

Overview

- CSX Overview
- GHG and Footprint
- GHG Engagement – internally and externally

Overview of CSX



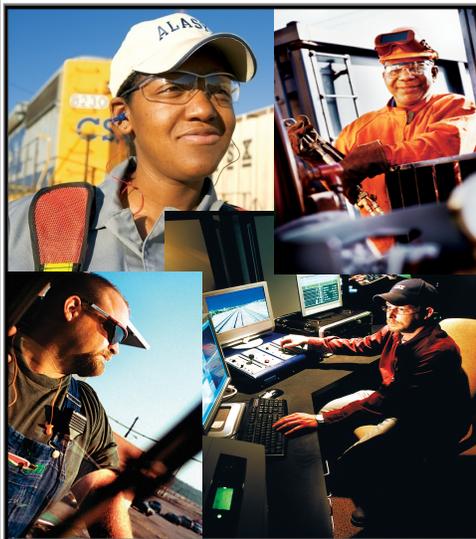
Who we are

- Founded in 1827
- Based in Jacksonville, FL
- Operate in 23 states
- 21,000 Miles of Network
- 32,000 Employees
- 1,300 Trains/Day



3

CSX is Built on a Strong Foundation



Vision

To be the safest, most progressive North American railroad, relentless in the pursuit of customer and employee excellence.

Purpose

To capitalize on the efficiency of rail transportation to serve America.

Core Values

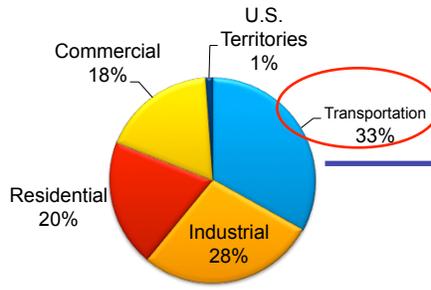
- It starts with the customer
- People make the difference
- Safety is a way of life
- Fact based
- Right results, right way



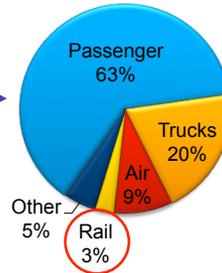
4

Rail GHG Contribution

U.S. Greenhouse Gas Emissions By Economic Sector

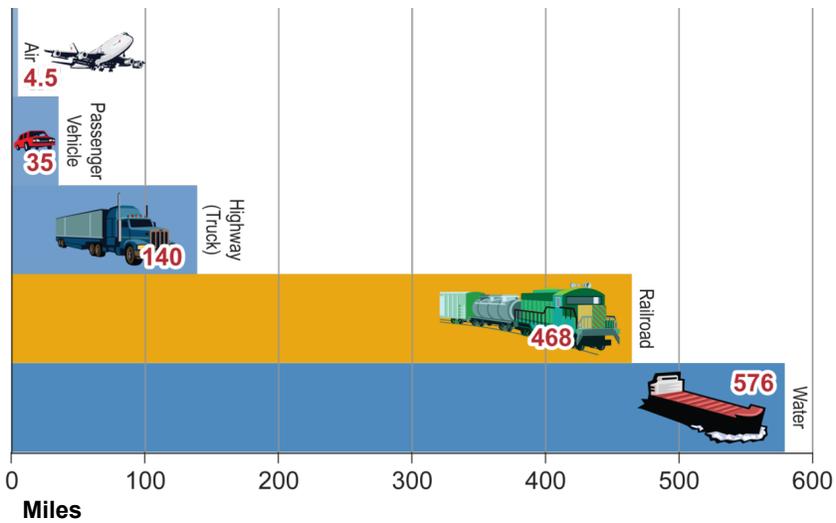


U.S. Greenhouse Gas Emissions By Transportation



Source: EPA, *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2006, Tables 2-15.*

Fuel Efficiency of Freight Rail



Revenue ton miles per gallon of fuel

CSX is Committed to Reducing Greenhouse Gases

Collaboration

- 1st in the transportation industry to join the EPA Climate Leaders Program.
- Charter railroad industry member of EPA SmartWay program



Information

- Only US railroad Listed on the Dow Jones Sustainability Index
- Carbon Disclosure Project S&P 500 and Global 500 Leadership Index

Dow Jones Sustainability Indexes
In Collaboration With SAM

CARBON DISCLOSURE PROJECT

Innovation

- 1st US freight railroad to developed an online carbon calculator to provide customers with a tool to determine the least GHG intensive way to transport their freight by land.



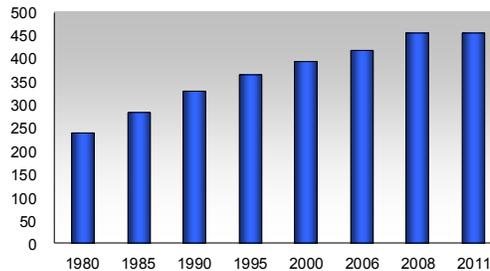
7

CSX is Committed to Reducing our Fuel Use

Investing in Continuous Improvement

- Fuel is one of the company's top operating costs
- Improved fuel efficiency by 90% since 1980:
 - More fuel efficient locomotives and technology (\$1.75B invested)
 - Increasing per-train capacity
 - GenSet locomotives
 - Employee training
 - Idle reduction

Gains in fuel efficiency 1980 - 2011
Measured as revenue ton-miles per gallon of fuel consumed



A gallon of diesel fuel moves a ton of freight by train 214 miles further than it did 29 years ago



8

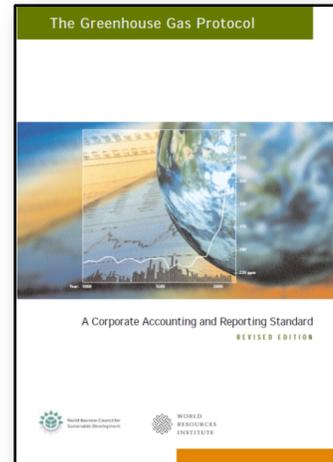
First Component of GHG Inventory: Develop a Customized Inventory

■ Required

- Establish inventory boundaries
- Inventory ALL company-wide emissions
- 6 major GHGs (CO₂, CH₄, N₂O, HFC, PFC, SF₆)
- Direct (Scope 1) emissions
- Indirect (Scope 2) emissions from purchased electricity, heat, and steam

■ Optional (Scope 3) Emissions

- International operations
- Offset projects
- **Employee travel and commuting**
- Product transport



9

First Component of CSX Inventory

■ Mobile Sources

- Approximately 4,000 locomotives
- Approximately 6,000 vehicles
- Off-road work equipment
- Air conditioning units on locomotives

■ Stationary Sources

- Approximately 5,000 buildings – electricity, steam, gas
- Air conditioning units for buildings
- Oil/water separators
- Landfills
- Switch heaters
- Comfort heaters



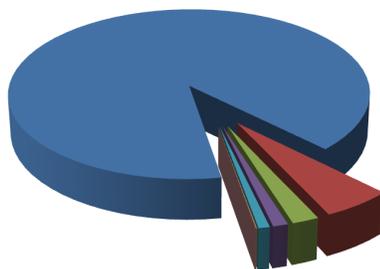
10

Other Sources of CSX GHG Emissions: Vehicles, Work Equipment and Generators

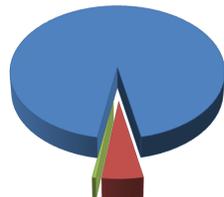


11

CSX Corporation GHG Emissions Profile: Base Year 2011



- Mobile - Locomotives
- Purchased Electricity
- Mobile - Vehicles
- Mobile - Other
- Stationary Sources
- Landfills
- O/W Separators
- Refrigerants



- Total Scope 1 Emissions
- Total Scope 2 Emissions
- Total Scope 3 Emissions

Emissions Source	% of Total Emissions
Mobile - Locomotives	89.709%
Purchased Electricity	5.549%
Mobile - Vehicles	2.097%
Mobile - Other	1.163%
Stationary Sources	0.885%
Employee Business Travel	0.515%
Landfills	0.067%
O/W Separators	0.013%
Refrigerants	0.001%

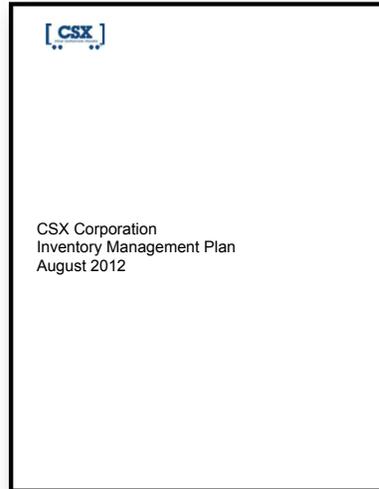
Total Scope 1	93.935%
Total Scope 2	5.549%
Total Scope 3	0.515%



12

Second Component of GHG Inventory: Create an Inventory Management Plan (IMP)

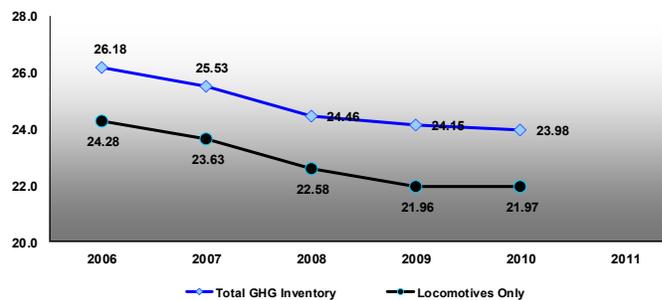
- Institutionalizes inventory process
- Leads to comprehensive & credible data management
- Increases accuracy and transparency of data and calculations
- Allows for continual improvement
- WRI -The Greenhouse Gas Protocol: (March 2004)
- EPA Climate Leaders Inventory Protocol



13

CSX GHG Goal setting

- Initial goal set and achieved – Reduce CSXT's 2006 Base Year emissions intensity* by 8% within 5 years.
- Current goal – reducing greenhouse gas emissions intensity* by 6 to 8 percent by 2020.



*Emissions data based on metric tons of CO₂ equivalents per million revenue ton-miles (MRTM).

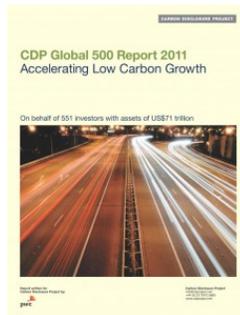
14

External engagement – Key Raters and Rankers

- Carbon Disclosure Project
- Dow Jones Sustainability Index
- JustMeans
- Bloomberg
- EIRIS
- ASSET4
- Maplecroft
- IW Financial



IW Financial



Bloomberg



15

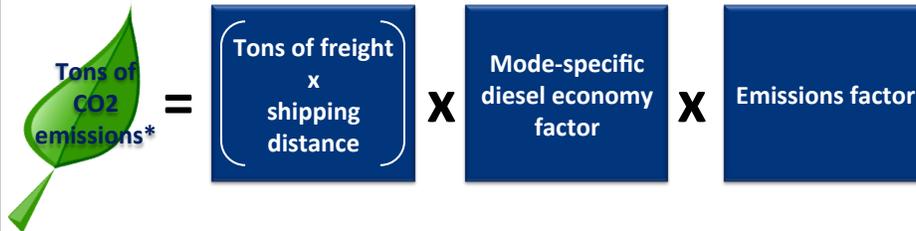
CSX's Customer Carbon Calculator

- Dual-function: intermodal container shipments and rail car option
- Consumer-facing version which allows general consumers to see the environmental benefit of freight rail in the global supply chain. This version allows the user to compare carbon emissions based on specific commodities while changing a few default values.



17

How are Emissions Estimated?



**The carbon emissions calculated with the CSX Carbon Calculator are intended to be used as an estimate of the total carbon emissions that can be avoided by shipping freight via rail.*

18

How it Works: Consumers

Getting there

Access the Carbon Calculator at <http://www.csx.com/index.cfm/customers/tools/carbon-calculator-v2e/>

Setting parameters

Choose a type of goods to ship via CSX

Carbon Calculator

Shipping by rail? [Check out our advanced CO₂ Emissions Calculators.](#)

CSX is committed to helping protect the environment. Use this calculator to see the amount of CO₂ saved when goods are moved on our rails. You can select from everyday items, choose the distance they'll travel, and select the freight volume. Change any of the variables to get a different outcome.

Goods
CSX trains carry goods from our everyday lives. Pick an item:

Bricks Groceries Electronics Rubber



19

How it Works: Consumers

Step 1

Choose the origin and destination cities from the map



Bricks



Groceries



Electronics



Rubber

Distance
Define your origin and destination. Click any two cities on this map to calculate your shipment's total travel distance.



Start: Washington DC - End: Jacksonville

Your shipment's total travel distance is approximately 786 rail miles.



20

How it Works: Consumers

Step 2

Choose the volume of your shipment

Distance
Define your origin and destination. Click any two cities on this map to calculate your shipment's total travel distance.



Start: Washington DC - End: Jacksonville

Your shipment's total travel distance is approximately 786 rail miles.

Freight Volume
Select the total tons of your commodity.

2,500 tons 5,000 tons 10,000 tons



21

How it Works

Results

The Carbon Calculator details the difference in carbon emissions from shipping via truck only versus via freight rail only, including equivalent measures of:

- Home electricity use
- Pine forest carbon absorption
- Passenger vehicle emissions



Results

Based on your type of goods and the tonnage, it would take **127** railcars, releasing approximately **188** tons of CO₂ emissions, to transport this shipment.

It would have taken **556** trucks emitting approximately **635** tons of CO₂ to move the same cargo load.

Shipping by CSX can reduce CO₂ emissions by approximately **447** tons compared to shipping by truck.

That equals:*

CO₂ emissions from the electricity use of **49** homes for one year.



or

86 acres of pine forests absorbing carbon for one year.



or

Removing the greenhouse gas emissions of **80** passenger vehicles for one year.



* Per the EPA [Greenhouse Gas Equivalencies Calculator](#).

22

How it Works: Customers

Getting there

Access the Carbon Calculator on CSX.com

Setting parameters

Choose to calculate either carload freight or intermodal freight

Carbon Calculator

CSX is as committed to helping protect the environment as it is to safely transporting your cargo on time. Use this calculator to see how CSX's fuel efficiency benefits the environment.

Carload Intermodal

Freight Information

Commodity

Type

Freight Weight Tons

Truck average miles per gallon



23

How it Works: Carloads

Step 1

Type a commodity keyword into the search box. A drop-down list of specific options will appear for you to choose from



Carbon Calculator

CSX is as committed to helping protect the environment as it is to safely transporting your cargo on time. Use this calculator to see how CSX's fuel efficiency benefits the environment.

Carload Intermodal

Freight Information

Commodity

Type popcorn

CORN (NOT POPCORN) OR POPCORN, EAR OR SHELLED, POPCORN, NOT POPPED.

Freight Weight 100+ Tons

Truck average miles per gallon 7

24

How it Works

Step 2

Enter the cargo weight, in tons

The tool will automatically calculate the transportation variables based on industry averages. These variables can be manually updated, if desired



Carbon Calculator

CSX is as committed to helping protect the environment as it is to safely transporting your cargo on time. Use this calculator to see how CSX's fuel efficiency benefits the environment.

Carload Intermodal

Freight Information

Commodity

Type POPCORN, NOT POPPED

Freight Weight 500 Tons

Truck average miles per gallon 7

Mode of Transportation Note, you may add up to three segments (see below).

Segment 1 Click to Close

Select mode for segment

Rail

Truck

Transportation Variables

Tons per Unit and Number of Units based on industry averages for commodity weight and mode of transportation. Tons per unit may be customized, if desired.

Tons per unit 17 Number of units 29

25

How it Works

Step 3

Choose mode of transportation for this segment

The transportation variables will automatically update to reflect any changes in mode



Carbon Calculator

CSX is as committed to helping protect the environment as it is to safely transporting your cargo on time. Use this calculator to see how CSX's fuel efficiency benefits the environment.

Carload Intermodal

Freight Information

Commodity

Type POPCORN, NOT POPPED,

Freight Weight 500 Tons

Truck average miles per gallon 7

Mode of Transportation Note, you may add up to three segments (see below).

Segment 1 Click to Close

Select mode for segment

Rail

Truck

Transportation Variables

Tons per Unit and Number of Units based on industry averages for commodity, weight and mode of transportation. Tons per unit may be customized, if desired.

Tons per unit 17 Number of units 29

26

How it Works

Step 4

Select the shipping distance by:

A) Choosing origin and destination from the drop-down lists, or

B) Manually entering a distance (in miles)



Carbon Calculator

CSX is as committed to helping protect the environment as it is to safely transporting your cargo on time. Use this calculator to see how CSX's fuel efficiency benefits the environment.

Carload Intermodal

Freight Information

Commodity

Type POPCORN, NOT POPPED,

Freight Weight 500 Tons

Truck average miles per gallon 7

Mode of Transportation Note, you may add up to three segments (see below).

Segment 1 Click to Close

Select mode for segment

Rail

Truck

Transportation Variables

Tons per Unit and Number of Units based on industry averages for commodity, weight and mode of transportation. Tons per unit may be customized, if desired.

Tons per unit 17 Number of units 29

Distance

Origin DC Washington

Destination FL Jacksonville or 706

27

How it Works

Step 5

Choose to add another segment using the same steps, or calculate your carbon savings



Carbon Calculator



CSX is as committed to helping protect the environment as it is to safely transporting your cargo on time. Use this calculator to see how CSX's fuel efficiency benefits the environment.

Carload
Intermodal

Freight Information

Commodity
Type:

Freight Weight: Tons

Truck average miles per gallon:

Mode of Transportation Note, you may add up to three segments (see below).

Segment 1

Select mode for segment ▼ Click to Close

Rail
 Truck

Transportation Variables

Tons per Unit and Number of Units based on industry averages for commodity, weight and mode of transportation. Tons per unit may be customized, if desired.

Tons per unit: Number of units:

Distance

Origin: or

Destination:

Add Another Segment
Calculate Now

28

How it Works

Results

The Carbon Calculator details the difference in carbon emissions from shipping via truck versus via freight rail, including equivalent measures of:

- Home electricity use
- Pine forest carbon absorption
- Passenger vehicle emissions



Results	Approx. tons CO ₂
Your total approximate CO ₂ emissions:	9
For this shipment, if this cargo were shipped by truck only:	29
For this shipment, if this cargo were shipped by CSX rail only:	9

Shipping by CSX can reduce CO₂ emissions by approximately 20 tons compared to shipping by truck.

That equals:*

CO₂ emissions from the electricity use of **2** homes for one year. 

or

3 acres of pine forests absorbing carbon for one year. 

or

Removing the greenhouse gas emissions of **3** passenger vehicles for one year. 

Print Page
Reset

* Per the EPA [Greenhouse Gas Equivalencies Calculator](#).

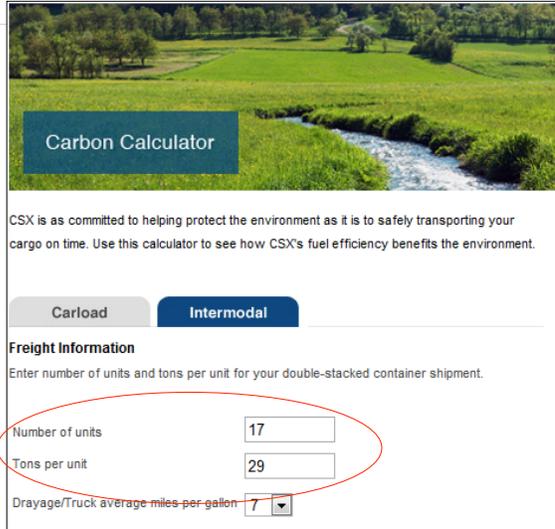
29

How it Works: Intermodal

Step 1

Enter the number of units and tons per unit for your double-stacked container shipment

Adjust truck average miles per gallon if desired



Carbon Calculator

CSX is as committed to helping protect the environment as it is to safely transporting your cargo on time. Use this calculator to see how CSX's fuel efficiency benefits the environment.

Carload Intermodal

Freight Information

Enter number of units and tons per unit for your double-stacked container shipment.

Number of units

Tons per unit

Drayage/Truck average miles per gallon



30

Conclusions

- GHG reduction is a key focus for CSX – good for the environment and the bottom line
- Shipping by rail helps customers reduce their scope 3 GHG footprint
- CSX has made it easy for our customers, employees, and the public to recognize the benefits of shipping by rail



31