 59 2022 CDP Climate Change Questionnaire; C12 Engagement	



Disclosure	Description	Reference	GRI Sector Standard Reference Number
2-30	Collective bargaining agreements	In this report > Workforce demographics	
		GRI 3: Material Topics 2021	
3-1	Process to determine material topics	In this report > <u>Material topics</u> , <u>Our approach to sustainability</u> <u>Materiality Assessment</u>	
3-2	List of material topics	In this report > Material topics  Materiality Assessment	
200	Economic topics		
201	Economic Performance 201	6	
3-3	Management of material topics	In this report > <u>Material topics</u> , <u>Our approach to sustainability</u> , <u>Enterprise risk management</u> 2022 Annual Report, page 98, 106, 156, 208	11.2.1, 11.14.1, 11.21.1
201-1	Direct economic value generated and distributed	In this report > A thriving economy, Thriving communities	11.14.2, 11.21.2
201-2	Financial implications and other risks and opportunities due to climate change	In this report > Climate change, TCFD comprehensive alignment > Identified climate-related risks and opportunities  2022 Annual Report: page 1-7, 99-106  2023 Management Information Circular; page 68  2022 Annual Information Form; page 22-25  2022 CDP Climate Change Questionnaire; C2 Risks and Opportunities	11.2.2
201-3	Defined benefit plan obligations and other retirement plans	2022 Annual Report, page 98, 156	
201-4	Financial assistance received from government	2022 Annual Report, page 158	11.21.3
202	Market Presence 2016		
3-3	Management of material topics	In this report > Workforce, External relationships, Indigenous engagement and reconciliation	11.11.1, 11.14.1



Disclosure	Description	Reference	GRI Sector Standard Reference Number
202-2	Proportion of senior	Supplier Diversity and Local Participation Business Policy	11.11.2, 11.14.3
	management hired from the local community	Supplier Diversity and Indigenous Reporting Requirements (Canada)	
203	Indirect Economic Impact	rs 2016	
3-3	Management of material topics	In this report > <u>Community investment priorities</u>	11.14.1
203-1	Infrastructure investments and services supported	2022 Annual Report	11.14.4
203-2	Significant indirect economic impacts	2022 Annual Report	11.14.5
204	Procurement Practices 20	16	
3-3	Management of material topics	In this report > <u>Indigenous engagement and reconciliation</u> , <u>Responsible procurement</u>	11.14.1
204-1	Proportion of spending on local suppliers	In this report > Supplier diversity Supplier Diversity and Local Participation Business Policy	11.14.6
205	Anti-corruption 2016		
3-3	Management of material topics	In this report > <u>Business ethics and compliance</u> , <u>Enterprise risk management</u> <u>Management Information Circular</u> , <u>page 43</u> <u>Code of Business Ethics Policy</u> <u>Contractor Code of Business Ethics Policy</u>	11.20.1
205-1	Operations assessed for risks related to corruption	Avoiding Bribery and Corruption Policy	11.20.2
205-2	Communication and training about anti-corruption policies and procedures	Avoiding Bribery and Corruption Policy	11.20.3



Disclosure	Description	Reference	GRI Sector Standard Reference Number
206	Anti-competitive Behavior	2016	
3-3	Management of material topics	In this report > Business ethics and compliance, Enterprise risk management  Code of Business Ethics Policy  Contractor Code of Business Ethics Policy	11.19.1
207	Tax 2019		
3-3	Management of material topics	In this report > Accountability and decision-making, Business ethics and compliance	11.21.1
207-1	Approach to tax	TCEnergy.com; <u>Tax information</u>	11.21.4
207-2	Tax governance, control, and risk management	TCEnergy.com; <u>Tax information</u>	11.21.5
207-3	Stakeholder engagement and management of concerns related to tax	TCEnergy.com; <u>Tax information</u>	11.21.6
207-4	Country-by-country reporting	TCEnergy.com; <u>Tax information</u>	11.21.7
300	Environmental topics		
302	Energy 2016		
3-3	Management of material topics	In this report > Climate change and the energy transition	11.1.1
302-1	Energy consumption within the organization	GHG Emissions Reduction Plan 2022 CDP Climate Change Questionnaire; C8 Energy	11.1.2
302-2	Energy consumption outside of the organization	GHG Emissions Reduction Plan	11.1.3
302-3	Energy intensity	GHG Emissions Reduction Plan  2022 CDP Climate Change Questionnaire; C6 Emissions data, C7 Emissions breakdown	11.1.4



Disclosure	Description	Reference	GRI Sector Standard Reference Number
302-4	Reduction of energy consumption	2022 CDP Climate Change Questionnaire; C8 Energy	
302-5	Reductions in energy requirements of products and services	2022 CDP Climate Change Questionnaire; C4 Targets and performance	
303	Water and Effluents 2018		
3-3	Management of material topics	In this report > Environmental management, Water	11.6.1
303-1	Interactions with water as a shared resource	In this report > <u>Water</u> TCEnergy.com; <u>Protecting water</u>	11.6.2
303-2	Management of water discharge- related impacts	In this report > <u>Water</u> TCEnergy.com; <u>Protecting water</u>	11.6.3
303-3	Water withdrawal	In this report > Environmental management, Water  TCEnergy.com; Protecting water	11.6.4
303-4	Water discharge	In this report > Environmental management, Water  TCEnergy.com; Protecting water	11.6.5
303-5	Water consumption	In this report > Environmental management, Water  TCEnergy.com; Protecting water	11.6.6
304	Biodiversity 2016		
3-3	Management of material topics	In this report > Environmental management, Ecological impacts, Environmentally-focused community giving	11.4.1, 11.16.1
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	In this report > <u>Land</u> TCEnergy.com; <u>Land and wildlife</u>	11.4.2



Disclosure	Description	Reference	GRI Sector Standard Reference Number
304-2	Significant impacts of activities, products and services on biodiversity	In this report > <u>Land</u> TCEnergy.com; <u>Land and wildlife</u> <u>Protecting biodiversity - Fact sheet</u> <u>Reducing our environmental footprint - Fact sheet</u>	11.4.3
304-3	Habitats protected or restored	In this report > <u>Land</u> TCEnergy.com; <u>Land and wildlife</u> 2022 CDP Climate Change Questionnaire; C15.4, C15.5	11.4.4
305	Emissions 2016		
3-3	Management of material topics	In this report > <u>Climate change and the energy transition</u>	11.1.1, 11.2.1, 11.3.1
305-1	Direct (Scope 1) GHG emissions	In this report > <u>Greenhouse gas emissions</u> , GHG emissions: Scope 1 ( <u>equity share</u> , <u>operational control</u> )  2022 CDP Climate Change Questionnaire; C6 Emissions data, C7 Emissions breakdown	11.1.5
305-2	Energy indirect (Scope 2) GHG emissions	In this report > Greenhouse gas emissions, GHG emissions: Scope 2  2022 CDP Climate Change Questionnaire: C6 Emissions data, C7 Emissions breakdown	11.1.6
305-3	Other indirect (Scope 3) GHG emissions	In this report > <u>Greenhouse gas emissions</u> , <u>GHG emissions</u> : <u>Scope 3</u> 2022 CDP Climate Change Questionnaire; C6 Emissions data, C7 Emissions breakdown	11.1.7
305-4	GHG emissions intensity	In this report > Greenhouse gas emissions, GHG emissions: Scope 1 and 2 emissions intensities 2022 CDP Climate Change Questionnaire; C6 Emissions data, C7 Emissions breakdown	11.1.8
305-5	Reduction of GHG emissions	In this report > <u>Greenhouse gas emissions</u> , TCFD comprehensive alignment > <u>metrics</u> and <u>targets</u> <u>GHG Emissions Reduction Plan</u> 2022 Annual Report; pages 18, 100, 104  2023 Management Information Circular; pages 6, 62  2022 CDP Climate Change Questionnaire; C4 Targets and Performance, C6 Emissions data, C7 <u>Emissions breakdown</u>	11.2.3



Disclosure	Description	Reference	GRI Sector Standard Reference Number
305-7	Nitrogen oxides (NO <sub>x</sub> ), sulfur oxides (SO <sub>x</sub> ), and other significant air emissions	In this report > <u>Air quality</u>	11.3.2
306	Waste 2020		
3-3	Management of material topics	In this report > Operational management, Environmental management, Waste	11.5.1, 11.8.1
306-1	Waste generation and significant waste-related impacts	In this report > <u>Waste</u>	11.5.2
306-3	Waste generated	In this report > Ecological impacts, Waste, GHG emissions: Scope 3	11.5.4, 11.8.2
306-4	Waste diverted from disposal	In this report > Ecological impacts, Waste	11.5.5
306-5	Waste directed to disposal	In this report > Ecological impacts, Waste	11.5.6
308	Supplier Environment Asse	essment 2016	
3-3	Management of material topics	In this report > <u>Supply chain</u>	
400	Social topics		
401	Employment 2016		
3-3	Management of material topics	In this report > Workforce, Indigenous engagement and reconciliation	11.10.1
401-1	New employee hires and employee turnover	In this report > Employee attraction, retention, development and engagement,  Workforce demographics	11.10.2
401-2	Benefits provided to full-time employees that are not provided to temporary or part-time employees	2022 Annual Report; page 156, 202	11.10.3



Disclosure	Description	Reference	GRI Sector Standard Reference Number
402	Labor/Management Relations 2016		
3-3	Management of material topics	In this report > Workforce, Indigenous engagement and reconciliation	11.7.1, 11.10.1
402-1	Minimum notice periods regarding operational changes	Equal Employment Opportunity and Non-Discrimination Policy	11.7.2, 11.10.5
403	Occupational Health and S	Safety 2018	
3-3	Management of material topics	In this report > Employee and contractor safety	11.9.1
403-1	Occupational health and safety management system	In this report > Operational management system 2022 Management Information Circular; page 46 2022 Annual Report; page 104, 105	11.9.2
403-2	Hazard identification, risk assessment, and incident investigation	In this report > <u>Operational management system</u> TCEnergy.com; <u>Safety</u> 2022 Management Information Circular; page 46 2022 Annual Report; page 104, 105	11.9.3
403-3	Occupational health services	2022 Management Information Circular; page 48	11.9.4
403-4	Worker participation, consultation, and communication on occupational health and safety	In this report > <u>Operational management system</u> TCEnergy.com; <u>Safety</u> 2022 Management Information Circular; page 46 2022 Annual Report; page 104, 105	11.9.5
403-5	Worker training on occupational health and safety	In this report > Operational management: Emergency preparedness and response	11.9.6
403-6	Promotion of worker health	In this report > Mental health and psychological safety	11.9.7



Disclosure	Description	Reference	GRI Sector Standard Reference Number	
403-7	Prevention and mitigation of occupational health and safety impacts directly linked by business relationships	In this report > Operational management system  TCEnergy.com; Safety  2022 Management Information Circular; page 46  2022 Annual Report; page 104, 105	11.9.8	
403-8	Workers covered by an occupational health and safety management system	In this report > Operational management: Emergency preparedness and response	11.9.9	
403-9	Work-related injuries	In this report > Occupational safety, health and industrial hygiene	11.9.10	
403-10	Work-related ill health	In this report > Occupational safety, health and industrial hygiene	11.9.11	
404	Training and Education 2016			
3-3	Management of material topics	In this report > <u>Workforce</u>	11.10.1, 11.11.1	
404-1	Average hours of training per year per employee	In this report > Operational management: Emergency preparedness and response, Emergency preparedness and response, Workforce diversity	11.10.6, 11.11.4	
405	Diversity and Equal Oppor	tunity 2016		
3-3	Management of material topics	In this report > Employee attraction, retention, development and engagement, Board Diversity	11.11.1	
405-1	Diversity of governance bodies and employees	In this report > <u>Board Diversity</u> , <u>Governance characteristics</u> , <u>Workforce diversity</u> <u>Board Diversity Policy</u>	11.11.5	
406	Non-discrimination 2016			
3-3	Management of material topics	In this report > Employee attraction, retention, development and engagement, Business ethics and compliance Code of Business Ethics Policy Contractor Code of Business Ethics Policy Equal Employment Opportunity and Non-Discrimination Policy	11.11.1	



Disclosure	Description	Reference	GRI Sector Standard Reference Number
406-1	Incidents of discrimination and corrective actions taken	TC Energy Inclusion and Diversity Action Plan	11.11.7
407	Freedom of Association and Collective Bargaining 2016		
3-3	Management of material topics	Equal Employment Opportunity and Non-Discrimination Policy	11.13.1
407-1	Operations and suppliers in which the right to freedom of association and collective bargaining may be at risk	Equal Employment Opportunity and Non-Discrimination Policy	11.13.2
409	Forced or Compulsory Lab	ог 2016	
3-3	Management of material topics	In this report > Corporate and sustainability governance, Responsible procurement  Code of Business Ethics Policy  Contractor Code of Business Ethics Policy	11.12.1
410	Security Practices 2016		
3-3	Management of material topics	In this report > <u>Human rights</u> <u>Code of Business Ethics Policy</u> <u>Contractor Code of Business Ethics Policy</u>	11.18.1
411	Rights of Indigenous Peop	bles 2016	
3-3	Management of material topics	In this report > Indigenous engagement and reconciliation  2023 Management Information Circular, page 50  Code of Business Ethics Policy  Contractor Code of Business Ethics Policy  Indigenous Relations Policy	11.16.1, 11.17.1
413	Local Communities 2016		
3-3	Management of material topics	In this report > External relationships, Indigenous engagement and reconciliation	11.15.1



Disclosure	Description	Reference	GRI Sector Standard Reference Number
413-1	Operations with local community engagement, impact assessments, and development programs	In this report > Community investment priorities, Thriving communities 2022 Annual Report; page 46	11.15.2
413-2	Operations with significant actual and potential negative impacts on local communities	In this report > External relationships	11.15.3
414	Supplier Social Assessmen	nt 2016	
3-3	Management of material topics	In this report > <u>Supply chain</u>	11.10.1, 11.12.1
415	Public Policy 2016		
3-3	Management of material topics	In this report > Political engagement	11.2.4, 11.22.1
415-1	Political contribution	In this report > A thriving economy Political Contributions and Activities Policy	11.22.2
416	Customer Health and Safety 2016		
3-3	Management of material topics	In this report > Climate change and the energy transition	11.3.1
418	Customer Privacy 2016		
3-3	Management of material topics	In this report > Privacy and cybersecurity  Cybersecurity Policy  Protection of Personal Information Policy	



## **Sustainability Accounting Standards Board alignment**

The concordance table below demonstrates the relationship between TC Energy's sustainability reporting and the Sustainability Accounting Standards Board (SASB) Oil & Gas - Midstream industry standard (October 2018) and SASB Electric utilities & power generators 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
Oil & Gas — Midstream		
Greenhouse Gas Emissions		
Gross global Scope 1 emissions, percentage methane, percentage covered under emissions-limiting regulations	EM-MD-110a.1	In this report > GHG emissions: Scope 1 ( <u>equity share</u> , <u>operational control</u> )  2022 CDP Climate Change Questionnaire; C6.1, C-OG6.12, C7.1a, C-EU7.1b, C-OG7.1b
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	In this report > Climate change and the energy transition, TCFD comprehensive alignment > TCFD climate-related strategy  GHG Emissions Reduction Plan  2022 CDP Climate Change Questionnaire; Section C4
Air Quality		
Air emissions of the following pollutants: (1) NOx (excluding N2O), (2) SOx, (3) volatile organic compounds (VOCs), and (4) particulate matter (PM10)	EM-MD-120a.1	In this report > <u>Air quality</u>
Ecological Impacts		
Description of environmental management policies and practices for active operations	EM-MD-160a.1	In this report > Advancing sustainability and innovation, Operational management, TCFD comprehensive alignment > TC Energy's Operational Management System  TCEnergy.com; Commitment Statement, Environment principles  2022 Annual Report; environmental risk, compliance and liabilities, page 105
Percentage of land owned, leased, and/or operated within areas of protected conservation status or endangered species habitat	EM-MD-160a.2	In this report > <u>Ecological impacts</u>
Terrestrial acreage disturbed, percentage of impacted area restored	EM-MD-160a.3	In this report > Ecological impacts
Number and aggregate volume of hydrocarbon spills, volume in Arctic, volume in Unusually Sensitive Areas (USAs), and volume recovered	EM-MD-160a.4	In this report > <u>Asset integrity and process safety incidents</u>



# **Sustainability Accounting Standards Board alignment continued**

Topic and Accounting Metric	Indicator ID	Select TC Energy Material
Competitive Behavior		
Total amount of monetary losses as a result of legal proceedings associated with federal pipeline and storage regulations	EM-MD-520a.1	In this report > A thriving economy
		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.
Operational Safety, Emergency Preparedness & Response		
Number of reportable pipeline incidents, percentage significant	EM-MD-540a.1	In this report > Asset integrity and process safety incidents
		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.
Percentage of (1) natural gas and (2) hazardous liquid pipelines inspected	EM-MD-540a.2	In this report > <u>Asset integrity and process safety</u>
Number of (1) accident 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	EM-MD-540a.4	In this report > Operational management, Employee and contractor safety, Mental
and emergency preparedness throughout the value chain and throughout project lifecycles		health and psychological safety
		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	In this report > Operational overview
		Note: TC Energy does not report activity in these units.
Electric Utilities & Power Generators		
Greenhouse Gas Emissions & Energy Resource Planning		
(1) Gross global Scope 1 emissions, percentage covered under (2) emissions-limiting regulations, and (3) emissions-reporting regulations	IF-EU-110a.1	In this report > GHG emissions: Scope 1 ( <u>equity share</u> , <u>operational control</u> )  2022 CDP Climate Change Questionnaire; C6.1, C-OG6.12, C7.1a, C-EU7.1b, C-OG7.1b



# **Sustainability Accounting Standards Board alignment continued**

Topic and Accounting Metric	Indicator ID	Select TC Energy Material
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	IF-EU-110a.3	In this report > Climate change and the energy transition, TCFD comprehensive alignment > TCFD climate-related strategy  GHG Emissions Reduction Plan  2022 CDP Climate Change Questionnaire; Section C4
Air Quality		
Air emissions of the following pollutants: (1) NOx (excluding N2O), (2) SOx, (3) particulate matter (PM1O), (4) lead (Pb), and (5) mercury (Hg); percentage of each in or near areas of dense population	IF-EU-120a.1	In this report > <u>Air quality</u>
Water Management		
(1) Total water withdrawn, (2) total water consumed, percentage of each in regions with High or Extremely High Baseline Water Stress	IF-EU-140a.1	In this report > <u>Ecological impacts</u> , <u>Water</u> TCEnergy.com; <u>Protecting water</u>
Workforce Health & Safety		
(1) Total recordable incident rate (TRIR), (2) fatality rate, and (3) near miss frequency rate (NMFR)	IF-EU-320a.1	In this report > Occupational safety, health and industrial hygiene



## Task Force on Climate-Related Financial Disclosures comprehensive alignment

TC Energy recognizes the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations as a useful framework for assessing and reporting on climate-related risks and opportunities. Our sustainability and ESG publications cover each of the four pillars, describing how we assess climate-related risks and opportunities and embed climate considerations in our governance, strategy and risk management. Our publications also include metrics used to manage those risks and associated targets.

#### TC ENERGY'S APPROACH TO TCFD

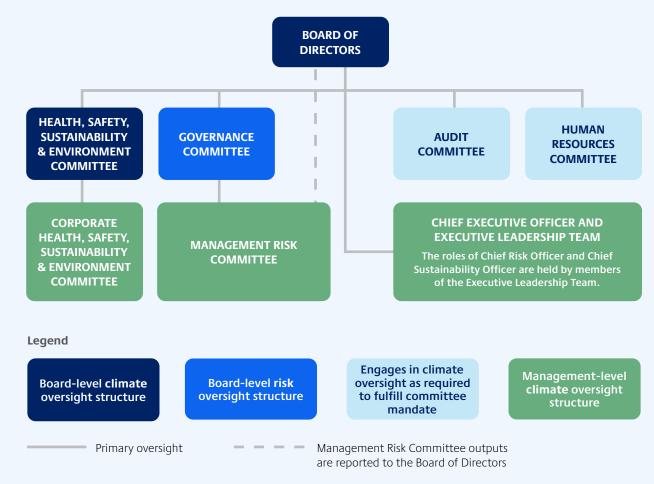
TC Energy is committed to providing our stakeholders with information on our approach to and performance on climate-related issues. This section summarizes our response against the four pillars of the TCFD: governance, strategy, risk management and metrics and targets. Additional information, including greater detail on climate-related risks and opportunities and their impacts, can be found in our annual CDP Climate Change Questionnaire response.

#### TCFD CLIMATE-RELATED GOVERNANCE

TC Energy's governance structure and comprehensive risk management practices provide a framework for accountability, transparency, management and mitigation of the risks and opportunities facing the company, such as topics of sustainability and ESG matters, such as climate change. Recognizing climate change is a global issue, we believe it is critical to manage climate-related risks and opportunities to support our responsibilities to capital markets, rightsholders, shareholders and stakeholders to ensure the achievement of our long-term strategic priorities.

Our <u>2023 Management Information Circular (MIC)</u> contains further details on our governance structure and its characteristics, including board member competencies to oversee sustainability in operations and the role that each committee of the Board has in overseeing ESG matters.

#### Oversight structure for climate risks and opportunities





#### TCFD recommendation: Describe the Board's oversight of climate-related risks and opportunities.

Oversight over our sustainability and ESG practices, including climate-related matters, is fully integrated into the responsibilities and accountabilities of the Board and its standing committees, all four of which are comprised entirely of independent directors. The Board has oversight over our sustainability and ESG practices, with the primary accountabilities at the Board committee level. Details of the four committees which have primary oversight of the effectiveness of TC Energy's strategies and performance related to climate-related risks and opportunities, are highlighted below.

#### **Board oversight**

### Role Sustainability accountabilities The Board provides oversight and direction in the strategic planning process to ensure we have a robust strategy that supports TC Energy's vision of being North America's premier energy infrastructure company, now and in the future. As part of our annual strategic plan review, management includes an assessment of energy fundamentals, the competitive environment and the stakeholder landscape to identify opportunities and threats to our business strategy. This session informs our annual strategic priorities and executive performance measures. We also periodically test our strategy against a range of energy supply and demand outlooks to assess our resilience. The Board reviews, discusses and approves the revised and extended five-year strategic plan during our strategic plan review. In addition, progress toward our GHG emissions reduction goals have been incorporated in our strategic planning process since 2022. Board of Directors<sup>1</sup> The Board and its committees are also responsible for risk oversight, including climate-related risks, and oversee the management systems and processes that identify, evaluate, prioritize, mitigate and monitor risk. On an annual basis, the Board reviews and approves the Enterprise Risk Register and on a quarterly basis reviews emerging risks and management responses. Our directors have a broad range of experience and skills in risk management and, as a result, are highly engaged and qualified to participate in a meaningful discussion of key business risks with management at Board and committee meetings. Candidates who are nominated for the first time must have experience in industries similar to ours or experience in general business management or with corporations or organizations that are similar in size and scope. Potential candidates are recommended based on their qualifications and independence and how these qualities balance with the skill set of the current Board. This assessment helps the Board determine the best mix of skills and experience including operations, health, safety, sustainability and environment to guide our business operations and our long-term strategy.

<sup>&</sup>lt;sup>1</sup> Our Corporate Governance Guidelines, Board of Directors Charter and the Charter for each committee can be found on our website.



## **Board oversight continued**

Role	Sustainability accountabilities
Health, Safety, Sustainability & Environment (HSSE) Committee	The HSSE Committee oversees operational risk, major project execution risk, occupational and process safety, sustainability, security of personnel, environmental and climate change-related risks, as well as monitoring development and implementation of systems, programs and policies relating to health, safety, sustainability, security and environmental matters (HSSE matters) through regular reporting from management. This includes reviewing the performance and activities of TC Energy HSSE matters including compliance with applicable and proposed legislation, conformance with industry standards and best practices. It also includes reviewing reports on proposed climate change-related laws and regulations and their potential impact on TC Energy.  The HSSE Committee monitors the performance of actions and initiatives undertaken by TC Energy to prevent, mitigate and manage risks related to HSSE matters, including climate change-related risks and opportunities and any critical incidents respecting our assets, operations, personnel and public safety. The Committee also maintains oversight of significant or complex capital projects, including the monitoring or prescribed performance criteria.  The HSSE Committee typically has three regularly scheduled meetings each year, each of which includes a standing agenda item on 'sustainability' covering a range of topics.
	Starting in late 2022, the committee also began holding regular sessions, outside formal committee meetings, with members of senior management to receive status, cost and notable updates on certain complex capital projects. The HSSE Committee receives updates and reports on: (i) prevention, mitigation and management of risks related to HSSE matters, including climate change or business interruption risks that may adversely impact TC Energy and; (ii) other sustainability matters, including social, environmental and climate change related risks and opportunities, as well as voluntary public disclosure such as this Report on Sustainability.
Governance Committee	The Governance Committee oversees the enterprise risk management (ERM) program, policy and framework and meets with management annually to ensure there is proper Board and committee oversight according to the terms of their charters. The Governance Committee recommends, along with the respective committee (or executive) assigned responsibility for specific risks, any enhancements to our risk management program and policies to the Board.  The Governance Committee also has accountability for overseeing the strategy development process and works with management to identify and discuss emerging strategic issues. Key strategic issues as identified by the Governance Committee, including climate change, are elevated for discussion with the entire Board as part of the strategy development process.
Audit Committee	The Audit Committee oversees management's role in managing financial risk, including market risk, counterparty credit risk and cyber security, and monitors financial reporting, legal and regulatory developments affecting the Company's financial reporting processes, controls and disclosure, including climate-related financial disclosure.  The Audit Committee also oversees the Company's compliance policies and any material reports or inquiries received from regulators or governmental agencies.
Human Resources Committee	The Human Resources Committee reviews executive compensation levels, employee compensation and benefits programs.  The Committee also reviews the corporate scorecard, including incorporated targets relating to ESG on human and process safety, diversity of women and visible minorities in leadership and GHG-emissions reduction.



#### TCFD recommendation: Describe management's role in assessing and managing climate-related risks and opportunities.

Climate-related implications are woven into the fabric of TC Energy's corporate strategy, developed and implemented by our Chief Executive Officer (CEO) and our Executive Leadership (ELT) team. With significant environmental regulation and exposure to both climate-related risks and opportunities, we believe it is critical that these issues are monitored at the highest levels of management within the company.

The roles of both the Chief Sustainability Officer (CSO) and Chief Risk Officer (CRO) hold climate-related issue responsibilities. The individual holding both these roles reports directly to the CEO and provides links between functional leadership and the ELT, which includes the presidents of TC Energy's business units.

TC Energy recognizes the importance of these executives communicating with the Board at a regular cadence, ensuring climate-related issues are presented to the highest levels of the corporate structure.

For more information about management's role in assessing and managing climate-related risks and opportunities and our organizational structure, please refer to our 2023 MIC and the Governance section of this report.

#### Management oversight

Role	Sustainability accountabilities
Chief Executive Officer (CEO)	The President and CEO position is at the highest level of executive leadership with responsibility for climate-related risks and opportunities.  This position is responsible for the company's overall leadership and vision in developing strategic direction, values, and business plans, and includes overall responsibility for operating and growing our business while managing risk, including climate-related risks, to create long-term sustainable value for our shareholders. The CEO and 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) <sup>2</sup>	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)	The CSO is responsible for directing the coordination, communication and management of sustainability-related issues, including climate change, particularly the intersection of risk, governance, environmental and social issues.  The CSO, a member of the ELT, reports to the HSSE Committee of the Board on sustainability matters, including climate-related issues, as well as to the CEO and the rest of the ELT. The CSO role formalizes our commitment to sustainability by establishing a coordination role at the highest level of the organization, and communicates with management, shareholders, customers, employees and other stakeholders to address sustainability matters, including climate-related issues.  Currently, the CSO, Chief Compliance Officer and CRO roles are held by the same individual, which creates align-ment in the oversight of sustainability, compliance and enterprise risks.

<sup>&</sup>lt;sup>2</sup> Employees currently on our executive leadership team are named on our <u>website</u>.



## Management oversight continued

Role	Sustainability accountabilities
Chief Risk Officer (CRO)	The CRO centralizes a pragmatic approach to facilitating the annual enterprise risk assessment and management of the enterprise risk register. The CRO is focused on prioritizing risks, clarifying roles and responsibilities, improving Board and management oversight, and providing the Board with quarterly in-depth presentations on the enterprise risks including climate-related risks. The CRO is responsible for ensuring the enterprise risk management (ERM) program governance model, framework and processes are established, properly documented and maintained in a manner that is suitable for our culture and operating model. The CRO also periodically reports enterprise risks and emerging risks to the Board and the Governance Committee and engages with the Board to obtain their insights for risk identification of enterprise risks.
Corporate HSSE Committee	The corporate HSSE Committee, comprised of management representatives from various departments, recommends strategic priorities relating to HSSE matters to the CSO, monitors HSSE developments and shapes communication strategy on HSSE matters. The Committee also ensures the adequacy and effectiveness of the Health, Safety and Environment (HSE) Management programs that are part of TC Energy's Operational Management System, TOMS.  To enhance our overall governance structure, we are in the process of evolving the corporate HSSE committee into two separate committees which will report to the Board HSSE Committee. A Sustainability Management Committee will provide strategic leadership and direction on sustainability-related issues, while an Operating Committee will be responsible for making enterprise decisions in support of management system governance, strategic system enhancements and operational risk management related to safety and some environmental considerations.
Management Risk Committee	Chaired by the CRO, the Management Risk Committee is comprised of the ELT and is accountable for the management of emerging and enterprise risks including climate-related risks and implementation of risk mitigation plans. In addition to their primary oversight by the Board of Directors Governance Committee, the outputs of the Management Risk Committee are also reported to the full Board of Directors.



#### TCFD CLIMATE-RELATED STRATEGY

Our vision is to be the premier energy infrastructure company in North America today and in the future by safely generating, storing and delivering the energy people need every day. Our goal is to develop, build and operate a portfolio of infrastructure assets that enable us to prosper across a range of future energy scenarios. We are a team of energy problem solvers working to deliver this energy in a more affordable, reliable and sustainable manner while developing lower carbon energy solutions to drive energy transition ranging from natural gas and renewables to carbon capture and hydrogen.

TCFD recommendation(s): Describe the climaterelated risks and opportunities the organization has identified over the short, medium and long term; describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.

Climate change presents risks and opportunities that could have potential financial impacts to TC Energy's business and strategy, which are managed by strong governance and strategic planning. Key components of our strategy set out in our 2022 Annual Report demonstrate that climate considerations are embedded in our business strategy and support our ability to be competitive, responsible, innovative, enhance our value proposition for our shareholders and safely deliver the energy people need today and in the future. We support the aspirational pursuit of limiting a global temperature increase to 1.5°C and believe there are substantial opportunities for our company to shift to a lower emissions future.

At TC Energy, evolving to a lower-carbon energy future is a serious obligation, it is not an imposition or an obstacle – it is an incredible opportunity, serving as a catalyst for future growth for our company with investments that are strongly aligned with our corporate strategic objectives, traditional risk preferences and core values.

#### **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, we analyze how our portfolio performs under different energy mix scenarios considering the recommendations of the TCFD. These results contribute to the identification of opportunities that contribute to our resilience, strengthen our asset base and improve our 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. The use of a disciplined approach to capital allocation supports our ability to maximize value over the short, medium and long term.

#### 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

Our existing extensive footprint offers significant in-corridor growth opportunities. This includes possible future opportunities to deploy low-emission infrastructure technologies such as renewables, hydrogen and carbon capture, which will help reduce the GHG emissions footprint of our customers and our operations, while also extending the longevity of our existing assets. Safety, executability, profitability and responsible ESG performance continue to be fundamental to our investments.



#### **OUR PLAN TO ACHIEVE OUR TARGETS**

In 2021, we committed to positioning ourselves to achieve net-zero GHG emissions from our operations by 2050 with an interim goal to reduce the GHG emissions intensity of our operations 30 per cent by 2030. Progress against these targets is measured relative to a 2019 base year. In setting GHG emissions reduction targets, we are acknowledging our responsibility to address our operational impacts and mitigate associated climate related transition risks.

As outlined in our GHG Emissions Reduction Plan, we have identified five focus areas to achieve our emissions reduction targets. These five levers include: modernizing our existing systems and assets; decarbonizing our energy consumption; investing in low-carbon energy and infrastructure; driving digital solutions and technologies; and leveraging carbon offsets and credits. Achieving these ambitious targets relies on innovation across our entire energy system and we've taken important steps to make progress across each of these levers. Initiatives executed in 2022 included securing 600 MW in the U.S. and 416 MW in Canada of power purchase agreements from wind and solar facilities, commencement of TC Energy's first solar energy project in Canada, development of a renewable natural gas production facility, investment in a carbon capture technology and upgrades to our existing assets that improve overall operational efficiency. TC Energy is also continuing its work on a carbon offset strategy to enhance the value of low-carbon opportunities while supporting abatement plans and 2050 net-zero strategic positioning.

Our focus on low-carbon energy and infrastructure has leveraged strong partnerships with industry peers, customers and governments to understand how emerging technologies can work within the existing energy systems and how they may be utilized in our infrastructure. We believe TC Energy is well positioned to capitalize on these opportunities and will continue to meet the needs of its customers as the energy future evolves.



Modernize
our existing systems
and assets



**Decarbonize** our energy consumption



Drive digital solutions and technologies



Invest in low-carbon energy and infrastructure



Leverage carbon credits and offsets

To hold ourselves accountable to achieving these emission reduction targets, we have linked <u>executive and employee compensation</u> to delivering on them through objectives set out in annual business unit and corporate function scorecards.

Sustainable finance also plays a critical role in enabling the transition to a lower emissions economy and the advancement of clean technology and innovation. Securing transition finance in the energy sector requires a clear demonstration of measurable progress towards the achievement of verifiable ESG-related goals. In 2022, we added sustainability commitments to one of our credit facilities as we continue to build sustainability and ESG performance metrics into our business strategy. Known as a sustainability linked loan, we report to our lenders on progress against a \$3 billion loan tied to emissions reduction and gender diversity goals.

A summary of the climate-related risks and opportunities that may affect our company are detailed below. The tables describe potential risk events, financial impacts and the estimated timeframe, mitigation activities and controls related to the risks. These are a subset of the risks identified through our ERM program, which are regularly monitored and revised annually. The financial impact has been determined following our annual enterprise risk assessments where both risks to, and opportunities from, TC Energy's strategy are considered.

The climate-related risks and opportunities listed below may not be material as defined under securities laws. Information on the material risks for TC Energy can be found in the 2022 Annual Report and our most recent quarterly report, available on our website, SEDAR and EDGAR.



#### Summary of climate-related risks

Short Term (S/T): 1-5 years

Medium Term (M/T): 6-12 years

Long Term (L/T): 13-70 years

#### Risk definition and description

#### Potential financial impact

#### Mitigation measures and controls

#### Reputational risk

As concerns around climate change continue to accelerate, there is growing pressure on oil and gas companies to reduce emissions and manage climate-related risk.

Our operations and growth prospects require us to have strong relationships with key stakeholders and rightsholders including customers, Indigenous communities, landowners, suppliers, investors, governments and government agencies and environmental non-governmental organizations.

S/T	M/T	L/T
Medium	Medium	Medium
Financial	Financial	Financial
Impact	Impact	Impact

Inadequately managing, or failing to meet stakeholder expectations and concerns, including those related to climate-related risks, can have a significant impact on our operations and projects, infrastructure development and overall reputation. It could also affect our ability to operate and grow.

As we work to build the energy system of the future, we recognize the importance of working together, in common cause, with communities, governments and our customers. Our core values – safety, innovation, responsibility, collaboration and integrity – guide us in building and maintaining our key relationships as well as our interactions with stakeholders. In 2022, TC Energy's management engaged with holders of over 50 per cent of our outstanding common shares, with the CEO, CFO and other members of management participating in approximately 250 meetings. These meetings included participating in 40 engagement meetings on ESG-specific topics with shareholders.

Beyond our core values, we have specific stakeholder programs and policies that shape our interactions, clarify expectations, assess risks and facilitate mutually beneficial outcomes.

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

We are committed to sharing information and seeking public input, documenting the entire stakeholder engagement process including the issues raised by stakeholders and rightsholders, along with the ways we address these issues. We engage and consult early and often, invite feedback, provide updates and address concerns throughout the regulatory process and throughout operations, with preference for addressing concerns through direct and respectful discussion.

Additional mitigations to this risk include:

- Executing on our plans to achieve our GHG emission reduction goals.
- Maintaining our commitment to transparent disclosure on our progress through centralized hubs to access climate change and ESG communications; our <u>environmental</u>, <u>social and governance</u> and <u>sustainability</u> webpages.
- Advocating for a thoughtful and balanced approach to energy development.



#### Risk definition and description

#### Potential financial impact

#### Mitigation measures and controls

#### Policy and legal risk

Our ability to construct and operate energy infrastructure requires regulatory approvals and is dependent on evolving policies and regulations by government authorities. This includes changes in regulation that may affect our projects and operations which could affect the financial performance of our assets.

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

S/T	M/T	L/T
Medium	Medium	Medium
Financial	Financial	Financial
Impact	Impact	Impact

We own assets and have business interests in several regions subject to GHG emissions regulations, including GHG emissions management and carbon pricing policies. Across North America, there are a variety of new and evolving regulatory requirements and initiatives aimed at reducing GHG emissions that could affect our business.

Adverse impacts on competitive geographic and business positions could result in the inability to meet our growth targets through missed or lost organic, greenfield and brownfield opportunities.

Financial impacts of denied or delayed projects could include lost development costs, loss of investor confidence and potential legal costs from litigation.

Regulations could also increase the cost of our operations, due to complying with new or more stringent regulations, resulting in the inability to earn a reasonable return on our invested capital. We monitor regulatory and government developments and decisions to analyze their possible impact on our businesses. We build scenario analysis into our strategic outlook and work closely with our stakeholders in the development and operation of our assets.

We identify emerging risks including regulatory and government decisions and report on our management of these risks quarterly through the ERM program to the Board. We also use this information to inform our capital allocation strategy and adapt to changing market conditions.

We have established an Insights & Policy team that will drive TC Energy's public policy thought leadership, systematically monitor the political and public policy environment, and manage TC Energy's relationships with multilateral stakeholders.

We will advocate for policies that are consistent with our climate-related goals, support deployment of clean energy systems, a robust energy trade, a strategic diversification of our energy mix, and the aspirational pursuit of limiting a global temperature increase to 1.5° C.



#### Risk definition and description

#### Potential financial impact

#### Mitigation measures and controls

#### Technology risk

To be competitive, we must offer integral energy infrastructure services in supply and demand areas and in forms of energy that are attractive to customers.

This includes energy evolution opportunities such as energy efficiency, electrification, renewable and alternative energy sources, batteries and other energy storage, and low-carbon infrastructure to support RNG, carbon capture and sequestration and hydrogen, along with traditional energy sources.

S/T	M/T	L/T
Low Financial Impact	Medium Financial Impact	Medium Financial Impact

Developing and deploying new technologies and new products inherently involves a degree of financial risk associated with escalating costs, uncertain outcomes and delays to anticipated in-service schedules.

Should alternative lower-carbon forms of energy result in decreased demand for our services on an accelerated timeline versus our pace of depreciation, the value of our long-lived energy infrastructure assets could be negatively impacted.

We have a dedicated energy transition team to assess relevant technologies and opportunities to support business resiliency across a range of future energy scenarios.

We're leveraging our existing R&D budget to focus on technical innovation in support of energy transition and making small strategic bets to stay on top of emerging technologies, like our equity investment in <u>Carbon Clean</u> - a UK-based company at the leading edge of innovation in carbon capture for heavy industry.

We have a diverse portfolio of assets and use portfolio management to divest of non-strategic assets, effectively rotating capital while adhering to our risk preferences and focus on per share metrics. We also conduct analyses to identify resilient supply sources as part of our energy fundamentals and strategic development reviews.

We recover depreciation through our regulated pipeline rates, which is an important lever to accelerate or decelerate the return of capital from a substantial portion of our assets. We also monitor signposts including innovative technology development to inform our capital allocation strategy and adapt to changing market conditions.



#### Risk definition and description

#### Potential financial impact

#### Mitigation measures and controls

#### Market risk

**Access to capital:** We require substantial amounts of capital in the form of debt and equity to finance our portfolio of growth projects and maturing debt obligations at costs that are sufficiently lower than the returns on our investments.

The mandates of institutional investors, credit rating agencies, lenders and insurers are increasingly considering climate-related risks and opportunities. Investor confidence in our energy transition plans could affect our ability to access capital and/or insurance coverage including at a competitive cost.

**Supply/demand:** Changing consumer behaviour could affect North American energy consumption patterns and preferences, affecting long-term energy supply and demand trajectories.

S/T	M/T	L/T
Low	Low	Low
Financial	Financial	Financial
Impact	Impact	Impact

Significant deterioration in market conditions for an extended period of time and changes in investor and lender sentiment could affect our ability to access capital at a competitive cost, which could negatively impact our ability to deliver an attractive return on our investments or inhibit our growth.

**Supply/demand:** The continued focus on climate-change and the transition to a lower-carbon economy may affect future global energy demand and use, including the composition/mix of types of energy used by industry and individual consumers.

Changes in the North American energy mix could affect the long-term growth of our customer base and reduce demand for the products we transport, which could have a negative impact on revenues.

While climate change affects nearly all economic sectors, the level and type of exposure and the impact of climate-related risks differs by sector, industry, geography, and organization.

We operate within our financial means and risk tolerances, maintain a diverse array of funding levers and also utilize asset divestitures as an important component of our financing program.

In addition, we have candid and proactive engagement with the investment community, including credit rating agencies, with the objective of hearing their feedback and keeping them apprised of developments in our business and factually communicating our prospects, risks and challenges as well as ESG-related updates.

We conduct research around the evolving ESG preferences of our investors and financial partners which we consider in our decision making.

In 2022, we issued our first sustainability linked loan as we continue to build sustainability and ESG performance metrics into our business strategy.

Additional mitigations to this risk include:

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



#### Risk definition and description

#### Potential financial impact

#### Mitigation measures and controls

#### Physical risk (Acute and Chronic)

As a leading energy infrastructure company with a footprint that spans across North America, our assets could be impacted by significant temperature or weather changes. Our business may be impacted by market risks due to extreme weather events affecting energy consumption and long-term energy supply and demand trajectories.

Weather-related delays can also impact execution risks of our investments in large infrastructure projects, which involve substantial capital commitments, including project costs and schedules. Similarly, weather-related delays can also impact our ability to operate our in-service assets.

Seasonal changes in temperature can also reduce the efficiency and production of our natural gas-fired power plants.

S/T	M/T	L/T
Medium	Medium	Medium
Financial	Financial	Financial
Impact	Impact	Impact

Fluctuations in energy supply and demand, increasing commodity prices or volatility and output capability.

Business interruption caused by physical changes to our environment could result in a decrease in revenues and increase in operating costs, legal proceedings or regulatory actions, or other expenses, all of which could reduce our earnings.

We evaluate the resilience of our asset portfolio over a range of potential energy supply and demand outcomes, also known as scenario analysis, as part of our strategic planning process. We monitor climate policy and related developments through our ERM program to ensure leadership has visibility to the broader perspective, and that treatments are applied in a holistic and consistent manner.

Our engineering standards are also regularly reviewed to ensure assets continue to be designed and operated to withstand the potential impacts of climate change.

If an event did occur, then our Emergency Management Program (within TOMS) would manage our response to natural disasters, which include catastrophic events such as forest fires, tornadoes, earthquakes, floods, volcanic eruptions and hurricanes. We also have a comprehensive insurance program to mitigate a certain portion of these risks, but insurance does not cover all events in all circumstances.

Additional mitigations to this address this risk include:

- Enhanced inspection and maintenance of assets and pipeline rights-of-way, emergency and crisis response planning and training, and business continuity planning.
- Utilization of weather data during the design of new sites or facilities so they are more resilient.
- Implementation of systems to forecast extreme weather events.
- Joint contingency planning with other parties, enabling us to coordinate shutdowns in advance of severe weather events.
- Operational response planning for extreme weather events, including the installation of on-site emergency generators.

We also partner with research organizations and industry groups to monitor the resilience of assets to physical risks, including severe weather events such as 100-and 200-year rainfall events. This helps determine the need for maintenance or replacement of company assets, including existing pipelines.



#### **Summary of climate-related opportunities**

#### Opportunity definition

## Potential positive financial impact

#### Realization measures

#### Resource Efficiency

There is a natural incentive to reduce energy use.

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

S/T	M/T	L/T
Medium	Medium	Medium
Financial	Financial	Financial
Impact	Impact	Impact

We have an opportunity to achieve direct cost savings through modernization and optimization of existing infrastructure.

Through decarbonizing our asset base, we're increasing the readiness of the organization to manage exposure to GHG compliance costs, creating efficiencies and reducing operating costs, increasing the terminal value of our assets, and contributing to global efforts to address climate change, all while mainlining our commitment to safe, reliable operations.

Efforts to advance this opportunity include investing in operational efficiencies and enhancements that improve emissions performance as part of executing our plan to achieve a 30 per cent reduction in GHG emissions intensity across our operations by 2030. We also factor sustainability into our decision making around new projects, modernization, maintenance, electrification and enhanced leak detection.



#### Opportunity definition

# Potential positive financial impact

#### Realization measures

#### **Energy Sources**

We continue to look at all forms of energy to balance energy demand with global GHG emissions reduction goals and we continue to demonstrate commitment to sustainable energy across our footprint.

We are uniquely positioned to capture energy transition opportunities through a variety of future scenarios, building on our existing experience and assets.

We also know technological innovation is critical to managing the complex and interrelated issues surrounding GHG emissions. Taking advantage of the opportunities posed by technological development is closely integrated with mitigating its risks, as described above.

S/T	M/T	L/T
Low	Low	High
Financial	Financial	Financial
Impact	Impact	Impact

Our GHG emissions reduction strategy focuses on reducing our own GHG emissions while simultaneously taking advantage of the business growth opportunities presented by low-carbon fuels and infrastructure.

We have the potential to increase revenues through capitalizing on the growing demand for emission-less power by growing our portfolio of solutions that include:

- · nuclear power generation,
- other mature power generation (wind, solar), and
- storage and firming resources.

The inherent financial risks associated with technological developments also offers financial opportunities.

We will not compromise our commitment to being thoughtful, deliberate and disciplined in every investment decision we make.

While the types of energy we deliver may change, how we continue to invest and grow will be very familiar. Our strategy and energy transition teams collaborate with our business units to assess how the pace, scale and types of energy system shifts may potentially introduce business opportunities. As of December 31, 2022, our \$34 billion secured capital program is over 60 per cent weighted towards enabling energy transition. This includes \$2.8 billion to decarbonize our own asset base, \$14.2 billion in projects displacing higher emitting fuels, and \$4.4 billion in low carbon investments, including increasing capacity and extending the life of our Bruce Power nuclear facility, which currently supplies approximately 30 per cent of Ontario's power market with emission-less electricity.

Additional efforts to realize this opportunity include:

- Exploring ways to leverage our nuclear position into small modular reactors.
- Pioneering a combined wind, solar and long-duration pumped hydro
  portfolio that positions customers to manage hourly power needs with
  cost certainty and achieve decarbonization goals by sourcing power from
  emissions-free assets.
- Earning incremental returns and reducing emissions through virtual power purchase agreements, a renewable power solution to decarbonize electricity consumption of both internal and external customers.



#### Opportunity definition

## Potential positive financial impact

#### Realization measures

#### **Products and Services**

As demand for lower carbon products and services increases globally, we're leveraging our foundational assets across North America, our strong relationships and over 30 years in the power business to grow our portfolio of customer-driven low carbon solutions.

S/T	M/T	L/T
Medium	Medium	Medium
Financial	Financial	Financial
Impact	Impact	Impact

Our incumbent position allows us access to high barrier to entry markets, advance low-carbon projects with attractive returns, and pursue a diversity of opportunities and structures with optionality to align with our risk preferences.

We continue to actively build our customer-focused origination platform across North America, providing commodity products and energy services to help customers address the challenges of energy transition.

Our existing network of assets, customers and suppliers provide a mutual opportunity in which we can tailor solutions to meet their clean energy needs. Although we may adopt custom-tailored strategies, the core underpinning remains consistent, which is that every opportunity we undertake will ultimately be driven by customer needs allowing us to complement each other's capabilities, diversify risk and share learnings as we navigate the energy transition.

Our business model also provides socioeconomic benefits as we work closely with Indigenous communities, community-based organizations, landowners and other stakeholders in alignment with our values and sustainability commitments.

Additional efforts to realize this opportunity include:

- Entered two joint development agreements (<u>Hyzon</u> and <u>Nikola</u>) supporting customer driven hydrogen production for long haul transportation, power generation, large industrials and heating across the U.S. and Canada.
- Investing \$146 million to build our first Canadian solar power project.
- Investing in <u>Carbon Clean</u>, a highly promising carbon capture technology to reduce GHG emissions on our current asset base.

Expanding on examples detailed earlier in this report pertaining to our investment in low-carbon technologies to support global and customer GHG reduction targets, additional examples of how we're advancing this opportunity include:

- GreenGasUSA RNG hubs, a strategic collaboration to explore the
  development of a network of natural gas transportation hubs, including RNG,
  to provide centralized access to existing energy transportation infrastructure
  for renewable natural gas sources, such as farms, wastewater treatment
  facilities and landfills.
- <u>Canyon Creek Pumped Storage</u>, which will provide up to 37 hours of on-demand, flexible, clean energy and ancillary services to the Alberta electricity grid, meeting some of the province's future power demand with renewable energy sources.



#### Opportunity definition

## Potential positive financial impact

#### Realization measures

#### **Products and Services**

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

S/T	M/T	L/T
Medium	Medium	Medium
Financial	Financial	Financial
Impact	Impact	Impact

Demand for affordable and reliable energy is increasing and the fundamentals support the critical role our natural gas, liquids and power infrastructure will play for decades. We see the North American energy mix continuing to evolve, but most importantly, it requires an all-of-the-above solution.

With over 90,000 kilometers of pipe in the ground and 650 Bcf of storage capacity, we move natural gas from the prolific low-cost basins in North America to the highest demand markets.

Our expertise across the energy spectrum, including in pipelines and power generation, position us well to access high barrier to entry markets and capitalize on growth opportunities and increased revenue from participation in growing markets like hydrogen, carbon capture and LNG export.

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

Additional efforts to advance this opportunity include:

- Leveraging our existing asset footprint and rights-of-way as a launchpad for hydrogen production and transportation, as well as carbon capture and storage opportunities.
- Pursuing connections to new and gro-ing industrial and electric power generation markets and local distribution companies.
- Leveraging our trading expertise to participate in carbon markets and earning incremental returns through virtual power purchase agreements.



#### Opportunity definition

## Potential positive financial impact

#### Realization measures

#### **Products and Services**

Even the widest ranging scenarios show that the world will continue to rely on natural gas and oil for the foreseeable future.

As we look ahead, our strategy is to optimize the value of our existing pipeline systems in a safe and reliable manner, responding to the changing flow patterns of natural gas in North America, while also leveraging our competitive footprint as a platform to grow our Power and Energy Solutions business and enhance the lifecycle and reliability of our assets, all driven by internal and external customer needs.

S/T	M/T	L/T
Medium	Medium	Medium
Financial	Financial	Financial
Impact	Impact	Impact

We continue to monitor signposts and test the financial resilience of our asset base against long term energy outlooks to ensure we remain well positioned to thrive across a range of future energy scenarios.

Additional efforts to advance this opportunity include:

- Maintaining a high-quality, diversified portfolio of assets.
- Adhering to our tried-and-tested risk tolerance.
- Advocating for well-designed policy that provides the regulatory certainty required to attract capital and maintain North American energy sector competitiveness, incent research and innovation, and recognize and account for early and/or voluntary actions.
- Focusing on technology development through a dedicated energy transition team to assess relevant technologies and opportunities.



#### **CLIMATE-RELATED SCENARIOS**

TCFD recommendation: Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

We recognize that future energy systems will evolve. We continue to analyze a range of potential energy supply and demand outcomes, also known as scenario analysis, as part of our strategic planning cycle. 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 financially resilient under most situations and conditions.

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

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

#### **SCENARIO OVERVIEW**

Since 2018, we have considered a variety of scenarios as part of our strategic planning process. In each instance, analysis of multiple long-term energy scenarios, including a below 2°C scenario, is foundational to the company's strategic planning process. In late 2020, we analyzed the potential impacts to TC Energy under an accelerated low-carbon scenario to gain an in-depth perspective on the

quantitative and qualitative implications for our footprint, growth opportunities, risks and portfolio optimization.

In 2021 and 2022, we reviewed, analyzed and presented several global development scenarios to senior management. Last year, this included 1.8°C (Green), 2.4°C (Base) and 2.9°C (Stagnant) scenarios.

- Green scenario: requires a revolutionary transformation to a sustainable low-carbon economy, including yet to be defined technologies.
- Base scenario: ambitious in terms of acknowledging energy transition goals although reflects a pragmatic and plausible approach to the implementation and timing of those goals, one that factors in economic recovery and demand growth in the medium term before there is a peak.
- Stagnant scenario: highlights weak political support of environmental and climate policies.

The differentiating factors in this range of scenarios are the pace of change, the role of consumer choice and behaviours, the role of government and the private sector, the impact of geopolitical cooperation and the long-term economic effects of how energy security risks are managed in different markets.

The analysis included evaluation of supply and demand as well as market drivers related to our key commodities: liquids, natural gas and power. In addition to the above scenario analyses, we conduct recurring reviews and analysis of major 1.5°C to 1.77°C accelerated and net zero scenarios. This includes an annual review of the International Energy Agency's (IEA) World Energy Outlook. We evaluate the penetration of renewable energy, hydrogen demand, carbon capture, LNG trade and other meaningful trends.

We understand the importance of continually updating our view of market fundamentals in the context of energy transition. Our projections are informed by internal analysis, third-party research and the advice of outside experts on energy market fundamental. Given the nature of our business, we place significant emphasis on ensuring senior

leadership and the Board are updated on the resilience of our asset portfolio over a range of potential energy supply and demand outcomes as part of our strategic planning cycle and financial outlook planning. Material presented incorporates key scenarios, climate-related developments, risks and opportunities, to inform processes for governance, risk management and strategic planning.

#### **SCENARIO OUTCOMES**

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

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



In 2023 and 2024, we plan to undergo a deeper scenario analysis effort to stress test the business portfolio against a 1.5°C scenario.

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

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

We have a demonstrated track record of responding to a constantly evolving external environment. 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.

#### TCFD CLIMATE-RELATED RISK MANAGEMENT

TCFD recommendation(s): Describe the organization's processes for identifying and assessing climate-related risks; describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.

Climate-related risks are integrated into our broader risk categories that encompass health, safety, financial, reputational, environmental, regulatory and legal consequences. Risk reviews are co-coordinated to ensure climate impacts are considered within the broader context of other risks impacting the organization.

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

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

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

Our Board retains general oversight of all enterprise risks and specifically has direct oversight of reputation and relationships, political and regulatory uncertainty, capital allocation strategy and project execution and capital costs. The Board reviews the enterprise risk register annually and oversees how these risks are being managed and mitigated in accordance with TC Energy's risk appetite and tolerances. The Board also participates in detailed presentations on each enterprise risk as required or requested.

The Board is informed quarterly on emerging risks and management's response to these risks. If an emerging risk rises to the level of an enterprise risk, then the Governance committee will review the mapping of the risk and report it to the Board.

In 2022, as part of our commitment to continuous improvement of the ERM program, we identified and adopted KRIs for identified risk events that may impact our ability to achieve our strategic objectives. These KRIs provide quantifiable metrics and objective rationales, as well as meaningful tracking of trending, for each enterprise risk. Beginning in 2023, these KRIs will be used to inform the annual in-depth review conducted by the Board.

The enterprise risk register establishes clear accountabilities of the Board, committees and executives responsible for specific oversight of each enterprise risk. The enterprise risks with the potential to affect our operations are continuously monitored through the program and its framework. In addition, all projects and opportunities recommended by management to the Board for approval include specific descriptions of the associated risks. The risk discussion associated with each project forms a part of the Board's determination of whether to approve projects or pursue opportunities.

Our Board of Directors' Governance Committee oversees our ERM activities and ensures appropriate 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, major project execution, health, safety, sustainability and environmental risk, including climate-related risks.
- The Audit Committee oversees management's role in managing financial risk, including market risk, counterparty credit risk and cybersecurity.



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

Risk owners and specialists throughout our company are responsible for continuously managing risks within their respective areas. The two most senior management groups—our ELT and our Management Risk Committee (MRC)—are directly responsible for overseeing the management of our most significant operational risks. These teams continuously review the company's activities and provide expertise to inform policy response strategies and ensure consistency. Risks, including those associated with climate, are monitored and escalated to MRC through our ERM program to ensure our senior leaders have a broad perspective and make risk-related decisions in a holistic and consistent manner.

Our <u>2022 Annual Report</u> contains information on the risks applicable to TC Energy and is publicly available in the Reports and filings section of the <u>investors page on our website</u>. For more information about the company's processes for identifying and managing risk, please refer to the <u>risk oversight and enterprise risk management</u> section of the 2023 Management Information Circular.

## TC ENERGY'S OPERATIONAL MANAGEMENT SYSTEM

Our overarching management system, TOMS, enables operational excellence through a structured set of requirements and processes to manage risk and continually improve through the plan, do, check, act cycle. TOMS sets out standardized requirements for business activities, including risk management. These

requirements drive our approach to identify, analyze, evaluate, monitor and communicate risks and implement mitigation strategies for the asset lifecycle, including climate-related risks. Operational risks are communicated annually through the corporate ERM process.

#### TCFD CLIMATE-RELATED TARGETS AND METRICS

TCFD recommendation: Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process; disclose Scope 1, Scope 2 and, if appropriate, Scope 3 greenhouse gas (GHG) emissions and the related risks.

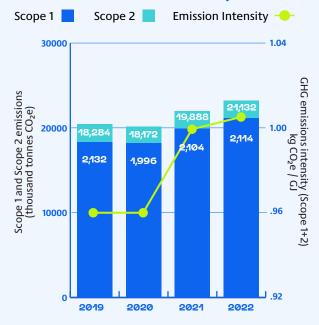
TC Energy tracks year-over-year performance of several metrics to monitor climate-related risks and opportunities. These include GHG emissions (Scope 1, Scope 2 and Scope 3) and emissions intensity, total energy consumption, environmental compliance and water use. Please refer to the <a href="Performance Tables">Performance Tables</a> in this report as well as our annual <a href="CDP Climate Change questionnaire response">CDP Climate Change questionnaire response</a> for details.

#### TCFD recommendation: Describe the targets used by the organization to manage climate-related risks and opportunities and performance against those targets.

In 2021, we announced two ambitious GHG emissions reduction targets to adapt to the energy transition over time, while continuing to provide the energy people need and want. These targets position us to achieve net-zero GHG emissions from our operations by 2050, with an interim goal to reduce the GHG emissions intensity of our operations 30 per cent by 2030.

For planning purposes, progress is measured relative to 2019 as a baseline year, adjusted for material changes in our asset portfolio and quantified on an operational control boundary.

#### **GHG** emissions and emissions intensity



In the body of this report, we discuss the progress we have made in 2022 to advance a cleaner energy future with investments in decarbonization, technology and modernization of our systems and assets.

The record demand for our services and infrastructure has created upward pressure in our near-term GHG emissions intensity trajectory, notably Scope 1 emissions over the last two years. The path to achieving our 2030 GHG emissions intensity target was not expected to be linear, and we continue to assess the various options and the optimal path to achieving this goal. Balancing capital allocation, deleveraging and maintaining our focus on sustainability priorities, while ensuring safe, reliable, affordable service for our customers presents complex challenges, and we continue to focus on finding the right solutions.

We will continue to monitor global emissions frameworks and standards, including those of the Science Based Targets initiative (SBTi) as we identify opportunities to continuously improve our climate related targets.



## Task Force on Climate-Related Financial Disclosures summarized alignment

Recognizing the value of ESG reporting frameworks such as the TCFD, the concordance table shown below demonstrates the relationship between TC Energy's sustainability reporting and <u>Implementing the Recommendations of the Task Force on Climate-Related Financial Disclosures Final Report (October 2021)</u>.

Topic and Recommended Content	Select TC Energy Material
Governance	
Describe the board's oversight of climate-related risks and opportunities.	In this report > Corporate and sustainability governance, Advancing sustainability and innovation, Supply chain, Business ethics and compliance, Enterprise risk management, TCFD comprehensive alignment > Board's oversight of climate-related risks and opportunities  2022 Annual Report; page 100  2023 Management Information Circular; pages 43-47, 61, 63, 65-69  2022 Annual Information Form; pages 22-25  Terms of Reference for the CEO  Board of Directors Terms of Reference  2022 CDP Climate Change Questionnaire; C1.1, C1.1a, C1.1b
Describe management's role in assessing and managing climate-related risks and opportunities.	In this report > Corporate and sustainability governance, Advancing sustainability and innovation, Supply chain, Business ethics and compliance, Enterprise risk management, TCFD comprehensive alignment > Management's oversight of climate-related risks and opportunities  2022 Annual Report; pages 103-106  2023 Management Information Circular; pages 43-47, 61  2022 CDP Climate Change Questionnaire; C1.2, C1.2a
Describe the climate-related risks and opportunities the organization has identified over the short, medium, and long term.	In this report > TCFD comprehensive alignment > <u>Identified climate-related risks and opportunities</u> 2022 Annual Report; pages 1-7, 99-106  2023 Management Information Circular; page 68  2022 Annual Information Form; pages 22-25  2022 CDP Climate Change Questionnaire; Section C2
Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy, and financial planning.	In this report > TCFD comprehensive alignment > <u>Impact of climate-related risks and opportunities</u> 2022 Annual Report; pages 99-106  2022 CDP Climate Change Questionnaire; Section C2, Section C3



# Task Force on Climate-Related Financial Disclosures summarized alignment continued

Topic and Recommended Content	Select TC Energy Material
Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.	In this report > TCFD comprehensive alignment > Resilience of organizational strategy 2022 Annual Report; pages 17, 99-106, 208 2022 CDP Climate Change Questionnaire; C2.4a, C3.2, C3.2a
Risk Management	
Describe the organization's processes for identifying and assessing climate-related risks.	In this report > Enterprise risk management, TCFD comprehensive alignment > Process for identifying and assessing climate-related risks  2022 Annual Report; page 99  2023 Management Information Circular; pages 43-47, 61-64  2022 Annual Information Form; pages 22-25  2022 CDP Climate Change Questionnaire; C2.1, C2.1a, C2.1b, C2.2, C2.2a
Describe the organization's processes for managing climate-related risks.	In this report > Operational management system, TCFD comprehensive alignment > Process for managing climate-related risks  2022 Annual Report; pages 99-106  2023 Management Information Circular; pages 43-44, 46-47  2022 CDP Climate Change Questionnaire; C2.1, C2.2
Describe how processes for identifying, assessing, and managing climate-related risks are integrated into the organization's overall risk management.	In this report > Enterprise risk management, TCFD comprehensive alignment > Process for identifying and assessing climate-related risks  2022 Annual Report; page 99  2023 Management Information Circular; pages 43-47, 61-64  2022 Annual Information Form; pages 22-25  2022 CDP Climate Change Questionnaire; C2.1, C2.2



# Task Force on Climate-Related Financial Disclosures summarized alignment continued

Topic and Recommended Content	Select TC Energy Material
Metrics and targets	
Disclose the metrics and targets used to assess and manage relevant climate-related risks and opportunities where such information is material.	In this report > GHG emissions: Scope 1 (equity share, operational control), GHG emissions: Scope 2, GHG emissions: Scope 3, GHG emissions: Scope 1 and 2 emissions intensities, TCFD comprehensive alignment > metrics and targets GHG Emissions Reduction Plan 2022 Annual Report; pages 18, 100, 104 2023 Management Information Circular; pages 6, 62 2022 CDP Climate Change Questionnaire; Section C4
Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 GHG emissions, and the related risks.	In this report > GHG emissions: Scope 1 (equity share, operational control),  GHG emissions: Scope 2, GHG emissions: Scope 3, GHG emissions: Scope 1 and 2 emissions intensities,  TCFD comprehensive alignment > Disclosure of Scope 1, Scope 2 and Scope 3 emissions  2022 CDP Climate Change Questionnaire; Section C6, Section C7
Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.	In this report > Climate change and the energy transition, TCFD comprehensive alignment > targets  GHG Emissions Reduction Plan  2022 Annual Report; pages 18, 100, 104  2023 Management Information Circular; pages 6, 62  2022 CDP Climate Change Questionnaire; Section C4



## **United Nations Sustainable Development Goals alignment**

We support the United Nations Sustainable Development Goals (UN SDGs) and have identified the SDGs that are most relevant to our business and where we can make our greatest contributions. These global goals serve as a framework to orient our sustainability commitments, targets and progress. We consider it essential to cooperate with other organizations and to align our efforts behind UN SDG 17.

Commitment	UN SDG
Environment	
Embracing the energy transition	<u>UN SDG 7</u> – Affordable and Clean Energy
	<u>UN SDG 12</u> – Responsible Consumption and Production
	<u>UN SDG 13</u> – Climate Action
	<u>UN SDG 17</u> – Partnerships for the Goals
Leaving the environment as we found it	<u>UN SDG 6</u> – Clean Water and Sanitation
	<u>UN SDG 14</u> – Life Below Water
	<u>UN SDG 15</u> – Life on Land
Committed to safe, reliable, sustainable operations	<u>UN SDG 9</u> – Industry, Innovation and Infrastructure
	<u>UN SDG 12</u> – Responsible Consumption and Production
	<u>UN SDG 14</u> – Life Below Water
	<u>UN SDG 15</u> – Life on Land
Social	
Continuous safety improvement	<u>UN SDG 3</u> – Good Health and Well-being
	<u>UN SDG 8</u> – Decent Work and Economic Growth
Focus on mental health	UN SDG 3 – Good Health and Well-being
	<u>UN SDG 4</u> – Quality Education
	<u>UN SDG 8</u> – Decent Work and Economic Growth
Fostering mutually beneficial relationships	<u>UN SDG 4</u> – Quality Education
	<u>UN SDG 8</u> – Decent Work and Economic Growth
	<u>UN SDG 11</u> – Sustainable Cities and Communities
	<u>UN SDG 17</u> – Partnerships for the Goals



# **United Nations Sustainable Development Goals alignment continued**

Commitment	UN SDG
Fostering enduring, mutually beneficial relationships with Indigenous groups	<u>UN SDG 1</u> – No Poverty
	UN SDG 3 – Good Health and Well-being
	UN SDG 8 – Decent Work and Economic Growth
	<u>UN SDG 10</u> – Reduced Inequalities
	<u>UN SDG 16</u> – Peace, Justice and Strong Institutions
Fostering inclusion and diversity	<u>UN SDG 5</u> – Gender Equality
	UN SDG 8 – Decent Work and Economic Growth
	<u>UN SDG 10</u> – Reduced Inequalities
Governance	
Further integrate and contribute to sustainability	UN SDG 13 – Climate Action
	<u>UN SDG 16</u> – Peace, Justice and Strong Institutions
	<u>UN SDG 17</u> – Partnerships for the Goals



# 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 forwardlooking information in this document includes, but is not limited to statements on our financial and operational performance, including the performance of our subsidiaries, expectations about strategies and goals for growth and expansion including those growth opportunities anticipated from energy transition, our anticipated capital program, our expected emission reductions and other benefits from planned projects, our ability to leverage carbon offsets and credits, expected costs and schedules for planned projects and restoration/ remediation initiatives, the installation, adoption and integration of new technologies into our business, including, centralized data management systems, Al and machine learning technologies, hydrogen hubs, vapour combustors and hybrid gas, electric compressor units, drone use advances, and methane recapture technologies, expected energy demand levels, anticipated impacts from our community giving programs, futureorientated financial information or financial outlook, statements regarding our future plans and prospects overall, including those statements relating to energy transition, and statements relating to TC Energy's sustainability commitments, including embracing energy transition, targets related to GHG emissions intensity reduction, biodiversity and land impacts, safety and

continuous improvement, enhancing mental health and psychological safety, fostering relationships with Indigenous groups and external stakeholders, maintaining mutually beneficial partnerships with our landowners, fostering inclusion and diversity across our organization and supply chain and further integration of sustainability into strategy, decision-making, performance-tracking and assessment, R&D and innovation investments to contribute to sustainability, 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 and infrastructure necessary to efficiently and effectively achieve GHG emissions targets and ambitions, the commercial viability and scalability of GHG emissions 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, portfolio management and divestiture programs aligned with maximizing shareholder value, the operating performance of our pipeline and power generation and storage assets, amount of capacity sold and rates achieved in our pipeline businesses, the amount of capacity payments and revenues from our power generation assets due to plant availability, production levels within supply basins, construction and completion of capital projects, cost and availability of, and inflationary pressure on,

labour, equipment and materials, the availability and market prices of commodities, access to capital markets on competitive terms, interest, tax and foreign exchange rates, performance and credit risk of our counterparties, regulatory decisions and outcomes of legal proceedings, including arbitration and insurance claims, our ability to effectively anticipate and assess changes to government policies and regulations, including those related to the environmental, social and governance (ESG) matters, competition in the businesses in which we operate, unexpected or unusual weather, acts of civil disobedience, cybersecurity and technological developments, ESG related risks, the impact of energy transition on our business, economic conditions in North America as well as globally, and global health crises, such as pandemics and epidemics and the 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.

## TCENERGY.COM

TRP.NYSE

TRP.TSX

ISIN: CA87807B1076

SEDOL: BJMY6G0, BJMY6F9

# ()TCEnergy

## WE WANT TO HEAR FROM YOU!

## **Corporate Head Office**

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

communications@tcenergy.com