

Welcome to your CDP Climate Change Questionnaire 2023

C0. Introduction

C0.1

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

Based in Jacksonville, Florida, CSX Corporation (CSX) -- along with its subsidiaries -- is a premier transportation company. It provides rail-based transportation services including traditional rail service, rail-to-truck transloading services, and the transport of intermodal containers and trailers. CSX's principal operating subsidiary, CSX Transportation, Inc. (CSXT), provides an important link to the transportation supply chain through its nearly 20,000 route mile network, which serves major population centers in 26 states east of the Mississippi River, the District of Columbia, and the Canadian provinces of Ontario and Quebec. CSXT has access to more than 70 ocean, river, and lake port terminals along the Atlantic and Gulf Coasts, the Mississippi River, the Great Lakes, and the St. Lawrence Seaway. The company's intermodal business links customers to railroads via trucks and terminals. CSX also serves thousands of production and distribution facilities through track connections to approximately 230 short-line and regional railroads.

In addition to CSXT, the Company's subsidiaries include Quality Carriers, Inc. ("Quality Carriers"), CSX Intermodal Terminals, Inc. ("CSX Intermodal Terminals"), Total Distribution Services, Inc. ("TDSI"), Transflo Terminal Services, Inc. ("Transflo"), CSX Technology, Inc. ("CSX Technology") and other subsidiaries. Effective July 1, 2021, CSX acquired Quality Carriers, the largest provider of bulk liquid chemicals truck transportation in North America. On June 1, 2022, CSX completed its acquisition of Pan Am Systems, Inc. ("Pan Am") which is the parent company of Pan Am Railways, Inc. CSX Intermodal Terminals owns and operates a system of intermodal terminals, predominantly in the eastern United States, and performs drayage services (the pickup and delivery of intermodal shipments) for certain CSX customers and trucking dispatch operations. TDSI serves the automotive industry with a network of world-class vehicle distribution centers and storage locations. TRANSFLO connects non-rail served customers to the many benefits of rail by transferring products between rail and trucks. CSX Technology and other subsidiaries provide support services for the company. CSX's other holdings include a CSXT group responsible for the company's real estate sales, leasing, acquisition and management and development activities. The primary reporting company for purposes of the CDP is CSXT, which is the principal operating subsidiary of CSX. To increase transparency, CSX has included all major subsidiaries in its greenhouse gas inventory and

CDP response since 2012; this includes CSX Intermodal Terminals, TDSI, CSX Technology, TRANSFLO, Quality Carriers, and Pan Am in addition to CSXT.

C0.2

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

Reporting year

Start date

January 1, 2022

End date

December 31, 2022

Indicate if you are providing emissions data for past reporting years

No

C0.3

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

Canada

United States of America

C0.4

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

USD

C0.5

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

Operational control

C-TO0.7/C-TS0.7

(C-TO0.7/C-TS0.7) For which transport modes will you be providing data?

Rail

C0.8

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

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

C1. Governance

C1.1

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

Yes

C1.1a

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

Position of individual or committee	Responsibilities for climate-related issues
Board-level committee	<p>The 11-member Board of Directors is composed of a diverse group of business professionals with responsibility for climate-related issues. The Board oversees decisions made by management to support the company's long-term growth both financially and administratively. The Committee shall on a periodic basis review the Corporation's sustainability policies, strategies and programs, including, but not limited to, material environmental, social and governance trends and related long and short term impacts to the Corporation and around climate-related issues such as carbon emissions reduction initiatives and climate action targets. The Governance and Sustainability Committee of the Board has responsibility for risk oversight and evaluation, including risks associated with energy and environmental policy. All business risks, including climate-related, are presented to the Board for consideration. The committees are provided input from those departments most competent in the risk under consideration. The PSH&E department consists of environmental professionals reporting up to the Executive Vice President and Chief Legal Officer, whose scope of responsibility includes communication with the Board on issues related to their purview. An example of a climate-related decision made by the Governance and Sustainability Committee is the review and approval of the Science-Based Target (SBT) in 2019. CSX set an ambitious well below 2-degree Celsius scenario target approved by the Science Based Target Initiative (SBTi) to reduce its GHG emission intensity 37.3% by year end 2029, from a 2014 base year. The Governance and Sustainability Committee also reviews and approves initiatives aligned with meeting this ambitious goal.</p>

C1.1b

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

Frequency with which climate-related issues are a scheduled agenda item	Governance mechanisms into which climate-related issues are integrated	Please explain
Scheduled – some meetings	<p>Reviewing and guiding annual budgets</p> <p>Overseeing acquisitions, mergers, and divestitures</p> <p>Reviewing innovation/R&D priorities</p> <p>Overseeing and guiding employee incentives</p> <p>Reviewing and guiding strategy</p> <p>Overseeing the setting of corporate targets</p> <p>Monitoring progress towards corporate targets</p> <p>Overseeing and guiding public policy engagement</p> <p>Overseeing value chain engagement</p> <p>Reviewing and guiding the risk management process</p> <p>Other, please specify</p> <p>Reviewing and guiding major plans of action, Reviewing and guiding business plans, Monitoring implementation and performance of objectives, Monitoring and overseeing progress against goals and targets for addressing climate-related issues</p>	<p>CSX corporate governance practices are led by the Executive Team and Board of Directors, who understand the opportunities and challenges across the business and help make decisions that support the company's long-term growth and success. The Board's overall strategy is focused on execution of the key tenets of scheduled railroading. The Governance and Sustainability (G&S) Committee of the Board of Directors has responsibility for environmental matters, as well as, risk oversight and evaluation, including risks associated with energy and environmental policy. The G&S Committee reports to the full 11-member Board. At a company level, CSX uses a business risk management process to define risks and opportunities as strategic, external, or compliance based. Business leaders are engaged in the identification and assessment of risk in addition to the communication of the various types of risk to the executive leadership and the Board. Business risk factors are identified and described in the company's Annual Report, and these factors influence the strategic planning process. Environmental risks and opportunities include those associated with new technologies, availability of fuel sources, reputational risks and opportunities, anticipated regulatory changes, and potential shifts in our customers' businesses as a result of climate change. CSX revised the company's Environmental Policy in January 2018 to better manage environmental impact and provide a</p>

		<p>framework for future sustainability initiatives . The CSX Environmental Policy is carried out at every level of the Company. CSX also has a company-wide Sustainability Statement that lays out its commitment to environmental initiatives. Both the Environmental Policy and the Sustainability Statement are referenced in the Environmental, Social, and Governance (ESG) Report (formerly known as CSR), available on CSX's website. The most recent full ESG Report was published in July 2023. CSX's Environment Management System (EMS) promotes, measures, tracks, and improves sustainability across operations. It provides a clear, actionable plan for actively managing and minimizing the environmental impact of approximately 11 million square feet of facilities and approximately 3,600 locomotives. The EMS incorporates major elements of ISO 14001 and is certified under the requirements of the American Chemistry Council (ACC) Responsible Care® management system. It also voluntarily incorporates the US EPA National Enforcement Investigations Center's Compliance-Focused EMS and other industry-specific standards. CSX regularly reviews and updates the system and employs a third-party reviewer to verify the effectiveness of existing programs. The Board is monitoring implementation of these aforementioned programs with key leaders in each responsible department with the goal in mind to reduce overall risk and implement scheduled railroading within the Company.</p>
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C1.1d

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

Board member(s) have competence	Criteria used to assess competence of board member(s) on climate-related issues
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	on climate-related issues	
Row 1	Yes	<p>In 2022 and in alignment with the Task Force for Climate-related Financial Disclosure (TCFD), CSX assessed each of its director's professional experience (including other board membership which results in the command of CSX's climate-related issues) along with education, board-level accountability, the frequency and structure of review of CSX's climate related, and substantive information provided from internal and external subject-matter experts .</p> <p>Based on this assessment, CSX determined that a minimum of 7 out of 11 board members, or approximately 64 %, possess relevant experience to address CSX's climate-related risks and opportunities.</p>

C1.2

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

Position or committee

Chief Operating Officer (COO)

Climate-related responsibilities of this position

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

Coverage of responsibilities

Reporting line

Reports to the board directly

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

Annually

Please explain

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

Position or committee

Chief Financial Officer (CFO)

Climate-related responsibilities of this position

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

Coverage of responsibilities

Reporting line

Reports to the board directly

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

Annually

Please explain

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

Position or committee

Sustainability committee

Climate-related responsibilities of this position

Providing climate-related employee incentives

Setting climate-related corporate targets

Monitoring progress against climate-related corporate targets

Managing public policy engagement that may impact the climate

Coverage of responsibilities

Reporting line

Reports to the board directly

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

Annually

Please explain

All business risks, including climate-related, are presented to the Board and risk committees for consideration. The committees are provided input from those departments competent in the risk. The flow path of climate-related issues between the PSH&E department to EVP/CLO to the Governance and Sustainability Committee of the Board to the Board is an efficient method for monitoring climate-related risks and implementing strategies to address issues. Executive Team (including the EVP/CLO) and Board of Directors leads CSX corporate governance practices.

Position or committee

Other committee, please specify
Executive VP & Chief Legal Officer

Climate-related responsibilities of this position

Assessing climate-related risks and opportunities
Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line

Reports to the board directly

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

Quarterly

Please explain

The Executive Vice President and Chief Legal Office (EVP/CLO) has responsibility for the PSH&E department, consisting of environmental professionals/experts. The EVP/CLO's responsibilities include the company's legal affairs, government relations, risk management, environmental, audit functions, and communication with the Board on issues within their purview. The Senior Director of Public Safety, Health, and Environment (PSH&E) reports to the EVP/CLO, who reports to the CEO and Board, and the Senior Director of PSH&E's responsibilities include environmental policy, performance, management, risks, and communicating with the EVP/CLO. The EVP/CLO role holds responsibility for climate-related issues because they are the leader of environmental strategy and have the authority, influence and resources to act on climate-related risks and opportunities in alignment with corporate strategy. All business risks, including climate-related, are presented to the Board and risk committees for consideration. The committees are provided input from those departments competent in the risk. The flow path of climate-related issues between the PSH&E department to EVP/CLO to the Governance and Sustainability Committee of the Board to the Board is an efficient method for monitoring climate-related risks and implementing strategies to address issues. Executive Team (including the EVP/CLO) and Board of Directors leads CSX corporate governance practices. They understand the business opportunities and challenges and make decisions that support long-term growth and success. CSX uses an ERM process whereby during the budget planning process, business leaders are expected to identify and define risks and opportunities as strategic, external, or compliance based and communicate the risk and opportunity types to the EL and the Board. The Annual Report described business risk factors, and these factors influence the strategic planning process. Environmental risks and opportunities include new technologies, fuel source availability, reputational risks and opportunities, anticipated regulatory changes, and potential shifts in customers' businesses as a result of climate change. During short- and long-term budget planning, department leaders evaluate scenarios where climate change may impact operations/safety for business continuity planning. Both short-and long-term impacts and the appropriate resources and response actions are considered. For example, scenarios analyzing the likelihood and extent of

Gulf Coast flooding are used to inform decisions around hardening tracks and raising critical equipment off the ground. The potential for hurricane-induced wind damage is considered when implementing strategies to reinforce infrastructure in the Jacksonville, FL. CSX conducts business risk analyses to assess how climate change may impact the location of sensitive customer operations.

Position or committee

Chief Executive Officer (CEO)

Climate-related responsibilities of this position

Assessing climate-related risks and opportunities

Managing climate-related risks and opportunities

Coverage of responsibilities

Reporting line

Reports to the board directly

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

Quarterly

Please explain

The CEO is responsible for the performance of CSX and is responsible for leading the organization's strategy. All functions of the company ultimately report up to the CEO. As the company has transitioned major leadership roles over the past few years to reflect an evolving business strategy, including CEO and president and new members on the Board of Directors, solid governance is important for ensuring consistent high performance.

C1.3

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

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	CSX provides monetary incentives to managers for achieving Emissions Reduction Target, Energy Reduction Target, and Efficiency Target. Award based on meeting corporate goal of locomotive productivity and active fleet management which includes optimizing the fleet for best fuel and network efficiency. Progress toward these corporate goals has set CSX on track to meet its 2030 emissions

		target. Locomotive fuel accounts for approximately 91% of CSX's Scope 1 and 2 GHG emissions ; therefore, fuel efficiency targets are directly correlated to emissions intensity reductions. As of 2022, CSX had reduced emission intensity by 13.1% from base year 2014. CSX has an established target with the SBTi to reduce GHG emissions intensity 37.3% by end of 2029 from a 2014 base year.
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C1.3a

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

Entitled to incentive

Chief Operating Officer (COO)

Type of incentive

Monetary reward

Incentive(s)

Bonus – set figure

Performance indicator(s)

Progress towards a climate-related target
Implementation of an emissions reduction initiative
Reduction in emissions intensity
Energy efficiency improvement

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

The 2022 Management Incentive Compensation Plan (MICP) was structured to reward executives and eligible employees for driving Company performance over a one-year period. It's primary objective is to implement short and long-term incentive compensation plans with stretch targets that drive strong financial results in achieving sustainable growth and take into account ESG expectations of shareholders.

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

Energy reduction and efficiency targets are incentivized.

Award is based on meeting corporate goals of locomotive productivity and active fleet management, which include optimizing the fleet for best fuel and network efficiency. Progress toward these corporate goals has enabled CSX to achieve 42% of its 15 year target in the first 7 years. As of 2022, CSX had reduced emission intensity by 13.1 from base year 2014. Locomotive fuel accounts for approximately 91% of CSX's Scope 1 and

2 GHG emissions; therefore, fuel efficiency targets are directly correlated to emissions intensity reductions. CSX has established a target with the SBTi to reduce GHG emissions intensity 37.3% by end of 2029 from a 2014 base year.

Entitled to incentive

Business unit manager

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Progress towards a climate-related target

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

The 2022 Management Incentive Compensation Plan (MICP) was structured to reward executives and eligible employees for driving Company performance over a one-year period. It's primary objective is to implement short and long-term incentive compensation plans with stretch targets that drive strong financial results in achieving sustainable growth and take into account ESG expectations of shareholders.

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

Energy reduction and efficiency targets are incentivized.

Business unit managers' annual performance goals are linked to optimizing fleet performance. Since locomotive fuel use represents approximately 91% of the company's Scope 1 and Scope 2 GHG emissions, fuel efficiency targets are directly related to emission intensity reductions.

Entitled to incentive

Process operation manager

Type of incentive

Monetary reward

Incentive(s)

Bonus - % of salary

Performance indicator(s)

Progress towards a climate-related target

Incentive plan(s) this incentive is linked to

Both Short-Term and Long-Term Incentive Plan

Further details of incentive(s)

The 2022 Management Incentive Compensation Plan (MICP) was structured to reward executives and eligible employees for driving Company performance over a one-year period. It's primary objective is to implement short and long-term incentive compensation plans with stretch targets that drive strong financial results in achieving sustainable growth and take into account ESG expectations of shareholders.

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

Energy reduction and efficiency targets are incentivized.

Process operations managers' annual performance goals are linked to optimizing fleet performance. Since locomotive fuel use represents approximately 90% of the company's Scope 1 and Scope 2 GHG emissions, fuel efficiency targets are directly related to emission intensity reductions.

C2. Risks and opportunities

C2.1

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

Yes

C2.1a

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

	From (years)	To (years)	Comment
Short-term	0	3	Planning for capital expenditures is typically for a 3-year horizon
Medium-term	3	10	Planning for significant investments such as locating, constructing, or consolidating rail facilities and infrastructure
Long-term	10	30	Strategic planning based upon growth and technology projections

C2.1b

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

CSX and its operating companies discuss Risk Factors posed to its operations and supply chain as federally required in financial reporting instruments such as our Form 10-K. All business risks, including climate-related, are presented to the Board and risk committees for consideration. The committees are provided input from those departments most competent in the risk under consideration. Environmental risks include those associated with new technologies, availability of fuel sources, reputational risks, anticipated regulatory changes, and potential shifts in customers' businesses as a result of climate change. CSX considers a substantive financial impact to be a significant impact on the company's Annual Plan and Strategic Plan achievement and is defined as a material adverse effect on the Company's financial condition, results of operations or liquidity, and could cause those results to differ materially from those expressed or implied in the Company's forward-looking statements, resulting in the potential for customer or shareholder concern. In the case of costs that exceed the Company's regular forecasts, CSX often provides its shareholders with an estimate of the financial impact the event may have had on the Company. For the purposes of this response, we're considering a substantive financial or strategic impact on CSX's business as a \$0.02 impact on the company's earnings per share. For example, following the recovery from Hurricane Florence, CSX estimated that the event had a \$0.02 impact on the company's earnings per share for the fourth quarter of 2018.

C2.2

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

Value chain stage(s) covered

Direct operations
Upstream
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

CSX uses an integrated, multi-disciplinary, company-wide risk management process which defines risks and opportunities as strategic, external, or compliance based. The process used at CSX to determine which risks and opportunities have a substantial or strategic impact involves determining those risks having a material adverse effect on the Company's financial condition, results of operations or liquidity, and could cause those

results to differ materially from those expressed or implied in the Company's forward-looking statements, resulting in the potential for customer or shareholder concern. This process is applied to all stages of the value chain and time horizons. In the case of costs that exceed the Company's regular forecasts, CSX often provides its shareholders with an estimate of the financial impact a weather-related event may have had on the Company. Business leaders are engaged in the identification and assessment of risk in addition to the communication of the various types of risk to the executive leadership and the Board of Directors. Business risk factors are identified and described in the company's Annual Report, and these factors influence the strategic planning process. Environmental risks and opportunities include those associated with new technologies, availability of fuel sources, reputational risks and opportunities, anticipated regulatory changes, and potential shifts in our customers' businesses as a result of climate change. At an asset level, risks and opportunities are defined on the department level using a compliance-based approach. Risks and opportunities at the asset level are impacted in scope by geography. Most pertinent to asset level risk and opportunity identification are physical parameters such as localized changes in weather or storm frequency.

A case study of a transitional risk is the decreased demand for coal as the planet moves toward less carbon-intensive fuel sources. The CSX Coal Marketing group routinely interacts with coal customers and monitors projections and fluctuations in the demands for coal. Concerns were recognized and integrated into the multi-disciplinary company-wide risk management process which defines risks and opportunities as strategic, external, or compliance based. Recognizing the decline in coal demand, coal locomotives and rail car assets were mothballed, and certain rail lines dedicated to coal business were sold. The slower rates of economic growth in Asia, contraction of European economies, and changes in the global supply of seaborne coal or price of seaborne coal had adverse impacts on U.S. export coal volume and resulted in lower coal revenue for CSX. The impact of coal market changes continued through 2021 with a full-year coal volume on a declining trend (697,000 carloads of coal in 2022 vs. 843,000 in 2019), a significant decline from 2015 (1.063 million carloads of coal delivered in 2015). This decline represents a loss of approximately \$280 million in revenue, pushing losses in CSX's coal revenue since 2011 to more than \$2 billion. The coal business shipped 697 thousand carloads (11% of volume) and generated \$2.4 billion in revenue (16% of revenue) in 2022.

A case study of how CSX's process is applied to a physical risk is the capital expenditures (CAPEX) planning process pertaining to infrastructure improvements necessary for increased frequency and magnitude of flooding. The CSX Engineering Department routinely inspects the condition of rail track infrastructure and areas of concern are identified and integrated into the multi-disciplinary company-wide risk management process. Areas of concern include upgrading railroad bridges, improving track drainage, and burying utilities underground. Annually, the CSX Engineering Department prepares a list of "Authorization for Expenditure (AFE)" projects and presents this list to Executive Leadership for approval into the annual CAPEX financial plan. To mitigate the physical risk of extreme weather flooding, CSX department leaders

established comprehensive business continuity plans designed to ensure the continuity of train operations in the face of extreme weather events. These business continuity plans are adaptable across the company's nearly 20,000-mile network. CSX is constantly reinvesting in infrastructure – in 2020, CSX invested \$1.63 billion into its network, \$1.79 billion in 2021, and another 2.13 billion in 2022. CSX spent over \$180 million responding to/recovering from the effects of hurricanes, tropical storms and floods over the last 10 years. These responses include Tropical Storm Isaac (2012 - \$31.2 million), South Carolina floods (2015 - \$39.5 million), Hurricane Matthew (2016 - \$25 million), Hurricane Irma (2017 - \$26.8 million), Hurricane Florence (2018 - \$29.4 million), and Hurricane Ida (2021 - \$28.5 million).

C2.2a

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	At a company level, CSX uses a business risk management process to identify, prioritize, and assess risks, including climate-related risks, that have the potential to affect business strategy. Legislation passed by Congress, new regulations issued by federal agencies, or executive orders issued by the President of the United States can significantly affect the revenues, costs, and profitability of the company's business. Therefore, the potential impact of current regulations is monitored, included in the risk assessment process, and reported in the Annual Report. In particular, the EPA has issued various regulations and may issue additional regulations targeting emissions, including rules and standards governing emissions from certain stationary sources and from vehicles. Culturally, it is extremely important for CSX to adhere to a zero-tolerance approach for intentional noncompliance or negligence resulting in noncompliance. If CSX violates any current regulations, including climate-related regulations, the possibility of fines or other sanctions to be imposed could result in financial burdens, jeopardize its license to operate, and damage its reputation with shareholders, employees, customers, regulatory agencies, and the public. CSX currently has all the necessary regulatory permits and plans to be compliant with applicable federal, state, and local laws. The company has a team of environmental personnel dedicated to maintaining compliance with the permits and laws by conducting inspections, collecting samples, submitting reports, and making notifications. CSX is continually improving its environmental compliance by adjusting permits and plans to reflect changes in railroad operations. An example current regulation risk for CSX is the EPA's "design to burn" requirement in the non-hazardous secondary material rulemaking which disqualifies

		<p>crossties as biomass feed stock. CSX has historically used crossties for feed stock at biomass plants to avoid large amounts of creosote and creosote-borate treated crossties from becoming landfilled waste, which leads to additional methane emissions, a greenhouse gas with a high global warming potential. CSX crosstie waste each year is estimated at over 2 million crossties. CSX is petitioning to open more boilers to be able to burn used crossties for energy recovery and eliminating millions of crossties from unnecessarily occupying limited landfill space each year.</p>
Emerging regulation	Relevant, always included	<p>At a company level, CSX uses a business risk management process to identify, prioritize, and assess risks, including risks from emerging climate-related regulations, that have the potential to affect business strategy. Legislation passed by Congress, new regulations issued by federal agencies, or executive orders issued by the President of the United States can significantly affect the revenues, costs, and profitability of the company's business. Therefore, the potential impact of emerging regulations is monitored, included in the risk assessment process, and reported in the Annual Report. The Company's operations and financial results could be negatively impacted by climate change and regulatory and legislative responses to climate change. Climate change and other emissions-related laws and regulations have been proposed and, in some cases adopted, on the federal, state, provincial and local levels. These final and proposed laws and regulations take the form of restrictions, caps, taxes or other controls on emissions. For example, an emerging regulation risk for CSX is the concern EPA may issue additional regulations targeting emissions, including rules and standards governing emissions from certain stationary sources and from vehicles. Any of these pending or proposed laws or regulations could adversely affect the Company's operations and financial results by, among other things: (i) reducing coal-fired electricity generation due to mandated emission standards; (ii) reducing the consumption of coal as a viable energy resource in the United States and Canada; (iii) increasing the Company's fuel, capital and other operating costs and negatively affecting operating and fuel efficiencies; and (iv) making it difficult for the Company's customers in the U.S. and Canada to produce products in a cost competitive manner. Any of these factors could reduce the amount of shipments the Company handles and have a material adverse effect on the Company's financial condition, results of operations or liquidity.</p>
Technology	Relevant, always included	<p>CSX relies on information technology in all aspects of its business. The performance and reliability of the company's technology systems are critical to its ability to operate safely and effectively. The Governance and Sustainability Committee of the Board of Directors has responsibility for risk oversight and evaluation, including risks associated with energy, environmental policy, and cybersecurity. The</p>

		<p>Governance and Sustainability Committee reports to the full 11-member Board . Climate-related impacts, such as hurricanes and flooding, can potentially cause damage to the CSX technology infrastructure and result in service interruption, train accident, or other operational difficulties. Such events could result in decreased revenues and increased capital, insurance, or operating costs. A disruption or compromise of the company's information technology systems, even for short periods of time, could have a material adverse effect. Protecting technology assets from impacts of climate-related events is relevant and always included and assessed in the CSX business risk management process. An example of a technology risk for CSX would include technological improvements associated with a lower-carbon, energy-efficient economic system which may create an advantage for CSX's competitors offering freight haul services. Other transportation providers generally use public rights-of-way that are built and maintained by governmental entities, while CSX and other railroads must build and maintain rail networks largely using internal resources. CSX experiences competition in pricing, service, reliability, and other factors from various transportation providers including railroads and motor carriers that operate similar routes across its service area and, to a less significant extent, barges, ships and pipelines. Any future improvements or expenditures materially increasing the quality or reducing the cost of alternative modes of transportation including the use of automation, autonomy or electrification, certain technologies, or legislation providing for less stringent size or weight restrictions on trucks, could negatively impact the Company's competitive position.</p>
Legal	Relevant, always included	<p>Legal risks to the company, including legal actions resulting from climate-related events, are always included in the risk assessment process. CSX is subject to wide-ranging federal, state, provincial, and local environmental laws and regulations concerning, among other things, discharges to air, land, and water; handling, storage, use, generation, transportation, and disposal of waste and other materials; clean-up of hazardous material and petroleum releases, and the health and safety of employees. If the company violates or fails to comply with these laws and regulations, CSX could be fined or otherwise sanctioned by regulators. CSX is subject to various claims and lawsuits related to disputes over commercial practices, labor, and unemployment matters; occupational and personal injury claims; property damage; and environmental and other matters. The company may experience material judgments or incur significant costs to defend existing and future lawsuits. Although the company maintains insurance to cover some of these types of claims and establishes reserves when appropriate, final amounts determined to be due on any outstanding matters may exceed the company's insurance coverage or differ materially from the recorded reserves. Additionally, CSXT, as a</p>

		<p>common carrier by rail, is required by law to transport hazardous materials, which could expose the Company to significant costs and litigation. An example of a legal risk related to the transition to a lower-carbon economy is the concern EPA may issue additional regulations targeting emissions, including rules and standards governing emissions from certain stationary sources and from vehicles. If the company violates or fails to comply with these laws and regulations, CSX could be fined or otherwise sanctioned by regulator, requiring legal intervention.</p>
Market	Relevant, always included	<p>The potential impact of climate-related issues on market conditions is always included in the risk assessment process. Fluctuations in market conditions can have significant impacts on CSX revenues and global economic conditions could negatively affect demand for commodities and other freight. A decline or disruption in general domestic and global economic conditions that affects demand for the commodities and products the Company transports, including import and export volume, could reduce revenues or have other adverse effects on the Company's cost structure and profitability. An example of a market risk associated with climate change for CSX is slower rates of economic growth in Asia, contraction of European economies, and changes in the global supply of seaborne coal or price of seaborne coal have adverse impacts on U.S. export coal volume and result in lower coal revenue for CSX. For example, the impact of coal market changes continued through 2022. Full-year coal volume is on a declining trend (697,000 carloads of coal in 2022 vs. 843,000 in 2019), volumes in recent years continue to show a significant decline from 2015 (1.063 million carloads of coal delivered in 2015). This decline represents a loss of approximately \$280 million in revenue, pushing losses in CSX's coal revenue since 2011 to more than \$2 billion. Another example of market adjustment with a connection to climate change, production of natural gas in the United States has increased significantly, which has resulted in lower natural gas prices. As a result of sustained low natural gas prices, many coal-fired power plants have been displaced by natural gas-fired power generation facilities. If natural gas prices remain low, additional coal-fired plants could be displaced, which would likely further reduce CSX domestic coal volumes and revenues. These market changes and business risks are closely monitored. Additionally, changes to trade agreements or policies could result in reduced import and export volumes due to increased tariffs and lower consumer demand. If the Company experiences significant declines in demand for its transportation services with respect to one or more commodities and products, the Company may experience reduced revenue and increased operating costs, workforce adjustments, and other related activities, which could have a material adverse effect on the Company's financial condition, results of operations and liquidity.</p>

Reputation	Relevant, always included	<p>Climate-related events have the potential to negatively impact CSX's reputation with shareholders, customers, the public, regulatory agencies, & employees. Therefore, the potential impact of climate-related events is monitored, included in the risk assessment process, and reported in the Annual Report. An example of a reputational risk associated with climate change is extreme weather-related risks like floods and washouts resulting in derailments/ other service interruptions that can receive negative publicity and risk CSX being labeled a risky mode of transport. Conversely, green messaging can win customers and motivate investors when CSX is perceived as an environmentally friendly mode of transport. In 2022, CSX joined the Dow Jones Sustainability Index for the 12th consecutive year, demonstrating a public commitment to a positive and accountable reputation. This recognizes high performance in environmental management and corporate governance, among other areas. Increasingly, the investment community, customers, and the public expect a proactive corporate approach to climate change. Failure to establish/maintain a reputation for addressing climate change challenges may result in increased stakeholder concern or negative stakeholder feedback and could adversely affect the mission. For example, CSX's success in moving more freight with less asset intensity and reducing fuel consumption has enhanced its reputation for reliable service that allows customers to move freight from the highway to rail and reduce their overall carbon footprint. In 2019, CSX improved its 2018 record fuel efficiency, becoming the 1st and only U.S. Class I railroad to operate below 1 gallon of fuel per 1,000 gross ton-miles. In 2022, this still holds true, and CSX is operating at 0.989 gallons per 1,000 gross ton-miles, while the U.S. industry average for 2022 was 1.0951.063 gallons per 1,000 gross ton-miles . CSX has become the first railroad in North America to have its new emissions intensity goal – consistent with reductions required to keep warming to well-below 2 degrees C – approved SBTi. CSX will reduce GHG emissions intensity by 37.3% between 2014 & 2030. As of the end of 2022, CSX has achieved 13.1% reduction in GHG emissions intensity since base year 2014 . The company expects future transformational tech to facilitate this next level of reductions and is investing in tech and operational practices that drive maximum achievable efficiencies.</p>
Acute physical	Relevant, always included	<p>Acute physical events are always included in the risk assessment process. CSX's rail network encompasses nearly 20,000 route miles of track across 26 states, the District of Columbia, and two Canadian provinces. As such, weather-related impacts on the company's operations are a regular part of business and are incorporated into the company's operational and financial planning. An example of acute physical risks associated with climate change for CSX would be extremes in the number or intensity of hurricanes or weather events</p>

		<p>which can negatively affect CSX's operations and business by impacting safe operating speeds, causing service interruption, or increasing track repair and recovery cost – any of which would reduce CSX's productivity and service capacity. CSX invests heavily in its network to fortify it against the impact of extreme weather events, including changes in temperature such as the extreme record setting low-temperatures and the Polar Vortex in the Northern and Midwest regions of CSX's territory during the first quarter of 2019. CSX has invested more than \$6 billion in its infrastructure over the past five years. In addition, the performance of locomotives and railcars could be adversely affected by extreme weather conditions. Insurance maintained by the Company to protect against loss of business and other related consequences resulting from these natural occurrences is subject to coverage limitations, depending on the nature of the risk insured. This insurance may not be sufficient to cover all of the Company's damages or damages to others, and this insurance may not continue to be available at commercially reasonable rates. Even with insurance, if any natural occurrence leads to a catastrophic interruption of service, the Company may not be able to restore service without a significant interruption in operations.</p>
Chronic physical	Relevant, always included	<p>An example of a chronic physical change resulting from climate-related impacts is the rising sea levels and associated flooding along coastal areas. Since the CSX operating network includes potentially vulnerable bridges, trackage, facilities, and customers along these coastal routes, assessing chronic physical climate-related risks is relevant and always included in the risk assessment process. To mitigate chronic physical risks associated with extreme weather, especially given that the increasing frequency of major storm events is requiring a shift to thinking about the potential impacts of 100-year storms on a much more frequent basis, CSX has established comprehensive business continuity plans designed to ensure the continuity of train operations in the face of extreme weather events. CSX invested significant capital in backup systems and redundancy for data centers to manage risk. CSX's operations and public safety departments play critical roles in weather event preparedness, from performing preventative maintenance to limit service disruptions for customers, to forming relationships with first responders and sharing resources with communities in need. CSX also continues to evolve its weather response plans, tailoring an approach specific to each area of the network and maintaining response teams to deploy when critical conditions arise. Changes in extreme temperatures can negatively affect CSX's operations and infrastructure by creating a harsher work environment for employees, increasing rail maintenance costs, and impacting service by decreasing the velocity of operations during extreme temperature events. Most CSX employees work outdoors. For</p>

		example, track workers are responsible for inspecting and maintaining the nearly 20,000-mile network in all weather conditions. Carmen build, inspect, and repair railcars. Utility workers are responsible for servicing and cleaning locomotives. Dock workers must maintain pier facilities, and staff at intermodal facilities must manage the movement of freight containers between truck and rail across intermodal facilities that may span hundreds of acres. Given the varied job duties at CSX requiring outside work on a year-round basis regardless of the weather, worker safety and productivity are impacted by extreme temperatures.
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C2.3

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

Yes

C2.3a

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

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Emerging regulation

Enhanced emissions-reporting obligations

Primary potential financial impact

Increased indirect (operating) costs

And Increased Capital Expenditures

Company-specific description

CSX must stay abreast of emerging emissions regulations regarding the equipment we operate in and territories we do not serve in, such as California. Failing to do so could present a material risk to our ability to operate profitably and within our current service areas. Meeting current and emerging regulations may have a substantive financial impact on the company of 2 cents Earnings Per Share (EPS) and the technology's viability needed to comply with the regulations. CSX defines viability as the reliability of the manufacturer, operations, maintenance costs, and the equipment's residual value. CSX proactively manages the risk of emerging regulations in our Enterprise Risk Management (ERM) business function. The narrow focus of the ERM program ensures

that CSX can 1) physically operate the railroad, (2) maintain technology systems that resist cyber threats and operate reliably and resiliently, (3) maintain compliance with applicable laws, and (4) continue to access the public equity and credit markets. To align with possible emerging regulations focused on the transition to the low carbon economy, CSX has set an SBTi to reduce carbon intensity by 37.3% by 2030.

Additionally, CSX works with Original Equipment Manufacturers (OEMs) to test alternative fuels for our locomotives that could substantially reduce CO2 emissions. These collaborations improve the OEM knowledge base, improve the CSX engine fleet, and meet carbon intensity reduction goals. In addition to alternative fuels, CSX is supporting the pilot of alternative propulsion that has the potential to reduce our emissions.

To evaluate the impact of emerging regulations in more detail, CSX performed a scenario analysis using the Network for Greening the Financial Sector (NGFS) Disorderly: Delayed Transition and Hot House World: Nationally Determined Contributions. Considering these two scenarios, CSX evaluated the rigor of our existing management methods to mitigate the risk of emerging regulations and concluded that CSX is adequately prepared to manage the risk of mandates and regulations on locomotive transportation and the availability of locomotive technology. The extensive biofuel research and infrastructure development, Biofuel locomotive testing, and battery electric locomotive testing demonstrate CSX's commitment to meeting the emission reductions of the SBT and incorporating collaboration and innovation engagements.

Time horizon

Medium-term

Likelihood

Likely

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)

23,000,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

CSX evaluated the financial implications of emerging regulations using non-compliance penalties per CARB by calculating the total cost of electrifying our locomotive fleet.

Current market cost for 3 battery powered electric locomotives are \$20,000,000. CSX multiplied our fleet of 3,500 locomotives multiplied by the current market value of \$6,666,666 per locomotive, resulting in \$23 billion.

Cost of response to risk

10,000,000

Description of response and explanation of cost calculation

CSX works with Original Equipment Manufacturers (OEMs) to test alternative fuels for our locomotives that could substantially reduce CO2 emissions. These collaborations improve the OEM knowledge base, improve the CSX engine fleet, and meet carbon intensity reduction goals. In addition to alternative fuels, CSX is supporting the pilot of alternative propulsion that has the potential to reduce our emissions. Our current investment in alternative propulsion projects are \$10,000,000 (50%) with additional investment in alternative fuels .

Comment

C2.4

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

Yes

C2.4a

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

Identifier

Opp1

Where in the value chain does the opportunity occur?

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

As climate changes, businesses may look to relocate to different parts of the United States. For example, companies may move sensitive manufacturing facilities farther inland to reduce risks associated with rising sea levels. In addition, as climate changes begin to impact growing seasons, agricultural centers may shift, and companies may have to adjust how they move their products to market. This represents an opportunity for CSX because with a nearly 20,000-mile network throughout the entire East Coast of the United States and access to 70 ocean, lake, and river ports, CSX is well positioned to help companies adjust to a need to move facilities or modify how they move product to market. Rather than building new track to reach these relocated facilities, CSX is able to expand business by increasing access to the existing rail network with intermodal operations.

The company's intermodal business links customers to railroads via trucks and terminals. CSXT also serves thousands of production and distribution facilities through track connections with other Class I railroads and approximately 230 short-line and regional railroads. The intermodal business shipped 3.0 million units (48% of volume) and generated \$2.3 billion in revenue (16% of revenue) in 2022. The intermodal business combines the superior economics of rail transportation with the short-haul flexibility of trucks and offers a cost advantage over long-haul trucking. Through a network of more than 40 terminals, the intermodal business serves all major markets east of the Mississippi River and transports mainly manufactured consumer goods in containers, providing customers with truck-like service for longer shipments.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium

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)

1

Potential financial impact figure – maximum (currency)

2,003,000,000

Explanation of financial impact figure

CSX expects to be able to support most customers that choose to relocate their business or warehouse operations from ports and coastlines to the interior U.S., resulting in a positive financial opportunity. CSX cannot specifically quantify the amount of that opportunity due to restrictions governing public disclosure of sensitive forward-

looking financial information; therefore, CSX is estimating the opportunity to be more than \$1.00 and up to \$2.003 billion which represents 13% of the total \$14.9 billion in revenue for 2022. CSX made this range estimation using the intermodal business revenue which accounted for 13% of the \$14.9 billion in revenue in 2022.

Cost to realize opportunity

1

Strategy to realize opportunity and explanation of cost calculation

CSX is well positioned to assist customers with potential facility relocations, expansions, or modifications with how they move product to market with no additional material investment. To support customer expansion, CSX is continuing to expand and enhance its Select Sites certification program. This program reviews potential manufacturing and distribution sites through a thorough evaluation of site due diligence with the goal of recruiting manufacturers who wish to take advantage of the inherently environmentally friendly rail transportation network (instead of relying on trucks, since rail is four times more fuel efficient). There are currently 19 Select Site locations throughout CSX's geographic area listed on CSX's website, 9 of which have been recently sold. CSX Select Sites are the first, premium certified rail-served sites for industrial development and expansion. Select Sites certification provides certainty for companies seeking industrial property for manufacturing operations and allows for increased speed to market and reduce development risk. Select Site certification criteria include size, access to rail services, proximity to highways, workforce availability, natural gas, electricity, water, and wastewater, environmental and geo-technical standards. Since 2000, CSX customers have invested more than \$51 billion in rail-served facilities, creating more than 70,000 jobs at those plants, distribution centers and other enterprises across CSX's 23-state network. In 2022, Manna Beverages & Ventures—a minority-owned business enterprise—chose a CSX Select Site in Montgomery, Alabama, to develop a \$600 million beverage complex with an emphasis on production and supply chain sustainability. It is expected to create 280 full-time jobs when it opens in 2025. CSX cannot quantify the amount of that opportunity due to restrictions governing public disclosure of sensitive forward-looking financial information; therefore, CSX is estimating the cost to realize the opportunity to be more than \$1. Generally, the cost to realize these opportunities typically might include a cost to acquire, cost to build infrastructure, cost to expand network, and cost for providing service.

Comment

CSX expects to be able to support most customers that choose to relocate their business or warehouse operations from ports and coastlines to the interior U.S., resulting in a positive financial opportunity. CSX cannot quantify the amount of that opportunity due to restrictions governing public disclosure of sensitive forward-looking financial information; therefore, CSX is estimating the cost to realize the opportunity to be more than \$1.00.

C3. Business Strategy

C3.1

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

Row 1

Climate transition plan

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

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

CSX is continuously evaluating our next steps in a transition to a low carbon future to help set realistic and attainable goals. CSX is working together with industry groups with the ultimate goal of industry decarbonization. CSX has an SBTi validated science-based target in alignment with a well-below 2-degree target and in the short-term CSX will have to evaluate and realign our target with the newly required 1.5 degree near term criteria. During this time CSX will develop a publicly available 1.5 degree C world transition plan.

C3.2

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

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

C3.2a

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

Climate-related scenario	Scenario analysis coverage	Temperature alignment of scenario	Parameters, assumptions, analytical choices
Transition scenarios Customized publicly available transition scenario	Company-wide	1.6°C – 2°C	CSX performed a scenario analysis using the Network for Greening the Financial Sector (NGFS) Disorderly: Delayed Transition and Hot House World: Nationally Determined Contributions (NDCs) to evaluate the impact of emerging regulations. This scenario assumes high variation in regional policy and delayed policy start. Delayed Transition assumes policy uncertainty leads to higher investment premiums lasting two years, 2030-2031.

			<p>The assumption is suppliers provide zero-emission locomotives and low-carbon fuels demand will increase significantly. Slow to fast changes in demand for low-emission technology are a higher risk in a delayed transition. NDCs scenario focuses on decarbonizing the energy sector and passenger transportation. Existing mandates stay within a steady state with a push for decarbonization where possible. Considering these two scenarios, CSX evaluated the rigor of existing management methods to mitigate emerging regulations risks and concluded that CSX is adequately prepared to manage the risk of mandates and regulations on locomotive transportation and the availability of locomotive technology. Extensive biofuel research and infrastructure development, biofuel locomotive testing, and battery electric locomotive testing demonstrate CSX's commitment to meeting SBT emission reductions and incorporating collaboration and innovation.</p> <p>Assumptions: Delayed Transition scenario assumptions anticipated a shift from low to high carbon price implications between 2030 and 2050, with aggressive policy implementation starting in 2030 reflecting the need to decarbonize. This will result in an increase in demand for biofuel or biofuel blends, increasing the NS' operational costs. NDCs scenario assumptions had low carbon price implications with moderate regional policy variation. NDCs focus on passenger transportation and thus do not have a direct impact on NS operations; however, the increase in demand for alternative fuels, low emission fuels, or zero emission transportation will result in a surge price in alternative fuels and battery propulsion locomotives, resulting in higher capital costs.</p> <p>Analytical choices involved short-term (0-2 years), medium-term (2-5 years), and long-term time horizons (5-20 years, focusing on 10-year risks), with a financial impact defined as any activity affecting net revenue.</p>
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C3.2b

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

Row 1

Focal questions

- How vulnerable are we to emerging regulations?
- What are the potential financial implications of emerging regulations?
- What possible future developments need to be probed?
- What variables are needed to support decision-making?
- What forces and developments have the greatest ability to shape future performance?

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

To evaluate the impact of emerging regulations in more detail, CSX performed a scenario analysis using the Network for Greening the Financial Sector (NGFS) Disorderly: Delayed Transition and Hot House World: Nationally Determined Contributions. The Disorderly: Delayed Transition scenario assumes a high variation in regional policy and delayed policy start. Disorderly Delayed Transition assumes that policy uncertainty leads to a higher investment premium that lasts for two years, 2030-2031. The assumption is that suppliers could provide zero-emission locomotives, and there will be a significant increase in demand for low-carbon fuels. Slow to fast changes in demand for low-emission technology are a higher risk in a delayed transition. Hot House World: NDCs scenario focuses on decarbonizing the energy sector and passenger transportation. As a result, existing mandates stay within a steady state with a push for decarbonization where possible. Considering these two scenarios, CSX evaluated the rigor of our existing management methods to mitigate the risk of emerging regulations and concluded that CSX is adequately prepared to manage the risk of mandates and regulations on locomotive transportation and the availability of locomotive technology. The extensive biofuel research and infrastructure development, Biofuel locomotive testing, and battery electric locomotive testing demonstrate CSX's commitment to meeting the emission reductions of the SBT and incorporating collaboration and innovation engagements.

C3.3

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

Have climate-related risks and opportunities influenced your strategy in this area?	Description of influence
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Products and services	Yes	<p>In response to climate-related risks and opportunities, shippers are looking for low-carbon freight haul options. This positions CSX rail service to gain a competitive edge over less efficient modes of freight transportation. In the short-term time horizon, scheduled railroading strategy focuses on optimizing asset utilization and schedule-based trains, therefore resulting in less idle time for locomotives, less locomotives operating, and longer trains resulting in on-time product delivery which all contribute to reduced GHG emissions. Since CSX rail service is on average 4 times more fuel efficient and emits approx 75% less GHG emissions than highway transport, CSX has made a substantial strategic decision to emphasize intermodal freight haul in future planning and partner with trucking customers to use train service for long haul and truck service for local delivery. The impact for CSX customers is avoided emissions estimated to be more than 11 million metric tons CO₂e annually. The basis for this calculation is the percentage of merchandise and intermodal freight transportation that could move by either highway or rail, and the EPA determination that rail is about 4 times more fuel efficient than moving freight by highway. Any carbon-constraining regulation could cause customers to shift business to rail, yielding financial advantages for CSX. Magnitude of impact can be as high as 76% of revenue, which equates to the revenue from the merchandise and intermodal business lines in 2022. Induced changes in the availability of natural resources, such as domestic natural gas, have created an opportunity for CSX to display agility in responding to new and evolving markets and geographies. Although low natural gas prices decreased demand for coal, the resulting shift in the energy market also represents a significant opportunity for CSX to support the development of other fuel sources. Specifically, given CSX's proximity to the Marcellus-Utica shale region and to several East Coast refineries, CSX will play a key role in supporting the expansion into new forms of energy. These benefits are possible due to CSX's nearly 20,000-mile network and access to 70 ocean, lake, and river ports – collectively this network gives energy customers a competitive advantage and access to the areas in the US where there is significant consumption of energy products.</p>
Supply chain and/or value chain	Yes	<p>CSX's value chain long-term strategy has been influenced by climate risks recognizing air pollution limits can directly affect CSX's customers. Coal-fired energy generation</p>

		<p>continues to decrease in 2022 as utility providers face regulatory pressures along with depressed domestic demand and volatility in the global market. CSX made a substantial strategic decision to adjust its business plan to respond to the declining coal market, including streamlining the workforce, rerouting resources away from the Appalachian region, improving productivity related to the coal business, and investing in other offerings such as the intermodal business. A case study related to value chain long-term strategy is advancing strategic investments and partnerships in intermodal operations to offset declining coal revenues. Over the past 8 years, CSX has invested more than \$1 billion to enhance its intermodal network. In the last seven years, the CSX intermodal business line increased by 8% increasing from 40% of volume in 2014 to 48% of volume in 2022.</p>
Investment in R&D	Yes	<p>CSX's long-term investment in R&D strategy has been influenced by climate risks recognizing CSX's reliance on diesel-powered locomotives, a carbon intensive fuel, to haul freight. A typical locomotive service life is 30 to 50 years and costs approximately \$3 million each. The CSX active locomotive fleet consists of approximately 3,500 diesel-powered locomotives. Additionally, the infrastructure to fuel these diesel locomotives, such as diesel storage tanks and locomotive fueling platforms, exists across the entire CSX network. Since diesel fuel combustion represents approximately 94% of the CSX Scope 1 GHG emissions and diesel fuel usage is a major operating cost, a move away from diesel fuel to a lower carbon option, for example liquefied natural gas (LNG), would significantly impact GHG emissions and fuel expense. However, at this time, the investment needed to make this change in assets, practices, and processes is huge. To retrofit the entire CSX fleet to use a non-diesel, lower carbon source of energy, coupled with establishing an infrastructure to switch from diesel fuel delivery systems to a non-diesel fuel delivery system across the entire CSX network, represents a significant and expensive change. CSX is also working with Locomotive manufacturers to test biodiesel blends in our locomotive fleet for viability and EPA certification. The use of biodiesel and renewable diesel would be a direct benefit for carbon reductions. CSX made a substantial strategic decision to research the use of LNG to fuel locomotives and expects to roll out a pilot program to test LNG locomotives in the next two years.</p>

Operations	Yes	<p>CSX's short-term operations strategy has been influenced by climate risks recognizing severe weather or other extreme occurrences resulting from climate change could result in significant business interruptions and expenditures exceeding available insurance coverage. The Company's operations may be affected by external factors such as severe weather and other natural occurrences, including floods, fires, and hurricanes. As a result, the Company's rail network may be damaged, its workforce may be displaced, fuel costs may increase, and significant business interruptions could occur. To mitigate the physical risk of extreme weather, CSX has established comprehensive business continuity plans that are designed to ensure the continuity of train operations in the face of extreme weather events and are adaptable across the company's nearly 21,000-mile network. CSX is constantly reinvesting in infrastructure – in 2021, CSX invested \$1.79 billion into its network, and another \$ 2.13 billion in 2022. A case study example would be CSX reviewed historical recovery/response actions of extreme weather events over the last 10 years. CSX spent over \$180 million responding to/recovering from the effects of hurricanes, tropical storms and floods over the last 10 years. These responses includes Tropical Storm Isaac (2012 - \$31.2 million), South Carolina floods (2015 - \$39.5 million), Hurricane Matthew (2016 - \$25 million), Hurricane Irma (2017 - \$26.8 million), Hurricane Florence (2018 - \$29.4 million), and Hurricane Ida (2021 and 2022 - \$29.1 million). These financial impacts result from multiple expense types, including labor and materials to repair infrastructure, loss of business, environmental clean-up and disposal, service disruptions, and reroutes. As a result of this case study, CSX made a substantial strategic decision to reinforce/harden infrastructure in the Jacksonville, Florida and coastal areas in its annual capital expenditure budget. CSX has invested close to \$11 billion into the company over the past five years.</p>
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C3.4

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

Financial planning elements that have been influenced	Description of influence
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Row 1	Capital expenditures	<p>CSX applies an internal methodology to evaluate potential scenarios where climate change and other types of disruption may impact operations and safety, and that information is used to plan for business continuity. As part of that process, both short- and long-term impacts are considered, and action is taken. For example, scenarios analyzing short term effects like the likelihood and extent of flooding along the Gulf Coast resulted in decisions to use capital expenditures to harden tracks and raise critical equipment off the ground in preparation for forecasted severe weather. The potential for hurricane-induced wind damage is considered when implementing strategies and capital expenditures to reinforce/harden infrastructure in the Jacksonville, Florida and coastal areas. Long-term effect scenario analyses include topics like rising temperatures and sea levels that may result in decisions to possibly relocate infrastructure and assets along coastal cities and ports to more inland locations. A case study example of how climate risks have influenced our financial planning process includes analyzing historical climate related expenditures due to extreme weather events. In the case of costs that exceed the company's regular forecasts, CSX often provides its shareholders with an estimate of the financial impact a weather-related event may have had on the company. For example, following the recovery from Hurricane Florence in 2018, CSX estimated that the event had a \$0.02 impact on the company's earnings per share for the fourth quarter of 2018. These financial impacts result from multiple expense types, including labor and materials to repair infrastructure, loss of business, environmental clean-up and disposal, service disruptions, and reroutes. CSX spent over \$180 million responding to/recovering from the effects of hurricanes, tropical storms and floods over the last 10 years. These responses includes Tropical Storm Isaac (2012 - \$31.2 million), South Carolina floods (2015 - \$39.5 million), Hurricane Matthew (2016 - \$25 million), Hurricane Irma (2017 - \$26.8 million), Hurricane Florence (2018 - \$29.4 million), and Hurricane Ida (2021 and 2022 - \$29.1 million). Analyzing historic financial impacts and disclosing this information to shareholders on financial impacts of weather-related events led to CSX investing almost \$11 billion into the company over the past five years.</p>
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C3.5

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

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

C4. Targets and performance

C4.1

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

Intensity target

C4.1b

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

Target reference number

Int 1

Is this a science-based target?

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

Target ambition

Well-below 2°C aligned

Year target was set

2019

Target coverage

Company-wide

Scope(s)

Scope 1

Scope 2

Scope 2 accounting method

Market-based

Scope 3 category(ies)

Intensity metric

Other, please specify

Metric tons CO₂e per million gross ton-miles (MGTM)

Base year

2014

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

11.42

Intensity figure in base year for Scope 2 (metric tons CO₂e per unit of activity)
0.68

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

12.1

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

100

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

100

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

100

Target year

2029

Targeted reduction from base year (%)

37

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

7.623

% change anticipated in absolute Scope 1+2 emissions

-22.9

% change anticipated in absolute Scope 3 emissions

0

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

10.18

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

0.33

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

10.51

Does this target cover any land-related emissions?

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

35.5148536967

Target status in reporting year

Underway

Please explain target coverage and identify any exclusions

2022 GHG emissions intensity is 10.51 metric tons CO₂e/million gross ton-miles (MGTM), as compared to the 2014 base year value of 12.10 metric tons CO₂e/MGTM. The 2022 value represents a decrease of 13% since the base year 2014. Reduction in emissions results primarily from improving locomotive fuel efficiency. CSX set a Science Based Target, validated by the Science Based Target Initiative, in line with a well below 2-degree Celsius scenario committing to reduce GHG emission intensity (Scope 1 + Scope 2) by 37% by 2029 as compared to base year 2014. Thus far, CSX is

underway with this target in 2022 with a 13% reduction in emission intensity as compared to base year 2014, achieving 71.4% of its target in the 9 years. For reporting year 2022, as compared to base year 2014, absolute Scope 1 emissions decreased by 1,431,944 metric tons CO₂e and absolute Scope 2 market-based emissions decreased by 193,996 metric tons CO₂e. These gains in efficiency are delivered by investing in employee training, technological advancements, programmatic efforts, and locomotive upgrades.

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

To continue our emissions reduction trajectory, we are evaluating alternative fuels and power sources as well as emissions reduction efforts spanning operations, management and technology. CSX's initiatives, improvements and investments across these categories include: Continuing reducing asset intensity, reducing dwell time and idling, eliminating unnecessary stops linked to fuel burn, focus on our dedicated fuel conservation desk to identify efficiencies, strict scrutiny of practices to eliminate waste, company culture improvement, continuation of implementation on fuel management technology like Trip Optimizer, Automatic Engine Start-Stop (AESS), Meet Pass Plan technology, and researching alternative power technologies.

In 2022, partnering with Wabtec, we began a pilot test program of a 20 percent biodiesel fuel blend (B20) in 10 rebuilt FDL Advantage locomotives with a new high pressure common rail fuel system. Originating in our Tampa, Florida, rail yard, the 10 locomotives are being tested in a controlled service area which benefits Mosaic, our local customer. We are testing to understand the impact on engine components, maintenance and performance. We anticipate submitting data for EPA certification in 2024 for approval of long-term use of B20 fuel.

CSX is also testing hybrid locomotives, which are particularly well-suited to capitalize on the efficiencies provided by the rolling hills of the East Coast. When passing through a city, hybrid engines can turn off, potentially delivering targeted emissions reductions.

CSX and Canadian Pacific Kansas City (CPKC) have announced their intent to enter into a joint venture to build and deploy hydrogen locomotive conversions kits for diesel electric locomotives. CSX is planning to convert one of its diesel locomotives with a hydrogen conversion kit developed by CPKC at the Huntington, WV locomotive shop. This collaboration with CPKC demonstrates CSX's commitment to implementing alternative fuel solutions that could further improve our emissions reduction and offer our customers an even more environmentally friendly transportation solution. This initiative will help CSX and the rail industry achieve long-term carbon reduction targets with zero-emission locomotives.

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

C4.2

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

Target(s) to increase low-carbon energy consumption or production

C4.2a

(C4.2a) Provide details of your target(s) to increase low-carbon energy consumption or production.

Target reference number

Low 1

Year target was set

2019

Target coverage

Company-wide

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Base year

2014

Consumption or production of selected energy carrier in base year (MWh)

592,117

% share of low-carbon or renewable energy in base year

0

Target year

2029

% share of low-carbon or renewable energy in target year

50

% share of low-carbon or renewable energy in reporting year

10

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

20

Target status in reporting year

Underway

Is this target part of an emissions target?

Yes, achieving 50% scope 2 emissions by purchasing Renewable Energy Certificates (RECs) is part of Int 1 target in C4.1b.

Is this target part of an overarching initiative?

Science Based Targets initiative

Please explain target coverage and identify any exclusions

CSX has a company-wide target to reduce scope 2 emissions 50% by year end 2029 from a 2014 base year, to meet the science-based target set in 2020.

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

CSX plans to achieve this target through procuring renewable energy certificates (RECs), power purchase agreements (PPAs), or procuring green products/tariffs. CSX procured 41,000 RECs accounting for 10% of electricity consumption in 2022.

List the actions which contributed most to achieving this target

C4.3

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

Yes

C4.3a

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

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	0	0
To be implemented*	0	0
Implementation commenced*	0	0
Implemented*	5	123,944
Not to be implemented	0	0

C4.3b

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

Initiative category & Initiative type

Energy efficiency in production processes
Automation

Estimated annual CO₂e savings (metric tonnes CO₂e)

9,300

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

Scope 1

Voluntary/Mandatory

Voluntary

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

2,010,000

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

4,983,898

Payback period

4-10 years

Estimated lifetime of the initiative

21-30 years

Comment

Idle Reducing Technology: To reduce fuel consumption and Scope 1 emissions during idling, CSX has invested more than \$50 million since 2000 in idle reducing technologies including Automated Engine Start Stop (AESS). AESS automatically shuts down the locomotive when not in use and automatically starts it when needed. CSX also trains its employees on proper locomotive shutdown rules to eliminate unnecessary idling. In 2022, CSX saved approximately 1 million gallons of fuel and related air emissions as a result of this program where a locomotive engine burns approximately 5-7 gallons/hour. Idle reducing technology is typically operable for the life of the locomotive. Typical locomotive life is 30 years. CSX estimates 14% of its capital expenditure each year is focused on fuel efficient technologies and processes. In 2022, capital expenditure totaled \$2.133 billion therefore CSX focused approximately \$298 million in fuel efficiencies. As an estimate AESS accounted for approximately 2% of the focus.

Initiative category & Initiative type

Company policy or behavioral change
Resource efficiency

Estimated annual CO2e savings (metric tonnes CO2e)

39,100

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

Scope 1

Voluntary/Mandatory

Voluntary

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

8,474,000

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

20,920,954

Payback period

4-10 years

Estimated lifetime of the initiative

Ongoing

Comment

Employee Training: CSX provides locomotive operating employees with training, education, and feedback to help them operate locomotives in the most fuel-efficient manner possible to reduce Scope 1 emissions. CSX uses locomotive Event Recorder Automated Download (ERAD) technology to monitor and record train operations data and provide feedback to the engineers on how to adjust their locomotive operation to improve fuel efficiency. CSX locomotive engineers are also trained on locomotive simulators, developing best practices, and improving their awareness of fuel-efficient train handling. In 2022, CSX saved approximately 3.8 million gallons of fuel as a result of these programs. Employee training is repeated periodically; benefits are expected for the extent of the career of each trained engineer. CSX estimates 14% of its capital expenditure each year is focused on fuel efficient technologies and processes. In 2022, capital expenditure totaled \$2.133 billion therefore CSX focused approximately \$298 million in fuel efficiencies. As an estimate for these programs accounted for approximately 8% of the focus.

Initiative category & Initiative type

Energy efficiency in production processes
Automation

Estimated annual CO2e savings (metric tonnes CO2e)

33,800

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

Scope 1

Voluntary/Mandatory

Voluntary

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

10,030,000

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

71,500,000

Payback period

4-10 years

Estimated lifetime of the initiative

Ongoing

Comment

Trip Optimizer Technology: CSX has implemented a plan to install Trip Optimizer technology on mainline fleet locomotives, approximately 3,100 locomotives, to reduce Scope 1 emissions. The Trip Optimizer is an automated locomotive cruise control device that helps drivers achieve optimal fuel burn by automatically controlling locomotive speed and acceleration in real-time, reducing driver fluctuations for increased fuel efficiency. In 2022, CSX saved over 38 million gallons of fuel or an average savings of 1.4 gallons of fuel per auto mile, as a result of this program. Trip Optimizer technology is operable for the life of the locomotive, which is typically 30 years. CSX tracks the investment in Trip Optimizer on an annual basis.

Initiative category & Initiative type

Energy efficiency in production processes

Process optimization

Estimated annual CO2e savings (metric tonnes CO2e)

25,900

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

Scope 1

Voluntary/Mandatory

Voluntary

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

5,880,000

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

16,000,000

Payback period

4-10 years

Estimated lifetime of the initiative

Ongoing

Comment

Distributed Power (DP) locomotives are more efficient as they distribute forces acting on the locomotive throughout the train, allowing for a larger train build, and thus, movement of more freight with less fuel. In 2022, we upgraded approximately 180 of our locomotives to DP, bringing our total to 1,200. This change in technology and operations allows trains to be longer and reduces necessary horsepower per ton and allows train to be more fuel efficient. Approximately 1% total fuel savings are realized with the implementation of DP across the locomotive fleet.

Initiative category & Initiative type

Low-carbon energy consumption

Low-carbon electricity mix

Estimated annual CO₂e savings (metric tonnes CO₂e)

15,844

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

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

0

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

41,000

Payback period

No payback

Estimated lifetime of the initiative

Ongoing

Comment

CSX began renewable energy generation initiatives in 2020 and maintains a commitment to renewable energy use through the purchase and production of RECs. To help reduce our overall emissions, we derive approximately 10% of energy from renewable sources. CSX partnered with third parties and negotiated PPA agreements which allowed us to retain the RECs associated with the biomass energy generated; therefore, there is no payback period.

C4.3c

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

Method	Comment
Internal incentives/recognition programs	CSX provides monetary incentives to management for achieving emissions reduction targets, energy reduction target, and efficiency targets. Award based on meeting corporate goal of locomotive productivity and active fleet management which includes optimizing the fleet for best fuel and network efficiency. Locomotive fuel accounts for approximately 94% of CSX's Scope 1 GHG emissions; therefore, fuel efficiency targets are directly correlated to emissions intensity reductions. Diesel fuel is one of the largest expenses CSX incurs therefore increased fuel efficiency also decrease's the Company operating expenses.

C4.5

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

Yes

C4.5a

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

Level of aggregation

Product or service

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

Other, please specify

Taxonomy used is based off the avoided emissions, see "Methodology used to calculate avoided emissions" for more information.

Type of product(s) or service(s)

Rail

Other, please specify

Fuel-efficient freight and intermodal transportation

Description of product(s) or service(s)

A typical CSX freight train is on average three to five times more fuel efficient than highway freight transportation. A typical intermodal train can carry the cargo load of 280 trucks. As a result of this efficiency, CSX allows customers to avoid and/or reduce GHG emissions that would otherwise be generated from more carbon-intensive modes of

transportation. This equates to a 75% reduction in transportation related CO₂e emissions when shippers switch from highway to rail.

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

Avoided Emissions (Association of American Railroads (AAR))

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

Cradle-to-grave

Functional unit used

Revenue Ton-Miles (RTM) and Revenue Ton-Mile per gallon of diesel (RTM/gal) are used as freight haul efficiency metrics in the railroad sector. RTM/gal measures a freight train's efficiency in transporting one short ton of freight a distance (miles) per gallon of diesel fuel. For this metric, the higher the more efficient. For the inversion of this ratio "gallons of fuel per RTM", less is better and represents fuel consumed to move one freight ton one mile.

Reference product/service or baseline scenario used

The references used were the RTM and RTM/gal metrics for freight hauling if the transport mode were a heavy duty diesel semi-truck, which is the other primary surface transport mode for freight hauling. The types of freight volumes analyzed in this metric were merchandise and intermodal and excludes coal, due to regulatory restrictions related to hauling coal.

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

Cradle-to-grave

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

12,536,852

Explain your calculation of avoided emissions, including any assumptions

Considering the volume of freight CSX hauled in 2022, merchandise (41%) and intermodal (48%) freight could move by either highway or rail. If the freight CSX hauled in the merchandise and intermodal business had been moved via truck instead of by rail, those trucks would have emitted an additional 12.5 million metric tonnes CO₂e (as compared to the emissions from CSX's locomotives). The basis for this calculation is the percentage of merchandise (41%) and intermodal (48%) freight as a percentage of revenue ton-miles and related diesel fuel consumed.

Considering the revenue of freight CSX hauled in 2022, 55% of the total revenue is

attributable to the merchandise traffic and 16% revenue for intermodal - this represents 71% of the freight revenue that could have been moved by either truck or rail.

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

71

C5. Emissions methodology

C5.1

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

No

C5.1a

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

Row 1

Has there been a structural change?

No

C5.1b

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

	Change(s) in methodology, boundary, and/or reporting year definition?
Row 1	No

C5.2

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

Scope 1

Base year start

January 1, 2014

Base year end

December 31, 2014

Base year emissions (metric tons CO2e)

5,512,593

Comment

CSX set a Science Based Target, validated by the Science Based Target Initiative, in line with a well below 2 degree Celsius scenario committing to reduce GHG emission intensity (Scope 1 + Scope 2) by 37% by end of 2029 as compared to base year 2014. Thus far, CSX is underway with this target in 2022 with a 13.1% reduction in emission intensity as compared to base year 2014, achieving 71% of its target in the first 9 years. For reporting year 2022, as compared to base year 2014, absolute Scope 1 emissions decreased by 1,431,944 metric tons CO₂e and absolute Scope 2 location-based emissions decreased by 193,996 metric tons CO₂e. These gains in efficiency are delivered by investing in employee training, technological advancements, programmatic efforts, and locomotive upgrades.

Scope 2 (location-based)

Base year start

January 1, 2014

Base year end

December 31, 2014

Base year emissions (metric tons CO₂e)

327,528

Comment

Emission factors for purchased electricity were obtained from the U.S. EPA's Emissions and Generation Resource Integrated Database (eGRID2010). Although CSXT represents the majority of both CSX's business and emissions, since 2012 CSX has been tracking the emissions and emission reduction efforts of subsidiaries. CSX set a Science Based Target, validated by the Science Based Target Initiative, in line with a well below 2-degree Celsius scenario committing to reduce GHG emission intensity (Scope 1 + Scope 2) by 37% by end of 2029 as compared to base year 2014. Thus far, CSX is underway with this target in 2022 with a 15.1% reduction in emission intensity as compared to base year 2014, achieving 71% of its target in the first 9 years. For reporting year 2022, as compared to base year 2014, absolute Scope 1 emissions decreased by 1,431,944 metric tons CO₂e and absolute Scope 2 location-based emissions decreased by 148,712 metric tons CO₂e. These gains in efficiency are delivered by investing in employee training, technological advancements, programmatic efforts, and efficiently utilizing assets.

Scope 2 (market-based)

Base year start

January 1, 2017

Base year end

December 31, 2017

Base year emissions (metric tons CO₂e)

174,598

Comment

Emission factors for Scope 2 market-based electricity were obtained from Green-e Energy Residual Mix Emission Rates (2021). CSX did not begin tracking or calculating market-based electricity until 2017. CSX uses location-based Scope2 emissions in the current SBT to reduce GHG emission intensity by 37.3 percent by end of 2029 as compared to base year 2014. For reporting year 2021, as compared to base year 2014, absolute Scope 1 emissions decreased by 1,556,512 metric tons CO₂e and absolute Scope 2 location-based emissions decreased by 182,637 metric tons CO₂e. These gains in efficiency are delivered by investing in employee training, technological advancements, programmatic efforts, and locomotive upgrades.

Scope 3 category 1: Purchased goods and services

Base year start

January 1, 2014

Base year end

December 31, 2014

Base year emissions (metric tons CO₂e)

423,668

Comment

Scope3 Category 1 and 2 emissions were estimated using the WRI/WBCSD GHG Protocol Scope 3 Evaluator Tool. CSX continues to work to understand emission sources in the supply chain. Scope3 Category 1 & 2 data are rough approximations based on simplified approaches so not included in the SBT emissions intensity goal.

Scope 3 category 2: Capital goods

Base year start

January 1, 2014

Base year end

December 31, 2014

Base year emissions (metric tons CO₂e)

1,860,121

Comment

Scope 3 Category 1 and 2 emissions were estimated using the WRI/WBCSD GHG Protocol Scope 3 Evaluator Tool. CSX continues to work to understand emission sources in the supply chain. Scope3 Category 1 and 2 data are rough approximations based on simplified approaches so not included in the SBT emissions intensity goal.

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

Base year start

January 1, 2014

Base year end

December 31, 2014

Base year emissions (metric tons CO2e)

1,243,314

Comment

Fuel-based method

Scope 3 category 4: Upstream transportation and distribution

Base year start

January 1, 2016

Base year end

December 31, 2016

Base year emissions (metric tons CO2e)

11,056

Comment

Distance based method

Scope 3 category 5: Waste generated in operations

Base year start

January 1, 2014

Base year end

December 31, 2014

Base year emissions (metric tons CO2e)

53,795

Comment

Average data method

Scope 3 category 6: Business travel

Base year start

January 1, 2014

Base year end

December 31, 2014

Base year emissions (metric tons CO2e)

54,942

Comment

Distance-based method

Scope 3 category 7: Employee commuting

Base year start

January 1, 2014

Base year end

December 31, 2014

Base year emissions (metric tons CO₂e)

114,910

Comment

average-data method

Scope 3 category 8: Upstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

Not relevant. While CSX occasionally leases properties from third parties, this represents a very limited emissions source. Emissions from these properties would mainly be attributable to purchased electricity for an office environment.

Scope 3 category 9: Downstream transportation and distribution

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

Not relevant. CSX is a transportation company in the business of hauling freight. There are no downstream "sold" products for transportation and distribution.

Scope 3 category 10: Processing of sold products

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

Not relevant. CSX is a transportation company providing transportation services for others. CSX does not manufacture or process products for sale.

Scope 3 category 11: Use of sold products

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

Not relevant. CSX is a transportation company providing transportation services for others. CSX does not manufacture products for use by others.

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

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

Not relevant. CSX is a transportation company providing transportation services for others. CSX does not manufacture products; therefore, "end of life treatment of sold products" is not relevant to CSX business activities.

Scope 3 category 13: Downstream leased assets

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

Not relevant. While CSX occasionally leases owned properties to third parties, this represents an insignificant source of emissions in comparison to the overall CSX GHG emissions profile.

Scope 3 category 14: Franchises

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

Not relevant. CSX does not have any franchises.

Scope 3 category 15: Investments

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

Not relevant. Based on the definition of “investment” provided in the Guidance for Calculating Scope 3 emissions, this category is not relevant. This category is applicable to investors and companies that provide financial services. CSX does not provide financial services.

Scope 3: Other (upstream)

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

None

Scope 3: Other (downstream)

Base year start

Base year end

Base year emissions (metric tons CO₂e)

Comment

None

C5.3

(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)

The Greenhouse Gas Protocol: Scope 2 Guidance

US EPA Center for Corporate Climate Leadership: Indirect Emissions From Purchased Electricity

US EPA Center for Corporate Climate Leadership: Direct Emissions from Stationary Combustion Sources

US EPA Center for Corporate Climate Leadership: Direct Emissions from Mobile Combustion Sources

US EPA Emissions & Generation Resource Integrated Database (eGRID)

C6. Emissions data

C6.1

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

Reporting year

Gross global Scope 1 emissions (metric tons CO₂e)

4,080,649

Comment

2022 gross global Scope 1 emissions were independently verified and exclude 8,444 metric tons of CO₂e emissions from the use of biofuels

C6.2

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

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

CSX's Scope 2 location-based CO₂, N₂O, and CH₄ emissions from electricity are quantified by multiplying the annual electricity usage by average emission rates. Annual electricity usage (in kilowatt hour [KWH]) and total annual spend on electricity are obtained from a service provider hired by CSX to manage utilities. The electricity usage data provided by this service provider includes all CSX companies. Emissions factors for U.S. locations are obtained from U.S. EPA's Emissions Generation Resource Integrated Database (eGRID2021). The market-based emission factors are obtained from Green-e Energy Residual Mix Emissions Rates (2022). In 2022, CSX procured Renewable Energy Certificates (RECs) for approximately 10% of its electricity usage. These RECs were allocated evenly across the network in the U.S. and accounted for in the market-based calculation. The Canadian GHG intensities are obtained from Environment Canada, 2021 Greenhouse Gas Emissions Intensity for the national level . Scope 2 location-based and market-based emissions were independently verified.

C6.3

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

Reporting year

Scope 2, location-based

178,816

Scope 2, market-based (if applicable)

133,532

Comment

2022 location-based and market-based Gross Scope 2 emissions were independently verified.

C6.4

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

No

C6.5

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

Purchased goods and services

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

221,634

Emissions calculation methodology

Spend-based method

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

0

Please explain

CSX reviewed annual spend from purchased goods and services and eliminated purchased goods and services accounted for in other areas of the GHG Inventory. Annual spend from purchased goods and services is obtained directly from CSX Procurement group.

Emissions were estimated using the WRI/WBCSD GHG Protocol Scope 3 Evaluator Tool. The online tool is based on the Quantis Suite 2.0 software. The tool estimates emissions in terms of expenditures in a given economic sector, using environmental input-output datasets based on the World Input-Output Database (WIOD) and the Open IO Database. Since these supply chain emission estimates are rough approximations based on simplified approaches, they will not be included in CSX's GHG Inventory. CSX continues to work to understand emission sources in the supply chain.

Capital goods

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

958,943

Emissions calculation methodology

Spend-based method

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

0

Please explain

CSX reviewed annual spend from capital goods. Annual spend from capital goods is obtained directly from the CSX Procurement group.

Emissions were estimated using the WRI/WBCSD GHG Protocol Scope 3 Evaluator Tool. The online tool is based on the Quantis Suite 2.0 software. The tool estimates emissions in terms of expenditures in a given economic sector, using environmental input-output datasets based on the World Input-Output Database (WIOD) and the Open IO Database. Since these supply chain emission estimates are rough approximations based on simplified approaches, they will not be included in CSX's GHG Inventory. CSX continues to work to understand emission sources in the supply chain.

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

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

987,248

Emissions calculation methodology

Fuel-based method

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

0

Please explain

CSX estimates fuel-and-energy related activities (not included in Scope 1 or 2) by multiplying all fuel type usage including the locomotive diesel fuel (90% of scope 1 and 2 emissions) by the wheel to tank (WTT) emission factor for diesel. CSX assumes the fuel-and-energy related activities (not included in scope 1 and 2) would include the emissions associated with the upstream supply chain process of extracting, refining, and delivering diesel fuel prior to fuel combustion by CSX.

Annual volume of diesel fuel purchases is obtained directly from the CSX R-1 Report which is submitted to the U.S. Surface Transportation Board (STB). The CSX R-1 Report is used to obtain the annual locomotive fuel use from freight, yard switching, and work trains. These data, representing the single largest source of GHG emissions data, represents one of the most closely tracked metrics by CSX.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

8,786

Emissions calculation methodology

Distance-based method

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

100

Please explain

Activity data sources for upstream transportation and distribution were the annual total weight of supplier and intra-facility deliveries (tons) and the mileage of each shipment provided by the CSX third-party logistics contractor. Emissions were quantified by using the distance-based calculation method provided in the WRI/WBCSD GHG Protocol Technical Guidance for Calculation Scope 3 Emissions. The total weight of each truck load (TL) and less-than-truck-load (LTL) shipments (in pounds) is multiplied by the mileage of each shipment and the emission factor of the transportation method. Emission factors were obtained from the EPA Center for Corporate Climate Leadership GHG Emission Factors Hub (March 2023).

Annual supplier delivery weight and mileage were obtained from the CSX logistic management companies. According to both the CSX Procurement Manager and the logistics management companies representatives, the companies tracks more than 75% of all shipments for CSXT. Therefore, approximately 25% of the CSXT upstream transportation and distribution data is not included in the GHG inventory.

Waste generated in operations

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

114,139

Emissions calculation methodology

Waste-type-specific method

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

0

Please explain

Activity data sources for waste generated in operations were the annual total mass of waste (short tons) and the proportion of waste being landfilled, recycled, and incinerated provided by the CSXT Manager Environmental Programs – Waste. CSX waste is managed by the CSXT Manager Environmental Programs - Waste and all data is managed within CSX using various documentation (i.e. manifests and bills of lading, etc.).

The Waste-Type-Specific Method outlined in the WRI/WBCSD GHG Protocol Technical Guidance for Calculating Scope 3 Emissions was used to quantify emissions. Emission factors were obtained from the EPA Waste Reduction Model (WARM) Version 15 (Management Practices and Background Documents, November 2020). Only end-of-life process emission factors were used from the WARM documentation. For landfilled waste, the emission factor associated with mixed municipal solid waste (MSW) material was used. For recycled waste, emissions from material recovery in preparation for recycling were assumed to have been allocated to the recycled material; therefore, the emission factor used for recycled waste was zero metric tons of carbon dioxide equivalent (MTCO₂e)/short ton. For incinerated waste, the emission factor associated with mixed MSW material was used. CSX wastes were assumed to be composed of mixed MSW and mixed recyclables because it was difficult to determine all of the types of waste generated in operations.

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

19,820

Emissions calculation methodology

Distance-based method

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

80

Please explain

Employee business travel activity data sources were personal vehicle mileage, rental car mileage, taxi/shuttle mileage, and air travel mileage. GHG emissions were calculated using emission factors and global warming potential (GWP) values from the U.S. EPA Center for Corporate Climate Leadership GHG Emission Factors Hub (March 2023), WRI GHG Protocol, and WRI GHG Emission Factors Compilation (April 2014). Activity data quality is overall reasonable and dependable. Personal vehicle mileage is managed by CSX Accounts Payable and obtained from employee expense reports and Mileage Reimbursement Plan records. Rental car mileage is managed and reported by CSX's rental car vendor. Taxi/Shuttle mileage is managed and reported by the CSX Director of Purchasing Services. Annual air travel mileage is managed and reported by CSX's travel agency. Employee business travel GHG emissions were calculated using calculation methodologies from the U.S. EPA Climate Leaders GHG Inventory Protocol and WRI GHG Protocol Corporate Value Chain (Scope 3) Accounting and Reporting Standard. The following assumptions were made: (1) Personal employee vehicles used for business travel were assumed to be gasoline light-duty trucks, model years 2005-2022, with an average fuel economy of 16.2 miles per gallon (mpg). (2) Rental vehicles were assumed to be intermediate-sized passenger cars, model years 2010-2021, with

an average fuel economy of 22.5 mpg. (3) Taxi/Shuttle vehicles were assumed to be vans, SUVs, and trucks in the Light Duty Truck EPA classification with an average fuel economy of 16.2 mpg. (4) Air travel distance (i.e., long haul, medium haul, or short haul) for each trip was not available; therefore, the emission factors were selected based on the "Distance Not Known" category of the EPA Climate Leaders Core Module Guidance for Optional Emissions from Commuting, Business Travel and Product Transport (May 2008).

Employee commuting

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO₂e)

78,577

Emissions calculation methodology

Distance-based method

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

0

Please explain

Employee commute mileage was obtained from the employee work and home zip codes. Mileage was determined based on the direct line distance between work and home zip codes. GHG emissions were calculated using emission factors, average fuel economies, and GWP values from the U.S. EPA Center for Corporate Climate Leadership GHG Emission Factors Hub (March 2023), WRI GHG Protocol, and WRI GHG Emission Factors Compilation (April 2014). Exact employee commuting mileage was not available. CSX Corporate Human Resources provided employee work and home zip codes to estimate the commuting mileage. Since there were more than 13,000 unique zip code locations, it was impractical to manually obtain the driving distance between each employee home and work zip code. Mileage was determined based on the direct line distance between work and home zip codes by converting zip code data into the latitude and longitude of the geographic center of the zip code location. The direct line distance between employee work and home locations was calculated using an Excel formula obtained from <http://www.cpearson.com/excel/LatLong.aspx> and <http://bluemm.blogspot.com/2007/01/excel-formula-to-calculated-distance.html>. Zip code data were converted into the latitude and longitude of the geographic center of the zip code location using the United States ZIP Code Database. The calculated distance was multiplied by the number of employees who lived and worked in those zip codes and by the number of commutes per year. Commuting was assumed to include two commuting trips per day, 5 days a week, 48 weeks per year (considering holidays and vacations), for a total of 480 commutes per employee per year. The average one-way commuting distance was 21.38 miles. This average was applied to employees whose commute could not be accurately calculated (i.e., work and/or home zip code not available or calculated distance was more than 100 miles). Calculated distances over 100 miles for a

one-way commute were not used because it was not realistic for a 5-day a week commute. Employee vehicles used for commuting were assumed to be gasoline intermediate-sized passenger cars, model years 2005-2022, with an average fuel economy of 22.5 mpg.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

While CSX occasionally leases properties from third parties, this represents a very limited emissions source. Emissions from these properties would mainly be attributable to purchased electricity for an office environment.

Downstream transportation and distribution

Evaluation status

Not relevant, explanation provided

Please explain

CSX is a transportation company in the business of hauling freight. There are no downstream "sold" products for transportation and distribution.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

CSX is a transportation company providing transportation services for others. CSX does not manufacture or process products for sale.

Use of sold products

Evaluation status

Not relevant, explanation provided

Please explain

CSX is a transportation company providing transportation services for others. CSX does not manufacture or process products for sale.

End of life treatment of sold products

Evaluation status

Not relevant, explanation provided

Please explain

CSX is a transportation company providing transportation services for others. CSX does not manufacture products; therefore, "end of life treatment of sold products" is not

relevant to CSX business activities.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

While CSX occasionally leases owned properties to third parties, this represents an insignificant source of emissions in comparison to the overall CSX GHG emissions profile

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

CSX does not have any franchises.

Investments

Evaluation status

Not relevant, explanation provided

Please explain

Based on the definition of “investment” provided in the Guidance for Calculating Scope 3 emissions, this category is not relevant. This category includes Scope 3 emissions associated with CSX’s investments in the reporting year, not already included in Scope 1 or Scope 2. This category is applicable to investors and companies that provide financial services. CSX does not provide financial services.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Please explain

No additional sources of emissions have been identified.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

No additional sources of emissions have been identified.

C6.7

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

Yes

C6.7a

(C6.7a) Provide the emissions from biogenic carbon relevant to your organization in metric tons CO2.

	CO2 emissions from biogenic carbon (metric tons CO2)	Comment
Row 1	8,444	Scope 1 emissions exclude 8,444 tons of direct CO2e emissions from the use of biofuels. CSX procures biofuel blends for use in locomotives. In 2022, CSX procured 892,922 gallons of B100 which was blended with ULSD.

C6.10

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

Intensity figure

0.000283

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

4,214,181

Metric denominator

unit total revenue

Metric denominator: Unit total

14,900,000,000

Scope 2 figure used

Market-based

% change from previous year

14

Direction of change

Decreased

Reason(s) for change

Change in output
Change in revenue

Please explain

CSX had a relatively steady volume of business with slight increase in scope 1 emissions; scope 2 emissions have slightly declined. While revenue increased by over 16%, absolute scope 1 and 2 emissions only increased by 3% between 2021 and 2022

C-TS6.15

(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

0.00001993

Metric numerator: emissions in metric tons CO₂e

3,860,934

Metric denominator: unit

t.mile

Metric denominator: unit total

193,771,798,000

% change from previous year

3

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

The Scope 1 value (numerator) for this emission intensity calculation uses the locomotive emissions associated with freight haul. The denominator (t.mile) is an indicator of the volume of freight haul. CSX does not use electric locomotives to haul freight, so Scope 2 emissions are not included in this emission intensity calculation. The increase in the Emission Intensity metric results from a 3.1% increase in locomotive emissions vs. a freight haul volume decrease of 0.3%. As a result, the higher YoY Scope 1 emissions figure drove the increase in the overall emissions intensity.

ALL

Scopes used for calculation of intensities

Report just Scope 1

Intensity figure

0.00001993

Metric numerator: emissions in metric tons CO2e

3,860,934

Metric denominator: unit

t.mile

Metric denominator: unit total

193,771,798,000

% change from previous year

3

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

The Scope 1 value (numerator) for this emission intensity calculation uses the locomotive emissions associated with freight haul. The denominator (t.mile) is an indicator of the volume of freight haul. CSX does not use electric locomotives to haul freight, so Scope 2 emissions are not included in this emission intensity calculation. The increase in the Emission Intensity metric results from a 3.1% increase in locomotive emissions vs. a freight haul volume decrease of 0.3%. As a result, the higher YoY Scope 1 emissions figure drove the increase in the overall emissions intensity.

C7. Emissions breakdowns

C7.1

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

Yes

C7.1a

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

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	4,046,592	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	30,858	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	11,270	IPCC Fourth Assessment Report (AR4 - 100 year)

HFCs	648	IPCC Fourth Assessment Report (AR4 - 100 year)
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C7.2

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

Country/area/region	Scope 1 emissions (metric tons CO ₂ e)
United States of America	4,080,649
Canada	2,000

C7.3

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

By activity

C7.3c

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

Activity	Scope 1 emissions (metric tons CO ₂ e)
Stationary Combustion Sources	56,291
Mobile Combustion Sources	4,020,331
Landfills	2,612
Refrigerants (Losses)	374
Oil/Water Separators	1,042

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

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

	Gross Scope 1 emissions, metric tons CO ₂ e	Comment
Transport services activities	3,852,490	Since this question seeks to compare transport services sector as relates to freight haul services, this value is for emissions from locomotives only and does not reflect the total scope 1 emissions as reported in the CSX Corporate GHG Inventory which includes stationary and other mobile sources.

C7.5

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

Country/area/region	Scope 2, location-based (metric tons CO ₂ e)	Scope 2, market-based (metric tons CO ₂ e)
United States of America	178,782	133,481
Canada	35	51

C7.6

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

By activity

C7.6c

(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)
Purchased Electricity	178,816	133,532

C7.7

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

No

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

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

	Scope 2, location-based, metric tons CO ₂ e	Scope 2, market-based (if applicable), metric tons CO ₂ e	Comment
Transport services activities	0	0	Scope 2 location-based emissions for the entire CSX Corporation GHG Inventory including facilities and other uses of electricity is 178,816 metric tons CO ₂ e. Transport services activities

			(i.e. freight haul) utilize diesel-powered locomotives which do not contribute to scope 2 emissions.
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C7.9

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

Increased

C7.9a

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

	Change in emissions (metric tons CO2e)	Direction of change in emissions	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	14,577	Decreased	10	Purchase of 41,000 RECs in 2022 towards market-based scope 2. (Emissions savings from purchased RECs)/(Previous year Scope 2 market-based emissions)*100% = (14,577)/(144,891)*100% = 10% decrease
Other emissions reduction activities	422	Decreased	0.0001	Locomotives represent the largest source of GHG (scope 1 and 2) emissions (in excess of 90%) and therefore present the greatest opportunity for emission reduction activities. Activities contributing to this reduction in emissions include: (1) increased use of Idle reduction technologies such as AESS and emphasis on engine shutdown policy; (2) promoting locomotive engineer behavior changes through the use of Event Recorder Automated Download (ERAD) technology to monitor train handling and provide feedback to the engineer; (3) Trip Optimizer technology which acts as an automated cruise control for optimizing train handling; (4) operational changes such as trailing engine shutdown and distributed power, both reduce fuel

				<p>consumption and therefore emissions; (5) network operational change to a "Scheduled Railroading" business model results in improved freight haul efficiencies, less fuel consumption (with corresponding reduction in emissions). CSX business activity increased by 6% therefore it is estimated 6% increase in absolute emissions were attributed to the business growth (included in change in output) and the remaining reduction attributed to fuel efficiency initiatives. CSX total Scope 1 & 2 emissions in 2021 were 4,100,972 MTCO₂e and in 2022 were 4,222,625 MTCO₂e, therefore CSX arrived at 3% increase through the equation $(\text{Change in Scope 1+2 emissions})/(\text{Previous year Scope 1+2 emissions}) \times 100\% = (122,137)/(4,222,625) \times 100\% = 3\%$ increase. The 3% business increase was factored out of this equation.</p> <p>2.9664 % absolute emissions increase – 2.97% business growth = 0.0001% decrease in emissions intensity. $4,222,625 \times -0.0001\% = 422 \text{ MTCO}_2\text{e}$ change in emissions</p>
Divestment				
Acquisitions				
Mergers				
Change in output	121,653	Increased	3	<p>CSX business activity increased by almost 3% therefore it is estimated 3% increase in absolute emissions were attributed to business increase. CSX arrived at 6% increase through the equation $(\text{Change in Scope 1+2 emissions})/(\text{Previous year Scope 1+2 emissions}) \times 100\% = (121,653)/(4,100,972) \times 100\% = 2.97\%$ increase</p>
Change in methodology				
Change in boundary				

Change in physical operating conditions				
Unidentified				
Other				

C7.9b

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

Market-based

C8. Energy

C8.1

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

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

C8.2

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

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

C8.2a

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

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	LHV (lower heating value)	31,286	15,995,122	16,026,408
Consumption of purchased or acquired electricity		41,000	375,572	416,572
Total energy consumption		72,286	16,370,694	16,442,980

C8.2b

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

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	Yes
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

C8.2c

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

Sustainable biomass

Heating value

LHV

Total fuel MWh consumed by the organization

31,286

Comment

MWh consumed from the use of biodiesel (B100)

Other biomass

Heating value

HHV

Total fuel MWh consumed by the organization

0

Comment

No other biomass consumed in 2022.

Other renewable fuels (e.g. renewable hydrogen)

Heating value

HHV

Total fuel MWh consumed by the organization

0

Comment

No other renewable fuels consumed in 2022.

Coal

Heating value

HHV

Total fuel MWh consumed by the organization

0

Comment

No coal consumed in 2022.

Oil

Heating value

LHV

Total fuel MWh consumed by the organization

15,408,037

Comment

Heat energy from diesel fuel and combustion used to power locomotives, vehicles, engines, heaters, and equipment in rail yards and rail operations. Heat energy from used oil combustion used to power heaters in rail yards.

Gas

Heating value

LHV

Total fuel MWh consumed by the organization

587,085

Comment

Heat energy from gasoline, propane, and jet fuel combustion used to power vehicles, engines, company owned jets, heaters, and equipment in rail yards and rail operations.

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

Heating value

LHV

Total fuel MWh consumed by the organization

0

Comment

No other non-renewable fuels consumed in 2022.

Total fuel

Heating value

LHV

Total fuel MWh consumed by the organization

16,026,408

Comment

All fuels

C8.2e

(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.

Country/area of low-carbon energy consumption

United States of America

Sourcing method

Unbundled procurement of energy attribute certificates (EACs)

Energy carrier

Electricity

Low-carbon technology type

Sustainable biomass

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

41,000

Tracking instrument used

I-REC

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

United States of America

Are you able to report the commissioning or re-powering year of the energy generation facility?

Yes

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

2022

Comment

CSX procured 41,000 Renewable Energy Certificates in 2022 which accounted for approximately 10% renewable sources in the market-based emissions. For the remaining market-based usage, calculations of the scope 2 market-based figure in response C6.2 CSX obtained the Weighted Grid Mix Residual Mix Emission Factor, first determine a weighting factor for each State according to the MWh usage in that State (State MWh/total MWh), next multiply the weighting factor times the residual mix emission factor for the State, finally add all the weighted amounts to get a single Weighted Grid Mix Emission Factor representative of the entire system.

C-TS8.2f

(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 e/kWh	0	The CSX rail transport mode does not obtain energy from the grid.

C8.2g

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

Country/area

United States of America

Consumption of purchased electricity (MWh)

415,316

Consumption of self-generated electricity (MWh)

0

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

0

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

0

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

415,316

Country/area

Canada

Consumption of purchased electricity (MWh)

1,256

Consumption of self-generated electricity (MWh)

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

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

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

C-TS8.5

(C-TS8.5) Provide any efficiency metrics that are appropriate for your organization's transport products and/or services.

Activity

Rail

Metric figure

0.0019247

Metric numerator

Other, please specify
gallons of fuel

Metric denominator

Revenue-ton.mile

Metric numerator: Unit total

372,949,599

Metric denominator: Unit total

193,771,798,000

% change from last year

3.3

Please explain

A common freight haul efficiency metric used by U.S. Class 1 Rail companies is "Revenue Ton-Mile per gallon of diesel (RTM/gal)." This measures the ability of a freight train to transport one U.S. short ton of freight a certain distance (miles) per gallon of diesel fuel. For this metric, bigger is better. Sometimes this ratio is inverted to "gallons of fuel per RTM". For this metric, smaller is better since it represents the gallons of fuel needed to move one ton of freight a distance of one mile. In 2022, CSX moved one ton of freight 520 miles on a single gallon of diesel fuel which was an efficiency decrease from 2021 (537 RTM/gallons).

C9. Additional metrics

C9.1

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

C-TO9.3/C-TS9.3

(C-TO9.3/C-TS9.3) Provide tracking metrics for the implementation of low-carbon transport technology over the reporting year.

Activity

Rail

Metric

Other, please specify
Avoided emissions

Technology

Other, please specify

More efficient mode of transport

Metric figure

12,536,852

Metric unit

Other, please specify
metric tons CO2

Explanation

According to EPA, a typical CSX freight train is approximately four times more fuel efficient than highway freight transportation. A typical train can carry the cargo load of 280 trucks. As a result of this efficiency, CSX enables customers to avoid and/or reduce GHG emissions that would otherwise be generated from more carbon-intensive modes of transportation. Avoided emissions for CSX customers are estimated to be approximately 12.5 million metric tons of CO2 in 2022. The basis for this calculation is the percentage of merchandise (41%) and intermodal (48%) freight transportation that could move by either highway or rail as a percentage of revenue ton-miles and related diesel fuel consumed.

Fuel-saving technologies and processes include: (1) scheduled railroading - implemented in 2017, scheduled railroading changed the CSX operations model from a hub- and-spoke system to a leaner point-to-point system, which implements more direct routes, optimizes assets, and reduces fuel use; (2) CSX deploys distributed power on certain trains - this involves placing locomotive power at intermediate points throughout the train. The distributed locomotives are remotely operated by the lead locomotive. Distributed power reduces draft forces thus reducing fuel consumption and increasing train efficiency; (3) CSX has implemented a plan to install Trip Optimizer technology on approximately 2,100 locomotives. The Trip Optimizer is an automated locomotive cruise control device that helps drivers achieve optimal fuel burn by automatically controlling locomotive speed and acceleration in real-time and reducing driver fluctuations for increased fuel efficiency. EPA estimates Trip Optimizer improves fuel efficiency by 10%; (4) Trailing Unit Shutdown is an operational change rather than a technology enhancement. By shutting down unnecessary backup locomotives behind the lead locomotive, significant fuel savings have been achieved without any cost to velocity or reliability.

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

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

	Investment in low-carbon R&D	Comment
Row 1	Yes	

C-TO9.6a/C-TS9.6a

(C-TO9.6a/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

Other, please specify
Smart systems

Stage of development in the reporting year

Applied research and development

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

20

R&D investment figure in the reporting year (unit currency as selected in C0.4) (optional)

Average % of total R&D investment planned over the next 5 years

20

Explain how your R&D investment in this technology area is aligned with your climate commitments and/or climate transition plan

CSX's Mechanical Operations group is focusing on using existing technologies to limit unnecessary train stops. Acoustic detectors and temperature trending logic continue to be used to proactively identify bearings in distress before they cause line of road events. Within Mechanical Operations, the Communications and Signals group is reviewing thermal imaging technology to identify abnormal braking conditions. Abnormal braking causes delays and less fuel-efficient locomotives. Past technologies have included research, testing, and implementing CSX Intermodal Terminals, Inc. XGate on a small scale before it was rolled out company wide. XGate is an innovative gate solution creating efficient terminal flow through expedited in-gate, out-gate, and on-terminal processing. This technology reduces the amount of truck idle time at the terminal, therefore reducing fuel consumption and emissions. This group also oversaw the testing, implementation, and rollout of Trip Optimizer. Trip Optimizer is an automated locomotive cruise control device that helps drivers achieve optimal fuel burn by automatically controlling locomotive speed and acceleration in real-time, reducing driver fluctuations for increased fuel efficiency. In 2022, it is estimated CSX saved approximately 38 million gallons of fuel as a result of this program. CSX estimates the investment for fuel efficient technologies to be more than \$25.6 million and the annual monetary savings to be \$76.7 million.

C10. Verification

C10.1

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

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

C10.1a

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

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

 CSX_2022AudRep_10July2023.pdf

Page/ section reference

Cover page to the Report titled "Verification of CSX Corporation 2022 Greenhouse Gas Inventory" and page 1-1 to 1-3 (scope) and 7-1 (statement of verification).

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1b

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

Scope 2 approach

Scope 2 location-based

Verification or assurance cycle in place

Annual process

Status in the current reporting year

Complete

Type of verification or assurance

Reasonable assurance

Attach the statement

 CSX_2022AudRep_10July2023.pdf

Page/ section reference

Cover page to the Report titled "Verification of CSX Corporation 2022 Greenhouse Gas Inventory" and page 1-1 to 1-3 (scope) and 7-1 (statement of verification).

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

 CSX_2022AudRep_10July2023.pdf

Page/ section reference

Cover page to the Report titled "Verification of CSX Corporation 2022 Greenhouse Gas Inventory" and page 1-1 to 1-3 (scope) and 7-1 (statement of verification).

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.1c

(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: Business travel

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

 2022 CSX GHG Inventory Verification_2022AudRep_10July2023.pdf

Page/section reference

Cover page to the Report titled "Verification of CSX Corporation 2022 Greenhouse Gas Inventory" and page 1-1 to 1-3 (scope) and 7-1 (statement of verification).

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

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

 2022 CSX GHG Inventory Verification_2022AudRep_10July2023.pdf

Page/section reference

Cover page to the Report titled "Verification of CSX Corporation 2022 Greenhouse Gas Inventory" and page 1-1 to 1-3 (scope) and 7-1 (statement of verification).

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Waste generated in operations

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

 2022 CSX GHG Inventory Verification_2022AudRep_10July2023.pdf

Page/section reference

Cover page to the Report titled "Verification of CSX Corporation 2022 Greenhouse Gas Inventory" and page 1-1 to 1-3 (scope) and 7-1 (statement of verification).

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

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

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

 2022 CSX GHG Inventory Verification_2022AudRep_10July2023.pdf

Page/section reference

Cover page to the Report titled "Verification of CSX Corporation 2022 Greenhouse Gas Inventory" and page 1-1 to 1-3 (scope) and 7-1 (statement of verification).

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

Scope 3 category

Scope 3: Upstream transportation and distribution

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

 2022 CSX GHG Inventory Verification_2022AudRep_10July2023.pdf

Page/section reference

Cover page to the Report titled "Verification of CSX Corporation 2022 Greenhouse Gas Inventory" and page 1-1 to 1-3 (scope) and 7-1 (statement of verification).

Relevant standard

ISO14064-3

Proportion of reported emissions verified (%)

100

C10.2

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

Yes

C10.2a

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

Disclosure module verification relates to	Data verified	Verification standard	Please explain
C4. Targets and performance	Year on year emissions intensity figure	ISO 14064-3	emissions intensity figures are verified during the third-party verification of the annual GHG inventory.

C11. Carbon pricing

C11.1

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

No, and we do not anticipate being regulated in the next three years

C11.2

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

No

C11.3

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

No, but we anticipate doing so in the next two years

C12. Engagement

C12.1

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

Yes, our suppliers

Yes, our customers/clients

Yes, other partners in the value chain

C12.1a

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

Type of engagement

Information collection (understanding supplier behavior)

Details of engagement

Collect other climate related information at least annually from suppliers

Other, please specify

Collect climate change and carbon information at least annually from suppliers

% of suppliers by number

100

% total procurement spend (direct and indirect)

100

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

Rationale for the coverage of your engagement

CSX's suppliers are seen as an extension of the company and as such, are expected to adhere to our Code of Ethics and standards of business conduct. We also require all subcontractors or suppliers that work on CSX property to participate in ISN, FRA Training, and CSX-specific health, safety, and environmental training. Since recommitting to CDP's Supply Chain program, we have been working to find synergies and advance ESG practices on an ongoing basis with our suppliers. CSX has requested Tier 1 suppliers to report environmental data through CDP Supply Chain questionnaires including the proportion of their GHG emissions that they can attribute to business with CSX. In addition, we request they provide company-wide sustainable practices to help us better understand our supply chain footprint. CSX and CDP held a supplier training to review best practices and priorities for reporting data. In 2022, we identified 50 suppliers representing around 75 percent of total spend and engaged them to better glean insight into their emissions reduction goals and ESG initiatives. CSX hosted a webinar to educate suppliers about CSX's own environmental goals. Moving forward, CSX will continue to work with our Tier 1 suppliers and through the CDP Supply Chain project to drive climate action across supply chain.

Impact of engagement, including measures of success

CSX has engaged Tier 1 suppliers via CDP Supply Chain and additional suppliers using the ISNetwork questionnaire. Success is measured with increasing engagement with CDP Supply Chain response and as having 100% participation in the ISNetwork questionnaire as applicable. CSX currently evaluates suppliers who must access and work on CSX property, according to safety, compliance, quality and sustainability metrics and makes recommendations for future improvements. CSX has chosen to

engage both with its suppliers and customers. CSX has high expectations of all suppliers in areas of ethics, compliance, and environmental stewardship. Engagement on GHG emissions and risks and opportunities around climate change is an extension of that expectation and provides a method for CSX to evaluate risk within the supply chain. Because CSX offers a mode of land transportation that is, on average, four times more fuel efficient than trucks, the company is well positioned to expand services to companies that are looking to reduce the emissions associated with their upstream and downstream transportation.

Comment

C12.1b

(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 educate customers about the climate change impacts of (using) your products, goods, and/or services

% 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

CSX has chosen to engage both with its suppliers and customers. Beginning in 2019, CSX conducted a full-scale materiality assessment engaging both internal and external stakeholders (including multiple customers) to identify issues most material to CSX. The outcome of this assessment guided the evolution of the CSX short- and long-term Environmental, Social, and Governance (ESG) strategy and approach. CSX is providing forums, including an online Carbon Calculator, for its customers to understand how shipping their goods by rail will benefit their business. The calculator is a public forum that gives customers and potential customers the ability to make the best environmental choice of transportation options for their needs and calculates the carbon dioxide emissions savings of specific rail shipments, providing comparative data among their choices. These customer forums allow companies to collaborate, work through logistical challenges that occur when changing shipping methods and quantify the sustainability benefit that is provided by CSX. Because the Carbon Calculator is a public forum CSX assumes all customers have participated. Additionally, CSX responds to numerous customer requests pertaining to emissions associated with hauling customer freight by CSX. Potential customers are selected by the sales and marketing team if the general

transport is more than 500 miles and a certain tonnage threshold depending on the commodity. In 2022, CSX also recognized six customers with its inaugural CSX Customer Environmental Excellence Awards for contributions to reducing carbon emissions through truck-to-rail conversions. The first CSX Customer Environmental Excellence Award winners were chosen based on freight conversions from highway to rail over the previous year. CSX will soon add award categories for total carbon savings (highest year-over-year percentage of carbon savings versus trucks based on total rail volume) and for innovation (customers who have demonstrated the greatest environmental ingenuity through their transportation initiatives).

Impact of engagement, including measures of success

CSX works with customers to shift their freight transport from highway to rail, and continually strives to increase the value customers receive by shipping their goods with CSX. Potential customers are selected by the sales and marketing team if the general transport is more than 500 miles and a certain tonnage threshold depending on the commodity. This criterion makes sense for a switch from truck to rail for the customer and for CSX to gain a price advantage. CSX defines the measure of success as increased intermodal business and carload volumes. Between 2018 and 2022, intermodal volume increased from 45% of freight volume to 48% of freight volume and held steady at 16% of generated revenue. A typical intermodal freight train can carry the load of more than 280 trucks. This equates to a 75% reduction in transportation related CO₂e emissions when shippers switch from highway to rail. The impact for CSX customers is avoided emissions estimated to be more than 12 million metric tons CO₂e annually. The basis for this calculation is the percentage of merchandise and intermodal freight transportation that could move by either highway or rail, and the EPA determination that rail is three to five times more fuel efficient than moving freight by highway. In 2022, CSX's was included on the Dow Jones Sustainability Index (DJSI) for the twelfth year for high performance in supply chain management as well as environmental management, corporate governance, and corporate citizenship/philanthropy.

C12.1d

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

C12.2

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

Yes, suppliers have to meet climate-related requirements, but they are not included in our supplier contracts

C12.2a

(C12.2a) Provide details of the climate-related requirements that suppliers have to meet as part of your organization's purchasing process and the compliance mechanisms in place.

Climate-related requirement

Complying with regulatory requirements

Description of this climate related requirement

We are a critical and environmentally friendly component of our customers' supply chains. By investing in innovative new technology and further improving our operational practices, we can offer an even greater environmental advantage. Working with responsible business partners and suppliers to ensure that our own supply chain is as environmentally sensitive and efficient as possible is critical to meeting our customers' needs and our own corporate social responsibility goals. Our daily practices align business performance with a purpose and commitment to environmental, social, and community stewardship. We ask that our suppliers work side by side with us as we:

1. Reduce the environmental footprint of our operations.
2. Support sustainable development in our service area.
3. Engage openly on sustainability issues.

% suppliers by procurement spend that have to comply with this climate-related requirement

100

% suppliers by procurement spend in compliance with this climate-related requirement

100

Mechanisms for monitoring compliance with this climate-related requirement

Grievance mechanism/Whistleblowing hotline

Other, please specify

CSX requires suppliers to maintain high standards for business conduct, as expressed in our CSX Code of Ethics.

Response to supplier non-compliance with this climate-related requirement

Other, please specify

CSX Ethics Helpline is available 24/7 to report any misconduct or raise concerns about compliance matters. All reports to the helpline are reviewed and investigated. Any noncompliance reported is investigated and handled on a case-by-case basis.

C12.3

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

Row 1

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

Yes, we engage directly with policy makers


Yes, our membership of/engagement with trade associations could influence policy, law, or regulation that may impact the climate

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)

page 6 describes alignment with the Paris Agreement

 CSX-Industry-Association-and-Climate-Review-final.pdf

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

For this report, we evaluated the alignment of the lobbying efforts of our trade associations with the goals of the Paris Agreement. These goals include limiting the rise in global average temperatures this century to well below 2°C above preindustrial levels. CSX is committed to the ongoing evaluation of our climate policy-related efforts and to progressive action in our operations to reduce our impact on the environment. Just as there are numerous factors that impact the climate and our environment, CSX has many issues before Congress, in state legislatures, and under consideration by government agencies that could affect our business and our stakeholders. Direct engagement with policymakers at the local, state, and federal levels helps to build awareness of the environmental advantages of rail.

C12.3a

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

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

Minimum energy efficiency requirements

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

Low-carbon products and services

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

Low-carbon innovation and R&D

Technology requirements

Policy, law, or regulation geographic coverage

National

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

North America

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

Support with no exceptions

Description of engagement with policy makers

CSX engages lawmakers to advocate for topics that the railroad supports, including responsible environmental legislation. A key topic of engagement is advocating for the expansion of the national freight network; this will benefit the environment and local communities by offering a surface transportation alternative that is, on average, four times less carbon intensive than other modes of land transportation and help relieve highway congestion. CSX advocates for this expanded network through a strong brand campaign designed to increase public awareness of the environmental benefits of rail, as well as direct engagement with policy makers at the local, state, and federal levels. An example of this engagement is the National Gateway project, a public-private partnership through which CSX is working with federal, state, and local governments. Together, CSX and its public partners are investing approximately \$850 million to extend the environmental advantages of rail by improving intermodal capacity in key high-traffic corridors via more efficient double-stack intermodal operations. By improving the efficiency of intermodal transport, the project will decrease fuel consumption by nearly 2 billion gallons and reduce carbon dioxide emissions by 20 million tons in the project's first 30 years of operation.

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

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

Yes, we have evaluated, and it is aligned

C12.3b

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

Trade association

Other, please specify

Association of American Railroads

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

Consistent

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

No, we did not attempt to influence their position

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

The Association of American Railroads (AAR) is the standard-setting organization for North America's railroads. America's freight railroads operate the safest, most efficient, cost-effective, and environmentally sound freight transportation system in the world. As Congress considers legislation to limit emissions of carbon dioxide and other greenhouse gases, it should consider the environmental friendliness of freight railroading. Climate legislation offers an opportunity for policymakers to encourage the movement of freight by environmentally friendly rail and spur the development of carbon capture and storage technology.

CSX's position on climate legislation is consistent with AAR. CSX understands that improving energy efficiency and maximizing clean and affordable domestic energy resources are crucial to continued economic growth, improved quality of life, and environmental stewardship. Furthermore, this can help address the complex global challenge of climate concerns. Railroads, including CSX, are essential to moving these objectives forward through efficient transportation solutions, offering a decreased emissions impact compared to trucks; on average, rail is four times more efficient than highway transportation. In a recent report "Freight Railroads & Climate Change" available on its website, the AAR states "if action is not taken, climate change will have significant repercussions for the planet, our economies, our society, and even day-to-day railroad operations." Recently, the AAR released a series of policy proposals, available on its website, for effectively combatting climate change and reducing GHG emissions. The AAR has not explicitly stated support for the goal of the Paris Agreement; however, it acknowledges its members' efforts to voluntarily set emissions reduction targets in line with SBTi. CSX believes we can continue to support the goal of the Paris Agreement while maintaining our membership with the AAR and demonstrating best practices to other members. We will continue to engage with the AAR and monitor alignment on climate-related topics.

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

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

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In mainstream reports, incorporating the TCFD recommendations

Status

Complete

Attach the document

 2022-CSX-ESG-Report.pdf

Page/Section reference

CSX 2022 Environmental, Social, and Governance (ESG) Report details CSX's 2022 ESG Performance Data on pages –144-152 and provides a TCFD index on page 174.
Governance and Strategy - page 124-132
Risk & Opportunities - page 229-30
Metrics & Targets - page 30, 49, 101

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

https://www.csx.com/share/wwwcsx15/assets/File/About_Us/Responsibility/2022-CSX-ESG-Report.pdf

C12.5

(C12.5) Indicate the collaborative frameworks, initiatives and/or commitments related to environmental issues for which you are a signatory/member.

	Environmental collaborative framework, initiative and/or commitment
Row 1	We are not a signatory/member of any collaborative framework, initiative and/or commitment related to environmental issues

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues
Row 1	No, but we plan to have both within the next two years

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity
Row 1	No, but we plan to do so within the next 2 years

C15.3

(C15.3) Does your organization assess the impacts and dependencies of its value chain on biodiversity?

Impacts on biodiversity

Indicate whether your organization undertakes this type of assessment

No, but we plan to within the next two years

Dependencies on biodiversity

Indicate whether your organization undertakes this type of assessment

No, but we plan to within the next two years

C15.4

(C15.4) Does your organization have activities located in or near to biodiversity-sensitive areas in the reporting year?

Not assessed

C15.5

(C15.5) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?
Row 1	No, we are not taking any actions to progress our biodiversity-related commitments, but we plan to within the next two years

C15.6

(C15.6) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No, we do not use indicators, but plan to within the next two years	

C15.7

(C15.7) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
No publications		

C16. Signoff

C-FI

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

CSX's reporting structure is set up to include Executive Vice President and Chief Legal Officer who directly reports to the Chief Executive Officer and the Board of Directors as an equal

reporting position to the Chief Financial Officer and Chief Operating Officer who both report directly to the Chief Executive Officer. The Executive VP and Chief Legal Officer is the highest member of the C-Suite responsible for climate related issues.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Executive Vice President and Chief Legal Officer, CSX's reporting structure is setup to include EVP/CLO who directly reports to the CEO and the Board as an equal reporting position to the CFO.	Chief Risk Officer (CRO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

N/A

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	12,522,000,000

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

Ford Motor Company

Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

21,768

Uncertainty (±%)

2

Major sources of emissions

Locomotive diesel emissions

Verified

No

Allocation method

Allocation based on another physical factor

Market value or quantity of goods/services supplied to the requesting member

1,097,233,125

Unit for market value or quantity of goods/services supplied

Other, please specify

Revenue Ton-Miles

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

CSX uses the operational control approach to report Scope 1, 2, and 3 emissions. Approximately 90% of CSX's carbon footprint (considering Scope 1 and 2 emissions) is attributed to locomotive diesel fuel consumed in the transportation of freight. The service we provide our customers is the transportation of their freight, therefore the major emission source attributable to our customers is locomotive diesel fuel consumption.

Requesting member

WestRock Company

Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

50,577

Uncertainty (±%)

2

Major sources of emissions

Locomotive diesel emissions

Verified

No

Allocation method

Allocation based on another physical factor

Market value or quantity of goods/services supplied to the requesting member

2,549,404,099

Unit for market value or quantity of goods/services supplied

Other, please specify

Revenue Ton-Miles

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

CSX uses the operational control approach to report Scope 1, 2, and 3 emissions. Approximately 90% of CSX's carbon footprint (considering Scope 1 and 2 emissions) is attributed to locomotive diesel fuel consumed in the transportation of freight. The service we provide our customers is the transportation of their freight, therefore the major emission source attributable to our customers is locomotive diesel fuel consumption.

Requesting member

Cementir Holding NV

Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Allocation level

Business unit (subsidiary company)

Allocation level detail

LEHIGH WHITE CEMENT COMPANY LLC

Emissions in metric tonnes of CO₂e

351

Uncertainty (±%)

2

Major sources of emissions

Locomotive diesel emissions

Verified

No

Allocation method

Allocation based on another physical factor

Market value or quantity of goods/services supplied to the requesting member

17,714,813

Unit for market value or quantity of goods/services supplied

Other, please specify

Revenue Ton-Miles

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

CSX uses the operational control approach to report Scope 1, 2, and 3 emissions. Approximately 90% of CSX's carbon footprint (considering Scope 1 and 2 emissions) is attributed to locomotive diesel fuel consumed in the transportation of freight. The service we provide our customers is the transportation of their freight, therefore the major emission source attributable to our customers is locomotive diesel fuel consumption.

Requesting member

International Paper Company

Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

42,813

Uncertainty (±%)

2

Major sources of emissions

Locomotive diesel emissions

Verified

No

Allocation method

Allocation based on another physical factor

Market value or quantity of goods/services supplied to the requesting member

2,158,073,832

Unit for market value or quantity of goods/services supplied

Other, please specify

Revenue Ton-Miles

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

CSX uses the operational control approach to report Scope 1, 2, and 3 emissions. Approximately 90% of CSX's carbon footprint (considering Scope 1 and 2 emissions) is attributed to locomotive diesel fuel consumed in the transportation of freight. The service we provide our customers is the transportation of their freight, therefore the major emission source attributable to our customers is locomotive diesel fuel consumption.

Requesting member

General Motors Company

Scope of emissions

Scope 1

Scope 2 accounting method

Scope 3 category(ies)

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

31,912

Uncertainty (±%)

2

Major sources of emissions

Locomotive diesel emissions

Verified

No

Allocation method

Allocation based on another physical factor

Market value or quantity of goods/services supplied to the requesting member

1,608,581,170

Unit for market value or quantity of goods/services supplied

Other, please specify

Revenue Ton-Miles

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

CSX uses the operational control approach to report Scope 1, 2, and 3 emissions. Approximately 90% of CSX's carbon footprint (considering Scope 1 and 2 emissions) is attributed to locomotive diesel fuel consumed in the transportation of freight. The service we provide our customers is the transportation of their freight, therefore the major emission source attributable to our customers is locomotive diesel fuel consumption.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

CSX uses its annual average freight train fuel efficiency in conjunction with specific customer data (Revenue Ton Miles (RTM) shipped) to allocate emissions to that customer. CSX's average fuel efficiency for 2022 was 520 RTM/gallon diesel fuel consumed. CSX uses a measure called Revenue Ton Miles (RTM) to normalize annual GHG emissions and determine GHG emission intensity. A Revenue Ton Mile or Lading Ton Mile is a calculation of Tons of lading x Miles it moves. For example, if you move 10 tons 20 miles you would have 200 Revenue Ton Miles (10 tons * 20 Miles = 200 Revenue Ton Miles). Because CSX is able to track revenue ton miles by customer, this information can be used to allocate emissions to a

customer based on the Revenue Ton Miles of their shipments. CSX uses Emission Factors and Global Warming Potentials from the EPA Center for Corporate Climate Leadership GHG Emission Factors Hub (March 2023), (www.epa.gov/climateleadership/center-corporate-climate-leadership-ghg-emission-factors-hub) for CO₂, N₂O, and CH₄ to determine total metric tons of CO₂-Eq emissions allocated to a specific customer: For example, if a customer shipped 1 million RTM with CSX in 2022, then 1,000,000 RTM/ (537 RTM/ gal) = 1,862 gallons of diesel fuel consumption. By multiplying the emission factors by 1,862 gallons and converting kilograms or grams to metric tons, emissions for each greenhouse gas are determined for that customer. By multiplying N₂O and CH₄ emissions by their Global Warming Potential, all greenhouse gases are converted to CO₂-equivalents and added for a total metric ton of CO₂-equivalents.

Emission Factors

CO₂ Emission Factor = 10.21 kg CO₂ per gallon diesel

N₂O Emission Factor = 0.26 grams N₂O per gallon diesel

CH₄ Emission Factor = 0.80 grams CH₄ per gallon diesel

Global Warming Potentials (GWP)

1 metric ton CO₂ emissions =1

1 metric ton N₂O emissions = 298

1 metric ton CH₄ emissions = 25

Reference for Emission Factors and Global Warming Potentials: EPA Center for Corporate Climate Leadership GHG Emission Factors Hub (September 2021); (www.epa.gov/climateleadership/center-corporate-climate-leadership-ghg-emission-factors-hub)

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
We face no challenges	CSX currently uses the described method of allocating carbon to individual customers based on emissions per revenue ton mile, published references from the EPA Center for Corporate Climate Leadership GHG Emission Factors Hub (March 2023) and the individual customers Revenue Ton Miles.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future?

Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

CSX currently uses the described method of allocating carbon to individual customers based on emissions per revenue ton mile, published references from the EPA Center for Corporate Climate Leadership GHG Emission Factors Hub (March 2023), and the individual customers Revenue Ton Miles. In the future, CSX is working to develop tracking to generate efficiency values on a per commodity and per shipment basis.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives?

No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services?

No, I am not providing data

Submit your response

In which language are you submitting your response?

English

Please confirm how your response should be handled by CDP

	I understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

Please confirm below

I have read and accept the applicable Terms

