



2022 CDP CLIMATE CHANGE QUESTIONNAIRE - CP RESPONSE

Notice to users: As a core component of our sustainability practices, CP has been a contributing participant to the CDP (formerly Carbon Disclosure Project) for over a decade. The information contained within this document originates from CP's response to the CDP Climate Change 2022 Questionnaire.

As part of our transformational sustainability journey, CP is actively working with CDP to increase our transparency through continuous refinement of our sustainability disclosure and reporting practices. This document has been formatted to enhance user accessibility to important program details surrounding CP's ongoing practices to improve management of greenhouse gas emissions and energy efficiency.

For more information or questions regarding this report or sustainability at CP, please contact sustainability@cpr.ca

CANADIAN HEAD OFFICE:

Canadian Pacific
 ATTN: Environmental Risk
 7550 Ogden Dale Road S.E.
 Calgary, AB, Canada T2C 4X9



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C0.

Introduction

C0.1

Give a general description and introduction to your organization.

Canadian Pacific Railway Limited ("CPRL"), together with its subsidiaries ("CP" or the "Company"), owns and operates a transcontinental freight railway in Canada and the U.S. CP's diverse business mix includes bulk commodities, merchandise freight and intermodal traffic across a network of approximately 13,000 miles, connecting the Atlantic coast to the Pacific coast across six Canadian provinces and 11 U.S. states. Through connections with other railways supported by a vast network of terminals, classifying yards, intermodal facilities and more than 100 transload operations, CP is able to extend its reach to customers across Canada and the U.S. On average, CP transports more than 52,000 carloads of customer goods and materials weekly.

CP's 2021 total revenue was nearly \$8.0B, derived primarily from freight transportation services and divided between the following sectors:

- 40 percent bulk (grain, coal, potash, fertilizers and sulphur)
- 38 percent merchandise (energy, chemicals and plastics, metals, minerals and consumer products, automotive and forest products)
- 22 percent intermodal

Shipping goods and materials by railway is the most energy-efficient method of on-land freight transportation over long distances. A single-unit train keeps more than 300 trucks off public roads and is three to four times more fuel-efficient than highway transport which helps our customers further reduce GHG emissions. At CP, we have improved our fuel efficiency by 44 percent since 1990 and 19.5 percent over the last decade (currently 11.3 percent better than the North American Class 1 freight railway average). As CP continues to strategically grow our business, we must continue to curtail our emissions while supporting further emissions reductions across the broader transportation sector.

In the past year, CP has undertaken several steps to advance our approach to address climate change. This includes the publication of our first comprehensive Climate Strategy. CP's Climate Strategy charts our path to reduce GHG emissions,

adapt our operations to physical risks and integrate climate factors across the business. In 2021, CP also set two ambitious science-based GHG reduction targets. Our locomotive emissions target covers all well-to-wheel emissions from our locomotive fleet operations and has been approved by the Science Based Targets Initiative (SBTi). Our non-locomotive target all of our Scope 1 and 2 emissions not associated with our locomotive operations and is aligned with the SBTi's well-below 2-degree absolute contraction pathway.

In 2021, CP completed the installation of a 5 megawatt (MW) solar energy farm at our Calgary headquarters building. CP also announced an expansion of our Hydrogen Locomotive Program increasing the planned locomotive conversions from one to three, and adding hydrogen production and fueling facilities to support program testing. CP conducted our first successful hydrogen locomotive movement test in December 2021.

For more information on CP's climate-related initiatives, please refer to our sustainability and climate change websites (<https://sustainability.cpr.ca/> and <https://sustainability.cpr.ca/about/climate-change/>).

In December 2021, CP announced the completion of our acquisition of Kansas City Southern. While CP beneficially owns Kansas City Southern, the shares were immediately deposited into a voting trust upon acquisition. CP cannot influence decision-making or operations at KCS until receipt of the United States Surface Transportation Board approval of the proposed merger. The scope of this year's response to the CDP Climate Change Questionnaire is limited to the activities and operations of CP and does not extend to Kansas City Southern.

Sources:

UNFCCC (2021) Canada. 2021 National Inventory Report (NIR). Retrieved from: <https://unfccc.int/documents/271493>

AAR (2022) Freight Railroads & Climate Change. Retrieved from: <https://www.aar.org/wp-content/uploads/2021/02/AAR-Climate-Change-Report.pdf>

C0.2

State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2021	December 31, 2021	No

C0.3

Select the countries/areas for which you will be supplying data.

Canada
United States of America

C0.4

Select the currency used for all financial information disclosed throughout your response.

CAD

C0.5

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

Operational control

C-T00.7/C-TS0.7

For which transport modes will you be providing data?

Rail

C0.8

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

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, a Ticker symbol	CP

C1.

Governance

C1.1

Is there board-level oversight of climate-related issues within your organization?

Yes

C1.1A

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

Position of individual(s)	Please explain
Board-level committee	<p>CP's Board of Directors (the Board) is responsible for oversight of climate change risks and opportunities.</p> <p>Specifically, the Risk and Sustainability Committee (RSC) of the Board monitors emerging trends and reviews CP's short- and long-term sustainability objectives, including objectives around climate change. As outlined in the Committee's Terms of Reference, the RSC is responsible for reviewing the company's performance against sustainability objectives, plans to improve sustainability practices and reporting as well as strategic plans and opportunities to ensure alignment with sustainability objectives and long-term sustainability considerations including climate change. The RSC meets quarterly, at a minimum, and reports regularly to the full Board of Directors. Through this structure, CP has established a clear governance structure for the Board's review of climate-related matters and an effective oversight mechanism for the review of climate-related topics.</p> <p>Over the past year, the Chair of the RSC met with CP's top shareholders to discuss ESG matters, including perspectives on climate change. Shareholders have stated that they appreciate CP's approach to climate change and transparent communications of key milestones and timelines. CP encourages ongoing engagement with our stakeholder community on all Environmental, Social and Governance (ESG) topics material to our business, including climate change.</p> <p>Advancing CP's approach to climate change was of particular focus for the RSC in 2021. One of the most notable climate-related decisions made by the RSC in the past year was approving CP's Climate Strategy and the science-based GHG reduction targets that guide CP's progress on climate action. CP's Climate Strategy was published in 2021 and outlines CP's approach to managing climate-related impacts across the business. The strategy includes plans to reduce GHG emissions in line with science-based targets covering locomotive and non-locomotive emissions. CP's locomotive emissions reduction target has been validated by the SBTi. To meet our emissions reduction targets, CP is evaluating emerging technologies, such as hydrogen-powered locomotives and renewable energy. In 2021, the RSC received several updates on CP's Hydrogen Locomotive Program and other initiatives to reduce GHG emissions.</p>

C1.1B

Provide further details on the board’s oversight of climate-related issues.

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
<p>Scheduled – all meetings</p>	<ul style="list-style-type: none"> • Reviewing and guiding strategy • Reviewing and guiding major plans of action • Reviewing and guiding risk management policies • Reviewing and guiding annual budgets • Reviewing and guiding business plans • Setting performance objectives • Monitoring implementation and performance of objectives • Overseeing major capital expenditures, acquisitions and divestitures • Monitoring and overseeing progress against goals and targets for addressing climate-related issues 	<p>The Board is responsible for overseeing CP’s business, providing overall guidance to management on the long-term strategic direction, overseeing risk management and ensuring that CP serves the long-term interests of shareholders. CP’s Board-level Risk and Sustainability Committee (RSC) provides oversight for sustainability and climate topics. The RSC has regularly scheduled meetings at least three times each year, met formally at least three times in 2021 and meets informally at least a few times each year. The key objectives of these meetings were to, among other things: (1) Review CP’s short- and long-term sustainability objectives and results of any internal and external stakeholder engagement, (2) Review CP’s performance against our short- and long-term sustainability objectives and review plans to improve performance concerning sustainability practices and reporting, (3) Review strategic plans and opportunities for the business to ensure alignment with our sustainability objectives and long-term sustainability considerations, including climate change, workforce risks and supply chain risks and (4) Monitor and report on emerging trends, risks or issues related to sustainability topics relevant to CP.</p> <p>Specifically regarding climate change, in 2021, the RSC: (1) reviewed CP’s climate-related scenario analysis assessment (which was conducted in 2020), (2) reviewed the development of CP’s Climate Strategy and two GHG reduction targets, including the target that was validated by the SBTi (3) requested shareholder feedback on CP’s Climate Strategy through an annual advisory “say on climate” vote and (4) evaluated CP’s GHG emissions performance and progress on emissions targets.</p>

C1.1D

Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	<p>Board members with strong knowledge and insight on environmental, energy and other climate-related topics are critical to CP's governance of climate-related topics. To assure sound leadership on these topics, CP reviews Board member experience and competence across a variety of sustainability topics, including through its annual board evaluation process which includes experience in environmental, health and safety matters including sustainable development. CP also has directors with experience in the energy sector including (1) executive or Board-level experience with companies in the energy or environmental services sectors, (2) experience with climate-related or sustainability topics at other organizations and/or (3) exposure to climate-related education sessions while being a Board member at CP.</p> <p>In alignment with these criteria, over half of CP's current Board members have demonstrated competence on climate-related topics. This includes several CP Board members with environment, health and safety related experience, including direct business expertise in the environmental services, power and energy sectors. Additionally, some Board members have served as executives and/or Board members on climate-related and sustainability topics for other organizations. For example, CP's Chair of the Board is currently the Chair of the Board-level Research, Innovation and Sustainable Development Committee at a major global environmental services organization.</p> <p>CP also focuses on providing continuing education during Risk and Sustainability meetings to ensure members remain current and knowledgeable on dynamic climate-related topics specific to CP and the transportation sector. In 2021, CP hosted risk and sustainability meetings in which all Board Directors were presented with information on the Hydrogen Locomotive Program and rail network resiliency to the physical risks of climate change. Attendance at these sessions ensures that our Board remains current on relevant climate-related topics to help maintain strong board governance, decision-making and oversight.</p>

C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	Quarterly

C1.2A

Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

CP's President & CEO, who is also a Director on the Board, holds the highest level of responsibility for organizational management and performance related to climate change. The President & CEO establishes CP's broader vision in alignment with the Board and works with key leaders across the business to disseminate messages, drive performance and deliver results related to sustainability and climate change.

In July 2021, CP's President & CEO approved the Company's first Climate Strategy and two science-based GHG emissions reduction targets. The President & CEO was directly involved with this project providing a robust introductory statement for the Climate Strategy. The Climate Strategy charts a path for the Company to reduce greenhouse gas emissions, adapt operations to the physical risks of climate change and further position CP as a leader in the transportation sector's transition to a low-carbon future.

CP's Senior Vice-President and Chief Risk Officer (CRO) reports to the President & CEO and is responsible for all corporate risk-related functions, including enterprise risk management (ERM) processes, environmental affairs, community safety, emergency preparedness and response and sustainability policy and performance (including climate-related concerns). The CRO supports the President & CEO to ensure CP's corporate vision is embedded into operating plans and practices.

To drive action and ensure internal engagement on sustainability across the Company, CP's internal Sustainability Steering Committee, overseen by several senior leaders and executives (including the CRO), meets quarterly to discuss sustainability planning and CP's most material environmental, social and governance topics. Climate change, GHG emissions, mitigation measures and climate strategy are regularly addressed by this Committee. CP's Sustainability Steering Committee monitors and reports annual performance on material climate topics. Topics discussed by the Sustainability Steering Committee are communicated to the President & CEO as appropriate through the CRO.

To support the Company's ongoing focus on climate change, CP created a new Specialist Sustainability, Climate & Energy position in 2021 (reporting through the CRO) to maintain full-time responsibility for climate-related efforts, including implementing the Company's climate strategy and science-based targets. CP also established a Carbon Reduction Task Force to lead the internal focus on decarbonization. Through this task force, CP's industry-leading engineers and operations experts are evaluating and implementing climate action measures to reduce GHG emissions in alignment with CP's climate and business strategies.

C1.3

Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	

C1.3A

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

Entitled to incentive	Type of incentive	Activity incentivized	Comment
Corporate executive team	Monetary reward	Efficiency target	<p>CP has various compensation programs designed to incentivize high-level performance and to align management's priorities with the business strategy and long-term interests of CP shareholders. Management-level employees (including executives) are eligible to participate in CP's short- and long-term incentive plans, which provide an annual monetary award based on achieving strong financial, safety and operational results. These programs incentivize employees to achieve results, including fuel efficiency improvements to drive economic and climate-related environmental performance. CP's short-term incentive plan (STIP) is available to all non-union employees.</p> <p>Specifically, the STIP is an annual monetary award for executives based on achieving solid financial, safety and operational results. STIP ranges from 50 percent to 200 percent of the base salary. Any award payable under the individual component is subject to a minimum level of corporate performance. We measure the annual STIP operating ratio: operating expenses divided by total revenues. Since the fuel used by the railroad is a major operating expense, we focus on opportunities to reduce fuel use. To meet these performance objectives, CP uses Precision Scheduled Railroading, which focuses on operational efficiency metrics and annual fuel efficiency targets to drive performance. In 2021 CP's fuel efficiency was 0.931 U.S. Gallons/1,000 gross ton-miles (GTM), outperforming the North American Class 1 freight railroad average.</p>

C2.

Risks and opportunities

C2.1

Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities?

Yes

C2.1A

How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	1	
Medium-term	1	10	
Long-term	10	30	CP's climate-related scenario analysis examined potential climate-related risks and opportunities out to 2050. Therefore, when identifying, assessing and responding to climate-related impacts, CP defines long-term as up to 30 years in the future.

C2.1B

How does your organization define substantive financial or strategic impact on your business?

CP's ERM process classifies organizational risks based on severity, frequency and probability of occurrence. Through this process, risks are considered to have a substantive financial or strategic impact when the impact severity is identified as moderate, major or catastrophic. Moderate risks are identified as those with a financial impact of at least \$100M in operating costs or an event that requires up to a year of monitoring and recovery. Major risks are those likely to result in a significant disruption to business operations (such as infrastructure damage related to flooding, fire or other climate-related impacts) and identified as having a financial impact of at least \$250M with an extended negative environmental, health and safety or reputational impact on the business. Catastrophic risks cause more than \$400M of financial impact and create long-term and severe consequences for the business.

In addition to rating corporate risks by severity, we assess frequency and probability of occurrence, ranging from slight, not likely, likely, highly likely and expected. For example, a slight risk is considered to have less than a 10 percent probability of occurring or may occur every ten years or greater. Conversely, an expected risk has a 90 percent or greater probability of occurring or may occur at least annually. Together with the quantifiable financial and environmental thresholds, the frequency and probability of occurrence contribute to our definitions of substantive financial or strategic impact when assessing climate-related risks.

C2.2

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

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

CP's ERM program is a hybrid of the ISO 31000 standard and COSO risk management framework, providing principles, guidelines and processes for managing risks. Organizational risks or opportunities are identified, assessed and prioritized more than once a year based on potential impact and likelihood, taking account of financial, safety, environmental, strategic and reputational impacts, as well as existing management measures. The ERM program integrates climate-related risks across short-, medium- and long-term time horizons and includes risks that impact CP's direct operations in addition to the upstream and downstream value chain. Through this process, CP is able to classify risks from a minimal to a catastrophic level of impact.

For CP, moderate risks are identified as those with a substantive financial impact of at least \$100M in operating costs or an event that requires up to a year of monitoring and recovery. Major risks likely to result in a significant disruption to business operations, such as infrastructure damage related to flooding, fire or other climate-related impacts, are identified as having a financial impact of at least \$250M or extended negative environmental, health and safety or reputational impact on the business. Catastrophic risks cause more than \$400M

of financial impact or create long-term and severe consequences. Through this process, CP is able to identify and assess as well as prioritize, manage, and monitor the top significant risks (typically the top ten risks) on a quarterly basis. Risks, including climate-related risks, are ultimately overseen and reviewed by CP's Risk and Sustainability Committee of the Board. The Risk and Sustainability Committee is responsible for monitoring, measuring and overseeing CP's key risks, strategies and sustainability topics.

Complementing our ERM program and to further understand climate-related risks, CP conducted climate-related scenario analysis in 2020 to assess how policy, market, technology, reputational and physical risks may manifest in the future under multiple climate scenarios in the short-, medium-, and long-term. To stress-test the business and assess its resilience in a low-carbon economy, our scenario analysis included a well-below 2°C scenario. CP's scenario analysis also considered how impacts on the business might manifest under a more modest degree of change (where climate action is slow) as well as under a business-as-usual scenario (where no, or limited, action is taken).

The scenario analysis exercise assessed risks to CP's direct operations and extended value chain, including how climate-related risks and opportunities will impact customers, specifically the commodities that CP transports on their behalf. CP published our first comprehensive Climate Strategy in 2021, which included an overview of the scenario analysis exercise and a description of climate-related risks and opportunities impacting our operations. CP also published an extensive TCFD Index providing further details about our identified climate-related risks and opportunities.

CP's scenario analysis involved extensive input from internal experts experienced in operations, communications, regulatory compliance, marketing and environmental matters. Based on their understanding of the business, climate risks and opportunities were identified and evaluated using a variety of international, national and regional databases, including the International Energy Agency (IEA), Environment and Climate Change Canada (ECCC), the

National Oceanic and Atmospheric Administration and Statistics Canada. Scenario analysis was used to track emerging climate risks and determine which are most financially material for CP's business in alignment with the thresholds set by CP's ERM program.

Following this exercise, CP is working to embed climate science into its project evaluation, planning and risk management tools to inform the Company's response to substantive climate-related risks and opportunities. In particular, CP is working to utilize its ERM program supported by information from the climate-related risk assessment and scenario analysis to support business decisions surrounding the response to and mitigation of climate risks to our business and to act on climate-related opportunities.

Over the past few years, CP's overarching risk-related practices have been utilized to develop our approach to identifying, assessing and responding to climate-related physical risks. Our ERM program and scenario analysis both identified physical risks as substantive to our business, something that CP reports on in our Annual Report. CP has also directly experienced the impact of these risks, including wildfires and flooding in British Columbia in 2021. Following these events, CP presented to the RSC Committee of our Board on climate-related physical risks, our response to these risks and specifically, the 2021 events in British Columbia, which resulted in a multi-day shutdown of our operations and costs incurred by CP.

In response to physical risks, and resulting from our ERM program and conversations with our Board, CP is continuously updating our practices and programs to mitigate salient risks. A specific example of how these overarching processes result in CP responding to climate-related risks is the development

of our Severe Weather Management plan, which aims to identify contributing factors to weather-related issues and understand how severe weather alerts can be issued and actioned to mitigate impacts. This management plan is a partnership between numerous CP departments, including Risk Management, Engineering and others. The management plan is in the early stages of development and will include an examination of severe weather alert distribution lists, identification of high-risk areas, exploration of enhancements to current weather alerting tools and identification of opportunities to work with other service providers. This program will help to improve CP's response to physical climate risks and increase resilience going forward.

CP's ERM program and climate-related scenario analysis are structured to enable the Company to appropriately respond to potential climate-related transitional risks. For example, CP's overarching risk management process and scenario analysis support the Company's climate change objectives and locomotive fuel efficiency improvements, enabling project planners to invest in upgrades to locomotives and rolling stock equipment, thereby responding to transitional risks while taking advantage of related opportunities. Our financial planning includes a focus on driving improvements in operational performance and annual fuel efficiency to mitigate transition risks around fuel costs. Specific programs related to responding to transitional risks and realizing opportunities include our Hydrogen Locomotive Program, Locomotive Modernization Program and high-efficiency product (HEP) grain train initiative.

C2.2A

Which risk types are considered in your organization's climate-related risk assessments?

CURRENT REGULATION

Relevance & inclusion

Relevant, always included

Please explain

The railway sector is subject to climate-related regulations that directly influence our operations and customers. Climate-related regulations specific to rail include locomotive emissions standards, fuel standards, carbon levies, taxes and cap and trade programs. These risks are considered relevant to our business and are included in our risk assessments. As part of CP's ERM processes, we evaluate regulatory systems to ensure that we implement appropriate actions to mitigate regulatory risks or take advantage of potential business opportunities.

Government bodies at the provincial and federal levels are imposing carbon taxation systems and cap and trade market mechanisms in the Canadian jurisdictions in which CP operates. Approximately 75 percent of CP's Scope 1 and 2 GHG emissions are currently impacted by carbon pricing mechanisms. Specific examples of current regulations that may pose a risk to our business include British Columbia's carbon tax and Canada's federal carbon pollution pricing program. As a fuel-intensive business, an increase in carbon pricing directly impacts operating costs, which can affect the price of our services. If the cost of service becomes too high, it could lead to losses in revenue that might affect our competitive advantage over alternative modes of transport.

Carbon pricing was reviewed as part of CP's climate-related scenario analysis. In this process, carbon costs were evaluated based on CP's fuel purchases (in Canada and the U.S.) under several existing regulations and alternative carbon price levels. In addition, we stress-tested our business practices against carbon pricing risk by calculating potential cost reductions associated with reducing our emissions along various trajectories. This process supported establishing CP's science-based targets in 2021.

EMERGING REGULATION

Relevance & inclusion

Relevant, always included

Please explain

The railway sector, rail customers, transportation competitors and suppliers are all subject to emerging regulations that impact the industry. As a North American Class 1 freight rail operator, new regulations on locomotive technologies, renewable fuel requirements, low carbon fuel standards, carbon pricing systems and increased climate disclosure requirements could significantly impact CP's operating costs. Increasing costs to implement measures to comply with emerging regulations at CP and our suppliers can result in additional surcharges, increased costs of the materials we purchase to support our operations or other added expenses that could ultimately impact affordability for our customers. As a result, these risks are considered relevant and included in our risk assessments.

Examples of emerging regulatory requirements that may pose a risk to CP include the Canadian Securities Administrators (CSA) proposed National Instrument 51-107 – Disclosure of Climate-related Matters (NI 51-107). Published in 2021, this proposed rule aims to improve the consistency of corporate climate disclosures available to the investment community. Corporate filers would be required to report on climate-related financial metrics, risks and GHG emissions performance. CP already voluntarily reports on many of these metrics through our annual Sustainability Report and CDP response. Additionally, CP updated disclosures of climate-related risks in our 2021 Annual Report and Form 10-K, including a discussion of our Climate Strategy and GHG emissions reduction targets. Compliance with these emerging regulations may require CP to expand reporting on complex financial assessments and/or emissions data. Therefore, CP's climate and sustainability team closely monitor developments surrounding climate-disclosure regulations to proactively incorporate required changes into CP's existing practices.

TECHNOLOGY

Relevance & inclusion

Relevant, always included

Please explain

Advancements in technology that improve fuel efficiency and energy management systems represent both a significant opportunity and risk for the rail sector. Shipping goods by rail is currently the most fuel-efficient method to transport freight materials long distances over land. Significant technological advancements impacting the efficiency of other modes of transport, or a lack of similar technology improvements in the rail sector, could ultimately impact CP's competitive advantage and negatively affect operations, financial condition and liquidity. Therefore, technological risks and opportunities are considered relevant and included in our risk assessments.

Other modes of freight transport that deploy technology to enable a fuel efficiency performance equivalent to or superior to freight rail (e.g. electrification of heavy haul trucking) is a potential technology risk for CP. By incorporating technology advancements in our risk and opportunity assessments, CP has identified opportunities to leverage technology to increase shipping capacity while simultaneously improving fuel efficiency and reducing GHG emissions. For example, CP has implemented an innovative 8,500-foot-long high-efficiency product (HEP) train model to provide efficient and superior service for our grain customers. To support this service, CP is upgrading our grain car fleet with new higher-capacity grain hopper cars as part of a \$500M multi-year investment. These new cars have nearly 10% more capacity than older model grain cars. By the end of 2021, CP had placed 5,803 higher-capacity grain cars into service across the network. The HEP train model supported by high-capacity grain cars enables CP to transport 44 percent more grain per unit train, requiring fewer train sets and using less fuel to move customers' grain products to market.

LEGAL

Relevance & inclusion

Relevant, always included

Please explain

By the nature of our operations, CP is exposed to potential regulatory actions, litigation and other claims, including environmental liability, freight claims and property damage claims. Any material changes to regulation, litigation trends, a substantial rail incident or series of incidents involving freight loss, property damage, personal injury, environmental liability or other significant matters could have a material adverse effect on CP's operations, financial position and liquidity. Therefore, legal risks are considered relevant and included in our risk assessments.

CP is subject to a wide variety of changing GHG emissions reporting programs, renewable fuel standards and carbon pricing regulations across our network. All of these programs are based on unique regulatory frameworks that present potential concerns for non-compliance related to consistent emissions reporting, management of emissions allowances and acquisition/availability of required carbon allowances or renewable fuel credits. Non-compliance with such regulatory programs due to any of the aforementioned examples could pose legal risks to CP.

In this evolving regulatory and litigation landscape, CP includes legal and regulatory considerations in our climate-related risk assessments to account for potential legal claims and regulatory compliance requirements to minimize CP's exposure to material litigation or fines. As an example, the CSA has proposed new regulatory requirements for corporate climate-related disclosures. The CSA's proposed regulations will impact CP's operations, directly increasing the potential for exposure to climate-related legal risks.

Another example of legal risks associated with climate change is that extreme weather events caused by climate change can affect rail operations and potentially lead to increased rail incidents, and thus potentially result in significant regulatory actions or claims for injuries, damage to property or natural resources and environmental sanctions. CP has taken extensive steps to respond to weather-related events and make efforts to manage future potential impacts, which can also help to mitigate potential legal risks. Being aware of climate-related legal risks enables CP to prepare and implement appropriate mitigation measures.

MARKET

Relevance & inclusion

Relevant, always included

Please explain

As a transportation service provider, CP is particularly vulnerable to downstream market changes over which the organization does not necessarily have control. Our customers are affected by climate-related issues such as increased periods of flooding that impact agricultural production or regulations of fossil fuels that could shift consumer demand for petroleum products in certain jurisdictions. A decline or disruption in domestic, cross-border or global economic conditions that affect the supply or demand for the commodities CP transports may decrease freight volumes and result in a material adverse effect on financial or operating performance and liquidity. Therefore, market risks and opportunities are considered relevant and included in our risk assessments.

Carbon pricing structures and other climate policies can impact current and potential customer demand for commodities, including thermal coal, renewable fuels, crude oil and other petroleum products. For example, transportation of coal, crude oil and petroleum products accounted for about 19 percent, or \$1.516B, of CP's freight revenues in 2021. Therefore, shifting patterns in demand and consumption based on changing consumer preferences or more stringent emissions requirements targeting CP's customers could pose substantial risks to our business. These factors can also create new opportunities for CP, such as increased transportation of renewable fuels.

REPUTATION

Relevance & inclusion

Relevant, always included

Please explain

The transportation sector is one of the largest contributors to greenhouse gas (GHG) emissions in North America. Within this sector, railroads are currently the most efficient way to move freight vast distances over land, emitting a fraction of total transport sector GHG emissions while moving the majority of North America's long-haul freight. Given evolving consumer preferences for reducing GHG emissions, CP is well-positioned to meet a growing interest in low-carbon freight transportation. We continue to mitigate climate-related reputational risks by investing in technology and practices that further reduce the carbon intensity of rail operations and maintain our significant efficiency advantage. Due to its potential impact, reputational risks are considered relevant and included in our risk assessments. CP actively investigates climate-related opportunities to limit the impact of reputational risks.

CP is also taking steps to mitigate the climate-related reputational risks by continuously improving transparency and disclosure on climate-related topics, including the publication of our comprehensive Climate Strategy in 2021. Starting in 2022, CP shareholders had the opportunity to provide feedback on CP's approach to climate change through the Company's first non-binding advisory, "say on climate" vote. This direct engagement with our shareholders, supported by our commitment to transparent climate-related reporting, enables CP to manage potential reputational impacts.

ACUTE PHYSICAL

Relevance & inclusion

Relevant, always included

Please explain

As a transcontinental railway Company, CP's rail network is exposed to severe weather conditions and natural disasters such as floods, fires, avalanches, extreme temperatures and precipitation. These events have the potential to cause business interruptions and adversely affect CP's rail network. Acute physical risks can increase costs, expose liabilities and decrease revenues, materially affecting operational results, financial condition and liquidity. CP's insurance program protects the company against loss of business and related consequences from natural occurrences. This program is subject to coverage limitations, depending on the nature of the risk insured. CP's insurance coverage may be insufficient for all damages and may not continue to be available at commercially reasonable rates. Therefore, acute physical risks are considered relevant and included in our risk assessments.

CP regularly assesses physical risks to our rail network to understand potential operational and financial impacts over time. For example, recent weather-related events across North America, including events that occurred in 2021, have illustrated the effect severe weather can have on CP's rail network. Weather and climate information are essential to reducing the impact of severe weather risks and are critical to strategic decision-making and the safe and efficient operation of the railway. In response to increased physical risks, CP is developing a Severe Weather Management plan, which aims to identify contributing factors to weather-related issues and opportunities relevant to how severe weather alerts are issued and actioned. This management plan is a partnership between numerous CP departments, including Risk Management, Engineering and others. The management plan is in the early stages of development and will include an examination of severe weather alert distribution lists, identification of high-risk areas, exploration of enhancements to current weather alerting tools and identification of opportunities to work with other service providers. This program will help to improve CP's response to physical risk events as well as increase resilience going forward.

CHRONIC PHYSICAL

Relevance & inclusion

Relevant, always included

Please explain

Chronic and gradual changes in global weather patterns have the potential to significantly impact CP's rail network, our customers and the commodities we transport. CP's operations are exposed to fluctuating temperatures and precipitation, which may cause costly business interruptions or damage our rail network, infrastructure or equipment. Chronic climate changes that lead to increased frequency or variability of these impacts could also lead to reputational and market risks should freight rail in North America become perceived as less reliable or more incident-prone due to climate-driven disruption. Additionally, chronic physical climate impacts have the potential to significantly alter the supply and demand for our customers' goods (such as grains, fertilizers and other products) which could create major changes and risks to our business. Therefore, chronic physical risks are considered relevant and included in our risk assessments.

Chronic physical risks could also affect our customers and the goods that we move on their behalf. CP transports large volumes of crops across North America and to export markets. Variable climate conditions, changing crop varieties and shifting consumer demand have impacted the predictability of annual crop yields within the growing regions serviced by CP. Increasing variability in crop yields can result in an unexpected change in revenue or the ability of CP to respond to demand. Together, grain, potash, fertilizers and sulphur products comprised 31 percent of CP's freight revenues in 2021, illustrating that less predictable yields as a result of chronic climate change could have the potential to significantly impact our business.

C2.3

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

Yes

C2.3A

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

IDENTIFIER

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation

Carbon pricing mechanisms

Primary potential financial impact

Increased direct costs

Company-specific description

As a fuel-intensive industry, the freight rail sector is exposed to current and emerging carbon pricing regulations. Carbon pricing can significantly increase direct costs related to fuel purchases and indirect expenses related to purchased goods and materials required to run our business. Approximately 75 percent of CP's Scope 1 and 2 GHG emissions in 2021 are from our operations in Canada and are impacted by carbon pricing mechanisms. Our remaining emissions are in the US and could be exposed to carbon pricing in the future should such regulation be introduced.

CP is regulated under multiple carbon taxation systems and cap and trade mechanisms in the Canadian provinces in which we operate. Most provincial programs align with Canada's Greenhouse Gas Pollution Pricing Act. We regularly monitor all carbon pricing systems and evaluate our exposure to this risk. In most

provinces, the amount collected by our fuel suppliers is based on the current regulatory carbon pricing rates multiplied by the total volume of fuel purchased.

Through our scenario analysis, CP assessed risks should a rapid transition to a low carbon economy for North America occur. Should this happen, carbon pricing rates could escalate further, and additional jurisdictions may adopt carbon pricing programs. In 2021, Canada's federal carbon tax was \$40 per metric ton CO₂e before rising to \$50 in 2022. The federal government has indicated that the carbon tax rate will continue to increase to \$170 by 2030. An increase in carbon pricing rates could pose additional risks to CP's business, including increased fuel costs or carbon costs covering our emissions. Using scenario analysis, CP modelled that carbon pricing risk could introduce a potential impact of up to \$331M by 2040.

To help mitigate this risk and prioritize carbon reduction projects, CP's Capital Assessment team has set an internal carbon price to be used when evaluating capital investments. CP's internal carbon price mirrors Canada's escalating federal carbon tax, which was \$40 in 2021 and is projected to increase to \$170 by 2030.

To further mitigate this risk, in 2021, CP established a Carbon Reduction Task Force, composed of CP's industry-leading engineers and operations experts, to evaluate, recommend and implement climate action measures to reduce GHG emissions and drive performance towards our science-based emissions targets. These actions are crucial to reducing our exposure to regulatory risks and escalating carbon costs.

Time horizon

Long-term

Likelihood

Unlikely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

331,000,000

Potential financial impact figure – minimum (currency)**Potential financial impact figure – maximum (currency)****Explanation of financial impact figure**

The stated financial impact figure was informed by a detailed scenario analysis exercise CP completed in 2020. In evaluating the risk associated with carbon pricing regulations, which could increase CP's direct costs, we modelled carbon pricing and emissions from a 2019 base year to align with the Company's science-based emissions reduction targets, including the locomotive target approved by the SBTi. To model the potential financial impacts of carbon pricing, CP used the SDS from the IEA, where carbon pricing is forecasted to rise to \$186 per metric ton of CO₂e (US\$140 converted at the time of the analysis) by 2040 in both Canada and the U.S. The financial impact was modelled, assuming an absolute annual decrease in CP's GHG emissions of 2.1 percent based on the transport sectoral decarbonization approach (SDA) science-based target trajectory. In this scenario, CP's potential total Scope 1 emissions would be approximately 2M metric tons CO₂e, and total Scope 2 emissions would be 31,000 metric tons CO₂e in 2040. It was also conservatively assumed that both would be exposed to a \$186 per metric ton carbon price by 2040. Therefore, CP's costs from carbon pricing, both directly from fuel consumption and indirectly from purchased electricity, could total \$378M, which would be \$331M higher annually than under current prices (i.e., total 2019 baseline levels estimated at \$47M, and \$378M – \$47M = \$331M).

This estimation makes several high-level assumptions and is not meant to indicate a forecast of true costs to CP but rather presents the range of potential financial impacts to the company.

Cost of response to risk

1,038,300,000

Description of response and explanation of cost calculation

Through our ERM process, CP assesses changing carbon pricing systems across all Canadian provinces in which we operate, as well as federal programs to ensure CP can either mitigate regulatory risks or take advantage of business opportunities. Expanded geographical coverage of carbon pricing systems and increased price per ton of GHGs emitted pose a risk to CP. Improving the energy efficiency of CP's operations and increasing the amount of energy from renewable sources helps CP minimize exposure to carbon pricing and other regulatory costs. Therefore, we continually monitor and assess new technologies or operational efficiency investments that could reduce emissions. Over the past few years, to lower CP's operational GHG emissions footprint and mitigate this risk, the Company has engaged in five emissions reduction initiatives, including locomotive modernization and retrofitting (roughly \$514M in total); purchasing more efficient grain hopper cars (\$500M); the Hydrogen Locomotive Program (\$15M) and the installation of a solar farm at our headquarters (\$9.3M). Together, these investments require \$1.0383B (\$514M + \$500M + \$15M + \$9.3M = \$1.0383B) of capital investment.

The following highlights one example of how CP is taking action to reduce carbon pricing risk. (S) CP has strategic landholdings located across our rail network. The company continually evaluates opportunities to utilize our land assets to add business value and reduce CP's environmental footprint. (T) Generating renewable energy presents an opportunity to improve operational efficiency, add value to land assets, demonstrate climate action and lower CP's exposure to carbon pricing programs. (A) In 2021, CP commissioned a solar farm at its Calgary headquarters. The facility spans approximately five hectares, providing covered parking for up to 500 employee vehicles and incorporates four electric car charging stations and a solar garden. This innovative project has enabled our corporate headquarters building to run on renewable electricity. (R) Once operational in March 2021, the solar project generated nearly 4,400 MWh of electricity. CP consumed 3,500 MWh of this renewable electricity, reducing CP's

Scope 2 emissions by nearly 2,200 metric tons CO₂e and carbon price saving by \$109,280. The residual generated electricity was directed to the local utility grid through a micro-generation program. The expected timescale for the solar farm is a useful life of 25 years following completion in 2021.

infrastructure assets. A total of more than C\$1.136B was invested in mitigating physical risks to the Company and improving network resiliency in 2020. These projects included C\$1.008B in the renewal of depleted track and roadway assets, namely rail, cross ties, ballast, signals and bridges and C\$128M in additional network improvements and growth initiatives.

Comment

IDENTIFIER

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Market

Uncertainty in market signals

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

CP's business is based on transporting a wide variety of commodities and products from suppliers to the marketplace. A number of the sectors we serve have the potential to be significantly impacted by climate-related transitional risks, including increased regulation, technology changes or shifts in consumer preference. CP's coal line of business includes both thermal and metallurgical coal materials. Our energy, chemicals and plastics line of business includes crude oil and petroleum products. Petroleum products transported by CP consist of commodities such as liquefied petroleum gas, fuel oil, asphalt, gasoline, condensate (diluent) and lubricant oils. CP transports energy commodities supporting refinery and processing locations, as well as end-users across North America and global markets.

Shifting consumer demand for lower-carbon products and increased climate-focused regulations, such as carbon pricing and fuel regulations, could initiate a broad transition in the global energy sector. A comprehensive transition in the energy sector could significantly impact the markets of CP's energy customers or lead to market differentiation through geographic variation in policies and demand trends. A subset of CP's business lines could be materially affected by such a transition, including the demand for coal, crude oil and petroleum products. Coal, crude oil and petroleum products made up about 19 percent, or \$1.516B, of CP's freight revenues in 2021. Potential future changes and instability in these markets represent a significant transition risk to these business lines at CP.

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

541,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

CP tracks the performance of our coal, crude oil and petroleum products business lines, which are subject to potential risks associated with shifting consumer preferences towards lower carbon-intensive energy products. These transitional risks are particularly pronounced following a low-carbon scenario developed by the IEA Sustainability Development Scenario (SDS). CP underwent a detailed scenario analysis exercise in 2020, which informs the reported financial impact figure and utilizes 2020 freight revenue as the basis for modelling calculations. Under this scenario, demand for all three business lines could decrease significantly over the medium and long term, leading to a potential reduction in CP's revenue from transporting these goods.

- Coal: In 2020, coal freight revenue was \$566M. About 90 percent of this revenue is metallurgical coal, and 10 percent is thermal coal. Under the SDS projections, by 2040, annual freight revenue from coal (combined metallurgical and thermal) may decrease by about 33 percent or about \$187M by 2040 compared to 2020 levels.
- Crude oil: In 2020, freight revenue from crude oil was \$317M. Under the SDS projections, annual freight revenue from crude oil could decrease by about 60 percent or about \$190M by 2040 compared to 2020 levels.
- Petroleum products: In 2020, freight revenue from petroleum products was \$513M. Under the SDS projections, annual freight revenue from petroleum

products may decline by 32 percent or about \$164M by 2040 compared to 2020 levels.

Together, CP's freight revenue from transporting the above fossil fuel products could decrease by \$541M ($\$187\text{M} + \$190\text{M} + \$164\text{M} = \541M) on an annual basis.

The \$541M decrease in freight revenue calculated above is considered a conservative estimate. This does not include other potential risks such as potential revenue losses due to competition from alternative modes of transportation or freight rail's exposure to increase fuel-related costs in the SDS scenario.

Cost of response to risk

118,200,000

Description of response and explanation of cost calculation

CP's business strategy includes forecasting and managing against fluctuating market conditions associated with climate-related transitional risks and incorporating them into our ERM process.

(S) With fossil fuel markets being highly volatile and dependent on several factors, demand for CP's crude oil transport is subject to global oil demand, oil prices, production rates and pipeline capacity. (T) While some market changes are unavoidable, a crucial part of CP's business strategy requires key investments to realize opportunities and mitigate risks. (A) CP has developed rail capacity and logistics services to support innovative petroleum product transloading facilities such as Diluent Recovery Units (DRU). The DRU process allows energy producers to remove highly flammable diluent materials from crude oil before transport by rail tank car, which significantly reduces flammability hazards and improves public safety. Additionally, removal allows for a larger volume of product to ship in each tank car, reducing costs and GHG emissions compared to traditional loads of these products. Increasing rail capacity and logistics services promotes the future resilience of CP's crude oil business, mitigates transportation safety risks and improves competitiveness with other forms of transport. By improving our ability to transport crude oil, CP provides an energy-efficient alternative to pipeline transport for energy customers. These actions and investments help to maintain market share and mitigate the impact that would otherwise result from a reduction in demand for this good. (R) To support the DRU project, CP has invested in infrastructure upgrades to increase network capacity to accommodate additional freight volume. While the potential increase in associated freight

volumes resulting from the DRU initiative has not been measured, CP will continue to monitor this sector and take proactive measures to mitigate the impact of associated market risks.

The described infrastructure upgrades and improvements were implemented between 2016 and 2021, and CP will continue to implement projects to accommodate increased rail capacity going forward. These upgrades include investing \$4.0M to extend our Ottumwa rail yard in Iowa, new rail sidings in Metiskow, Alberta (\$7.8M) and Fredensthal, Manitoba (\$8.5M) and an investment of \$97.9M to renew track ballast to accommodate increased rail capacity. The reported \$118.2M figure is a combination of these investments.

Comment

IDENTIFIER

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Other, please specify

Wildfires and Flooding

Primary potential financial impact

Decreased revenues due to reduced production capacity

Company-specific description

As a transcontinental railway company, CP is exposed to a wide array of periodic severe weather conditions and natural disasters such as floods, fires, avalanches, extreme temperatures and precipitation, which may cause business interruptions and adversely affect CP's rail network. This can increase costs and liabilities and decrease revenues, which may materially affect operational results, financial condition and liquidity. In particular, changes in temperature and precipitation patterns can lead to events that affect railway operations, such as wildfires and/or flooding. These events can happen throughout the network but are primarily a concern on floodplains or in mountainous regions of our network. Two areas of CP's rail network at significant risk of physical risk events are segments of track through the Rocky Mountain regions of Alberta and British Columbia (which include CP's Cascade, Columbia, Nelson, Cranbrook, Windermere and Fording River subdivisions) and along the Mississippi River in the U.S. Midwest (including CP's Davenport, Nitrin, Marquette and Tomah subdivisions). Combined, these subdivisions account for approximately 1,546 track miles or 12 percent of CP's main track network. As climate change is expected to amplify, CP continues to focus on improving planning and mitigating measures to harden infrastructure in areas with historical risks.

Over the past few years, CP experienced significant severe weather challenges in both the Rocky Mountain region of Western Canada and along the Mississippi River, including wildfires as well as flooding and landslides. In 2021, wildfires in BC in the summer resulted in a shutdown of CP's rail operations through the area for multiple days. In the fall, CP experienced further climate-related physical

impacts to our operations in BC due to a major precipitation event, which led to flooding and landslides. This event led to a multi-day shutdown of CP's rail operations through the area and caused damage at 30 locations across CP's Thompson and Cascade subdivisions, with 20 of these considered major and resulting in significant loss of infrastructure. The damage included washouts, mudslides, high water events, rail bed shoulder erosion and bridge erosion.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

25,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

In 2013, large flooding events throughout Western Canada resulted in a decline in revenue of \$25M as a result of difficult operating conditions and network outages. The \$25M loss was the combined result of a decrease in freight revenue from CP's intermodal, bulk and merchandise lines of business experienced during the flood event. Reflecting on the financial impact of past flood events as an indicator of anticipated costs for future events (without adaptive measures to manage this risk), it is clear that major flooding-related operations disruptions can affect CP revenues. CP utilizes \$25M as an estimate of the monetary impact of similar magnitude flood events. Impacts from these types of events are highly variable based on the severity and length of the event and network impact. The financial impact figure of \$25M represents the potential costs from flooding events in just one region. This figure is not representative of total annual costs but

instead provides an estimate of the potential impact of future similar localized flood events. Initiatives to mitigate the effects of these costs are overseen by CP's Crisis Preparedness and Business Continuity team.

Cost of response to risk

970,000,000

Description of response and explanation of cost calculation

Infrastructure improvements and emergency preparedness planning are used to mitigate potential risks posed by weather events. Mitigation measures depend on the hazard and can include seasonal flood plans, winter operating plans, and/or vegetation management plans. In response to the increasing number of physical risk events, CP's Risk Management team is developing a Severe Weather Management Plan, which aims to enhance alerting measures to improve weather notification lead-time (where possible) and drive accountability. This program is in the early stages of development and will evolve going forward. (S) CP's rail network and the physical infrastructure required to operate its freight transport business traverses terrain exposed to severe weather conditions. (T) As physical events impacting our network increase in frequency and severity, CP is tasked with implementing mitigation measures and developing resilience. (A) Specifically, in response to physical climate risks, CP has dedicated actions and initiatives that include, but are not limited to, seasonal severe weather planning and preparedness, community emergency planning and first responder training and drills. CP also takes further action to respond to specific events, including flooding in 2019 along the Mississippi River and the 2021 BC wildfires. Response to flooding included conducting a risk-based review of flood risks across the region and raising bridges over the Turkey and Maquoketa Rivers. Enhanced wildfire response includes having 24/7 on-call supervisors, providing high capacity high rail water trucks and having additional firefighting resources on standby. (R) The result of these actions is to ensure that CP is prepared to react quickly to physical risks and improve our resilience and response to these events. The timescale of the reported actions, in response to the specific events described, was between 2019 and 2021. Additionally, the Severe Weather Management Plan is a 2022 initiative that will be utilized to respond to and mitigate impacts from physical events going forward.

In 2021, the total cost for CP to respond to and mitigate physical climate-related risks as well as improve network resiliency was \$970M. This total included \$907M

to renew depleted track and roadway assets and 63M in Positive Train Control compliance requirements and additional network improvements and growth initiatives. The \$907M includes the costs incurred by CP to respond to 2021 physical risk events.

Comment

C2.4

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

Yes

C2.4A

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

IDENTIFIER

Opp1

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Products and services

Primary climate-related opportunity driver

Shift in consumer preferences

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

There is increasing demand in North America to ship goods and materials by rail, particularly for intermodal container shipments. As demand for shipping grows, CP's current and prospective customers are increasingly looking for opportunities to reduce the carbon footprint associated with their supply chains. According to the Association of American Railroads, moving freight by rail is, on average, three to four times more efficient than transport by highway truck, with approximately 75 percent fewer GHG emissions. As customer demand continues to increase for low-carbon services, the inherent carbon intensity advantage of CP's rail services over other modes of transportation represents a significant opportunity to generate additional revenue. This opportunity is anticipated to be most pronounced for CP's intermodal services, where products are readily transitioned

from highway truck transport to freight rail service. Through our comprehensive scenario analysis exercise, CP considered multiple energy transition pathways developed by the IEA to understand potential impacts on the transport sector. The Base Scenario, grounded on existing and planned policies, forecasts a significant increase in North American freight rail activities. A High Rail Scenario assumes increased GHG policy effort and substantial investment in rail infrastructure. In this scenario, freight rail services replace significant demand from alternative modes such as road freight transport. Following the IEA's projections for future growth in North American freight rail demand (under a high rail scenario), CP's total freight revenues could increase from \$7.541B in 2020 to nearly \$9.7B in 2030. This is not a projection of CP's anticipated freight revenue position in 2030, but rather an illustration of the potential opportunity should the future align with the IEA high rail scenario. Reflecting this growth potential, CP's total freight revenue grew to \$7.816B in 2021. To take advantage of this opportunity, CP has invested nearly \$300M in our rolling stock (encompassing locomotives and railcars) in 2021 and is currently in the midst of a multi-year Locomotive Modernization Program, which resulted in upgrading 30 additional locomotives in 2021 alone. We are also developing a customer-facing GHG calculator tool, which will provide material GHG information for the shipment of goods across CP's network. This will help inform customer decisions to ship by rail based on GHG emissions.

Time horizon

Long-term

Likelihood

Likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

2,800,000,000

Potential financial impact figure – maximum (currency)

3,700,000,000

Explanation of financial impact figure

In 2020, CP undertook a comprehensive scenario analysis, which is used to inform the potential financial impact figure and utilizes 2020 freight revenue as the basis for modelling calculations. In 2020, CP's freight revenues were \$7.541B. In future scenarios, there is likely to be increased customer demand for low-carbon services provided by CP, related to the inherent energy efficiency benefits and carbon intensity savings of transporting goods by freight rail over other modes of transportation. This increase in demand for low-carbon services would correspond to an increase in our freight revenue. Using climate-related scenario analysis, we projected the increases in freight rail under the Base Scenario, in which North American freight rail growth could increase at a 1.8 percent compounding annual growth rate until 2030 and then at a 1.36 percent rate until 2040. Annual freight revenues could reach \$10.32B ($\$7.541B \times (1+0.018)^{10} = \$9.01B$; $\$9.01B \times (1+0.0136)^{10} = \$10.32B$) by 2040, which represents an increase in annual freight revenues of \$2.8B above current levels by 2040 (\$10.32B is about \$2.8B greater than \$7.541B). Under the more ambitious High Rail Scenario, North American freight rail could grow 2.33 percent annually until 2030 and then by 1.69 percent until 2040. Annual freight revenues would then reach \$11.23B ($\$7.541B \times (1+0.0233)^{10} = \$9.49B$; $\$9.49B \times (1+0.0169)^{10} = \$11.23B$) by 2040, which is an increase of \$3.7B above current levels (\$11.23B is about \$3.7B greater than \$7.541B).

These calculations are intended to illustrate the potential for business growth under a scenario with ambitious climate action. The values presented here do not provide a projection of future revenue at CP.

Cost to realize opportunity

297,000,000

Strategy to realize opportunity and explanation of cost calculation

CP's continued investment in increased efficiency is the cost to realize this opportunity. In 2021, CP invested \$121M in upgrading the existing locomotive fleet, including \$50M in our annual locomotive modernization program and \$176M in rail cars and containers for the renewal of depleted assets, totalling \$297M ($\$121M + \$176M = \$297M$). This reflects a conservative estimated cost for CP to maximize operational efficiency as a pillar of our business strategy and financial planning. The following example highlights how CP is investing in assets and technology to improve our services.

(S) With a focus on operational efficiency and performance improvement, CP is continually improving customer service while working to reduce supply chain emissions. CP is making strides to increase energy efficiency and reduce GHG emissions by investing in our locomotive and rolling stock fleet, enhancing train configuration and using software for route and speed optimization and automation. (T) Fuel purchases represent a substantial cost to the company and are a significant source of GHG emissions. Our locomotive fleet accounts for more than 95 percent of our Scope 1 and 2 emissions. By focusing on fuel efficiency improvements and locomotive upgrades to reduce costs and GHG emissions, CP can offer customers a cost-effective, low-carbon emitting form of freight transportation, which can have a material impact on GHG emissions for our clients and the North American supply chain. (A) CP is currently undertaking a multi-year Locomotive Modernization program. Through this initiative, the company has been upgrading and retrofitting hundreds of six-axle, high-horsepower locomotives, extending their useful life by 20 years. The timescale of this initiative thus far is between 2012 and 2021, with a total of 416 locomotives having been updated, including 30 units in 2021. CP has committed to continuing the program through 2022. Among other key efficiency improvements, all modernized locomotives are equipped with EPA-certified fuel and emissions reduction technologies. (R) By the end of 2021, more than 50 percent of CP's

active line-haul locomotive fleet had been upgraded through this program. These upgrades result in a fuel savings of 2.7 percent per locomotive, leading to energy efficiency improvements and emissions reductions. The locomotives upgraded through this program in 2021 contributed to 2,541 metric tons CO₂e in GHG emissions savings and \$8M in cost savings.

Comment

IDENTIFIER

Opp2

Where in the value chain does the opportunity occur?

Direct operations

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of new technologies

Primary potential financial impact

Reduced direct costs

Company-specific description

CP has published its Climate Strategy to align our approach to climate action with leading scientific practices and policy guidance. Through our strategy, we have established a science-based emissions reduction target to guide CP's activities until 2030. CP's locomotive fleet accounts for more than 95 percent of our total Scope 1 and 2 emissions. While CP will continue to improve locomotive fuel efficiency through equipment upgrades and fleet modernization, achieving our science-based emissions reduction target will require the exploration of new decarbonization solutions. Working towards our 2030 target, CP will focus on existing emissions reduction technologies and market-ready renewable fuels while evaluating the alternative propulsion technologies necessary for longer-term reductions in GHG emissions in the freight rail industry.

Hydrogen fuel cell/battery hybrid propulsion technology is being tested worldwide as a viable alternative fuel for the transportation sector, with particular promise for rail and other long-haul heavy freight transportation systems. Hydrogen technology, if proven successful at scale, has the potential to reduce GHG emissions for railway locomotives and offer additional benefits such as reduced operational noise and vibration compared to diesel-electric engines.

CP is developing North America's first hydrogen-powered line-haul freight locomotive by retrofitting a diesel-powered locomotive with hydrogen fuel cells. Hydrogen fuel cells supported by battery technology are being integrated into existing locomotive platforms to power the electric traction motors. Locomotives are an expensive, long-lived asset, often undergoing several scheduled engine

overhauls during decades of use. With over 30,000 diesel-electric locomotives in freight service across North America today, a solution to retrofit the locomotive power plant with a combination of hydrogen fuel cells and battery technologies is critical to reducing the carbon footprint of the freight rail sector. CP is partnering with Ballard Power Systems to employ Ballard fuel cell modules in CP's Hydrogen Locomotive Program. This program is intended to spur innovation, demonstrate leadership and encourage supply chain collaboration to expedite zero-emission fuel cell technology for the freight transportation sector. At the end of 2021, CP announced plans to expand the scope of this program after securing additional funding from Emissions Reduction Alberta (ERA).

Time horizon

Long-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

599,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

CP underwent a detailed scenario analysis exercise in 2020, which is used to inform the reported financial impact figure and utilizes 2020 as a base year when modelling future projections. Using climate-related scenario analysis, CP evaluated how higher carbon prices under the IEA's SDS might amplify petroleum fuel costs moving forward. Under this low-carbon scenario, carbon pricing in Canada has the potential to rise to \$239/metric tons CO₂e by 2050. In this circumstance, an early investment in decarbonization could deliver significant annual savings. CP's continued investment in new technologies,

including our Hydrogen Locomotive Program, will help reduce our operational emissions and lead to reduced direct costs associated with the purchase and use of fuel. CP's scenario analysis exercise estimates that carbon neutral operations across our freight rail network between Vancouver and Montreal could save 1.093M metric tons CO₂e and reduce fuel costs by \$338M annually. Under the SDS, where carbon prices rise to \$239/metric tons CO₂e, emissions savings correspond to an estimated \$261M in annual carbon cost savings by 2050. Therefore, taking proactive emissions mitigation measures could total \$599M in potential financial impact (sum of \$338M and \$261M).

The analysis does not take into account changes in costs of electricity, diesel or other technological changes that may arise.

Cost to realize opportunity

30,000,000

Strategy to realize opportunity and explanation of cost calculation

CP is working to develop North America's first hydrogen-powered line-haul freight locomotive by retrofitting a diesel-powered locomotive with hydrogen fuel cells and battery technology to power the locomotive's electric traction motors.

(S) CP's locomotive operations account for more than 95 percent of total Scope 1 and 2 emissions. While CP regularly outperforms industry averages for fuel efficiency, we are committed to further improving the carbon footprint of our locomotives. (T) Hydrogen fuel cells are an emerging technology with the potential to reduce emissions from the difficult to decarbonize heavy haul freight and rail transportation sectors. CP is working to realize these opportunities through our Hydrogen Locomotive Program. (A) In 2020, CP announced plans to develop North America's first line-haul hydrogen-powered locomotive through a Hydrogen Locomotive Program. This program will establish a fully functional laboratory to enable end-to-end testing and integration of hydrogen and battery technologies. CP is retrofitting diesel locomotives with hydrogen fuel cells and battery hybrid propulsion technology using commercially available components. The program also includes hydrogen production and fuelling facilities in Calgary and Edmonton. Both facilities will include electrolysis technology to produce hydrogen from water with the Calgary plant to operate on renewable power from the Company's solar energy project at CP's headquarters. (R) While still in

the early stages of development, CP's Hydrogen Locomotive Program has already resulted in enabling further growth of the project. Specific results from this program so far include that in 2021, CP received funding from the ERA to help enable CP to increase the number of hydrogen conversions from one to three and add the hydrogen production and fuelling facilities described above. The timescale for implementing the Hydrogen Locomotive Program began in 2020 and will run through at least 2025 as CP develops the program.

The combination of CP's investment in the development of the Hydrogen Locomotive Program, as well as the funding received from ERA, make up the cost to realize this opportunity. The 50/50 matching funding from ERA's Shovel Ready Challenge program contributes \$15M and builds on a \$15M investment CP already planned to put into this program. The total cost is the sum of these investments, equalling \$30M.

Comment

IDENTIFIER

Opp3

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Markets

Primary climate-related opportunity driver

Access to new markets

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

CP transports several energy-related commodities that support the transition to renewable energy, including biofuels. In 2021, CP's revenue from transporting biofuels was \$250M. Increased regulatory pressure and customer demand are expected to support market growth for biofuels representing a growth opportunity for CP. For example, the Canadian government, Manitoba, British Columbia, Ontario and other Canadian provinces have proposed changes to regulatory fuel standards expected to increase market demand for ethanol, biodiesel, renewable diesel and other renewable products for fuel blending operations to meet regulatory limits. Specific to ethanol, in 2020, Ontario began mandating that fuel suppliers maintain an annual average of 10 percent renewable content in gasoline blends in Southern Ontario and Quebec is consulting on establishing a proposed mandate of 15 percent ethanol by 2025. This change in renewable fuel blending standards in Eastern Canada, up from a five percent minimum previously, is expected to double the demand for transportation of ethanol products in these markets. Numerous provinces, including Alberta, Manitoba and Saskatchewan have established renewable diesel mandates, and the Canadian Government has recently implemented clean fuel regulations expected to increase demand for renewable fuel content. An additional example of new market opportunities relates to the development of renewable energy production in Alberta, including wind energy. CP has been a critical partner in supporting this transition and is currently engaged in several multi-year projects to transport 1,300 megawatts of wind turbine materials into the Alberta marketplace. As demand for wind energy increases in North America,

CP's ability to carry and handle the large equipment necessary for wind energy production could support increased revenue from wind-related transport in the short-, medium- and long-term time horizons.

Through scenario analysis and CP's new Climate Strategy, CP is evaluating emerging technologies, such as hydrogen-powered locomotives and renewable energy, to maximize opportunities in the expanding renewable fuel market.

Time horizon

Long-term

Likelihood

More likely than not

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

236,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

The results of CP's scenario analysis process were used to inform the reported financial impact figure. This projection utilizes CP's 2020 freight revenue as the basis for modelling calculations. Through this process, CP identified a potential opportunity to increase freight revenues for new and developing energy markets, which are projected to grow in a low-carbon future. Increasing demand from primary fuel suppliers for renewable fuel materials to meet emerging regulatory requirements is expected to boost demand for freight rail services to transport biofuel products. In 2020, CP generated \$256M from biofuel, a significant increase from \$228M in 2019 and \$195M in 2018.

CP included the IEA's 2-degree-aligned SDS scenario as part of our scenario analysis. Under this scenario, annual freight revenue from biofuels could approach \$492M by 2040, an increase of \$236M above current levels. This figure

was calculated by applying the IEA's projected growth rate in North American demand for bioenergy, assuming a linear growth rate from 138 million tons of oil equivalent (Mtoe) in 2019 to 278 Mtoe in 2040. An increase to 278 Mtoe represents a 192 percent growth in demand compared to 145 Mtoe in 2020, based on a linear growth rate between 2019 and 2020. Applying the same assumed level of growth to CP's 2020 biofuels freight revenue of \$256M, this could result in revenues of \$492M by 2040 ($\$256M * 1.92 = \$492M$), or \$236M over current levels ($\$492M - \$256M$). These estimations are intended to demonstrate the potential in business opportunities under a 2-degree-aligned SDS and do not reflect CP's precise revenue projection.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

CP's marketing and sales teams work with potential biofuel and other renewable energy customers on a regular basis.

(S) Specific to wind energy, as the demand for renewable energy increases, CP is well-positioned to support the transportation of new energy products and equipment. Services provided to wind sector customers are included in CP's machinery and dimensional portfolio. CP has a designated team responsible for understanding market fundamentals and creating a playbook for how CP can participate and secure business in this area. (T) CP is an active participant in the wind sector and has a team of professionals that help to promote the work of moving wind turbines and other tasks associated with this portfolio. (A) CP leverages our transportation and property assets to provide a critical service to support Alberta's expanding renewable wind energy generation capacity. CP has been a critical partner in supporting this transition and is currently engaged in several multi-year projects to transport 1,300 megawatts of wind turbine materials into the Alberta marketplace. Due to the size of the wind turbine materials, transporting large wind system components and turbines by rail requires careful planning, shipment modelling, coordination and detailed project management with the wind sector producers. To support the transport of wind turbines and related materials, CP has provided wind sector producers access to land near rail assets for staging cranes and other equipment necessary to load and unload the materials from trains. (R) Utilizing available property resources

and extensive transportation expertise, CP can support the Alberta wind power generation sector and realize a partnership opportunity that may contribute to increased freight revenue from wind energy moving forward. The timescale of these actions has been over the last 15 years through 2021. CP intends to monitor wind energy market trends, as well as attend conferences and customer events to stay current with the market and projects being announced.

The wind energy sector has long been a part of our machinery and dimensional transportation service portfolio. Given that these initiatives are part of CP's existing business, there is no additional cost associated with realizing this opportunity. Subsequently, the additional cost to CP to implement this opportunity is reported as \$0.

Comment

C3.

Business strategy

C3.1

Does your organization's strategy include a transition plan that aligns with a 1.5°C world?

Transition plan

Yes, we have a transition plan which aligns with a 1.5°C world

Publicly available transition plan

Yes

Mechanism by which feedback is collected from shareholders on your transition plan

Our transition plan is voted on at Annual General Meetings (AGMs)

Attach any relevant documents which detail your transition plan (optional)

[CP Climate Strategy.pdf](#)

C3.2

Does your organization use climate-related scenario analysis to inform its strategy?

Use of climate-related scenario analysis to inform strategy

Yes, quantitative

C3.2A

Provide details of your organization's use of climate-related scenario analysis.

Climate-related scenario

Transition scenarios
IEA SDS

Scenario analysis coverage

Company-wide

Parameters, assumptions, analytical choices

CP uses the IEA's Sustainable Development Scenario to help evaluate potential business impacts, which assumes global warming is limited to 2 degrees Celsius due to several regulatory, technological and societal lifestyle changes. This was compared to the IEA baseline scenarios as presented in the Current Policies and New Policies scenarios. Where CP's internal market projections were available, this information was combined with IEA scenario projections to identify potential impacts on the company. Where not available, CP's market share was used as the baseline from which to model the financial impacts of the scenarios.

Where possible, data addressed trends for 2030 and 2050 to identify potential medium- and long-term impacts and illustrate how risks and opportunities might evolve over time. This approach provides CP with insight into various pathways the U.S. and Canadian economies could follow in the future, providing helpful information for business planning processes.

Scenario analysis results provide insight into how CP's business may be impacted by climate change. The process highlights key financial risks of climate-related issues in varying global warming scenarios while identifying plausible solutions to reduce these risks to CP.

Climate-related scenario

Physical climate scenarios

Scenario analysis coverage

Company-wide

Parameters, assumptions, analytical choices

CP drew upon publicly available scenarios from the Intergovernmental Panel on Climate Change (IPCC) to model physical risks. The IPCC scenario 8.5 assumes a global temperature increase of four degrees Celsius, representing significant physical climate risks, including extreme temperatures, weather events, flooding and sea-level rise. CP used geographic information system modelling to evaluate several locations across the rail network to understand how physical impacts associated with this climate change scenario could affect railway operations. This physical risk exercise covered CP's entire operations, with an additional focus on five key operating sites across our network.

Where possible, this evaluation included global warming data and trends specific to 2030 and 2050 to understand the potential medium- and long-term impacts.

Scenario analysis results provide insight into how CP's business might be impacted by climate change. The process highlights key financial risks of climate-related issues under varying global warming scenarios while identifying plausible solutions to reduce CP's climate-related risks. Operating a 13,000-mile rail network across North America exposes CP to both acute and chronic physical risks, including:

- Acute physical impacts from exposure to increasing extreme weather and precipitation events could damage CP's rail infrastructure, possibly disrupting rail operations.
- Chronic changes such as sea-level rise in key coastal locations and changing temperature conditions, could lead to significant disruptive impacts across CP's network and infrastructure.

C3.2B

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

Focal questions

How will climate-related risks and opportunities affect our business?

Where should we best invest to counter climate change threats and capture opportunities?

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

CP conducted scenario analysis in 2020 to model the financial impacts of potential climate-related risks and opportunities. Through this process, CP identified potential business exposure to the following risks and opportunities:

Policy:

- Carbon Pricing: New or additional carbon pricing could lead to increased costs.
- Fuel Efficiency: CP's inherent efficiency advantage over trucking may be amplified by climate-related regulations.

Technology:

- Fuel Switching: Switching railway operations to renewable fuels and/or alternative propulsion can reduce fuel consumption and associated carbon costs.
- Trucking Competition: Technology leading to the decarbonization of highway transport may lead to increased competition.

Markets:

- Coal Markets: CP's coal transportation line of business represented eight percent of freight revenue in 2020. Scenario analysis identified that decreasing coal demand could impact CP's revenue by as much as \$187M annually by 2040.
- Energy Markets: CP's energy, chemicals and plastics transportation line of business represented 20 percent of freight revenue in 2020. Scenario analysis identified that decreasing consumer demand for certain energy commodities,

such as crude oil and petroleum products, could impact CP's revenue by as much as \$354M annually by 2040.

- Freight Rail Demand: Decarbonization of the broader transport sector may expand demand for freight rail services and increase CP's revenue.

CP also conducted a detailed scenario analysis of physical risks. This process examined CP at a network level with a corresponding analysis of critical operating locations perceived to be vulnerable to specific physical risks. This included our coastal operations in Canada, which may be susceptible to sea-level rise, as well as portions of CP's inland network that are at risk from flooding or wildfires. CP has already experienced physical risks in some of the areas identified in the scenario analysis, including our Thompson and Cascade subdivisions in British Columbia that were impacted by wildfires and flooding in 2021.

Results of CP's scenario analysis have identified areas where further investments can mitigate climate-related risks and capture opportunities. These opportunities

include our Locomotive Modernization and Hydrogen Locomotive Programs. In 2021, CP upgraded 30 locomotives through our modernization program, which helps to maintain CP's inherent efficiency advantage over trucking sector competitors. Additionally, our Hydrogen Locomotive Program represents an opportunity to implement low-carbon fuels across our rail operations.

CP is also working to adapt our response to physical risks on our network. Specific actions, in response to experienced physical events and aligned with scenario analysis findings, include conducting a risk-based review of flood risks across a region of our network following flooding in Davenport, IA and investing in rail infrastructure upgrades to maintain resiliency during future events.

C3.3

Describe where and how climate-related risks and opportunities have influenced your strategy.

PRODUCTS AND SERVICES

Have climate-related risks and opportunities influenced your strategy in this area?

Yes

Description of influence

Efficiency plays a central role in CP's strategy around products and services. According to the FRA, railways are the most efficient and low-carbon form of transporting freight, long distances over land. As of 2021, CP can transport one ton of freight 586 miles on a single gallon of fuel. Our ability to offer customers more efficient, lower-carbon emitting transportation services as opposed to fuel-intensive and higher-emitting competitors (such as trucking) represents a significant climate-related opportunity for CP. Using less fuel per ton of freight reduces our exposure to increasing fuel costs, regulatory risk and escalating carbon pricing programs.

(S) As a highly fuel-efficient operation, CP is well-positioned to grow our business while meeting customer expectations for lower carbon freight services. CP's business strategy involves improving operational and resource use efficiency to deliver low carbon, less fuel-intensive freight services. (T) The specific time horizon of this initiative is for CP to modernize grain hopper cars with the aim of bringing this more efficient fleet of rolling stock into use by 2023.

(A) An example of CP's strategic approach includes the implementation of our 8,500-foot high-efficiency product grain train (HEP train), which improves supply chain capacity, customer service and fuel efficiency. Once implemented, the HEP train will allow CP to carry more than 40 percent additional grain per train, significantly reducing the total number of train starts, fuel consumption and GHG emissions. To support the HEP train model, CP is purchasing new high-capacity grain hopper cars as part of a \$500M multi-year investment. These new cars have nearly 10% more capacity than the old cars. By the end of 2021, a total of over 5,803 high-capacity train cars are now in service across CP's network. (R) The

capacity improvements associated with the HEP train model and high-capacity grain cars have enabled CP to Canadian grain products shipments. In May 2020, CP set a company record for the most grain shipped in a single month at 2.8M metric tons. By focusing on the efficiency of freight rail products and services, CP's significant investments in the HEP train model product is an example of how current business decisions are supporting climate risk mitigation in the medium and long term.

SUPPLY CHAIN AND/OR VALUE CHAIN

Have climate-related risks and opportunities influenced your strategy in this area?

Yes

Description of influence

CP conducted scenario analysis to assess climate-related risks and opportunities related to major customer markets that the company serves. Specifically, CP looked at how changes in coal and energy markets might occur across multiple climate scenarios. This process identified how changes in CP's downstream value chain could impact our future financial performance. In 2021, CP's energy, chemicals and plastics (ECP) and coal customers accounted for 20 percent and eight percent of our freight revenue, respectively. The findings of scenario analysis have helped inform our customer engagement strategy and enhanced our understanding of how market-specific demand for freight rail transportation could evolve over time. CP's scenario analysis evaluated how climate-related risks and opportunities might impact customer markets through 2050.

(S) Climate change is anticipated to impact the volatility of specific industrial sectors and markets, particularly energy products. (T) CP conducted a scenario analysis to evaluate and mitigate potential climate-related risks in CP's downstream value chain, including how our customers and the markets they serve could be affected by climate change. (A) CP examined energy-related business lines through scenario analysis, including coal, petroleum products, crude oil, biofuels and wind. Under a 2-degree-aligned future scenario, it was identified that CP could simultaneously experience a future decrease in revenue from petroleum products, crude oil and coal and a revenue increase from the transportation of biofuels and wind power generation equipment. (R) The outcomes of scenario analysis are influencing CP's

business strategies and customer engagement practices, including engagements with wind energy developers in Alberta or ethanol producers in the U.S. Midwest.

Building on the outcomes of scenario analysis and increasing interest from the Company's value chain, CP has recently developed an online carbon calculator tool to inform meaningful stakeholder engagement. This tool allows customers and other stakeholders to model carbon emissions and other ESG-related benefits of shipping goods by CP freight rail service. Users can review shipping options and generate customized, route-specific emissions reports to inform discussions on low carbon rail services with CP's sales and marketing team.

INVESTMENT IN R&D

Have climate-related risks and opportunities influenced your strategy in this area?

Yes

Description of influence

Monitoring and implementing emerging technology to enable the delivery of low-carbon services to our customers is a key element of CP's business strategy. Given the complexity of reducing emissions in the transportation sector, next-generation fuels, efficiency technologies and fuel alternatives will be. In 2021, CP established a Carbon Reduction Task Force to progress our Climate Strategy and drive an internal focus on decarbonization. This task force, led by CP's industry-leading engineers and operations experts, is evaluating potential levers and practices to reduce GHG emissions from CP's business. Success in this initiative requires collaboration across our value chain to build partnerships with technology providers in an emerging marketplace.

(S) Hydrogen fuel cell/battery hybrid propulsion technology is being tested as an alternative fuel in the transportation sector, with particular promise for freight rail systems. If proven successful at scale, hydrogen technology can significantly reduce the GHG footprint of freight railway operations. (T) Since December 2020, CP has been developing North America's first line-haul hydrogen-powered locomotive. With over 30,000 diesel-electric locomotives across North America today, such a solution to retrofit the locomotive power plant is critical to reducing the carbon footprint of the freight rail sector. (A) CP engineering and mechanical experts are developing this locomotive by retrofitting diesel-powered locomotives with a combination

of hydrogen fuel cells and battery technology to power the locomotive's traction motors. (R) CP's program is intended to spur innovation, demonstrate leadership and encourage collaboration to expedite the advancement of zero-emission fuel cell technology for the freight rail sector. In 2021, recognizing the potential of this program, CP received \$15M in funding from Emissions Reduction Alberta, building upon the investment that CP planned to invest in the project. This additional funding is being used to install hydrogen production and fuelling facilities and expand from one to three hydrogen locomotive conversions. The fuelling facility in Calgary will include an electrolysis plant to produce hydrogen from water operating on renewable power from the solar farm at CP's headquarters. These actions cover a time horizon from 2020 through 2025, as CP develops the program.

OPERATIONS

Have climate-related risks and opportunities influenced your strategy in this area?

Yes

Description of influence

CP plays a critical role in enhancing the sustainability of the North American supply chain. Continued investment in optimizing the rail network, coupled with locomotive fleet improvements, has enabled CP to operate one of the most fuel-efficient freight railways in North America. Climate-related opportunities, such as increasing customer expectations for reliable, efficient, low-carbon transportation services, have influenced our operations. CP has long focused on energy-saving initiatives as a core component of its sustainability practices. Since 1990, CP has improved its locomotive fuel efficiency by more than 44 percent through a variety of programs and technology deployments. By engaging with customers and suppliers to improve operational efficiency, CP is taking action to realize climate-related opportunities. Our focus on operational efficiency also has current benefits, with many programs operating in the 2021 reporting year. This allows CP to mitigate increasing fuel costs associated with emerging carbon pricing systems and clean fuel standards.

(S) CP consumes a significant volume of diesel fuel as part of our operations, representing the vast majority of our GHG emissions. (T) CP implements strategic investments in our rail network, equipment and locomotive fleet through our annual

capital program to improve operational fuel efficiency. (A) In 2021, CP upgraded an additional 30 line-haul locomotives through our multi-year locomotive modernization program. Through this initiative, CP has refurbished a total of 416 in-line modernized locomotives, accounting for 50 percent of our active fleet. Locomotives upgraded through this program have a direct and positive impact on CP's fuel efficiency and corresponding GHG emissions. (R) The fuel efficiency of locomotives that have gone through the modernization program have improved by a minimum of 2.7 percent. The 30 locomotives upgraded in 2021 will account for an estimated annual savings of more than 830,000 litres of diesel fuel and 2,461 metric tons of GHG emissions. Supported by these investments, CP set a company record fuel efficiency in 2021, consuming 0.931 U.S. gallons of locomotive fuel per 1,000 gross ton-miles, outperforming the Class I railroad sector average by 11.3 percent. CP continues to mitigate climate-related risks by improving operational efficiency.

C3.4

Describe where and how climate-related risks and opportunities have influenced your financial planning.

Financial planning elements that have been influenced

Capital expenditures

Description of influence

Operating and maintaining a transcontinental railroad is capital intensive. CP annually allocates significant capital funds to enhance the resiliency and efficiency of our locomotive fleet, rolling stock and rail network. Executing CP's Climate Strategy will require deploying new data management systems, advanced technologies and next-generation renewable fuels to mitigate GHG emissions. Given the limited availability of financial and people resources, successfully implementing our Climate Strategy will require an innovative approach to business planning.

Capital expenditures:

The process of allocating capital resources is a cornerstone of CP's financial planning cycles. How the company allocates capital resources directly influences business performance and operating ratio (as measured by dividing total operating expenses by total revenues). Capital planning decisions are increasingly influenced by climate-related risks and opportunities, including carbon pricing and evolving customer preference for low-carbon transportation solutions. Continuing to deliver highly efficient and cost-effective transportation services supports a strong operating ratio performance and is a key focus of CP's short-term planning processes. However, due to the long life cycle of locomotives and other capital investments, financial planning in this area also influences medium- to long-term business performance. As a result, CP prioritizes investments in projects with the ability to provide both immediate and long-term operational resource and fuel efficiency benefits.

A key objective of CP's growth model is investing in projects that directly benefit operational efficiency, including fuel and energy savings opportunities. Our financial planning process supports capital expenditures to meet this objective. In 2021, CP invested \$297M to renew depleted assets, encompassing \$121M in locomotive upgrades and \$176M in rail car and container improvements, including the acquisition of high-capacity hopper cars for grain transportation.

(S) CP consumes a significant volume of diesel fuel as part of our locomotive operations representing the vast majority of the company's annual GHG emissions. (T) CP implements strategic investments in our rail network, equipment and locomotive fleet through our annual capital program to improve the fuel efficiency of our operations. (A) In 2021, CP upgraded an additional 30 line-haul locomotives through our multi-year locomotive modernization program. Through this initiative, CP has refurbished a total of 416 in-line locomotives between 2017-2021, accounting for 50 percent of our active fleet. Locomotives upgraded through this program have a direct and positive impact on CP's fuel efficiency and corresponding GHG and air pollutant emissions. (R) The fuel efficiency of locomotives that have gone through the modernization program is improved by a minimum of 2.7 percent. The 30 locomotives upgraded in 2021 will account for an estimated annual savings of more than 830,000 litres of diesel fuel and 2,461 metric tons of GHG emissions. Supported by these investments, CP set a company record fuel efficiency in 2021, consuming 0.931 U.S. gallons of locomotive fuel per 1,000 gross ton-miles (GTMs), outperforming the Class I railroad sector average by 11.3 percent. CP continues to mitigate climate-related risks by reducing locomotive fuel consumption to improve operational efficiency.

C3.5

In your organization's financial accounting, do you identify spending/revenue that is aligned with your organization's transition to a 1.5°C world?

Yes

C3.5A

Quantify the percentage share of your spending/revenue that is aligned with your organization's transition to a 1.5°C world.

Financial Metric

CAPEX

Percentage share of selected financial metric aligned with a 1.5°C world in the reporting year (%)

13

Percentage share of selected financial metric planned to align with a 1.5°C world in 2025 (%)

Percentage share of selected financial metric planned to align with a 1.5°C world in 2030 (%)

Describe the methodology used to identify spending/revenue that is aligned with a 1.5°C world

To identify capital expenditures that are aligned with a 1.5°C world, CP included expenditures for projects, initiatives and technologies that enable the adoption of practices to achieve a pathway aligned with a low-carbon future. Specifically, CP included the proportion of our total capital expenditures associated with directly reducing CP's operational and value chain GHG footprint. This includes our investments in the Hydrogen Locomotive Program, the on-site solar farm at our Calgary headquarters, the HEP grain car initiative and Locomotive Modernization Program. These technologies and initiatives are vital components to transitioning our operations to align with a 1.5°C world. As our programs and initiatives continue to evolve, the proportion of our capital expenditure aligned with a 1.5°C world could change going forward.

C4.

Targets and performance

C4.1

Did you have an emissions target that was active in the reporting year?

Intensity target

C4.1B

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

Target reference number

Int 1

Year target was set

2021

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 3

Scope 2 accounting method

Location-based

Scope 3 category(ies)

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

Intensity metric

Other, please specify

(grams CO₂e per revenue ton-mile (RTM))

Base year

2019

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

19.52

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

0

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

5.65

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

25.17

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

96

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

0

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

50

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

79

Target year

2030

Targeted reduction from base year (%)

38.3

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

15.52989

% change anticipated in absolute Scope 1+2 emissions

-26

% change anticipated in absolute Scope 3 emissions

-26

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

19.12

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

0

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

5.43

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

24.55

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

6.4314618817

Target status in reporting year

Underway

Is this a science-based target?

Yes, and this target has been approved by the Science Based Targets initiative

Target ambition

Well-below 2°C aligned

Please explain target coverage and identify any exclusions

This intensity-based target commits CP to reduce locomotive well-to-wheel (WTW) GHG emissions per revenue ton-miles (RTMs) by 38.3 percent by 2030, from a 2019 base year. Well-to-wheel emissions included in the target are Scope 1 emissions from locomotive fuel (which account for over 95 percent of total combined Scope 1 & 2 emissions in 2019) and Scope 3, Category 3 emissions

from locomotive fuel, which covers our largest source of Scope 3 emissions. The use of RTMs is a critical measure of CP's freight transportation business activity and is consistent with industry practice, aligning with the SBTi Sectorial Decarbonization Approach (SDA) target-setting approach. This target was calculated using the SBTi's SDA Tool for the transport sector.

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

Published in 2021, CP's comprehensive Climate Strategy charts the Company's path to reduce GHG emissions, adapt our operations to the physical risks of climate change and integrate climate factors across the business. In pursuing our SBTi-approved locomotive target, as well as our non-locomotive target, CP will embrace creative thinking and collaborative problem solving to lower GHG emissions. CP is evaluating a wide variety of potential levers for GHG emissions reductions, including both commercially ready and emerging solutions. Specifically, our plan to achieve this target includes a continued focus on fuel efficiency and investigating the use of alternative fuels.

Examples of these efficiency improvements include our \$500M multi-year investment to upgrade our grain hopper cars to higher-capacity cars and our Locomotive Modernization Program, which has upgraded 416 locomotives by the end of 2021. These programs have helped CP to achieve the progress that has been made thus far and will help to drive further reductions going forward.

C4.2

Did you have any other climate-related targets that were active in the reporting year?

No other climate-related targets

C4.3

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

Yes

C4.3A

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

	Number of initiatives	Total estimated annual CO ₂ e savings in metric tonnes CO ₂ e (only for rows marked *)
Under investigation	8	397,503
To be implemented*	0	0
Implementation commenced*	0	0
Implemented*	3	17,077
Not to be implemented	0	0

C4.3B

Provide details on the initiatives implemented in the reporting year in the table below.

INITIATIVE CATEGORY & INITIATIVE TYPE

Non-energy industrial process emissions reductions

Other, please specify

Locomotive Retrofit / Modernization

Estimated annual CO₂e savings (metric tonnes CO₂e)

2,541

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

8,231,442

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

514,000,000

Payback period

>25 years

Estimated lifetime of the initiative

>30 years

Comment

CP's Locomotive Retrofit project is part of a multi-year locomotive fleet renewal program at CP. In 2021, CP upgraded 30 locomotive units. This investment includes technology upgrades, overhauled in kind or upgraded diesel engines, technology upgrades and improved traction systems. All units were equipped with EPA-certified fuel/emissions reduction technologies GE Trip Optimizer and Distributed Power. Improvements directly influence locomotive fuel efficiency and corresponding greenhouse gas emissions, resulting in a 2.7 percent improvement guarantee. Emissions reductions associated with this project were conservatively estimated based on the fuel efficiency guarantee provided by the equipment vendor. CP anticipates the combined effect of locomotive upgrades coupled with installed fuel-saving technology will result in fuel savings beyond 2.7 percent. The estimated annual savings and corresponding payback period reflect the financial impact of projected fuel savings only. In 2021, CP upgraded 30 locomotives with a spend of ~ \$50M towards this initiative, increasing the total to 416 locomotives retrofitted through this initiative. CP invested a total spent of over ~ \$514M between 2012 to 2020. To date, CP has modernized 416 locomotives out of total of 912 active line-haul locomotives. These improvements have a direct and positive impact on CP's fuel efficiency and corresponding GHG and air pollutant emissions.

INITIATIVE CATEGORY & INITIATIVE TYPE

Energy efficiency in production processes

Other, please specify

On-road vehicle efficiency

Estimated annual CO₂e savings (metric tonnes CO₂e)

12,353

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

14,651,954

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

0

Payback period

No payback

Estimated lifetime of the initiative

Ongoing

Comment

Unit cost of vehicle fuel = gross amount of fuel used in Canada/Price in Canada, fuel saved is difference between 2020 and 2021 = (43,228,241.2-32,043,543.3)

L. Emissions savings reflect the difference between 2021 and 2020 emissions from CP's on road vehicle fleet.

INITIATIVE CATEGORY & INITIATIVE TYPE

Low-carbon energy generation

Solar PV

Estimated annual CO₂e savings (metric tonnes CO₂e)

2,183

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

Scope 2 (location-based)

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

662,000

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

9,303,000

Payback period

11-15 years

Estimated lifetime of the initiative

21-30 years

Comment

The installation of Ogden solar project was completed in 2021. The completed installation spans approximately five hectares and includes a solar garden and covered parking for up to 500 employee vehicles. The project also incorporates four electric car-charging stations to provide employees with quick and efficient access to vehicle charging facilities. The project supports a direct reduction in CP's Scope 2 emissions. Construction of the solar farm began in October 2020, with final completion in March 2021.

The benefits from the Ogden Solar project correspond to 3498.76 MWh of energy consumed in 2021 (operated from March 2021 to Dec 2021), out of the total 4,378 MWh generated. When translated to emissions savings, the project avoided approx. 2183 Metric tons of avoided CO₂e based on a reduction of carbon-intensive electricity from non-renewable Alberta grid power.

C4.3C

What methods do you use to drive investment in emissions reduction activities?

Method

Financial optimization calculations

Comment

In order to position CP as a leader in the transition to a low-carbon economy and fully execute the Climate Strategy, we are implementing new approaches to deploy capital, operating budgets and people in the most efficient and effective ways possible. CP currently expends significant amounts of capital to maintain and upgrade our locomotive fleet and network, to improve overall efficiency and ensure system reliability. We are increasingly utilizing new data management systems, technologies and fuels to mitigate GHG emissions in our operations.

C4.5

Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5A

Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Product or service

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

Low-Carbon Investment (LCI) Registry Taxonomy

Type of product(s) or service(s)

Rail

Other, please specify

Intermodal Freight Rail Transport

Description of product(s) or service(s)

Shipping goods and materials by railway represents the most energy-efficient method of on-land freight transportation over long distances. A single-unit train keeps more than 300 trucks off public roads and is three to four times

more fuel-efficient than highway transport which helps our customers further reduce GHG emissions. Specifically, CP's intermodal services move goods from a broad spectrum of industries, including wholesale, retail, food and various other commodities. Our intermodal traffic consists largely of retail goods in overseas containers that can be transported by train, ship and truck, and in domestic containers that can be moved by train and truck.

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

Yes

Methodology used to calculate avoided emissions

Other, please specify

CP Internal Methodology

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

Use stage

Functional unit used

1,000 revenue-mile

Reference product/service or baseline scenario used

Intermodal transport via trucking

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

Use stage

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

1,063

Explain your calculation of avoided emissions, including any assumptions

This calculation compares the movement of intermodal goods via trucks versus on CP trains. It compares the emissions per 1000 revenue-mile of intermodal good transported using these two methods to determine the emissions savings that occurs when moving intermodal goods via CP's trains.

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

22

C5.

Emissions methodology

C5.1

Is this your first year of reporting emissions data to CDP?

No

C5.1A

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

Has there been a structural change?

No

C5.1B

Has your emissions accounting methodology, boundary, and/or reporting year definition changed in the reporting year?

Change(s) in methodology, boundary, and/or reporting year definition?

No

C5.2

Provide your base year and base year emissions.

SCOPE 1

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

3,136,416

Comment

CP continually improves our processes to ensure that our GHG inventory is accurate and complete. We review prior reporting year's inventory calculations to ensure that no errors were made and/or no data was omitted that may have a material impact on CP's overall inventory. During the process for the 2021 inventory, CP determined that emissions associated with natural gas consumption at facilities had not been calculated. Therefore, CP has retroactively updated the base year to account for the emissions from this fuel use. CP's emissions recalculation policy aims to ensure that disclosed emissions appropriately represent our activities. To align with our target boundaries, CP tracks Scope 1 locomotive emissions separately from non-locomotive Scope 1 & 2 emissions when considering the need to recalculate base year emissions. Therefore, even though this did not result in a material change exceeding our threshold, the update was made to ensure the base year metrics were accurate.

SCOPE 2 (LOCATION-BASED)

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

48,843

Comment

SCOPE 2 (MARKET-BASED)

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)**Comment**

CP was not calculating Scope 2 emissions using the market-based approach in the 2019 base year.

SCOPE 3 CATEGORY 1: PURCHASED GOODS AND SERVICES

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

631,004

Comment

SCOPE 3 CATEGORY 2: CAPITAL GOODS

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

0

Comment

Since it was not possible to separate the procurement data for purchased goods and services and capital goods, emissions from purchased capital goods are included in Category 1, and emissions reported in this category are zero (0).

SCOPE 3 CATEGORY 3: FUEL-AND-ENERGY-RELATED ACTIVITIES (NOT INCLUDED IN SCOPE 1 OR 2)

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

916,786

Comment

SCOPE 3 CATEGORY 4: UPSTREAM TRANSPORTATION AND DISTRIBUTION

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

141,540

Comment

SCOPE 3 CATEGORY 5: WASTE GENERATED IN OPERATIONS

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

5,272

Comment

SCOPE 3 CATEGORY 6: BUSINESS TRAVEL

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

21,039

Comment

SCOPE 3 CATEGORY 7: EMPLOYEE COMMUTING

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

18,132

Comment

SCOPE 3 CATEGORY 8: UPSTREAM LEASED ASSETS

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

0

Comment

Emissions from this category are not relevant to CP.

SCOPE 3 CATEGORY 9: DOWNSTREAM TRANSPORTATION AND DISTRIBUTION

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

0

Comment

Emissions from this category are not relevant to CP.

SCOPE 3 CATEGORY 10: PROCESSING OF SOLD PRODUCTS

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

0

Comment

Emissions from this category are not relevant to CP.

SCOPE 3 CATEGORY 11: USE OF SOLD PRODUCTS

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

0

Comment

Emissions from this category are not relevant to CP.

SCOPE 3 CATEGORY 12: END OF LIFE TREATMENT OF SOLD PRODUCTS

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

0

Comment

Emissions from this category are not relevant to CP.

SCOPE 3 CATEGORY 13: DOWNSTREAM LEASED ASSETS

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

0

Comment

Emissions from this category are not relevant to CP.

SCOPE 3 CATEGORY 14: FRANCHISES

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

0

Comment

Emissions from this category are not relevant to CP.

SCOPE 3 CATEGORY 15: INVESTMENTS

Base year start

January 1, 2019

Base year end

December 31, 2019

Base year emissions (metric tons CO₂e)

0

Comment

Based on the information related to CP's investee companies and the likely source of emissions, Scope 3 emissions from this source are estimated to be nearly zero percent of CP's total Scope 3 emissions and therefore are considered not relevant.

SCOPE 3: OTHER (UPSTREAM)

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

C5.3

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

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

SCOPE 3: OTHER (DOWNSTREAM)

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

C6.

Emissions data

C6.1

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

REPORTING YEAR

Comment

Gross global Scope 1 emissions (metric tons CO₂e)

2,952,415

C6.2

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

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Comment

Scope 2, market-based

We are reporting a Scope 2, market-based figure

C6.3

What were your organization's gross global Scope 2 emissions in metric tons CO₂e?

REPORTING YEAR

Scope 2, market-based (if applicable)

39,339

Scope 2, location-based

38,774

Comment

C6.4

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

Yes

C6.4A

Provide details of the sources of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure.

SOURCE

Purchased electricity in leased space

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why this source is excluded

Data are not available.

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

0

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

Emissions are anticipated to account for less than 1 percent of total Scope 2 emissions.

SOURCE

Halocarbon emissions from US operations

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why this source is excluded

Data are not currently collected for the U.S. operations.

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

0

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

Emissions are anticipated to account for less than 0.001 percent of total Scope 1 emissions.

SOURCE

Propane consumption from US operations

Relevance of Scope 1 emissions from this source

Emissions are not relevant

Relevance of location-based Scope 2 emissions from this source

Emissions are not relevant

Relevance of market-based Scope 2 emissions from this source (if applicable)

Emissions are not relevant

Explain why this source is excluded

Data is unreliable and therefore excluded.

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

0

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

Emissions are anticipated to reflect less than 0.1 percent of total Scope 1 emissions.

C6.5

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

PURCHASED GOODS AND SERVICES

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

598,836

Emissions calculation methodology

Spend-based method

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

0

Please explain

Supplier spend data was provided by CP's Operations Accounts and Capital Accounts groups. Spend data was classified based on the specified cost element to determine the amount of money spent by CP in the reporting year on each element. Each cost element was then mapped to a specific US EPA Environmentally-Extended Input-Output (EEIO) category, with a corresponding emission factor per unit of spend. Each cost element was then totalled and converted into GHG emissions using the corresponding EEIO category emission factor. EEIO emission factors were accessed through the Carnegie Mellon website (<http://www.eiolca.net/cgi-bin/dft/use.pl>). Spend data associated with cost elements covered elsewhere in the inventory (either Scope 1 and 2 or other Scope 3 categories) were removed to avoid double counting. Other cost element categories were also removed that would not result in emissions based on feedback from internal CP Accounts teams.

Emissions from purchased goods and services are the second largest source of emission in the Scope 3 inventory, accounting for 35 percent of total Scope 3 emissions. Therefore, these emissions are considered relevant.

CAPITAL GOODS

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

0

Emissions calculation methodology

Spend-based method

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

0

Please explain

See explanation from Category 1: Purchased goods and services, since it was not possible to separate the procurement data for purchased goods and services and capital goods. Emissions from purchased capital goods are included in Category 1, and emissions reported in this category are zero (0).

FUEL-AND-ENERGY-RELATED ACTIVITIES (NOT INCLUDED IN SCOPE 1 OR 2)

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

850,210

Emissions calculation methodology

Average data method

Fuel-based method

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

0

Please explain

The fuel and energy-related activities evaluated include: upstream emissions from the fuel CP uses during its operation, upstream emissions from fuel combusted for the generation of the electricity purchased by CP and transmission and distribution (T&D) losses from electricity consumed in 2021, as well as upstream emissions from the generation of the electricity lost through T&D. The specific methodology for these activities is as follows:

1. Upstream emissions from the use of fuels used for stationary and mobile sources - This evaluated the emissions related to the well-to-tank GHG emissions for fuels that CP consumes for locomotive, fleet and stationary sources during its operations. CP tracks the amount of fuel by type across its locations. Emissions were estimated using GHGenius 5.01g upstream emissions factors.

2. Upstream emissions from fuel combusted for the generation of electricity that CP purchases - These emissions are estimated based on electricity consumed by geographic location. Emission factors for well-to-tank emissions per kWh electricity consumed from fuel used were found in UK DEFRA 2021 by country. These were applied to the total electricity consumed for each location in CP's business.

3. Emissions from T&D losses - T&D loss factors by percent loss for all locations were sourced from EPA eGrid for the US and The World Bank for Canada. T&D loss factors were applied to the total electricity consumed for each location. Electricity emission factors from eGrid and IEA were used to determine the specific emissions from T&D losses for 2021.

4. Upstream emissions from fuel combusted for the generation of electricity covered by T&D losses - In addition to the upstream emissions from fuel combusted for the generation of electricity consumed by CP in 2021, upstream emissions associated with the electricity lost through T&D were calculated. This approach used the same UK DEFRA 2021 emission factors by country and applied them to the amount of electricity that was calculated to be lost through T&D.

Emissions from this category are the largest source of the Scope 3 inventory, accounting for 50 percent of total Scope 3 emissions. Therefore, these emissions are considered relevant.

UPSTREAM TRANSPORTATION AND DISTRIBUTION

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

205,245

Emissions calculation methodology

Spend-based method

Distance-based method

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

5

Please explain

Upstream transportation and distribution include emissions related to the transport of purchased material, truck transport of intermodal containers, postage and couriers and haulage payments to other railroads to move goods for CP.

Emissions from the transport of purchased materials for truckloads and less than truckloads were calculated using each order's weight and transport distance with ton-mileage emission factors sourced from the EPA for medium- and heavy-duty trucks.

For all other upstream Transportation and Distribution emissions not covered by direct data, an Economic Input Output (EIO) calculator was used to estimate emissions from purchased transportation services. The spend data was sorted based on CP cost elements and descriptors, as well as emission factors from the US EPA Environment Environmentally-Extended Input-Output (EEIO) models. EEIO categories by spend were totalled and converted into GHG emissions using corresponding emission factors. The largest source of these emissions was from truck transport of intermodal containers when CP could not directly deliver materials to a client by rail. EEIO emission factors were accessed through the Carnegie Mellon website (<http://www.eiolca.net/cgi-bin/dft/use.pl>).

Emissions from upstream transportation account for about 12 percent of CP's Scope 3 emissions and are therefore relevant.

WASTE GENERATED IN OPERATIONS

Evaluation status

Not relevant, calculated

Metric tonnes CO₂e

4,967

Emissions calculation methodology

Waste-type-specific method

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

0

Please explain

Data on volume and/or weight of waste generated in CP's facilities annually is tracked. This data is tracked by waste type (hazardous and non-hazardous) and by end-of-life treatment (landfilled, diverted, etc.) and converted to GHG emissions using factors from the US EPA Climate Leadership last updated April 2021.

The total waste by disposal method is converted to GHG emissions using average waste treatment specific emissions factors. Avoided emissions such as stored carbon or other negative emissions were not included per the Scope 3 Guidance. Since all emission factors for recycling are not always available, materials that were recycled that did not have an emission factor were conservatively assumed to have an emission factor of 0.02 metric CO₂e/Short ton material, representing the transportation of the recycled material to the recycling facility. Other waste materials or sources that did not have emission factors were assumed to have an emission factor of 0.02 metric tons CO₂e/Short ton material.

All of CP's disposed railroad ties are sent to cogeneration facilities. Combustion emissions from railroad ties are not accounted for in this category per the GHG protocol Scope 3 calculation guidance: "Companies should account for emissions from preparing and transporting waste that will be combusted in a waste-to-energy facility in category 5 but should not account for emissions from the waste-to-energy combustion process itself. These emissions should be included in Scope 2 by the consumers of energy generated from waste." In addition, CP transports the ties to the cogeneration facility using CP cars and locomotives, so emissions from rail tie transport are included in Scope 1 emissions.

This estimate includes emissions from waste that is landfilled, incinerated, recycled, or composted, as well as the emissions associated with transporting operational waste.

GHG emissions from CP-generated wastes represent less than one percent of total Scope 3 emissions and are not considered relevant to this emissions category.

BUSINESS TRAVEL

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

20,360

Emissions calculation methodology

Spend-based method

Distance-based method

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

44

Please explain

CP collects data for employee business air travel from our travel service provider. This system tracks distance travelled enabling CP to calculate approximate emissions using a distance-based methodology. Flights are categorized by distance, including short-haul (under 300 miles), medium (between 300 to 2,300 miles) and long haul (greater than 2,300 miles). Emission factors from EPA Climate Leadership for passenger flight distance are used to calculate GHG emissions for this category.

CP collects data on employee car rentals from rental car service providers Avis, Budget and Enterprise. Each provider report miles travelled and gallons used for vehicles rented by CP employees. Fuel emission factors from EPA Climate Leadership are used to calculate GHG emissions.

CP collects data on hotel stays through our travel service provider. The system tracks the employee night stays by country. Emission factors for hotel visits from DEFRA were used to calculate GHG emissions.

CP tracks the amount of spend for employee personal mileage reimbursement when employees use personal vehicles for business travel. The number of miles reimbursed are calculated using the Canadian government rate for mileage reimbursement. Using the average fuel economy of a Canadian personal vehicle, CP calculates fuel usage and applies fuel emission factors from EPA Climate Leadership to determine GHG Emissions.

CP also tracks the amount of spend for deadheading, which accounts for the transport of crew between rail yards or other locations via automobile. This information was used with an EIO model to calculate emissions for passenger ground transport for deadheading.

GHG emissions associated with business travel represent over one percent of total Scope 3 emissions and are considered relevant.

EMPLOYEE COMMUTING

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

16,010

Emissions calculation methodology

Average data method

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

0

Please explain

Employee commuting emissions were estimated using average commuting time and distance statistics from census data in the US and Canada. CP tracks the number of employees by each operating facility.

Based on this data, the miles travelled by type of transportation (passenger car, public transit and carpooling) are estimated using average commute distance and time by county for US and Canada, utilizing data from US and Canada Census data. This information is converted into GHG emissions using emission factors from US EPA Climate Leadership, last updated in April 2021.

CP tracks the number of employees working from home due to Covid-19 restrictions. This data was used to determine the total employee years that workers were not commuting to the office. This value was deducted from the overall value to reflect reduced emissions associated with employees working from home.

GHG emissions associated with employee commuting represent about one percent of total Scope 3 emissions and are considered relevant.

UPSTREAM LEASED ASSETS

Evaluation status

Not relevant, explanation provided

Please explain

CP does not operate any upstream leased assets. Therefore GHG emissions from this source are zero (0). Emissions related to CP assets are included in the Scope 1 and 2 GHG emissions.

DOWNSTREAM TRANSPORTATION AND DISTRIBUTION

Evaluation status

Not relevant, explanation provided

Please explain

CP is a railway freight service provider and does not sell products. Category 9 is limited to emissions from the transportation of sold products by equipment and facilities not owned or controlled by CP. Therefore, downstream transportation and distribution are not relevant to CP. GHG emissions from this source are reported as zero (0). Any additional services purchased by CP to transport goods are included in Category 4: upstream transportation and distribution.

PROCESSING OF SOLD PRODUCTS

Evaluation status

Not relevant, explanation provided

Please explain

As a railway freight service provider, CP does not process or sell any products. Therefore, the processing of sold products is not relevant and GHG emissions from this source are zero (0).

USE OF SOLD PRODUCTS

Evaluation status

Not relevant, explanation provided

Please explain

As a railway freight service provider, CP does not sell any products. Therefore, the use of sold products is not relevant and GHG emissions from this source are zero (0).

END OF LIFE TREATMENT OF SOLD PRODUCTS

Evaluation status

Not relevant, explanation provided

Please explain

CP is a railway freight service provider and does not sell any products. Therefore, end of life treatment of sold products is not relevant and GHG emissions from this source are zero (0).

DOWNSTREAM LEASED ASSETS

Evaluation status

Not relevant, explanation provided

Please explain

CP does not have any downstream leased assets; therefore, GHG emissions from this source are zero (0). CP directly manages assets which are included in reported Scope 1 and 2 GHG emissions.

FRANCHISES

Evaluation status

Not relevant, explanation provided

Please explain

CP does not own or operate any franchises; therefore, GHG emissions from this source are zero (0).

INVESTMENTS

Evaluation status

Not relevant, calculated

Metric tonnes CO₂e

0

Emissions calculation methodology

Other, please specify

Using publicly available information, we were unable to find records of energy consumption or GHG emissions information for any of the investee companies.

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

0

Please explain

In 2021, CP controlled equity shares in several companies, primarily shortline and terminal railroads. None of these companies own and operate locomotives. The majority of emissions related to these companies are anticipated to be from electricity usage in office spaces. Using publicly available information, we were unable to find records of energy consumption or GHG emissions information for any of the companies. Therefore, we assumed that the emissions from these companies were small and not material.

Based on the information related to these investee companies and the likely source of emissions, Scope 3 emissions from this source are estimated to be zero and not relevant to this emissions category.

OTHER (UPSTREAM)

Evaluation status

Not relevant, explanation provided

Please explain

CP does not have other (upstream) emissions that have not been accounted for in this inventory.

OTHER (DOWNSTREAM)

Evaluation status

Not relevant, explanation provided

Please explain

CP does not have other (downstream) emissions which have not been accounted for in this inventory.

C6.7

Are carbon dioxide emissions from biogenic carbon relevant to your organization?

No

C6.10

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

Intensity figure

0.000374

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

2,991,189

Metric denominator

unit total revenue

Metric denominator: Unit total

7,995,000,000

Scope 2 figure used

Location-based

% change from previous year

5

Direction of change

Decreased

Reason for change

Our gross Scope 1 and Scope 2 emissions intensity decreased by five percent due to emissions reduction projects which drove operational, asset and network efficiencies as well as an increase in overall revenue. CP has made substantial investments in our network to support longer and heavier trains which enhance operational capacity and efficiency. The following example outlines a 2021 investment in our locomotive modernization program that contributes to emissions reductions at CP.

The largest contributor to CP's Scope 1 & 2 inventory is emissions from our locomotive fleet. Between 2012 and 2021, CP has invested \$514M to modernize our locomotive fleet. By the end of 2021, a total of 416 locomotives have been updated through this program, including 30 in 2021 alone. This program emphasizes CP's focus on operational efficiency and performance improvement helping to reduce overall emissions in 2021, as well as reduce our fuel efficiency from 0.942 gallons/'000 GTM in 2020 to 0.931 gallons/'000 GTM in 2021. An additional contributor to this improved emissions intensity was the growth of our revenue from \$7,710M in 2020 to \$7,995M in 2021.

C-TS6.15

What are your primary intensity (activity-based) metrics that are appropriate to your emissions from transport activities in Scope 1, 2, and 3?

RAIL

Scopes used for calculation of intensities

Report just Scope 1

Intensity figure

0.0000105

Metric numerator: emissions in metric tons CO₂e

2,861,302

Metric denominator: unit

t.mile

Metric denominator: unit total

271,921,000,000

% change from previous year

-1

Please explain any exclusions in your coverage of transport emissions in selected category, and reasons for change in emissions intensity.

This metric only includes locomotive fuel consumption and excludes all facility-related Scope 1 and Scope 2 emissions. This is the most appropriate indicator of emissions related to transportation activities, as locomotive fuel emissions accounted for 95.7 percent of CP's total Scope 1 and Scope 2 GHG emissions in 2021.

ALL

Scopes used for calculation of intensities

Report just Scope 1

Intensity figure

0.0000105

Metric numerator: emissions in metric tons CO₂e

2,861,302

Metric denominator: unit

t.mile

Metric denominator: unit total

271,921,000,000

% change from previous year

-1

Please explain any exclusions in your coverage of transport emissions in selected category, and reasons for change in emissions intensity.

CP solely offers rail-based transportation services; therefore, the presented intensity figure and response to this question are consistent with the prior response related specifically to rail transportation services. This metric only includes locomotive fuel consumption and excludes all facility-related Scope 1 and Scope 2 emissions. As CP's locomotive fuel emissions accounted for 95.7 percent of the Company's total Scope 1 and Scope 2 GHG emissions in 2021, this is the most appropriate indicator of emissions related to rail transport activities.

C7.

Emissions breakdowns

C7.1

Does your organization break down its Scope 1 emissions by greenhouse gas type?

Yes

C7.1A

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

Greenhouse gas	Scope 1 emissions (metric tons of CO ₂ e)	GWP Reference
CO ₂	2,682,465	IPCC Fifth Assessment Report (AR5 – 100 year)
N ₂ O	264,371	IPCC Fifth Assessment Report (AR5 – 100 year)
CH ₄	4,190	IPCC Fifth Assessment Report (AR5 – 100 year)
HFCs	1,389	IPCC Fifth Assessment Report (AR5 – 100 year)

C7.2

Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO ₂ e)
Canada	2,234,701
United States of America	717,714

C7.3

Indicate which gross global Scope 1 emissions breakdowns you are able to provide.

By activity

C7.3C

Break down your total gross global Scope 1 emissions by business activity.

Activity	Scope 1 emissions (metric tons CO ₂ e)
Freight Rail Service - locomotive fuel	2,861,302
On-Road Vehicle Fleet and Work Equipment	32,658
Off-Road Equipment	32,509
Heating Oil	630
Propane	4,602
Natural Gas (Building Heat)	19,326
Halocarbon Releases	1,389

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

Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO₂e.

	Gross Scope 1 emissions, metric tons CO ₂ e	Comment
Transport services activities	2,952,415	Includes emissions for all activities, including emissions related to locomotive fuel, which accounted for 96.9 percent of 2021 Scope 1 emissions.

C7.5

Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO ₂ e)	Scope 2, market-based (metric tons CO ₂ e)
Canada	25,659	25,659
United States of America	13,115	13,680

C7.6

Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By activity

C7.6C

Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based (metric tons CO ₂ e)	Scope 2, market-based (metric tons CO ₂ e)
Freight rail services	38,774	39,339

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

Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO₂e.

	Scope 2, location-based, metric tons CO ₂ e	Scope 2, market-based (if applicable), metric tons CO ₂ e	Comment
Transport services activities	38,774	39,339	The emissions associated with purchased electricity are attributable to facility use in rail yards, maintenance operations and office-related functions.

C7.9

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

Decreased

C7.9A

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

	Change in emissions (metric tons CO ₂ e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	2,183	Decreased	0.1	Total Scope 1 and 2 emissions were 2,991,189 MT CO ₂ e in 2021 and 3,030,874 MT CO ₂ e in 2020. The solar facility at CP's headquarters came online in 2021. CP utilized 3,499 MWh of electricity from this facility (compared to 0 MWh consumed in 2020), resulting in a reduction of 2,183 MT CO ₂ e in GHG emissions in 2021. This corresponds to a 0.1 percent decrease from 2020 totals according to the following formula: $2,183 \text{ MT CO}_2\text{e} / 3,030,874 \text{ MT CO}_2\text{e} * 100 = 0.1 \text{ percent decrease}$.

	Change in emissions (metric tons CO ₂ e)	Direction of change	Emissions value (percentage)	Please explain calculation
Other emissions reduction activities	14,894	Decreased	0.5	Total Scope 1 and 2 emissions were 2,991,189 MT CO ₂ e in 2021 and 3,030,874 MT CO ₂ e in 2020. The decrease in emissions due to emissions reduction initiatives implemented during the year combine to a total of 14,894 MT CO ₂ e in 2021, a 0.5 percent decrease from 2020 totals according to the following formula: $14,894 \text{ MT CO}_2\text{e} / 3,030,874 \text{ MT CO}_2\text{e} * 100 = 0.5$ percent decrease. Emissions reduction initiatives that contributed to this decline include CP's investments in our rail network, rolling stock and locomotive fleet to enhance operational capacity and efficiency.
Divestment	0	No change	0	CP did not have any divestments in 2021.
Acquisitions	0	No change	0	CP did not have any acquisitions finalized in 2021.
Mergers	0	No change	0	CP did not have any mergers in 2021.
Change in output	27,337	Decreased	0.9	CP's total RTM decreased by 0.9 percent from 2020 to 2021. A 0.9 percent decrease in RTMs has a proportional impact on CP's and energy consumption accounting for a 27,337 MT CO ₂ e decrease in total emissions from 2020 to 2021. This percent change in GHG emissions was calculated with the formula: $27,337 \text{ MT CO}_2\text{e} / 3,030,874 \text{ MT CO}_2\text{e} * 100 = 0.9$ percent decrease.
Change in methodology	0	No change	0	There were no changes in CP's methodology in 2021.
Change in boundary	0	No change	0	There were no changes in CP's boundary in 2021.
Change in physical operating conditions	0	No change	0	There were no changes to CP's physical operating conditions in 2021.

Unidentified	4,729	Increased	0.2	<p>CP's total Scope 1 and 2 emissions were 2,991,189 MT CO₂e in 2021 and 3,030,874 MT CO₂e in 2020, a year-on-year decrease of 39,685 MT. This decrease in GHG emissions is related to:</p> <ol style="list-style-type: none"> 1. The solar project at our headquarters coming online resulting in a reduction of 2,183 MT CO₂e (see explanation above in "Change in renewable energy consumption"). 2. Emissions reduction initiatives led to a decrease in combined Scope 1 and Scope 2 emissions of 14,894 MT CO₂e (see explanation above in "Other emission reduction activities"). 3. CP's total RTM decreased by 0.9 percent from 2020 to 2021 corresponding to a reduction of 27,337 MT CO₂e due to change in output (see explanation above in "Change in output"). <p>Inclusive of the above and additional factors impacting CP's year-over-year change to emissions reflected in this table, there is an additional unidentified emissions increase of 4,729 MT CO₂e, or 0.2 percent compared to last year's total Scope 1 and 2 emissions. The unidentified increase in GHG emissions was determined using the following formula:</p> <p>39,685 (total Scope 1 and 2 emissions change between 2019 and 2020) – 2,183 (change in renewable energy) - 14,894 (other emissions reduction activities) - 27,337 (change in output) = -4,729. The 0.2 percent figure has been derived from the following formula: 4,729 MT CO₂e / 3,030,874 MT CO₂e * 100 = 0.2 percent increase.</p>
Other	0	No change	0	There were no other changes in 2021.

C7.9B

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

Location-based

C8.

Energy

C8.1

What percentage of your total operational spend in the reporting year was on energy?

More than 15% but less than or equal to 20%

C8.2

Select which energy-related activities your organization has undertaken.

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

C8.2A

Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	10,726,893	10,726,893
Consumption of purchased or acquired electricity		0	180,231	180,231
Consumption of self-generated non-fuel renewable energy		3,499		3,499
Total energy consumption		3,499	10,907,124	10,910,623

C8.2B

Select the applications of your organization's consumption of fuel.

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

C8.2C

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

SUSTAINABLE BIOMASS

Heating value

HHV

Total fuel MWh consumed by the organization

0

Comment

CP does not have any emissions related to Sustainable biomass consumption; therefore, the total fuel MWh is zero (0).

OTHER BIOMASS

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization

0

Comment

CP does not have any emissions related to other biomass consumption; therefore, the total fuel MWh is zero (0).

OTHER RENEWABLE FUELS (E.G. RENEWABLE HYDROGEN)

Heating value

HHV

Total fuel MWh consumed by the organization

0

Comment

CP does not have any emissions related to other renewable fuel consumption; therefore, the total fuel MWh is zero (0).

COAL

Heating value

HHV

Total fuel MWh consumed by the organization

0

Comment

CP does not have any emissions related to coal consumption; therefore, the total fuel MWh is zero (0).

OIL

Heating value

HHV

Total fuel MWh consumed by the organization

10,597,568

Comment

Emissions related to diesel are calculated based on the amount of fuel (Litres of diesel) multiplied by a higher heating value (HHV) of 10.68 kWh/Litre to convert Litres of diesel to MWh energy.

HHV Source: HHV is calculated based on EPA table 1 - GHG emission factor hub 2021 – Distillate Fuel Oil No. 2.

Emissions related to gasoline are calculated based on the amount of fuel (Litres of fuel gas) multiplied by a higher heating value (HHV) of 9.68 kWh/Litre to convert Litres of fuel gas to MWh energy.

HHV Source: HHV is calculated based on EPA table 1 - GHG emission factor hub 2021 – Motor Gasoline.

Emissions related to Heating Oil are calculated based on the amount of fuel (Litres of Fuel oil) multiplied by a higher heating value (HHV) of 10.68 kWh/Litre to convert Litres of fuel oil to MWh energy.

HHV Source: HHV is calculated based on EPA table 1 - GHG emission factor hub 2021 – Distillate Fuel Oil No. 2.

GAS

Heating value

HHV

Total fuel MWh consumed by the organization

129,325

Comment

Emissions related to Natural Gas are calculated based on the amount of fuel

(therms of natural gas), which is then converted to MWh.

Emissions related to Compressed Natural Gas (CNG) are calculated based on the volume of CNG multiplied by a higher heating value (HHV) of 0.001 MMBtu/scf to convert therms of Natural Gas to MWh energy.

HHV Source: HHV is calculated based on CNG HHV from the US DOE website: https://afdc.energy.gov/files/u/publication/fuel_comparison_chart.pdf.

Emissions related to Propane are calculated based on the amount of fuel (Litres of propane) multiplied by a high-heating value (HHV) of 7.05 kWh/Litre to convert Litres of propane to MWh energy.

HHV Source: HHV is calculated based on EPA table 1 - GHG emission factor hub 2021 – Propane.

OTHER NON-RENEWABLE FUELS (E.G. NON-RENEWABLE HYDROGEN)

Heating value

HHV

Total fuel MWh consumed by the organization

0

Comment

CP does not have any emissions related to other non-renewable fuel consumption; therefore, the total fuel MWh is zero (0).

TOTAL FUEL

Heating value

HHV

Total fuel MWh consumed by the organization

10,726,893

Comment

As noted above, the total fuel includes emissions related to oil (diesel, gasoline, fuel oil No. 2/Heating Oil) and gas (natural gas, propane, CNG).

C8.2D

Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	4,378	3,499	4,378	3,499
Heat	0	0	0	0
Steam	0	0	0	0
Cooling	0	0	0	0

C8.2E

Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero or near-zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

None (no active purchases of low-carbon electricity, heat, steam or cooling)

Energy carrier

Low-carbon technology type

Country/area of low-carbon energy consumption

Tracking instrument used

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

Country/area of origin (generation) of the low-carbon energy or energy attribute

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

CP calculated Scope 2 market-based emissions for the first time in 2021. However, CP is not currently accounting for zero or near-zero emission electricity as part of this reported value.

C-TS8.2F

Provide details on the average emission factor used for all transport movements per mode that directly source energy from the grid.

Category	Emission factor unit	Average emission factor: unit value	Comment
Rail	gCO ₂ /kWh	0	Given the long distances and challenging terrain across our rail network, CP does not transport materials using electrical energy sourced from the grid.

C8.2G

Provide a breakdown of your non-fuel energy consumption by country.

Country/area

Canada

Consumption of electricity (MWh)

147,318

Consumption of heat, steam, and cooling (MWh)

0

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

147,318

Country/area

United States of America

Consumption of electricity (MWh)

36,412

Consumption of heat, steam, and cooling (MWh)

0

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

36,412

C-TS8.5

Provide any efficiency metrics that are appropriate for your organization's transport products and/or services.

Activity

Rail

Metric figure

0.003558

Metric numerator

Liters of fuel

Metric denominator

t.mile

Metric numerator: Unit total

967,519,924

Metric denominator: Unit total

271,921,000,000

% change from last year

0.9

Please explain

This is the fuel efficiency value used by CP. The numerator represents diesel fuel consumed by locomotives and the denominator is gross ton-miles (GTMs). The overall efficiency figure decreased 0.9 percent, as the litres of fuel consumed decreased slightly more than GTMs.

C9.

Additional Metrics

C9.1

Provide any additional climate-related metrics relevant to your business.

Description

Other, please specify

Scope 1 and 2 Non-locomotive Emissions Target

Metric value

129,887

Metric numerator

Total Non-Locomotive Scope 1 and 2 Emissions

Metric denominator (intensity metric only)

Not applicable

% change from previous year

10

Direction of change

Decreased

Please explain

This target is part of CP's Climate Strategy and covers emissions related to non-locomotive operations, including our facilities and vehicle and non-locomotive equipment. These account for about five percent of CP's Scope 1 and 2 GHG emissions and in combination with our SBTi-approved locomotive target, covers 100 percent of CP's Scope 1 and 2 GHG emissions.

This absolute reduction target commits CP to reduce Scope 1 & 2 GHG emissions from non-locomotive operations by 27.5 percent by 2030, from a 2019 base year of 172,133 Metric Tons CO₂e. Although not submitted to the SBTi for validation, this target is based on the same robust methodology and was calculated with the SBTi's Absolute Contraction Approach in line with a Well-below 2C trajectory (WB2C).

C-T09.3/C-TS9.3

Provide tracking metrics for the implementation of low-carbon transport technology over the reporting year.

Activity

Rail

Metric

Other, please specify

Equipment upgrades

Technology

Other, please specify

Refurbished/upgraded locomotives

Metric figure

30

Metric unit

Other, please specify

Number of locomotives refurbished/upgraded

Explanation

The locomotive modernization project is part of a multi-year locomotive fleet renewal program at CP. In 2021, CP upgraded 30 locomotives, increasing the total to 416 locomotives retrofitted through this initiative. Locomotive enhancements include technology upgrades, advanced diesel engines, and improved cooling and traction control systems. All units were equipped with EPA-certified fuel/emissions reduction technologies, GE Trip Optimizer and Distributed Power systems. Emissions reductions associated with this project were conservatively estimated based on a 2.7 percent improved fuel-efficiency guarantee provided by the equipment vendor. CP anticipates the combined effect of locomotive upgrades coupled with installed fuel-saving technology will result in realized fuel savings beyond 2.7 percent. The estimated annual savings and corresponding payback period reflect the financial impact of projected fuel savings only.

Activity

Rail

Metric

Fleet adoption

Technology

Other, please specify

Hydrogen locomotives

Metric figure

3

Metric unit

Other, please specify

Number of hydrogen locomotives

Explanation

Since December 2020, CP has been developing North America's first line-haul hydrogen-powered locomotive using fuel cells and batteries to power the locomotive's electric traction motors. This work will refine the process of converting diesel-electric powertrains to hydrogen-electric powertrains over a series of three distinct locomotive types, which collectively represent most locomotives currently in service across North America. In 2021, CP received funding from Emissions Reduction Alberta, which will build on the amount that CP already planned to invest in the development of this project. This funding enables CP to increase the number of hydrogen locomotive conversions from one to three and add hydrogen and fueling facilities.

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

Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

Investment in low-carbon R&D

Yes

Comment

To position CP as a leader in the transition to a low-carbon economy and fully execute our Climate Strategy, we are implementing new approaches to allocate limited capital, operating budgets and people in the most efficient way. This includes systematic ways to:

- Identify potential carbon reduction levers.
- Rigorously assess potential solutions with regards to carbon reduction potential, feasibility for the rail sector and cost to CP.
- Conduct bench-scale and pilot testing.
- Successfully deploy promising alternative fuels and propulsion methods.
- Engage and collaborate with others to progress this work.

In support of these objectives, since 2020, CP has been working to develop North America's first line-haul hydrogen-powered locomotive using fuel cells and batteries to power the locomotive's electric traction motors.

C-T09.6A/C-TS9.6A

Provide details of your organization's investments in low-carbon R&D for transport-related activities over the last three years.

Activity

Rail

Technology area

Drivetrain

Stage of development in the reporting year

Applied research and development

Average % of total R&D investment over the last 3 years

81-100%

Comment

Since December 2020, CP has been developing North America's first line-haul hydrogen-powered locomotive using fuel cells and batteries to power the locomotive's electric traction motors. This work will refine the process of converting diesel-electric powertrains to hydrogen-electric powertrains over a series of three distinct locomotive models, which collectively represent most locomotive types in use throughout North America. In 2021, CP received \$15M in funding from Emissions Reduction Alberta, which will build on the amount that CP already planned to invest in the development of this project. This funding enables CP to increase the number of hydrogen locomotive conversions from one to three and add hydrogen and fueling facilities.

The hydrogen production and fueling facilities will be located in Calgary and Edmonton, Alberta, Canada. Both fueling facilities will include an electrolysis plant to produce hydrogen from water. The Calgary facility will operate on renewable power from solar panels at CP's headquarters campus and produce zero greenhouse gas emissions.

CP's Hydrogen Locomotive Program will demonstrate and evaluate the technical performance of hydrogen-powered locomotives and supporting fueling infrastructure in real-world operations. The program will generate critical industry knowledge and experience that will inform commercialization and future development.

The project represents 100 percent of CP's R&D project spend specific to low-carbon initiatives over the last three reporting years.

C10.

Verification

C10.1

Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	Third-party verification or assurance process in place
Scope 2 (location-based or market-based)	Third-party verification or assurance process in place
Scope 3	Third-party verification or assurance process in place

C10.1A

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

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

[CP Rail 2021 GHG Verification Report.pdf](#)

Page/ section reference

Verification findings are on page 4-5, 20-25 and Appendix A, pg. 29 and onward in the document. Auditor Assurance Opinion: The verification is an independent third-party assessment of CP's 2020 GHG Report and is conducted in compliance with the requirements of ISO Standard 14064 on greenhouse gases. Based on our verification, the GHG inventory is reported in accordance with the verification criteria and free of material misstatements.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1B

Provide further details of the verification/assurance undertaken for your Scope 2 emissions and attach the relevant statements.

SCOPE 2 APPROACH

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

[CP 2021 GHG Verification Report.pdf](#)

Page/ section reference

Verification findings are on page 4-5, 20-25 and Appendix A, pg. 29 and onward in the document. Auditor Assurance Opinion: The verification is an independent third-party assessment of CP's 2020 GHG Report and is conducted in compliance with the requirements of ISO Standard 14064 on greenhouse gases. Based on our verification, the GHG inventory is reported in accordance with the verification criteria and free of material misstatements.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

SCOPE 2 APPROACH

Scope 2 market-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

[CP 2021 GHG Verification Report.pdf](#)

Page/ section reference

Verification findings are on page 4-5, 20-25 and Appendix A, pg. 29 and onward in the document. Auditor Assurance Opinion: The verification is an independent third-party assessment of CP's 2020 GHG Report and is conducted in compliance with the requirements of ISO Standard 14064 on greenhouse gases. Based on our verification, the GHG inventory is reported in accordance with the verification criteria and free of material misstatements.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1C

Provide further details of the verification/assurance undertaken for your Scope 3 emissions and attach the relevant statements.

SCOPE 3 CATEGORY

Scope 3: Purchased goods and services

Scope 3: Capital goods

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

Scope 3: Upstream transportation and distribution

Scope 3: Waste generated in operations

Scope 3: Business travel

Scope 3: Employee commuting

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

[CP 2021 GHG Verification Report.pdf](#)

Page/section reference

Verification findings are on page 4-5, 20-25 and Appendix A, pg. 29 and onward in the document. Auditor Assurance Opinion: The verification is an independent third-party assessment of CP's 2020 GHG Report and is conducted in compliance with the requirements of ISO Standard 14064 on greenhouse gases. Based on our verification, the GHG inventory is reported in accordance with the verification criteria and free of material misstatements.

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.2

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

Yes

C10.2A

Which data points within your CDP disclosure have been verified, and which verification standards were used?

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Progress against emissions reduction target	ISO14064-3	Verification findings are on p. 5 and 25. Assurance Opinion: The verification is an independent third-party assessment of CP's 2021 GHG Report and is conducted in compliance with the requirements of ISO Standard 14064 on greenhouse gases. Based on our verification, the GHG inventory is reported in accordance with the verification criteria and free of material misstatements. ¹
C7. Emissions breakdown	Year on year change in emissions (Scope 1 and 2)	ISO14064-3	Verification findings are in Appendix A, p. 29 and onward. Assurance Opinion: The verification is an independent third-party assessment of CP's 2021 GHG Report and is conducted in compliance with the requirements of ISO Standard 14064 on greenhouse gases. Based on our verification, the GHG inventory is reported in accordance with the verification criteria and free of material misstatements. ¹

¹ [CP 2021 GHG Verification Report.pdf](#)

C11.

Carbon pricing

C11.1

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

Yes

C11.1A

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

BC carbon tax
Canada federal fuel charge

C11.1C

Complete the following table for each of the tax systems you are regulated by.

BC CARBON TAX

Period start date

January 1, 2021

Period end date

December 31, 2021

% of total Scope 1 emissions covered by tax

39

Total cost of tax paid

Comment

Various Canadian provinces and the federal government have implemented carbon pricing programs to incentivize consumers to reduce fossil fuel use and related GHG emissions. Under the British Columbia carbon tax, CP is required to remit carbon taxes to British Columbia based on fuel consumption within the province during 2021. Costs to comply with the carbon tax program increase the price of CP locomotive fuel and associated operating costs. Any increase in

operating costs related to operations within the province is allocated to CP's customers based on CP's Tariff 9800. The purpose of this tariff is to transparently convert carbon emissions costs from the method by which they are charged to the railway (\$ per ton of CO₂-equivalent emissions per litre of fuel consumed) into a format applicable to customer shipments (\$ per loaded car mile, \$ per unit shipped, etc.). Tariff 9800 is publicly available and applies to all shipments moving through British Columbia to recover the incremental expense associated with carbon taxes or levies. The surcharge amount is calculated to recover this projected expense and appears as a separate line item on invoices for customer freight charges. If a new environmental tax is introduced or the carbon pricing rate adjusted, updated information will be added to the tariff. Tax amounts paid by CP are confidential and not available for disclosure.

CANADA FEDERAL FUEL CHARGE

Period start date

January 1, 2021

Period end date

December 31, 2021

% of total Scope 1 emissions covered by tax

45

Total cost of tax paid

Comment

Various Canadian provinces and the federal government have implemented carbon pricing programs to incentivize consumers to reduce fossil fuel use and related GHG emissions. Under the federal carbon tax, CP is required to remit carbon taxes to the federal government based on fuel consumption (except in provinces with an approved carbon pricing program ex. Quebec and British Columbia). Costs to comply with carbon tax programs effectively increase the price of locomotive fuel and associated operating costs to CP. Any increase in operating costs related to operations within this region is allocated to CP's

customers based on CP's Tariff 9800. The purpose of this tariff is to transparently convert carbon emissions costs from the method by which they are charged to the railway (\$ per ton of CO₂-equivalent emissions per litre of fuel consumed) into a format applicable to customer shipments (\$ per loaded car mile, \$ per unit shipped). Specifically, the surcharges in the tariff apply to all shipments moving through Canadian provinces that are subject to the federal carbon pricing program to recover the incremental expense associated with carbon taxes or levies. A greenhouse gas emissions surcharge is applied to every shipment moving through applicable provinces and appears as a separate line item on invoices for freight charges. If a new environmental tax is introduced, a surcharge to pass through the new tax in an equitable manner will be added to the tariff. Tax amounts paid by CP are confidential and not available for disclosure.

C11.1D

What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

CP actively engages in all carbon pricing programs that impact our operations. To assure compliance with these programs, CP established a cross-functional team with participants from Treasury, Fuel Group, Commodity Taxation, Environmental Risk, Strategy and Legal. Subject matter experts regularly review program developments and implement appropriate compliance mechanisms.

Carbon pricing programs continue to evolve in Canada. During 2021, this team periodically reviewed carbon pricing program developments in Alberta, Québec, Manitoba, Saskatchewan and British Columbia, as well as at the federal level. As of April 2021, the federal carbon tax was set at \$40 per metric ton CO₂e and will rise to \$50 in 2022 before potentially increasing to \$170 by 2030 (an increase of about \$15 per year). CP's cross-functional team is responsible for all aspects of maintaining compliance, including fuel procurement, tracking, reporting, verification, sourcing carbon allowances (as needed), internal/ external communications and meeting regulatory deadlines. For example, one output of this strategy is annually updating and communicating our Tariff 9800 to impacted customers.

As governments implement or adjust environmental taxes or levies, CP updates surcharge rates reflected in Tariff 9800. The tariff was updated in 2021 and will continue to be adjusted to accommodate for changes to fuel pricing and carbon pricing schemes (currently anticipated to change through at least 2030 based on the current timeframe communicated by Canada's federal government). Tariff 9800 establishes emissions surcharge rates at the province level to recoup carbon price costs related to fuels used in transporting customer goods. Tariff 9800 is designed to maintain an equitable, revenue-neutral system to clearly articulate and distribute carbon costs to our customers. This enables CP to maintain competitive shipping rates, which are key to our strategy for complying with regulatory carbon pricing systems.

C11.2

Has your organization originated or purchased any project-based carbon credits within the reporting period?

No

C11.3

Does your organization use an internal price on carbon?

Yes

C11.3A

Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Navigate GHG regulations

Identify and seize low-carbon opportunities

GHG Scope

Scope 1

Scope 2

Application

This carbon price is applied company-wide at CP. Carbon pricing is used to assess potential financial risks to CP's operations from regulatory schemes and is currently used by CP's capital assessment team.

In addition to the above application, CP has developed an assessment process to prioritize emissions reduction projects by determining GHG emissions reduction potential and assigning a \$ value per metric ton of CO₂e mitigated.

Actual price(s) used (Currency /metric ton)

40

Variance of price(s) used

Evolutionary Pricing: As a fuel-intensive business, regulations that increase the cost of carbon emissions directly impact CP's operating costs. The price of CP's

services could consequently increase and, if the costs of service become too high, could impact CP's competitive advantage over alternative modes of transport based on competitors' abilities to reduce fuel consumption and carbon emissions. In response to this, and to assess CP's risk exposure to carbon pricing programs, we have introduced the use of an internal carbon price as part of our capital assessment process. CP's internal carbon price matches Canada's federal carbon tax, which was \$40 per metric ton CO₂e in 2021, and rose to \$50 in 2022.

Type of internal carbon price

Shadow price

Impact & implication

CP is currently exposed to carbon pricing in Canada. At both provincial and federal levels, Canadian governments have imposed carbon taxation systems and cap and trade market mechanisms in the jurisdictions where CP operates. While applicable to our Canadian operations, CP is not currently subject to carbon pricing in U.S. operations. There are currently no federal or state-level carbon pricing systems in the American jurisdictions where CP operates.

As a fuel-intensive business, increased carbon pricing regulation directly impacts CP's operating costs. The price of CP's services could consequently increase and, if the costs of service become too high, could impact CP's competitive advantage

over alternative modes of transport based on competitors' abilities to reduce fuel consumption and carbon emissions.

In 2021, CP's capital assessment team introduced the use of an internal carbon price when evaluating capital projects to support investments in low carbon solutions and limit the potential exposure to carbon pricing risks. The price used by CP matches Canada's federal carbon tax, which was \$40 per metric ton CO₂e in 2021, rising to \$50 in 2022. CP has also developed an assessment process to prioritize emissions reduction projects by determining GHG emissions reduction potential and assigning a \$ value per metric ton of CO₂e mitigated.

Our scenario analysis looked at long-term business risks and opportunities to inform strategic financial planning decisions. Through scenario analysis, CP modelled the effects of potential regulatory changes based on the three future pathways to understand the potential financial implications to CP's business from 2020 through 2050. Evaluated carbon pricing across these scenarios ranged from \$30 to \$239 per tonne.

Our scenario analysis process has guided the development of CP's Climate Strategy and the establishment of science-based targets, as well as helping to assess long-term climate-related risks and opportunities that could impact financial planning decisions. CP is working to integrate the climate-related risks and opportunities identified in the scenario analysis process into relevant business processes, including (but not limited to) enterprise risk management, capital expenditures and strategic planning.

C12.

Engagement

C12.1

Do you engage with your value chain on climate-related issues?

Yes, our customers

Yes, other partners in the value chain

C12.1B

Give details of your climate-related engagement strategy with your customers.

Type of engagement & Details of engagement

Education/information sharing

Run an engagement campaign to education customers about your climate change performance and strategy

% of customers by number

100

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

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

CP provides the opportunity for 100 percent of our customers to engage with us directly on climate-related programs and information. The rationale for engaging with all customers on climate-related topics is to raise customer awareness of CP's climate commitments and the benefits of using freight rail services to reduce the overall impact of their supply chains. Through this engagement, CP aims to earn and retain new business related to increasing supply chain demand for low carbon services, a material opportunity for CP identified through our scenario analysis. We seek to engage with our entire customer base to maximize the impact of this initiative for both CP and our customers.

To realize this opportunity, CP's customer engagement practices and initiatives are focused on increasing customer awareness of CP's strong performance in reducing GHG emissions, ongoing climate initiatives, science-based emissions reductions targets and how these actions can specifically benefit customers to reduce the GHG emissions impact of their supply chains. Engagement activities

include one-on-one meetings with customers, customer surveys, customer forums, company website resources and online shipment management tools such as CP's Customer Station. CP will often engage with customers to provide carbon emissions information related to customer-specific services performed by CP.

CP also directs our customers to additional resources and GHG planning tools, including CP's online rail transport carbon calculator. CP's carbon calculator enables current and prospective customers to calculate GHG emissions and other ESG-related benefits associated with a customized freight shipping plan. This information assists potential and current customers in estimating the GHG emissions savings of shipping freight across user-selected origin and destination pairs for a wide variety of commodities commonly shipped by rail. Customers seeking a deeper understanding of CP's climate change practices and emissions data often connect with their CP customer account managers, who can provide further information and opportunities for collaboration. CP also responds directly to customer supply chain surveys, including the annual CDP climate change questionnaire.

Impact of engagement, including measures of success

As a key metric for our customer engagement practices, CP monitors the percentage of our freight revenue business that we engage with on climate change practices and GHG emissions as the measure of success for this program. While our objective is to engage with all customers on opportunities to reduce GHG emissions within their supply chains, CP's threshold for the success of this initiative is to engage with 30 percent of our business on climate-related topics by 2025. CP began this practice in 2019 with an objective to linearly work

towards this 30 percent goal by 2025 (e.g., 5 percent additional engagement each year), corresponding to 10 percent customer engagement in 2021.

In 2021, CP directly engaged with 16 existing customers and three potential customers (representing eight percent of our freight revenue business) to evaluate GHG emissions associated with rail services and respond to climate-related questions. Our level of engagement has increased from four percent in 2019 to eight percent in 2021, a two-fold improvement. Our engagement practices have improved customer awareness of the GHG emissions associated with our rail services and how we can help to reduce emissions within their value chains. As we continue to grow and improve the success of our engagement practices, CP will work towards our 2025 goal of climate-related engagement with 30 percent of our business.

The success of our engagement is also evidenced by growing customer interest and engagement in the potential for freight rail services to reduce supply chain

GHG emissions. Several of CP's customers engage annually to discuss climate change practices, priorities and emissions associated with the use of our freight rail services. As climate change action and disclosure become increasingly important to investors and other shareholders, we expect customer interest to increase, representing a greater share of our business.

Building on increasing interest from the Company's value chain, CP has recently developed an online carbon calculator tool to inform meaningful stakeholder engagement. This tool allows customers and other stakeholders to model carbon emissions and other ESG-related benefits of shipping goods by CP freight rail service. Users can review shipping options and generate customized reports to inform discussions on low carbon rail services with CP's sales and marketing team.

C12.1D

Give details of your climate-related engagement strategy with other partners in the value chain.

In addition to our engagement with customers, CP engages with other partners in our value chain on climate-related issues, namely downstream power plants and industrial companies, who utilize the waste ties generated in our operations to generate power, and our waste tie processor vendors. Based on our assessment of operational waste and Scope 3 emissions, we know that waste ties are our largest waste source, generating nearly 90 percent of our operational waste by mass in the reporting year.

CP generated nearly 1.3 million waste rail cross ties as part of our annual network maintenance and track renewal program in 2021. Wherever possible, CP avoids disposal of waste ties at landfill facilities, preferring to direct these materials for beneficial reuse purposes. Out of a shared interest in sustainability and climate-related impacts, we work with several vendors across our network to process waste rail ties into a variety of fuel materials, including renewable solid fuel feedstocks for cogeneration facilities and innovative biomass-based liquid fuel products.

CP regularly engages with our network of 10 waste tie processors and 13 downstream cogeneration facilities and industrial plants to review practices and identify sustainable end-of-life solutions for waste ties, including emerging interest and innovation in the production of renewable fuels from waste tie materials.

Starting in 2018, CP engaged Cielo Waste Solutions Corp. (Cielo) to evaluate the potential for processing waste rail ties into renewable liquid fuel products, including renewable naphtha, kerosene (aviation jet fuel) and high-grade diesel. Cielo is currently developing a large testing facility near Edmonton in order to test the scrap tie feedstock and resulting emissions. If this testing proves successful, then Cielo would consider investing in a larger facility that uses this waste input.

CP is also exploring additional opportunities to partner with other value chain members to utilize scrap ties for more sustainable end-of-life solutions. This includes numerous calls with potential scrap tie recyclers in 2021, such as a large cement company that is interested in processing scrap ties at one of its plants to generate on-site power.

C12.2

Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

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

C12.3

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

Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers

Yes, we engage indirectly through trade associations

Yes, we engage indirectly by funding other organizations whose activities may influence policy, law, or regulation that may significantly impact the climate

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

Yes

Attach commitment or position statement(s)

CP Climate Change Commitment

[CP 2020 Climate Statement.pdf](#)

Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy

To ensure broad alignment across the business, CP released the company's first public statement on climate change, which acknowledges the effects of rising global temperatures and lays out the company's commitment to ongoing efforts to mitigate these impacts.

The statement outlines the following key principles:

- 1) CP commits to support the goals of the Paris Agreement, which seek to limit global temperature rise to well below 2 degrees Celsius above pre-industrial levels.
- 2) CP aligns with recognized initiatives that bring governments, sectors and companies together, such as the Pan-Canadian Framework on Clean Growth and Climate Change plan and the resulting Greenhouse Gas Pollution Pricing Act (Canada), to the extent that they apply to CP's operations, as well as the Task Force on Climate-related Financial Disclosures.
- 3) CP supports "public policy aimed at reporting and reducing emissions and lowering the impact of the freight rail sector on the environment."

In 2021, CP developed a Climate Strategy to focus on the Company's climate actions on innovation, collaboration and thought leadership. A key component of the Climate Strategy is to drive internal alignment while engaging suppliers, customers, rail transportation peers and policymakers to help lead industry-wide change. This involves strategic engagements to support our Climate Strategy, including topics related to cap and trade, carbon taxes, fuel efficiency standards, renewable fuel standards and emissions reporting programs.

CP's Climate Commitments, Climate Strategy and overall sustainability policies are reviewed with CP's Executive team and the Board level Risk and Sustainability (RSC) Committee. Climate Commitments and Climate Strategy are approved by the Board, while CP sustainability policies are approved by the President & CEO for company-wide alignment. CP's cross-functional Sustainability Steering Committee (SSC) oversees the implementation of CP's Climate Strategy and sustainability policy commitments. The SSC, consisting of several senior CP

leaders, receives regular updates on sustainability planning and policy objectives and reviews implementation across CP's most material environmental, social and governance topics, including climate change. This committee oversees the implementation, monitoring and reporting of sustainability and climate change performance. Activities are also reported to the Board level RSC to ensure consistency with the company's Climate Strategy.

C12.3A

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

FOCUS OF POLICY, LAW, OR REGULATION THAT MAY IMPACT THE CLIMATE

Mandatory climate-related reporting

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

The Canadian Securities Administrators proposed National Instrument 51-107 – Disclosure of Climate-related Matters

CSA proposed NI 51-107 would make the disclosure of climate-related information mandatory and create a standardized approach to this disclosure.

Policy, law, or regulation geographic coverage

National

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

Canada

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

Support with minor exceptions

Description of engagement with policy makers

During the reporting year, CP engaged with policymakers on CSA proposed NI 51-107, including by providing comments in response to the draft rule and responding to specific questions about the regulations that are of relevance to CP. CP worked in coordination with the Business Council Canada (BCC) to provide these comments back to CSA.

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

CP provided feedback on CSA proposed NI 51-107 through the Business Council of Canada (BCC). This included support of the proposed CSA approach to not require issuers to disclose scenario analysis, but that this requirement should not prevent a company from completing a scenario analysis and including it in its filing if it chooses to do so. With regards to GHG emissions reporting, the recommendation from BCC is that proposed NI 51-107 should propose Scope 1 and 2 emissions be reported while supporting the expansion to Scope 3 as methodologies improve. BCC members also state that the CSA proposal should provide some guidance on a firm's obligation to outline the metrics they use to describe their progress in addressing climate change. Additionally, while there is support for the phased approach proposed in the framework, a one-year deadline will be challenging for all participants, including larger firms with reporting mechanisms in place, and there will likely be difficulty aligning with the normal timing of financial reports. BCC members also state that audits of climate-related information should not be initially required. Firms will need time and resources to improve methodologies and procedures to meet climate risk reporting requirements.

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

Yes, we have evaluated, and it is aligned

FOCUS OF POLICY, LAW, OR REGULATION THAT MAY IMPACT THE CLIMATE

Carbon tax

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

Canada's Federal Output-Based Pricing System

CP is regulated under multiple carbon taxation systems and cap and trade market mechanisms in the Canadian provinces in which we operate. Most provincial programs align with Canada's Greenhouse Gas Pollution Pricing Act. As of April 2021, the federal carbon tax was set at \$40 per metric ton CO₂e and will rise to \$50 in 2022 before increasing to \$170 by 2030 (an increase of about \$15 per year).

Policy, law, or regulation geographic coverage

National

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

Canada

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

Support with minor exceptions

Description of engagement with policy makers

CP has a history of working with policymakers to ensure that regulations are aligned with the intended policy goals. Given the company's role as both a fuel transporter and a major fuel purchaser, CP has established a cross-functional team with participants from Treasury, Fuel Group, Commodity Taxation, Environmental Risk, Strategy and Legal, to review regulatory developments and implement appropriate compliance mechanisms.

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

Within Canada, a variety of carbon pricing programs have been created to incentivize consumers and businesses to reduce GHG emissions. These programs have primarily taken the form of carbon taxes, which price GHG emissions. In April 2019, a federal carbon pricing program applied a carbon price to the provinces without pre-existing programs. As a result, our operations are regulated through a patchwork of provincial and federal programs, highlighting

the challenge to our business associated with the current approach to setting a price on carbon. In addition to the administrative challenges of navigating multiple pricing jurisdictions, carbon pricing results in higher rail service costs. To simplify this, we have been working with the Railway Association of Canada (RAC) to promote Canadian regulatory changes that support the Canadian economy while also taking action on climate change. The rail sector's preference, as communicated to the Government of Canada, is for carbon tax burdens to be offset by allowing a deduction for capital expenditures that reduce GHG emissions and to direct a portion of revenues collected from climate change initiatives to be reinvested into rail programs that incentivize low-emissions transportation solutions, thereby helping Canada reduce its overall GHG emissions. These recommendations support the government's ambitions to fulfill the objectives of the Pan-Canadian Framework on Clean Growth and Climate Change and the Transportation 2030 strategic plan. Details on the Canadian rail sector's recommendations to the Government of Canada can be found at: https://www.railcan.ca/wp-content/uploads/2019/08/August_2_-_2020_Prebudget_Submission_-_RAC_FINAL.pdf.

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

Yes, we have evaluated, and it is aligned

FOCUS OF POLICY, LAW, OR REGULATION THAT MAY IMPACT THE CLIMATE

Other, please specify

Low-Carbon Fuel Standard

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

Canada Clean Fuel Standard

Policy, law, or regulation geographic coverage

National

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

Canada

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

Support with minor exceptions

Description of engagement with policy makers

As a member of RAC, CP engaged with other railroad members in reviewing Canada's low-carbon fuel standards regulations and provided comments to regulators on behalf of the rail sector.

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

CP and the RAC engaged with the Government of Canada as they developed a regulatory framework for a low-carbon fuel standard in Canada. The rail sector specifically requested that regulations improve transparency for fuel users related

to renewable fuel content mixed with conventional liquid fuels supplied into the marketplace by primary fuel suppliers as they comply with the new legislation. Lack of clarity in fuel qualities received by fuel users like the rail sector can lead to equipment performance concerns and warranty issues and impact the operating range of locomotives.

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

Yes, we have evaluated, and it is aligned

C12.3B

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

TRADE ASSOCIATION

Other, please specify

Railway Association of Canada

Is your position on climate change consistent with theirs?

Consistent

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The RAC advocates on behalf of its members, representing close to 60 freight and passenger railway companies, and supports the Government of Canada's commitments under the Pan-Canadian Framework on Clean Growth and Climate Change and its vision for green and innovative transportation as outlined in the Transportation 2030 strategic plan. In 2020, the RAC published an environmental brief summarizing the climate benefits associated with a modal shift from highway truck to rail and urging governments to incentivize the optimal modal shift through programs like carbon pricing. The report, *Helping Canada Stay on Track to Fight Climate Change*, can be found here:

<https://www.railcan.ca/resources/>

CP's Chief Legal Officer and Corporate Secretary is currently a director on the board of RAC. The rail industry leaders serving on the RAC's board of directors are responsible for the Association's strategic leadership and, in this capacity, engage in discussions with industry representatives, policymakers and other stakeholders on public policy positions. <https://www.railcan.ca/who-we-are/rac-board-of-directors>

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

TRADE ASSOCIATION

Other, please specify

Association of American Railroads

Is your position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The AAR advocates on behalf of the U.S. freight rail industry, leading policy development, research, standard-setting and technology organization that focuses on rail sector safety and productivity. In March 2021, the AAR released a new report on Freight Railroads & Climate Change outlining the intrinsic benefits that rail provides in reducing greenhouse gas emissions. The report establishes several policy positions including, 1) instituting market solutions to reduce climate change, 2) creating a user-pay system for freight transported on public highways, 3) emissions surcharge programs, 4) partnerships for research funding, 5) streamlining railroad regulation to support decarbonization, 6) support for carbon capture, utilization and storage and 7) encouraging investment in decarbonization practices. The report, Freight Railroads and Climate Change, can be found here: <https://www.aar.org/wp-content/uploads/2021/02/AAR-Climate-Change-Report.pdf>

CP is represented at AAR by the Managing Director of US Government Affairs and the Director of State Government Affairs is a state representative for Illinois, Iowa, Maine, Michigan, Minnesota, Missouri, New York, North Dakota, Ohio, South Dakota, Vermont and Wisconsin. In this capacity, we engage in discussions with industry representatives, policymakers and other stakeholders on public policy positions.

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

TRADE ASSOCIATION

Other, please specify

Business Council of Canada

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

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

The Business Council of Canada (BCC) is a non-profit, non-partisan corporate advocacy organization representing more than 150 major businesses that have played an influential role in public policy since the 1970s. The BCC's position is to strengthen the economy with a focus on resource management and the environment. In April 2021, the BCC released a report on Clean Growth 3.0 outlining its current views on climate action. The BCC holds that the ambition to reach net zero emissions must also support sustainable economic growth. The report, Clean Growth 3.0, makes numerous references to the achievement of the goals of the Paris Agreement and can be found here: <https://thebusinesscouncil.ca/report/clean-growth-3-0/>

CP's President and Chief Executive Officer is a member of the BCC, and in that capacity, we engage in discussions on public policy positions. CP is also engaged in BCC's work around climate-related legislation in Canada, including the Canadian Securities Administrators proposed National Instrument 51-107 - Disclosure of Climate-related Matters. The BCC's members are at the forefront of taking action to reduce GHG emissions and assess exposure to climate-related risks and have provided feedback and comments with regards to these emerging climate-related regulations.

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

TRADE ASSOCIATION

Other, please specify
GoRail

Is your position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

GoRail is a non-profit advocacy organization that works with community leaders across the U.S. to share knowledge about the public benefits of freight rail investments and to mobilize them in support of a better and more sustainable rail system. GoRail advocates for communications with federal lawmakers directly by participating in open public dialogue (such as the Railroad Day on Capitol Hill) and by outlining the policy priorities for freight railways, targeted at preserving rail's private investments. GoRail's website discusses the environmental impact and benefit of railroads, highlighting investments in locomotive fuel efficiency, new technologies and other innovations that support reduced environmental impact from the freight rail sector.

CP's Managing Director of US Government Affairs is on the GoRail Board of Directors, and in that capacity, we engage in discussions on public policy positions.

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

TRADE ASSOCIATION

Other, please specify
Regional Railroad Associations

Is your position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

CP is a member of several regional railroad associations in the U.S., such as the Michigan Railroads Association, Minnesota Regional Railroads Association, Illinois Railroad Association, Railroads of New York and Wisconsin Railroad Association. These trade associations review all introduced legislation in the House and Senate, share proposed legislation affecting the rail industry with its members and coordinate the formulation and communications of final industry positions regarding legislation to the legislature. These associations are actively involved with several state departments, including the departments of Transportation, Environmental Quality and Economic Development Corporation, regarding environmental, regulatory and economic development issues. Regional railroad associations advocate for policy priorities that favour the development of the freight rail industry in the U.S. and preserve its unique ability to reduce highway gridlock, fuel consumption, GHG emissions and pollution.

CP's Managing Director of US Government Affairs or Director of State Government Affairs are participants on the Executive Committees of the Illinois Railroad Association, Michigan Railroads Association, Railroads of New York and Minnesota Regional Railroads Association. In this capacity, we engage in discussions with industry representatives, policymakers and other stakeholders on public policy positions.

<http://michiganrailroadsassociation.com/who-we-serve>,
<http://illinoisrailroadassociation.com/executive-committee>,
<http://www.railroadsofny.com>,
<https://www.mnrailroads.com/>

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

TRADE ASSOCIATION

Other, please specify

Canadian Business for Social Responsibility (CBSR)

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

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

CBSR is a pioneer in championing the idea that businesses do better when they operate in a socially and environmentally responsible way. CBSR is singularly focused on achieving its vision: to create a sustainable, prosperous, socially just future in a generation, with a mission to connect and empower Canadian businesses to advance and amplify social and environmental leadership and ambition. Specific to climate change, a major CBSR initiative is the development of Canada's Net-Zero Leaderboard, a public inventory of climate change commitments made by Canadian companies.

CP has representation on the CBSR Net Zero Working Group and is part of the Net-Zero Leadership Board. In this capacity, CP engages with other CBSR organizations and members on climate-related topics.

<https://cbsr.ca/net-zero-leaderboard/>

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

Describe the aim of your organization's funding

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

Yes, we have evaluated, and it is aligned

C12.3C

Provide details of the funding you provided to other organizations in the reporting year whose activities could influence policy, law, or regulation that may impact the climate.

TYPE OF ORGANIZATION

Non-Governmental Organization (NGO) or charitable organization

State the organization to which you provided funding

Transition Accelerator

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

5,000

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate

This funding was used to support the development of a study facilitated by the Transition Accelerator. The study is titled "Towards a Fuel Hydrogen Economy in

the Calgary Region: A Feasibility Study." This study investigated and reported on current energy use in the Calgary region, as well as specific sectors and areas of Hydrogen demand, including CP railway operations within the region. This study is the first phase in an overarching process to launch a hydrogen hub in the region, which will result in the pilot, demonstration and commercialization of hydrogen projects. This study could be used to advocate for the development of more favourable economic and regulatory conditions for the development of hydrogen resources.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.4

Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s)

PUBLICATION

In mainstream reports

Status

Complete

Attach the document

[CP_AnnualReport_2021.pdf](#)

Page/Section reference

p. 30, 44 - 45, 53 - 55

Content elements

Governance

Strategy

Risks & opportunities

Emission targets

Comment

2021 Annual Report

PUBLICATION

In mainstream reports

Status

Complete

Attach the document

[CP_Management Proxy_2022.pdf](#)

Page/Section reference

p. 5, 9 -10, 14, 33, 98 - 101

Content elements

Governance

Strategy

Emission targets

Comment

2022 Management Proxy Circular

PUBLICATION

In voluntary sustainability report

Status

Complete

Attach the document

[CP_Climate_Strategy.pdf](#)

Page/Section reference

Entire Document

Content elements

Governance

Strategy

Risks & opportunities

Emission targets

Comment

CP Climate Strategy

PUBLICATION

In voluntary sustainability report

Status

Underway – previous year attached

Attach the document

[CP Corporate Sustainability Report 2020.pdf](#)

Page/Section reference

p. 23 - 28, 60 - 62, 85 - 95

Content elements

Governance

Strategy

Risks & opportunities

Emissions figures

Emission targets

Other metrics

Comment

2020 Corporate Sustainability Report

PUBLICATION

In voluntary sustainability report

Status

Complete

Attach the document

[CP Data Supplement 2021.pdf](#)

Page/Section reference

p. 11 - 13

Content elements

Emissions figures

Emission targets

Other metrics

Comment

2021 Corporate Sustainability Data Supplement

C15.

Biodiversity

C15.1

Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

Board-level oversight and/or executive management-level responsibility for biodiversity-related issues

No, but we plan to have both within the next two years

C15.2

Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity

No, but we plan to do so within the next 2 years

C15.3

Does your organization assess the impact of its value chain on biodiversity?

Does your organization assess the impact of its value chain on biodiversity?

No, but we plan to assess biodiversity-related impacts within the next two years

C15.4

What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

Have you taken any actions in the reporting period to progress your biodiversity-related commitments?	Type of action taken to progress biodiversity-related commitments
Yes, we are taking actions to progress our biodiversity-related commitments	Land/water protection Land/water management

C15.6

Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity in-formation is located
In voluntary sustainability report or other voluntary communications	Impacts on biodiversity	2020 Corporate Sustainability Report (p. 28 – 31)

[CP Corporate Sustainability Report 2020.pdf](#)

C16.

Signoff

C-FI

Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

C16.1

Provide details for the person that has signed off (approved) your CDP climate change response.

Job title	Corresponding job category
Executive Vice-President and Chief Financial Officer	Chief Financial Officer (CFO)

Appendix 1: Assurance Opinion

Appendix A

Assurance Opinion

GHD Reference No: 11196249-LTR-3

21 June 2022

Mr. Nirwair Bajwa
Specialist Sustainability, Climate & Energy
Canadian Pacific
7550 Ogden Dale Road SE
Calgary, Alberta
T2C 4X9

Assurance Report

Dear Mr. Bajwa

The purpose of this letter is to clarify matters set out in the Assurance Report. It is not an Assurance Report and is not a substitute for the Assurance Report.

This letter and the verifier's Assurance Report, including the opinion(s), are addressed to you and are solely for your benefit in accordance with the terms of the contract. We consent to the release of this letter by you to the CDP in order to satisfy the terms of CDP disclosure requirements but without accepting or assuming any responsibility or liability on our part to CDP or to any other party who may have access to this letter or our Assurance Report.

In accordance with our engagement with you dated February 7, 2022 (the "contract") and for the avoidance of doubt, we confirm that our *Verification Report: 2021 CDP GHG Report* to you dated June 3, 2022 (the "Assurance Report") incorporated the following matters:

1. Boundaries of the reporting company covered by the Assurance Report and any known exclusions*¹:

CP operations assessed as part of this verification included CP's entire corporate operations, which includes all sources in which CP has majority ownership and operational control. The inventory boundary includes the CP direct mobile emissions (locomotive and other vehicles such as corporate on-road and off-road vehicles), direct stationary combustion (building heating), and indirect emissions due to electricity supply to CP corporate operations. Other indirect (Scope 3) emissions included in the inventory include purchased goods and services, capital goods, fuel and energy-related activities, upstream transportation and distribution, waste generated in operations, business travel, and employee commuting. Verification is completed at the corporate level.

*¹ Optional field

2. Emissions data verified - broken down by Scope 1, Scope 2, and Scope 3 categories with figures given; option to include other relevant data that has been verified with figures:

Total Entity-Wide Emissions Verified	
Scope 1 Emissions²:	2,952,415 tonnes CO ₂ e
Scope 2 Emissions (Market-based):	39,339 tonnes CO ₂ e
Scope 2 Emissions (Location-based):	38,774 tonnes CO ₂ e
Scope 3 Emissions:	1,695,628 tonnes CO ₂ e

Reporting Metrics in the CDP Climate Change Questionnaire 2021 Verified

Locomotive SBTi Progress: CP achieved an emission reduction of 3.0% in 2020, and an increase of 0.5% in 2021. This represents a total emission reduction of 2.5% since 2020 and 6.4% of the emission reduction goal.

Non-locomotive SBTi Progress: CP achieved an emission reduction of 16.1% in 2020 and 10.0% in 2021. This represents a total emission reduction of 24.5% since 2020 and 89.2% of the emission reduction goal.

3. Period covered (e.g., '12 months to DD MM YY'):

The reporting period is between 01/01/21 and 31/12/21.

4. Verification standard used:

For the verification of the 2021 GHG Report, GHD has applied ISO 14064-3 and ISAE3000/3410

5. Assurance opinion (incl. level of assurance and any qualifications):

The GHG Protocol states, "as a rule of thumb, an error is considered to be materially misleading if its value exceeds 5 percent of the total inventory for the part of the organization being verified." Consistent with this, and industry practice, GHD established a quantitative materiality for this verification of ±5 percent of the total reported GHG emissions. An individual error, misrepresentation, or a series of discrete errors, omissions or misrepresentations or individual or a series of qualitative factors, when aggregated may be considered material.

- Net sum of all Scope 1 discrepancies: no discrepancies noted
- Net sum of all Scope 2 discrepancies: no discrepancies noted
- Net sum of all Scope 3 discrepancies: no discrepancies noted

The purpose of verification was to have an independent third party assess CP's 2021 GHG Report, calculations and compliance with the requirements of ISO 14064-3, ISAE3000/3410, the *GHG Protocol*, and associated guidance. The objective of the verification was to provide CP with assurance that there are no material misstatements in the 2021 GHG Report and that the information reported is accurate and consistent with the requirements of the *GHG Protocol*.

Based on our verification, the GHG statement is, in all material aspects, in accordance with the verification criteria and is free of material misstatements.

² Excluding CO₂ from biodiesel.

6. Verification provider and accreditations (if relevant):

VERIFICATION BODY NAME:	GHD Limited
VERIFICATION BODY ADDRESS:	455 Phillip Street, Unit #100A, Waterloo, Ontario, N2L 3X2
VERIFICATION BODY CONTACT:	Mr. Gordon Reusing
TITLE:	Principal
TELEPHONE:	519-340-4231
EMAIL:	Gordon.Reusing@ghd.com

Accreditations: GHD is a Canadian based company accredited by the American National Standard Institute (ANSI) under ISO 14065 to provide organizational level verification services.

7. Lead verifier name and relevant accreditations/professional membership (if relevant):

LEAD VERIFIER:	Mr. Erik Martinez
TITLE:	Associate
TELEPHONE:	519-340-4213
EMAIL:	Erik.Martinez@ghd.com

8. This letter should be prepared on the verifier's letterhead or include the signature of the lead verifier (or authorized signatory/organization responsible for issuing the Assurance Report/statement) in the box below:



Erik Martinez, P. Eng.



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