

Welcome to your CDP Climate Change Questionnaire 2021

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 approximately 19,500 route mile network, which serves major population centers in 23 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 major subsidiaries include CSX Intermodal Terminals, Inc., Total Distribution Services, Inc. (TDSI), TRANSFLO Terminal Services, Inc., and CSX Technology, 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, and TRANSFLO, in addition to CSXT.

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	End date	Indicate if you are providing emissions data for past reporting years
Reporting year	January 1, 2020	December 31, 2020	No

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

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-T00.7/C-TS0.7

(C-T00.7/C-TS0.7) For which transport modes will you be providing data?

Rail

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(s)	Please explain
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 5-member Governance and Sustainability Committee of the Board has oversight responsibility for environmental matters, including carbon emissions. 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 – all meetings	<p>Reviewing and guiding strategy</p> <p>Reviewing and guiding major plans of action</p> <p>Reviewing and guiding risk management policies</p> <p>Reviewing and guiding annual budgets</p> <p>Reviewing and guiding business plans</p> <p>Monitoring implementation and</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</p>

	<p>performance of objectives</p> <p>Overseeing major capital expenditures, acquisitions and divestitures</p> <p>Monitoring and overseeing progress against goals and targets for addressing climate-related issues</p>	<p>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 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. A full ESG Report was published in 2020. 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 3,500 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>
--	--	--

C1.2

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

Name of the position(s) and/or committee(s)	Responsibility	Frequency of reporting to the board on climate-related issues
Other C-Suite Officer, please specify Executive VP & Chief Legal Officer	Both assessing and managing climate-related risks and opportunities	Quarterly

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climate-related issues are monitored (do not include the names of individuals).

The Executive Vice President and Chief Legal Office (EVP/CLO) has ultimate responsibility for the PSH&E department, which consists of environmental professionals competent in their area of expertise. 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 related to their purview. The Senior Director of Public Safety, Health, and Environment (PSH&E) reports to the EVP/CLO, who then reports to the CEO and Board of Directors, and the Senior Director of PSH&E's scope of responsibility includes environmental policy, performance, management, associated risks, and communicating with the EVP/CLO on these issues. Responsibility for climate-related issues has been assigned to the EVP/CLO role because that role is the leader of our environmental strategy and has the authority, influence and resources to act on climate-related risks and opportunities in alignment with our 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 most competent in the risk under consideration. The organizational 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 of Directors is a direct and efficient method for monitoring climate-related risks and implementing overarching strategies to address issues. 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. CSX corporate governance practices are led by the Executive Team (including the EVP/CLO) 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. At a company level, CSX uses an enterprise risk management process whereby during the routine budget planning process, individual business leaders are expected to identify and define risks and opportunities as strategic, external, or compliance based and communicate the various types of risk and opportunities 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 customers' businesses as a result of climate change. During the normal course of short and long term budget planning, CSX department leaders 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 the appropriate resources and response actions are considered to address these impacts. For example, scenarios analyzing the likelihood and extent of flooding along the Gulf Coast are used to inform decisions in regard to hardening tracks and raising critical equipment off the ground. The potential for hurricane-induced wind damage is considered when implementing strategies to reinforce/harden infrastructure in the Jacksonville, Florida area. Also, CSX conducts business risk analyses to assess how climate change may impact the location of sensitive customer operations.

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 enabled CSX to achieve its emission intensity reduction target of 6 to 8% by 2020, two years early. As of 2018, CSX had reduced emission intensity by 8.1% from base year 2011. Locomotive fuel accounts for approximately 90% of CSX's Scope 1 and 2 GHG emissions; therefore, fuel efficiency targets are directly correlated to emissions intensity reductions. CSX has established a new target with the SBTi to reduce GHG emissions intensity 37.3% by end of 2029 from a 2014 base year.

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	Type of incentive	Activity incentivized	Comment
-----------------------	-------------------	-----------------------	---------

Chief Operating Officer (COO)	Monetary reward	Emissions reduction target Energy reduction target Efficiency target	<p>Energy reduction and efficiency targets are incentivized.</p> <p>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 its emission intensity reduction target of 6 to 8% by 2020, two years early. As of 2018, CSX had reduced emission intensity by 8.1% from base year 2011. Locomotive fuel accounts for approximately 90% of CSX's Scope 1 and 2 GHG emissions; therefore, fuel efficiency targets are directly correlated to emissions intensity reductions. CSX has established a new target with the SBTi to reduce GHG emissions intensity 37.3% by end of 2029 from a 2014 base year.</p>
Business unit manager	Monetary reward	Emissions reduction target Energy reduction target Efficiency target	<p>Energy reduction and efficiency targets are incentivized.</p> <p>Business unit 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.</p>
Process operation manager	Monetary reward	Emissions reduction target Energy reduction target Efficiency target	<p>Energy reduction and efficiency targets are incentivized.</p> <p>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.</p>

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 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 2020 with a full-year coal volume on a declining trend (637,000 carloads of coal in 2020 vs. 843,000 in 2019), volumes in both years were a significant decline from 2015 (1.063 million carloads of coal delivered in 2015). This decline represents a loss of approximately \$500 million in revenue, pushing losses in CSX's coal revenue since 2011 to more than \$2 billion.

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 19,500-mile network CSX is constantly reinvesting in infrastructure – in 2019, CSX invested \$1.66 billion into its network, and another \$1.63 billion in 2020 . CSX spent approximately \$178 million responding to/recovering from the effects of hurricanes, tropical storms and floods over the last 10 years. These responses include the Nashville floods (2010 - \$25.9 million), 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), and Hurricane Florence (2018 - \$29.4 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

		<p>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 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</p>

		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.
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 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.</p> <p>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</p>

		<p>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 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 2020. Full-year coal volume is on a declining trend (637,000 carloads of coal in 2020 vs. 843,000 in 2019), volumes in both years were a significant decline from 2015 (1.063 million carloads of coal delivered in 2015). This decline represents a loss of approximately \$673 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</p>

		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.
Reputation	Relevant, always included	Climate-related events have the potential to negatively impact CSX's reputation with shareholders, customers, the public, regulatory agencies, and 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 for CSX is extreme weather-related risks such as floods and washouts resulting in derailments or other service interruptions can receive negative publicity and risk CSX being labeled a risky mode of transportation. Conversely, "green" messaging can win customers and motivate investors when CSX is perceived as an "environmentally friendly" mode of transportation. In 2020, CSX earned a spot on the Dow Jones Sustainability Index for the 10th consecutive year, demonstrating a public commitment to building a positive and accountable reputation. This top sustainability honor is in recognition of 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 and maintain a reputation for addressing climate change challenges may result in increased stakeholder concern or negative stakeholder feedback and could adversely affect the bottom line. For example, CSX's success in moving more freight with less asset intensity and reducing fuel consumption has enhanced its reputation for reliable service product that is allowing customers to move freight from the highway to rail and reduce their overall carbon footprint. In 2019, CSX further improved upon its 2018 record fuel efficiency, becoming the first U.S. Class I railroad to operate below 1 gallon of fuel per 1,000 gross ton-miles for a quarter. CSX has become the first railroad in North America to have its new emissions intensity goal – which is consistent with reductions required to keep warming to well-below 2 degrees C – approved by the Science Based Target Initiative (SBTi). CSX will reduce greenhouse gas emissions intensity by 37.3% between 2014 and 2030. As of the end of 2020, CSX has achieved 13.8% reduction in GHG emissions intensity since base year 2014. The company expects future

		transformational technology to facilitate this next level of reductions and is extensively investing in technologies and operational practices that drive maximum achievable efficiencies.
Acute physical	Relevant, always included	<p>Acute physical events are always included in the risk assessment process. CSX's rail network encompasses approximately 19,500 route miles of track across 23 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 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 in the northern regions of CSX's territory during the first quarter of 2014. 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</p>

		<p>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 example, track workers are responsible for inspecting and maintaining the 19,500-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.</p>
--	--	--

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

Acute physical

Increased severity and frequency of extreme weather events such as cyclones and floods

Primary potential financial impact

Increased direct costs

Company-specific description

Physical risks from severe weather or other natural occurrences could result in significant business interruptions and expenditures exceeding available insurance coverage. External factors such as severe weather and other natural occurrences, including floods, fires, hurricanes, and earthquakes have the potential to affect the company's operations, damage the company's rail network, displace its workforce, increase fuel costs, and cause significant business interruptions. CSX's rail network encompasses approximately 19,500 route miles of track across 23 states, the District of Columbia, and two Canadian provinces. While weather-related impacts on the company's operations are a regular part of business and are assessed in the company's operational and financial forecasts. Any increase in the number or intensity of hurricanes or extreme weather events can negatively affect CSX's operations and business by impacting safe operating speeds, causing service interruption, or increasing track repair and recovery cost along the Gulf Coast and the East Coast. CSX spent approximately \$178 million responding to/recovering from the effects of severe hurricanes, tropical storms and floods over the last 10 years. These responses include the Nashville floods (2010 - \$25.9 million), 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), and Hurricane Florence (2018 - \$29.4 million).

Time horizon

Short-term

Likelihood

About as likely as not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

178,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

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, 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 approximately \$178

million responding to/recovering from the effects of hurricanes, tropical storms and floods over the last 10 years. These responses include the Nashville floods (2010 - \$25.9 million), 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), and Hurricane Florence (2018 - \$29.4 million).

Cost of response to risk

227,640,000

Description of response and explanation of cost calculation

To mitigate physical risks associated with extreme weather, CSX established business continuity plans to ensure continuity of train operations. CSX has invested significant capital in backup systems and redundancy for data centers to manage risk and moved train control signal wiring underground to better protect against weather-related interruption. CSX's operations and public safety departments play critical roles in weather event preparedness, from performing preventative maintenance to limit service disruptions, to forming relationships with first responders and sharing resources with communities in need. As a storm approaches, CSX implements thorough well-honed hurricane preparedness plans with specific and escalating actions. For instance, during Hurricane Florence in the 3rd quarter of 2018, service disruptions were minimized by moving excess railcars to a safe location ahead of the storm, rerouting trains to non-impacted tracks, and pre-positioning essential staff to safe/accessible locations to support business continuity and initiate immediate recovery. Weather-related impacts on CSX's operations are a regular part of business and are incorporated into operational and financial forecasts. That said, in the case of extreme weather events, costs may exceed the CSX's regular forecast. CSX invests more than 80% of its annual capital spend, \$1.63 billion in 2020, to maintain and upgrade infrastructure. The cost of response to risk associated with managing climate-related issues is estimated to be 14% of the annual capital spend.

Comment

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. When hurricanes occur on the East Coast of the U.S., the core leadership team and key decision makers in Jacksonville are positioned to respond to CSX's operational needs and protect assets. The company has an Employee Disaster Relief Fund to provide short-term financial assistance to CSX employees and their dependents during times of dire need. In addition to financial assistance for employees, CSX often uses its logistics expertise, resources, and relationships with non-profit partners to support community relief efforts following weather-related events. During Hurricane Matthew, CSX helped two humanitarian organizations move a 1,500-foot relief train carrying 40-foot containers filled with 1,000 tons of supplies, including 11.8 million meals to support affected communities.

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Technology

Transitioning to lower emissions technology

Primary potential financial impact

Increased capital expenditures

Company-specific description

The freight rail industry uses diesel-powered locomotives 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 95% 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, the investment needed to make this change in assets, practices, and processes is potentially 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. The rail industry is researching the use of LNG to fuel locomotives. According to rail industry studies thus far, a locomotive can be retrofitted to use LNG, a "tender car" to carry the fuel is possible, and a viable, safe, fueling network including fueling facilities can be built. The Energy Information Administration (EIA) projects that LNG will play an increasing role in powering freight locomotives in coming years. Continued growth in domestic natural gas production and substantially lower natural gas prices compared to crude oil prices could result in significant cost savings for locomotives that use LNG as a fuel source. The EIA projects diesel fuel will cost up to three times more than LNG through 2020. An added benefit of using LNG is the reduction in GHG emissions as compared to diesel, helping transition to a lower-carbon footprint.

Time horizon

Long-term

Likelihood

Unlikely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

3,500,000,000

Potential financial impact figure – maximum (currency)

7,000,000,000

Explanation of financial impact figure

To estimate the financial impact of switching from a diesel to LNG fueling option, some of the factors to be considered include the cost of purchasing LNG tenders, costs of converting the entire diesel fueling network to LNG, and costs with training employees on the proper handling of LNG. An estimate for many of these transition costs is not available at this time, however, the cost to purchase a new LNG tender is approximately \$1 million. Using a CSX active locomotive fleet count of 3,500 locomotives, and assuming a cost of \$1 million per LNG tender, the cost to fortify the fleet would cost approximately \$3.5 billion (3,500 locomotives X \$1 million per LNG tender). As a general approximation, CSX estimates the maximum potential financial impact figure to change over the infrastructure and processes to be twice the minimum financial impact figure, resulting in a maximum potential financial impact figure of \$7 billion.

Cost of response to risk

227,640,000

Description of response and explanation of cost calculation

CSX continues to evaluate ways to improve locomotive fuel efficiency and implement initiatives/technologies. CSX has invested approximately \$820 million over the last five years, 2015 - 2019, in fuel-saving locomotive technologies and plans to continue to invest millions more in the next five years in technologies to further improve fuel efficiency and reduce environmental impact. For example, use of the Trip Optimizer tool has increased fuel efficiency by 10%. In addition, CSX is further improving efficiencies by implementing scheduled railroading which includes running longer direct route trains, efficient idling technology; such as, Automatic Engine Start Stop, which automatically shuts down locomotives when not in use, shutting down trailing units, and employee training and education. These programs are part of CSX's overall effort to operate as efficiently as possible. CSX is also working to improve capacity and efficiency to reduce both emissions and fuel costs through extensive efforts in capacity improvements. Completion of the Virginia Avenue Tunnel in Washington, DC – which was completed in Fall 2018 – now provides for the efficient movement of double-stacked freight in an area of the East Coast with significant traffic congestion, reducing emissions of pollutants in a heavily populated region. Capital spend in 2020 was \$1.63 billion. The cost of response to risk associated with managing climate-related issues is estimated to be 14% of the annual capital spend.

Comment

Capital spend in 2020 was \$1.63 billion. Costs associated with managing climate-related issues is estimated to be 14%.

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Downstream

Risk type & Primary climate-related risk driver

Market

Changing customer behavior

Primary potential financial impact

Decreased revenues due to reduced demand for products and services

Company-specific description

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 CSX transports, including import and export volume, could reduce revenues or have other adverse effects on the company's cost structure and profitability. For example, if climate change negatively affects the U.S. agricultural industry yield, commodity pricing could increase, resulting in lower revenue for CSX. Domestic coal-fired energy generation is expected to continue to decrease as utility providers face regulatory pressures along with depressed domestic demand and volatility in the global market. The impact of the coal market changes continued through 2020. Full-year coal volume was lower in 2020 as compared to 2019 (637,000 carloads of coal in 2020 vs. 843,000 in 2019), volumes in both years were a significant decline from 2015 (1.063 million carloads of coal delivered in 2015). This decline represents a loss of approximately \$500 million in revenue, pushing losses in CSX's coal revenue since 2011 to more than \$2 billion. Further, abundant, relatively low-cost natural gas prices have allowed natural gas fired units to serve base load, while coal is increasingly being dispatched to serve intermediate load. 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, be forced to make workforce adjustments, and face pressure on other related activities. Collectively, this could have a material adverse effect on the company's financial condition, operations, and liquidity.

Time horizon

Short-term

Likelihood

About as likely as not

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

1,369,940,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

CSX generated \$10.538 billion of revenue in 2020 from three primary lines of business: merchandise, coal, and intermodal. The sector that is primarily at risk from changing customer behavior due to climate change is coal. The coal business accounted for 13% of revenue and 11% of volume in 2020. The company moves domestic coal, coke, and iron ore to electricity-generating power plants, steel manufacturers, and industrial plants as well as export coal to deep-water port facilities. Roughly 33% of export coal and most of the domestic coal that the company transports is used for generating electricity. A shift away from coal as an acceptable energy source could potentially impact revenue. The potential financial impact figure was calculated by using 13% of \$10.538 billion (total revenue in 2020).

Cost of response to risk

227,640,000

Description of response and explanation of cost calculation

CSX continues to invest in a diversified portfolio, and now 87% of its business revenue is not related to coal. CSX is working to expand other offerings, such as intermodal, which is an important part of the business strategy and capitalizes on the environmental efficiency of long-haul rail shipments. As a conservative estimate, CSX devotes 14% of annual capital expenditure to strategic projects each year. The cost of response to risk associated with managing climate-related issues is estimated to be 14% of \$1.626 billion (total capital spend in 2020). Example projects include locomotive trip optimizer, automatic engine start stop, and XGate. Over the past six years, CSX has invested nearly \$1 billion in the intermodal market and the effort to convert intermodal freight from highway to rail.

Comment

Capital spend in 2020 was \$1.63 billion. Costs associated with managing climate-related issues is estimated to be 14%.

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 19,500-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 accounted for 16 percent of revenue and 46 percent of volume in 2020. 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)

1,693,000,000

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 \$1.693 billion which represents 16% of the total \$10.583 billion in revenue for 2020. CSX made this range estimation using the intermodal business revenue which accounted for 16 percent of the \$10.583 billion in revenue in 2020.

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 its Select Sites certification program. This program reviews potential manufacturing and distribution sites from any sector that could easily utilize rail service and 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 22 Select Site locations throughout CSX's geographic area listed on CSX's website, three 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. For example, a 348 acre Select Site located in Washburn Switch Business Park in Shelby, North Carolina was purchased by an undisclosed buyer resulting in revenue from both the sale and future CSX rail freight services. 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. 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.

Identifier

Opp2

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 change realities affect downstream markets, CSX is well positioned to support these new and emerging markets. For example, the increased demand for domestic natural gas has created an opportunity for CSX to display agility in serving new and evolving energy markets and geographies.

The impact of low-cost natural gas on petrochemical production is driving major opportunities for CSX to serve fractionators and ethylene crackers, and CSX's extensive network and the efficient, environmentally friendly mode of transport offered by rail means CSX is well-equipped to support the shipment of shale gas extraction materials (frac sand and pipe), as well as the natural gas liquids and crude oil extracted from shale. Specifically, given CSX's proximity to the Marcellus-Utica shale region and to several East Coast refineries, CSX is playing a key role in supporting the expansion into new forms of energy. The CSX locomotive and railcar resources needed to haul materials, expert CSX transportation strategy and solutions, and seamless service

provided by CSX are what make it possible to consistently provide customers with benefits related to cost savings, timely service, flexibility to adjust to market changes, and access to key markets. These benefits are possible due to CSX being one of only two Class I railroads to provide service to this area and CSX's 19,500-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 United States where there is significant consumption of energy products.

Since natural gas is a primary component of a wide range of petrochemicals, and prices are currently at historical lows, chemical companies are investing in U.S. production capacity. CSX opportunities include transporting components supporting shale gas extraction, as well as transporting the natural gas liquids and crude oil from the shale.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium

Are you able to provide a potential financial impact figure?

Yes, a single figure estimate

Potential financial impact figure (currency)

4,000,000

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

CSX's chemical business generated revenues of \$2.309 billion in 2020 (22% of total revenue) as compared to \$2.343 billion in 2019, a \$34 million decrease in chemical business revenues, contributed primarily to the 2020 pandemic impacts. Although revenue in this sector is lower than 2014 and 2015, the low price of natural gas supports the global competitiveness of U.S. producers in the other chemical markets, and the core chemicals business is expected to continue to show moderate growth in the future. The potential financial impacts were calculated using the difference between chemical business revenue in 2019 compared to 2018. Due to the negative impacts of the 2020 pandemic, CSX feels the representation of financial impact is better shown by the 2018 to 2019 change than the 2019 to 2020 change in chemical generated revenues. CSX's chemical business generated revenues of \$2.343 billion in 2019 (20% of total revenue) compared to \$2.339 billion in 2018 which represents the \$4,000,000 potential financial impact figure.

Cost to realize opportunity

357,720,000

Strategy to realize opportunity and explanation of cost calculation

CSX ships a variety of energy products, with a vital role in supporting domestic energy production to promote American energy independence. For example, CSX moves ethanol, crude oil, frac sand, natural gas, liquified petroleum gas, and coal. CSX has invested in its network to support these industries, including \$26 million on its River Line to support growth for all customers, including the chemical market. This represents an opportunity for CSX because with a 19,500-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. The CSX total capital expenditure investment was \$1.626 billion in 2020. Typically, capital expenditures are focused on supporting those business growth opportunities that deliver significant revenues back to the company. Since CSX's chemical market accounted for 22% of revenue for 2020, a reasonable "cost to realize" estimate is to assume 22% (\$357,720,000) of the total 2020 capital expenditures (\$1.626 billion) was focused toward supporting and growing chemical market revenues.

Comment

CSX's chemical market accounted for 22% of revenue for 2020 therefore its estimated that 22% (\$357,720,000) of the total 2020 capital expenditure (\$1,626,000,000) benefits the chemical market.

Identifier

Opp3

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Shift in consumer preferences

Primary potential financial impact

Increased revenues resulting from increased demand for products and services

Company-specific description

Since CSX rail transport is four times more fuel efficient than highway transport, CSX continues to support policies focused on partnering with customers to use train service for long haul and truck service for local delivery, thereby reducing highway congestion and associated GHG emissions. Efficiency benefits realized from the CSX Scheduled Railroad operating model continue to reduce CSX greenhouse gas emissions. The CSX rail network of 19,500 route miles of freight rail over 23 states east of the Mississippi River, the District of Columbia and two Canadian provinces provides shippers the ability

to easily access CSX transportation services for an efficient and environmentally friendly way to haul their freight. CSX communicates to its customers the climate change and transportation efficiency benefits associated with the movement of goods via CSX train versus truck. As customers pursue less carbon intensive modes of transporting freight, CSX rail services provide an opportunity for its customers to reduce their climate footprint. This shift toward a low carbon economy provides increased revenue opportunities for CSX. Over the past 8 years, CSX has invested more than \$1 billion to enhance its intermodal network. In the last six years, the CSX intermodal business line increased intermodal volume by 6%, increasing from 40% of rail volume in 2014 to 46% of total rail volume in 2020. In 2020, CSX's overall business strategy continued its focus on its system-wide operating model referred to as "scheduled railroading" which relies upon developing and strictly maintaining a scheduled service plan with an emphasis on optimizing assets which results in less idle time for locomotives, less locomotives operating, and longer trains., The results are more efficient fuel use (with corresponding reductions in greenhouse gas emissions) and on-time product delivery. In the future, CSX expects to see continued fuel efficiency improvements, lower operating costs, and continued growth in the CSX intermodal business as shippers seek more carbon-friendly ways to haul freight.

Time horizon

Short-term

Likelihood

Very likely

Magnitude of impact

Medium-high

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

1

Potential financial impact figure – maximum (currency)

1,693,000,000

Explanation of financial impact figure

CSX cannot specifically quantify the range of financial impact for this 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 \$1.693 billion which represents 16% of the total \$10.583 billion in revenue for 2020. CSX made this range estimation using the intermodal business revenue which accounted for 16 percent of the \$10.583 billion in revenue in 2020.

Cost to realize opportunity

0

Strategy to realize opportunity and explanation of cost calculation

There is no additional cost to realize this opportunity since the CSX Intermodal network is established and ready to accept growth from shippers looking for a low-carbon option for shipping freight. Adding additional containers to our intermodal trains does not add any additional overhead cost for additional labor or equipment. CSX has implemented a “truck-like service” strategy focused on reducing the time it takes to ship a customer’s product from point A to point B, including a narrower window of arrival time at lower cost to move and reduced emissions. Success in “truck-like service” is measured through the Trip Plan Performance metric. Trip Plan Performance measures success meeting end-to-end customer commitments based on a specific time of arrival. By first quarter 2021, CSX was achieving 85% success of Trip Plan Performance.

Comment

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization’s strategy and/or financial planning?

Yes

C3.1b

(C3.1b) Does your organization intend to publish a low-carbon transition plan in the next two years?

	Intention to publish a low-carbon transition plan	Comment
Row 1	No, we do not intend to publish a low-carbon transition plan in the next two years	

C3.2

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

Yes, qualitative and quantitative

C3.2a

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

Climate-related scenarios and models applied	Details

<p>2DS</p> <p>Other, please specify</p> <p>Internal Methodology</p>	<p>CSX utilized a climate-related scenario analysis to establish a new GHG emissions intensity reduction target approved by the Science Based Target Initiative (SBTi), which is consistent with reductions required to keep global warming to well-below 2 degrees Celsius. 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, short-, medium- and long-term time horizons are considered, and action is taken. Company-wide short-term horizon scenarios are linked to the CSX capital expenditure program which is based on a three-year cycle. A case-study example of a short-term scenario analysis is creating a capital budget in response to the likelihood and extent of flooding along the Gulf Coast which resulted in decisions to harden tracks and raise critical equipment off the ground in preparation for forecasted severe weather. The short-term scenario analysis relied upon historical flooding locations, frequencies, and impacts to identify and prioritize those regions likely to experience future problems. To estimate an appropriate level of capital expenditure (CAPEX) funding to address future flooding, CSX estimates it invests approximately 14% of its total capital spend each year on managing climate-related issues. In 2020, CSX estimates it spent \$228 million on managing climate related issues. Company-wide medium-term horizon scenarios include planning for significant investments such as locating, constructing, or consolidating rail facilities and infrastructure. A case study example of a medium-term scenario analysis includes the CSX Select Site Programs to identify potential manufacturing and distribution sites from any sector that could easily utilize rail service and take advantage of the inherently environmentally friendly rail transportation network (leveraging the more climate friendly benefits of moving freight by rail as compared to truck, since rail is four times more fuel efficient). Company-wide long-term horizon scenarios include strategic planning based upon growth and technology projections. A case study example of a long-term scenario analysis includes 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. 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 in the northern regions of CSX's territory during the first quarter of 2014. CSX has invested more than \$11 billion into the company over the past five years.</p>
---	--

C3.3

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

Have climate-related risks and opportunities	Description of influence
--	--------------------------

	influenced your strategy in this area?	
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 83% of revenue, which equates to the revenue from the merchandise and intermodal business lines in 2020. 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 19,500-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 continues to decrease in 2020 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 five years, the CSX intermodal business line increased by 3% increasing from 40% of volume in 2014 to 46% of volume in 2020.</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 95% 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 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. According to current research, a</p>

		locomotive can be retrofitted to use LNG, a "tender car" to carry the fuel is possible, and a viable, safe, fueling network including fueling facilities can be built. Continued growth in domestic natural gas production and substantially lower natural gas prices compared to crude oil prices could result in significant cost savings for locomotives that use LNG as a fuel source in the long term. The EIA projects diesel fuel will cost up to three times more than LNG through 2020. An added benefit of using LNG is the reduction in GHG emissions as compared to diesel, helping transition to a lower-carbon footprint.
Operations	Yes	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 19,500-mile network. CSX is constantly reinvesting in infrastructure – in 2019, CSX invested \$1.66 billion into its network, and another \$1.63 billion in 2020. A case study example would be CSX reviewed historical recovery/response actions of extreme weather events over the last 10 years. CSX spent approximately \$178 million responding to/recovering from the effects of hurricanes, tropical storms and floods. These responses include the Nashville floods (2010 - \$25.9 million), 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), and Hurricane Florence (2018 - \$29.4 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.
--	--	---

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
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 approximately \$178 million responding to/recovering from the effects of hurricanes, tropical storms and floods over the last 10 years. These responses include the Nashville floods (2010 - \$25.9 million), 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), and Hurricane Florence (2018 - \$29.4 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>

C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

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

Year target was set

2019

Target coverage

Company-wide

Scope(s) (or Scope 3 category)

Scope 1+2 (location-based)

Intensity metric

Other, please specify

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

Base year

2014

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

12.1

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure

100

Target year

2029

Targeted reduction from base year (%)

37

Intensity figure in target year (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 (metric tons CO₂e per unit of activity)

10.43

% of target achieved [auto-calculated]

37.3017645745

Target status in reporting year

Underway

Is this a science-based target?

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

Target ambition

Well-below 2°C aligned

Please explain (including target coverage)

2020 GHG emissions intensity is 10.43metric tons CO₂e/million gross ton-miles (MGTM), as compared to the 2014 base year value of 12.10 metric tons CO₂e/MGTM. The 2020 value represents a decrease of 13.8% 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 37.3% by 2029 as compared to base year 2014. Thus far, CSX is underway with this target in 2020 with a 13.8% reduction in emission intensity as compared to base year 2014, achieving 37% of its target in the first 6 years. For reporting year 2020, as compared to base year 2014, absolute Scope 1 emissions decreased by 1,697,069metric tons CO₂e and absolute Scope 2 location-based emissions decreased by 142,312metric tons CO₂e. These gains in efficiency are delivered by investing in employee training, technological advancements, programmatic efforts, and locomotive upgrades.

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: absolute or intensity

Absolute

Target type: energy carrier

Electricity

Target type: activity

Consumption

Target type: energy source

Renewable energy source(s) only

Metric (target numerator if reporting an intensity target)

Percentage

Target denominator (intensity targets only)

Base year

2014

Figure or percentage in base year

0

Target year

2029

Figure or percentage in target year

50

Figure or percentage in reporting year

10

% of target achieved [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 (including target coverage)

CSX has a company-wide target to reduce scope 2 emissions 50% by year 2029 from a 2014 base year, to meet the science-based target set in 2020. CSX plans to achieve this target through procuring renewable energy certificates (RECs). CSX procured 46,000 RECs accounting for 10% of electricity consumption in 2020.

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	125,491
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)

8,800

Scope(s)

Scope 1

Voluntary/Mandatory

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

2,640,000

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

19,000,000

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 2020, CSX saved approximately 870,000 gallons of fuel as a result of this program. 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 2020, capital expenditure totaled \$1.626 billion therefore CSX focused approximately \$228 million in fuel efficiencies. As an estimate AESS accounted for approximately 8% 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)

Scope 1

Voluntary/Mandatory

Voluntary

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

11,620,000

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

83,000,000

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 2020, CSX saved approximately 3.8 million gallons of fuel as a result of this program. 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 2020, capital expenditure totaled \$1.626 billion therefore CSX focused approximately \$228 million in fuel efficiencies. As an estimate ERAD accounted for approximately 36% of the focus.

Initiative category & Initiative type

Energy efficiency in production processes
Automation

Estimated annual CO2e savings (metric tonnes CO2e)

33,800

Scope(s)

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 approximately 2,100 locomotives to reduce Scope 1 emissions (this estimate includes the emission reductions associated with installations completed in 2016). 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 2020, CSX saved approximately 3.3 million gallons of fuel as a result of this program. Trip Optimizer technology is operable for the life of the locomotive, which is typically 30 years. CSX estimates 14% of its capital expenditure each year is focused on fuel efficient technologies and processes. In 2020, capital expenditure totaled \$1.626 billion therefore CSX focused approximately \$228 million in fuel efficiencies. As an estimate Trip Optimizer accounted for approximately 31% of the focus.

Initiative category & Initiative type

Company policy or behavioral change
Resource efficiency

Estimated annual CO2e savings (metric tonnes CO2e)

25,900

Scope(s)

Scope 1

Voluntary/Mandatory

Voluntary

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

7,690,000

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

0

Payback period

<1 year

Estimated lifetime of the initiative

Ongoing

Comment

Trailing Unit Shutdown: Trailing Unit Shutdown is an operational change rather than a technology enhancement. By shutting down the backup locomotives that are behind the lead locomotive when they are not needed, significant fuel savings has been achieved without any impact to velocity or reliability. In 2020, CSX saved approximately 2.5 million

gallons of fuel as a result of this program. Trailing Unit Shutdown is a permanent change in operations that does not have an end date.

Initiative category & Initiative type

Low-carbon energy consumption
Low-carbon electricity mix

Estimated annual CO2e savings (metric tonnes CO2e)

17,891

Scope(s)

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)

46,000

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 95% 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 or do they enable a third party to avoid GHG emissions?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Company-wide

Description of product/Group of products

A typical CSX freight train is on average two to four 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.

Are these low-carbon product(s) or do they enable avoided emissions?

Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions

Other, please specify

Calculated avoided emissions

% revenue from low carbon product(s) in the reporting year

83

Comment

Considering the volume of freight CSX hauled in 2020, 67% of the total revenue is attributable to the merchandise traffic and 16% revenue for intermodal - this represents 83% of the freight revenue that could have been moved by either truck or rail (the other 17% revenue consisted of coal and other freight likely only shipped by 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 9,409,758 metric tonnes CO₂e (as compared to the emissions from CSX's locomotives). The revenue for

merchandise and intermodal combined was \$8.75 billion which represents 83% of the 2020 total revenue of \$10.538 billion.

C5. Emissions methodology

C5.1

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

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 37.3% by 2029 as compared to base year 2014. Thus far, CSX is underway with this target in 2020 with a 13.8% reduction in emission intensity as compared to base year 2014, achieving 37% of its target in the first 6 years. For reporting year 2020, as compared to base year 2014, absolute Scope 1 emissions decreased by 1,697,069 metric tons CO₂e and absolute Scope 2 location-based emissions decreased by 142,312 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 (eGRID2019). Although CSX 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 37.3% by 2029 as compared to base year 2014. Thus far, CSX is underway with this target in 2020 with a 13.8% reduction in emission intensity as compared to base year 2014, achieving 37% of its target in the first 6 years. For reporting year 2020, as compared to base year 2014, absolute Scope 1 emissions decreased by 1,697,069 metric tons CO₂e and absolute Scope 2 location-based emissions decreased by 142,312 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 (2020). CSX did not begin tracking or calculating market-based electricity until 2017. CSX uses location-based Scope 2 emissions in the current SBT to reduce GHG emission intensity by 37.3 percent by 2029 as compared to base year 2014. For reporting year 2020, as compared to base year 2014, absolute Scope 1 emissions decreased by 1,697,069 metric tons CO₂e and absolute Scope 2 location-based emissions decreased by 142,312 metric tons CO₂e. These gains in efficiency are delivered by investing in employee training, technological advancements, programmatic efforts, and locomotive upgrades.

C5.2

(C5.2) 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)

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)

3,815,524

Comment

2020 gross global Scope 1 emissions were independently verified.

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 (eGRID2019). The market-based emission factors are obtained from Green-e Energy Residual Mix Emissions Rates (2020). In 2020, 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, 2020 Greenhouse Gas Emissions Intensity for the national level. Scope 2 location-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

185,216

Scope 2, market-based (if applicable)

145,420

Comment

2020 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 and Scope 2 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

Metric tonnes CO₂e

304,476

Emissions calculation methodology

CSX reviewed annual spend from purchased goods and services and eliminated purchased goods and services accounted for in other areas of the GHG Inventory. 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.

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

0

Please explain

Annual spend from purchased goods and services is obtained directly from CSX Procurement group. It is important to note that emissions from purchased goods and services are not included in CSX's GHG inventory because they are rough approximations based on simplified approaches.

Capital goods

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

1,261,792

Emissions calculation methodology

CSX reviewed annual spend from capital goods. 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.

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

0

Please explain

Annual spend from capital goods is obtained directly from the CSX Procurement group. It is important to note that emissions from capital goods are not included in CSX's GHG inventory because they are rough approximations based on simplified approaches.

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

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

823,537

Emissions calculation methodology

CSX estimates fuel-and-energy related activities (not included in Scope 1 or 2) by multiplying the annual 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. 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.

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

0

Please explain

Annual spend from 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. It is important to note that emissions from fuel-and-energy related activities (not included in scope 1 and 2) are not included in CSX's GHG inventory because they are rough approximations based on simplified approaches.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

11,924

Emissions calculation methodology

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.

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

100

Please explain

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

Metric tonnes CO₂e

54,459

Emissions calculation methodology

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. The Average-Data

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 (MTCO_{2e})/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.

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

0

Please explain

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.).

Business travel

Evaluation status

Relevant, calculated

Metric tonnes CO_{2e}

16,037

Emissions calculation methodology

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 2020), 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 2005-2020, 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 2010-2020, 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).

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

80

Please explain

Employee business travel data for rental car mileage, taxi/shuttles, and commercial airlines was obtained from third-party suppliers which totals 14,750 metric tons of CO₂e. This is approximately 80% of the total employee business travel. Additional employee business travel, maintained by CSX, includes personal vehicle mileage which totals 1,287 metric tons of CO₂e.

Employee commuting

Evaluation status

Relevant, calculated

Metric tonnes CO₂e

87,630

Emissions calculation methodology

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 2020), 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-tocalculatedistance.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 2005-2020, with an average fuel economy of 22.5 mpg.

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

0

Please explain

Employee home and work zip codes used for the calculation are maintained by CSX.

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 products for use by others.

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?

No

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

0.00038

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

4,000,741

Metric denominator

unit total revenue

Metric denominator: Unit total

10,538,000,000

Scope 2 figure used

Location-based

% change from previous year

0.6

Direction of change

Increased

Reason for change

The slight increase in the Emission Intensity metric results from a significant decrease in GHG emissions by 504,183 metric tons CO₂e and total revenues by \$1.4 billion. The significant decrease in revenue was due primarily to the COVID-19 pandemic while

there were still improvements through operating efficiencies such as scheduled railroading and employee training and fuel efficiency technologies such as idle reducing technologies (AESS) and Trip Optimizer.

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

0.000019

Metric numerator: emissions in metric tons CO₂e

3,581,683

Metric denominator: unit

t.mile

Metric denominator: unit total

183,814,759,000

% change from previous year

-4.77

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 Scope2 emissions are not included in this emission intensity calculation. The improvement in the Emission Intensity metric results from a 494,586-metric ton CO₂e decrease in locomotive emissions and a freight haul volume decrease of 7.7%. This was in part due to the COVID-19 pandemic and in part accomplished as a result of improved train operating efficiencies, adherence to fuel management policies, and more fuel-efficient locomotives.

ALL

Scopes used for calculation of intensities

Report just Scope 1

Intensity figure

0.000019

Metric numerator: emissions in metric tons CO₂e

3,581,683

Metric denominator: unit

t.mile

Metric denominator: unit total

183,814,759,000

% change from previous year

-4.77

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 Scope2 emissions are not included in this emission intensity calculation. The improvement in the Emission Intensity metric results from a 494,586-metric ton CO₂e decrease in locomotive emissions and a freight haul volume decrease of 7.7%. This was in part due to the COVID-19 pandemic and in part accomplished as a result of improved train operating efficiencies, adherence to fuel management policies, and more fuel-efficient locomotives.

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 CO ₂ e)	GWP Reference
CO ₂	3,775,822	IPCC Fourth Assessment Report (AR4 - 100 year)
N ₂ O	28,209	IPCC Third Assessment Report (TAR - 100 year)
CH ₄	11,074	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	419	IPCC Fourth Assessment Report (AR4 - 100 year)

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO ₂ e)
United States of America	3,814,290
Canada	1,235

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	63,338
Mobile Combustion Sources	3,747,793
Landfills	2,887
Refrigerants (Losses)	419
Oil/Water Separators	1,086

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	3,581,683	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/region.

Country/Region	Scope 2, location-based (metric tons CO ₂ e)	Scope 2, market-based (metric tons CO ₂ e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
United States of America	185,214	145,409	419,881	46,000
Canada	2	12	257	0

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	185,216	145,420

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 185,216 metric tons CO ₂ e. Transport services activities (i.e. freight haul) utilize diesel-powered locomotives which do not contribute to scope 2 emissions.

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?

Remained the same overall

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 CO ₂ e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	56,496	Decreased	28	Purchase of 46,000 RECs in 2020 towards market-based scope 2. (Change in Scope 2 market based emissions)/(Previous year Scope 2 market-based emissions)*100% = (56,496)/(201,916)*100% = 28% decrease
Other emissions reduction activities	143,789	Decreased	3.2	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 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 decreased by 8% therefore it is estimated 8% reduction in absolute emissions were attributed to the COVID-19 pandemic (included in change in output) and the remaining reduction attributed to fuel efficiency initiatives. CSX total Scope 1 & 2 emissions in 2019 were 4,504,923 MTCO ₂ e and in 2020 were 4,000,740 MTCO ₂ e, therefore CSX arrived at 3.2% decrease through the equation (Change in Scope 1+2 emissions)/(Previous year Scope1+2 emissions)*100% = (143,789)/(4,504,923)*100% = 3.2% decrease. The 8% business decrease was factored out of this equation.
Divestment				
Acquisitions				
Mergers				
Change in output	360,394	Decreased	8	CSX business activity decreased by 8% therefore it is estimated 8% reduction in absolute emissions were attributed to business reduction due to the COVID-19 pandemic. CSX arrived at 8% decrease through the equation (Change in Scope 1+2 emissions)/(Previous year Scope1+2 emissions)*100% = (360,394)/(4,504,923)*100% = 8% decrease.
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?

Location-based

C8. Energy

C8.1

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

More than 5% but less than or equal to 10%

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)		0	14,972,172	14,972,172

Consumption of purchased or acquired electricity		46,000	374,138	420,138
Total energy consumption		46,000	15,346,310	15,392,310

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.

Fuels (excluding feedstocks)

Diesel

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

14,371,503

Emission factor

0.433

Unit

metric tons CO₂e per barrel

Emissions factor source

U.S.EPA Emission Factor Hub (March 26, 2020). The emission factor provided is a calculated combined emission factor using US EPA Emission Factor Hub (March 2020) emission factors and global warming potentials for CO₂, N₂O, and CH₄.

Comment

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

Fuels (excluding feedstocks)

Motor Gasoline

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

304,808

Emission factor

0.377

Unit

metric tons CO₂e per barrel

Emissions factor source

U.S. EPA Emission Factor Hub (March 26, 2020). The emission factor provided is a calculated combined emission factor using US EPA Emission Factor Hub (March 2020) emission factors and global warming potentials for CO₂, N₂O, and CH₄.

Comment

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

Fuels (excluding feedstocks)

Natural Gas

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

183,502

Emission factor

0.053

Unit

metric tons CO₂e per million Btu

Emissions factor source

U.S.EPA Emission Factor Hub (March 26, 2020). The emission factor provided is a calculated combined emission factor using US EPA Emission Factor Hub (March 2020) emission factors and global warming potentials for CO₂, N₂O, and CH₄.

Comment

Heat energy from fuel combustion used to power heaters, and equipment in rail yards and rail operations.

Fuels (excluding feedstocks)

Propane Liquid

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

101,413

Emission factor

0.241

Unit

metric tons CO₂ per barrel

Emissions factor source

U.S.EPA Emission Factor Hub (March 26, 2020). The emission factor provided is a calculated combined emission factor using US EPA Emission Factor Hub (March 2020) emission factors and global warming potentials for CO₂, N₂O, and CH₄.

Comment

Heat energy from fuel combustion used to power heaters, and equipment in rail yards and rail operations.

Fuels (excluding feedstocks)

Jet Gasoline

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

3,178

Emission factor

0.413

Unit

metric tons CO₂e per barrel

Emissions factor source

U.S.EPA Emission Factor Hub (March 26, 2020). The emission factor provided is a calculated combined emission factor using US EPA Emission Factor Hub (March 2020) emission factors and global warming potentials for CO₂, N₂O, and CH₄.

Comment

Jet Gasoline is used for company owned jets.

Fuels (excluding feedstocks)

Waste Oils

Heating value

LHV (lower heating value)

Total fuel MWh consumed by the organization

7,769

Emission factor

0.433

Unit

metric tons CO₂e per barrel

Emissions factor source

U.S.EPA Emission Factor Hub (March 26, 2020). The emission factor provided is a calculated combined emission factor using US EPA Emission Factor Hub (March 2020) emission factors and global warming potentials for CO₂, N₂O, and CH₄.

Comment

Heat energy from fuel combustion used to power heaters in rail yards

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

Unbundled energy attribute certificates, Renewable Energy Certificates (RECs)

Low-carbon technology type

Biomass

Country/area of consumption of low-carbon electricity, heat, steam or cooling

United States of America

MWh consumed accounted for at a zero emission factor

46,000

Comment

CSX procured 46,000 Renewable Energy Certificates in 2020 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
			The CSX rail transport mode does not obtain energy from the grid.

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

0.00188

Metric numerator

Other, please specify
gallons of fuel

Metric denominator

Revenue-ton.mile

Metric numerator: Unit total

345,176,694

Metric denominator: Unit total

183,814,759,000

% change from last year

-4.5

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 2020, CSX moved one ton of freight 533 miles on a single gallon of diesel fuel which was an efficiency increase of 24 RTMs/gallon from 2019 (508 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

9,409,758

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 more than 10 million metric tons of CO₂ annually. The basis for this calculation is the percentage of merchandise (43%) and intermodal (43%) freight transportation that could move by either highway or rail. 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

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 (optional)

227,640,000

Comment

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 breaking conditions. Abnormal breaking 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 2020, it is estimated CSX saved approximately 3.3 million gallons of fuel as a result of this program. CSX estimates the investment for fuel efficient technologies to be 14% of its total capital expenditure of approximately \$1.626 billion.

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_2020AudRep_FINAL 3June2021.pdf

Page/ section reference

Cover page to the Report titled "Verification of CSX Corporation 2020 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_2020AudRep_FINAL 3June2021.pdf

Page/ section reference

Cover page to the Report titled "Verification of CSX Corporation 2020 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_2020AudRep_FINAL 3June2021.pdf

Page/ section reference

Cover page to the Report titled "Verification of CSX Corporation 2020 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

 CSX_2020AudRep_FINAL 3June2021.pdf

Page/section reference

Cover page to the Report titled "Verification of CSX Corporation 2020 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

 CSX_2020AudRep_FINAL 3June2021.pdf

Page/section reference

Cover page to the Report titled "Verification of CSX Corporation 2020 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

 CSX_2020AudRep_FINAL 3June2021.pdf

Page/section reference

Cover page to the Report titled "Verification of CSX Corporation 2020 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

 CSX_2020AudRep_FINAL 3June2021.pdf

Page/section reference

Cover page to the Report titled "Verification of CSX Corporation 2020 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 originated or purchased any project-based carbon credits within the reporting period?

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

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 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 recommitted to participating in the CDP Supply Chain program in 2021 and continues to interact with suppliers to "live like CSX" as relates to sustainability and emission reduction initiatives. Moving forward, CSX implemented a mandatory participation from 100% of its suppliers in a ISNetworld questionnaire focused on sustainable practices and climate change. ISNetworld is a third-party interface used by CSX for supply chain qualifications through comprehensive assessments. Suppliers are asked to identify the proportion of their GHG emissions that they can attribute to business with CSX, company wide sustainable practices, and climate change focused questions to allow CSX to better understand its supply chain footprint. CSX asks that suppliers join in reducing environmental footprint, supporting sustainable development, and engaging on sustainability issues to maintain a commitment to social, environmental, and community stewardship. Environmental stewardship is key to CSX's business model, as an efficient way to transport goods. CSX follows rigorous environmental standards across its network and expects suppliers to work to the same standards, and "live like CSX".

Impact of engagement, including measures of success

CSX has fully engaged its suppliers in the ISNetworld questionnaire, and defines the measure of success as having 100% participation in the questionnaire. Full implementation has been achieved and 100% of supplier engagement is mandatory. CSX currently evaluates its suppliers according to safety, compliance, quality standards, and sustainability and makes recommendations for future improvements.

Comment

CSX has chosen to engage both with its suppliers and customers. CSX has high expectations of its 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.

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Collaboration & innovation

Details of engagement

Other, please specify

Collaboration through materiality assessment

% 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.

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. Success in gaining that value is determined by increased intermodal business and carload volumes. Between 2018 and 2020, intermodal volume increased from 45% of freight volume to 46% 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 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 three to five times more fuel efficient than moving freight by highway. In 2020, CSX's was included on the Dow Jones Sustainability Index (DJSI) for the tenth year for high performance in supply chain management as well as environmental management, corporate governance, and corporate citizenship/philanthropy.

C12.3

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following?

Direct engagement with policy makers
Trade associations

C12.3a

(C12.3a) On what issues have you been engaging directly with policy makers?

Focus of legislation	Corporate position	Details of engagement	Proposed legislative solution
Energy efficiency	Support	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	As Congress considers legislation to limit emissions of carbon dioxide and other greenhouse gases, it should take into account the environmental friendliness of freight railroading. According to an independent study for the Federal Railroad Administration, railroads on average are four times more fuel efficient than trucks. GHG emissions are directly related to fuel consumption. That means that moving freight by rail instead of truck reduces GHG

		<p>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.</p>	<p>emissions by 75%. Climate legislation offers an opportunity for policymakers to encourage the movement of more freight by environmentally friendly rail and to spur the development of carbon capture and storage technology.</p>
--	--	---	--

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership?

Yes

C12.3c

(C12.3c) Enter the details of those trade associations that are likely to take a position on climate change legislation.

Trade association

Association of American Railroads

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's 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.

How have you influenced, or are you attempting to influence their position?

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 2020, CSX provided \$703,518 in support to AAR.

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Engagement activities are in line with CSX's short- and long-term strategies, which are developed by Environmental and Strategic Planning teams considering sustainability goals and annual risk monitoring. Strategic plans and engagement opportunities are communicated by Federal and State Government Affairs teams, which all report to a single executive. This clear line of accountability aligns strategy development, activities, and communication. This process ensures a common approach across business divisions and geographies. Further, CSX develops and publishes an Environmental, Social, and Governance (ESG) Report (formerly the Corporate Social Responsibility (CSR) Report) that outlines the company's high-level performance and commitments in business, governance, environment, and safety, and describes interactions between the workforce, community, and value chain. The collaborative process of developing and publishing this report further aligns business strategy with execution and communication. In addition, the Governance and Sustainability Committee of the Board of Directors has oversight responsibility for environmental matters, including carbon emissions, and has responsibility for risk oversight and evaluation, including risks associated with energy and environmental policy.

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

 2020-CSX-ESG-Report-final.pdf

Page/Section reference

CSX 2020 Environmental, Social, and Governance (ESG) Report details CSX's 2020 ESG Performance Data on pages –131-141 and provides a TCFD index on pages –159-160

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

CSX 2020 ESG Report
https://s2.q4cdn.com/859568992/files/doc_downloads/sustainability/2020-CSX-ESG-Report-final.pdf

Publication

In mainstream reports

Status

Complete

Attach the document

 2020-CSX-Annual-Report.pdf

Page/Section reference

Governance - throughout and Form 10-K Page 104; Strategy - Page 9-17; Risks & opportunities - Form 10-K Page –8-13; Emission targets - Page 12-13; other metrics - throughout

Content elements

Governance
Strategy
Risks & opportunities
Emission targets
Other metrics

Comment

CSX 2020 Annual Report
https://s2.q4cdn.com/859568992/files/doc_financials/2020/ar/2020-CSX-Annual-Report.pdf

C15. 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 setup 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.

C15.1

(C15.1) 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 Financial Officer (CFO)

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	10,538,000,000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP?

No

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

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

18,571

Uncertainty (±%)

2

Major sources of emissions

Locomotive diesel emissions

Verified

No

Allocation method

Allocation based on another physical factor

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

Kellogg Company

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

1,491

Uncertainty (±%)

2

Major sources of emissions

Locomotive diesel emissions

Verified

No

Allocation method

Allocation based on another physical factor

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

The Dow Chemical Company

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO₂e

20,720

Uncertainty (±%)

2

Major sources of emissions

Locomotive diesel emissions

Verified

No

Allocation method

Allocation based on another physical factor

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 2020 was 533 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 2020), (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 2020, then 1,000,000 RTM/ (533 RTM/ gal) = 1,876 gallons of diesel fuel consumption. By multiplying the emission factors by 1,876 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 (March 2020); (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 2020), 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?

No

SC1.4b

(SC1.4b) Explain why you do not plan to develop capabilities to allocate emissions to your customers.

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 2020), and the individual customers Revenue Ton Miles.

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 am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain questions?
I am submitting my response	Investors Customers	Public	Yes, I will submit the Supply Chain questions now

Please confirm below

I have read and accept the applicable Terms