

KPMG LLP 205 5th Avenue SW Suite 3100 Calgary AB T2P 4B9 Tel 403-691-8000 Fax 403-691-8008 www.kpmg.ca

# INDEPENDENT PRACTITIONER'S LIMITED ASSURANCE REPORT

To the management of TC Energy Corporation ("the Entity" or "TC Energy")

We have undertaken a limited assurance engagement on certain key performance indicators of the Entity, included in the accompanying Report on Select Environmental Indicators (the "Indicator Report") and the 2023 Report on Sustainability (the "Report") and as described below, for the year ended December 31, 2022.

# Subject matter information and applicable criteria

The scope of our limited assurance engagement, as agreed with management, comprises the following performance information (collectively the "subject matter information") and denoted by the symbol ^ in the Indicator Report and the Report:

Subject Matter Information	Results	Applicable Criteria
Scope 1 Corporate greenhouse gas ("GHG") emissions (operational control approach)	21,132,249 tonnes CO <sub>2</sub> e	The World Resources Institute / World Business Council for Sustainable Development GHG Protocol – A Corporate Accounting and Reporting Standard ("GHG Protocol")
Scope 2 Corporate GHG emissions, location-based (operational control approach)	2,113,830 tonnes CO <sub>2</sub> e	GHG Protocol & GHG Protocol Scope 2 Guidance (Supplement to the GHG Protocol)
Corporate GHG Emissions Intensity for Scope 1 and location-based Scope 2 emissions (operational control approach)	1.01 kgCO₂e/GJ	GHG Protocol & Internally developed criteria

Other than as described in the preceding paragraph, we did not perform assurance procedures on the remaining information included in the Indicator Report or the Report, and accordingly, we do not express a conclusion on this information.



# Management's Responsibility

Management is responsible for the preparation and presentation of the subject matter information in accordance with the applicable criteria (the "applicable criteria").

There are no mandatory requirements for the preparation and publication of key performance indicators included in the Indicator Report and the Report. As such, the Entity applies the applicable criteria, including its own internal reporting guidelines and definitions for ESG reporting, which is presented in Appendix 1 and Appendix 2 of the Indicator Report and in the footnotes found on pages 70, 76, 79 and 82 of the Report. Management is responsible for the development of such criteria and for determining the appropriateness of the use of the applicable criteria.

Management is also responsible for determining the Entity's objectives in respect of sustainability performance and reporting, including the identification of stakeholders and material issues.

Management is also responsible for such internal control as management determines necessary to enable the preparation and presentation of the subject matter information that is free from material misstatement, whether due to fraud or error.

# Practitioner's Responsibilities

Our responsibility is to express a limited assurance conclusion on the subject matter information based on evidence we have obtained. We conducted our limited assurance engagement in accordance with Canadian Standards on Assurance Engagements (CSAE) 3000, Attestation Engagements Other than Audits or Reviews of Historical Financial Information and CSAE 3410, Assurance Engagements on Greenhouse Gas Statements. These standards require that we plan and perform our engagement to obtain limited assurance about whether based on the procedures performed and evidence obtained, any matter(s) has come to our attention to cause us to believe that the subject matter information is materially misstated.

The procedures performed in a limited assurance engagement vary in nature and timing from and are less in extent than for a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed. Accordingly, it is not a guarantee that a limited assurance engagement conducted in accordance with this standard will always detect a matter that causes the practitioner to believe that the subject matter information is materially misstated.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of users of our report.

The nature, timing and extent of procedures performed depends on our professional judgment, including an assessment of the risks of material misstatement, whether due to fraud or error, and involves obtaining evidence about the subject matter information.



Our engagement included: assessing the appropriateness of the underlying subject matter, the suitability of the criteria used by the Entity in preparing the subject matter information in the circumstances of the engagement and evaluating the appropriateness of the methods, policies and procedures, and models used in the preparation of subject matter information and the reasonableness of estimates made by the Entity.

Our engagement included, amongst others, the following procedures:

- Inquiries with relevant staff at the corporate and business unit levels to understand the data collection and reporting processes for the subject matter information;
- Where relevant, performing walkthroughs of data collection and reporting processes for the subject matter information;
- Comparing a sample of the reported data for the subject matter information to underlying data sources;
- Inquiries of management regarding key assumptions and, where relevant, the re-performance of certain calculations;
- Completion of two in-person and four virtual site visits, including walkthroughs of data collection and reporting processes, and interviews with senior management and relevant staff; and
- Reviewing subject matter information presented in the Indicator Report and the Report to determine whether
  they are consistent with our overall knowledge of, and experience with, the sustainability performance of the
  Entity.

The engagement was conducted by a multidisciplinary team which included professionals with suitable skills and experience in both assurance and in the applicable subject matter, including environmental aspects.

## Practitioner's Independence and Quality Management

We have complied with the relevant rules of professional conduct/code of ethics applicable to the practice of public accounting and related to assurance engagements, issued by various professional accounting bodies, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies Canadian Standard on Quality Management 1, Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements which requires the firm to design, implement and operate a system of quality management, including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.



# Significant Inherent Limitations

Historical non-financial information, such as that contained in the Indicator Report and the Report, is subject to more inherent limitations than historical financial information, given the alternative methods available for determining this information. The absence of a significant body of established practice on which to draw allows for the selection of different but acceptable measurement techniques, which can result in materially different measurements and can impact comparability. The nature and methods used to determine such information, as described in the applicable criteria, may change over time, and it is important to read the Entity's reporting methodology available in Appendix 1 and Appendix 2 of the Indicator Report and in the footnotes found on pages 70, 76, 79 and 82 of the Report.

### Conclusion

Our conclusion has been formed on the basis of, and is subject to, the matters outlined in this report. We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion. Based on the procedures performed and evidence obtained, no matters have come to our attention to cause us to believe that the Entity's subject matter information for the year ended December 31, 2022, is not prepared and presented, in all material respects, in accordance with the applicable criteria.

# Emphasis of Matter

We draw attention to Appendix 2: Corporate GHG Emissions Intensity to the Indicator Report which describes the various methodologies employed by TC Energy to measure throughput used to calculate Corporate GHG Emissions Intensity. Variations in methodology exist between Business Units as a result of the difference in operations and nature of the products transported. These methodology variations may result in different measurements and can impact comparability with industry peers. It is important to read TC Energy's reporting methodology, which is consistently applied year over year.

Our conclusion is not modified in respect of this matter.

# Specific Purpose of Subject Matter Information

The subject matter information has been prepared in accordance with the applicable criteria and as a result may not be suitable for another purpose.

**Chartered Professional Accountants** 

Calgary, Canada July 27, 2023



# Report on select environmental indicators

# YEAR ENDED DECEMBER 31, 2022

#### **CONTEXT**

TC Energy (TCE or the Company) engaged KPMG to conduct limited assurance on the following select 2022 ESG indicators:

- 1. Scope 1 and 2 Corporate greenhouse gas (GHG) emissions inventory (tCO<sub>2</sub>e)
- 2. Corporate GHG emissions intensity (kgCO<sub>2</sub>e/GJ)

#### **ESG INDICATOR #1: CORPORATE GHG EMISSIONS INVENTORY FOR 2022**

#### Table 1: 2022 Scope 1 and Scope 2 Corporate GHG emissions

	Emissions (tCO <sub>2</sub> e)
Scope 1 Corporate GHG Emissions	21,132,249^
Scope 2 Corporate GHG Emissions	2,113,830^

The corporate GHG emissions inventory is calculated using the internally developed criteria as described in Appendix 1. The corporate GHG emissions provided in Table 1 has been subject to external assurance.

#### **ESG INDICATOR #2: CORPORATE GHG EMISSIONS INTENSITY FOR 2022**

## Table 2: 2022 Corporate GHG emissions intensity

	Intensity (kgCO <sub>2</sub> e/GJ)
TCE Emissions Intensity	1.01^

The corporate GHG emissions intensity is calculated using the internally developed criteria as described in Appendix 2. The GHG emissions intensity provided in Table 2 has been subject to external assurance.

<sup>^</sup> TC Energy has obtained independent limited assurance of this indicator for the year ended December 31, 2022

# Appendix 1: Scope 1 and Scope 2 Corporate GHG Emissions Inventory

The purpose of this appendix is to outline the reporting criteria for TCE's Scope 1 and Scope 2 corporate GHG emissions inventory related to the assured ESG indicator.

#### **Corporate GHG Emissions Reporting**

TC Energy has established an annual process for quantifying and reporting greenhouse gas (GHG) emissions. The Company's 2022 GHG Inventory has been developed referencing the requirements of:

- The World Resources Institute / World Business Council for Sustainable Development GHG Protocol A Corporate Accounting and Reporting Standard ("GHG Protocol")
- GHG Protocol & GHG Protocol Scope 2 Guidance (Supplement to the GHG Protocol)

TCE's corporate GHG emissions inventory is developed by consolidating TCE's five operational business units (i.e., Canada Natural Gas Pipelines, US Natural Gas Pipelines, Mexico Natural Gas Pipelines, Liquids Pipelines, and Power & Energy Solutions). GHG emissions from sources or activities that are attributed to shared services across the organization such as offices, corporate travel, are also incorporated into the corporate inventory under a corporate services unit.

**Organizational Boundary** – TCE uses an operational control approach, reflecting assets and operations where the Company has the authority to influence operating practices, leveraging corporate standard operating practices and procedures, and therefore has influence over the resulting throughput or production and emissions profile. TCE's inventory boundary includes all assets with operational control at the end of the reporting year (i.e., December 31). For acquisitions completed during the reporting year, TCE reports both emissions and production for the full calendar year. TCE does not report either emissions or production for assets divested during the reporting year.

**GHG Emissions**<sup>1</sup> - TCE reports on Scope 1 (i.e., direct emissions from operations which includes sources such as stationary fuel combustion, mobile fuel combustion, venting emissions, flaring and incineration, and fugitives) and Scope 2 emissions (i.e., indirect emissions from purchased electricity, steam and heating/cooling energy)<sup>2</sup>. All material sources of emissions have been included.

- **Scope 1 emissions** are calculated using quantification methodologies defined by regulatory reporting requirements using measured fuel consumption and gas quality data, operational activity data, measured emissions, default emission factors and engineering estimates. In instances where emissions are not subject to regulatory reporting, emissions are calculated using business unit quantification methodologies consistent with regulatory quantification methods. Where applicable, operationally derived emission factors from measured data were used to quantify emissions.
- **Scope 2 emissions** are determined using the location-based methodology. The 2022 indirect emissions are calculated using invoiced or metered energy consumption data and the most current power and heat generation emission factors published for the region in which the assets are located. TCE applies reasonable estimates in the event Scope 2 data is not available. The Company has not calculated Scope 2 emissions using market-based emissions factors and no environmental instruments such as carbon offsets or renewable energy certificates were used in the 2022 corporate GHG emissions inventory.

**Rebaseline Approach** – TCE's 2030 emissions intensity reduction target is measured relative to a 2019 baseline year used for corporate target setting. TCE's baseline recalculation approach is to re-evaluate for any methodological or structural changes which meet a significance threshold.

<sup>&</sup>lt;sup>1</sup> TCE inventory of GHG Emissions includes, where applicable, total emissions data for six GHGs (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, PFCs, HFCs, SF<sub>6</sub>) in metric tonnes and in tonnes of CO<sub>3</sub>-equivalent.

<sup>&</sup>lt;sup>2</sup> TCE's Scope 3 emissions were excluded from the limited assurance scope of work.

#### **Emission Factors**

- **Scope 1** emissions calculations and emission factors are applied as required by jurisdictional regulatory reporting requirements, resulting in methodological differences between jurisdictions throughout the reported data.
  - In cases where emissions are not subject to regulatory reporting, TCE applies a hierarchy for assigning emission factors in the following order: specific regulatory definitions (e.g., U.S. Environmental Protection Agency, Environment and Climate Change Canada, or Mexico Government emission factors), site specific emission factors (e.g., operational specific factors from TCE measured, calculated, or sampled activity data), references using publicly available data (e.g., American Petroleum Institute, equipment manufacturer emission factors) along with references using Industry Association data (e.g., CEPEI, AGA) and finally academic sources. All emission factors are assigned with consideration to jurisdictional applicability.
- **Scope 2** emissions are quantified using regional or subregional emission factors from the following jurisdictions in which TCE assets operate:
  - Canadian facilities: Environment and Climate Change Canada (ECCC) 2023 National Inventory Report for electricity use, and Alberta Environment and Parks Technology Innovation and Emission Reduction (TIER) 2020 (2022 amendment) regulations for heat energy use.
  - US facilities: US Environmental Protection Agency's (EPA) 2023 Emissions & Generation Resource Integrated Database (eGRID).
  - Mexico facilities: 2023 Government of México Ministry of Environment and Natural Resources (Secretaria de Medio Ambient y Recursos Naturales).
- **Global Warming Potentials (GWP)** The conversion of emissions data into carbon dioxide equivalent GHG emissions is completed across all operational jurisdictions using the 100-year global warming potential factors from the United Nations Climate Change (UNCC) *IPCC Fourth Assessment Report (AR4)*.
- **Emission Quantification Methods** GHG inventory reporting is based on measured or calculated GHG emissions from all applicable sources of emissions. The basic methodology for quantifying GHG emissions is outlined by the following equation:

Activity × Emission Factor × GWP = CO<sub>2</sub>e

#### Where:

- **Activity** is a measure of a level of activity that results in GHG emissions.
- **Emission factor** reflects the average GHG emissions intensity per unit of available activity data and absolute emissions for a given source.
- Global Warming Potential, GWP, converts emissions of individual GHG compounds to carbon dioxide equivalent, CO,e.

**Missing data and Uncertainty** – Different regulatory and/or business unit specific quantification methodologies can result in uncertainty in the calculated emissions results. Additional uncertainty may arise from missing data due to different regulatory requirements across the operational footprint or due to partial activity datasets. In these cases, TCE uses best available information including operational activity data if available and/or engineered estimates to calculate emissions for missing data and applies reasonable estimates and best available information, per regulatory reporting requirements or internal processes, to complete activity datasets.

**Inventory Verification** – Where relevant, reported emissions data includes the same information that was used for regulatory verification purposes.

# **Appendix 2: Corporate GHG Emissions Intensity**

The purpose of this appendix is to outline the reporting criteria for TCE's Corporate GHG emissions intensity.

#### **GHG Emissions Intensity Reporting**

Emissions intensity is calculated and reported in aggregate for the Company, as kilograms (kg) of  $CO_2$ -equivalent (including both Scope 1 and Scope 2 GHG emissions) per unit of energy that we transport or produce for our customers annually. The reporting boundary for the corporate emissions intensity indicator is based on the operational control methodology for emissions and throughput or production metrics.

TCE's company-wide intensity is reported at an aggregated level which is defined as  $kgCO_2e/GJ$ , and has been developed on the following basis:

- The numerator uses the Scope 1 and 2 Corporate GHG emissions inventory as detailed in Appendix 1.
- The denominator for the corporate intensity metric is developed as a consolidated energy metric from the individual business units as described below.

**Consolidated energy metric** - The emissions intensity denominator (either throughput or production, as appropriate) is quantified for each business unit and is converted to a common energy metric (gigajoules [GJ]) in the following manner:

- Canadian Natural Gas Pipelines, US Natural Gas Pipelines and Mexico Natural Gas Pipelines: TCE's gas pipelines business units report throughput volumes from delivery points (natural gas pipeline systems) using scheduled and/or allocated volumes. The volumes are converted to an energy equivalent (GJ) using measured or predetermined higher heating values.
- Liquids Pipelines report throughput from volumes-based receipt points using measured net standard volume. These volumes are converted to an energy equivalent (GJ) using measured or predetermined higher heating values based on the type of crude oil transported.
- The Power and Energy Solutions business unit production (i.e., MWh of electricity and GJs of steam) is derived from metering
  devices that measure the net electricity and net heat energy that are produced. The electricity produced is converted to GJ
  equivalents using predetermined conversion factors. The throughput for the natural gas storage assets is based on measured
  volumes of natural gas injected and removed from storage, which is then converted to a GJ equivalent using predetermined
  conversion factors.

**Uncertainty and comparability** - Each business unit follows regulatory or internal reporting requirements for the quantification of emissions and the determination of throughput or production metrics. Uncertainty may arise from different methodologies employed by each business unit when reporting throughput and production metrics used to calculate Corporate GHG emissions intensity due to unique measurement or commercial data systems across the operational footprint. These quantification methodologies may result in different measurement outcomes that are not comparable to industry peers. The methodology used for each business unit is consistently applied year over year to allow performance monitoring over time.