



## Shipping by rail can help you reduce your carbon footprint by up to 82%

Find out your company's carbon emission  
savings with our new Carbon Estimator



**What's the environmental  
impact of your shipments?**

**What's your carbon savings potential?**

**It may be more significant than you think.**

To help you determine that, we've created the BNSF Carbon Estimator tool. Our Carbon Estimator tool quantifies the amount of carbon emissions that can be saved by using a carload or intermodal rail solution instead of truck only. With this tool, you can plug in your own specific shipping information and receive a customized report comparing the carbon output of a rail shipment vs. carbon output of the same shipment by truck.

Rail is the most environmentally-friendly mode of land transportation. Companies that ship by rail achieve significant environmental benefits. In addition to helping reduce overall transportation costs, shipping with BNSF is part of an effective strategy to reduce your company's overall greenhouse gas (GHG) emissions, and thus keeping the environment cleaner for generations to come.

## What makes our Carbon Estimator different from others?

The BNSF Carbon Estimator tool features a complex methodology to ensure that the results are 100% relevant and meaningful to you. The tool bases its calculations on the following factors:

- Commodity Group and Type
- Distance
- Weight
- Unit Volume

It also takes into consideration assumptions for customized dray and long-haul requirements.

## Go Ahead. Give it a Try.

Using the Carbon Estimator tool is simple. Just follow these four easy steps:

### Step 1: Select Commodity Group and Type.

(The "Tons per Unit" value will be automatically calculated based on your commodity type selection)

### Step 2: Enter the Number of Rail Units

(This is the number of rail units needed for this particular shipment)

### Step 3: Enter the Distance

(Input the origin and destination of your shipment and we will calculate the mileage for you, or if you know the exact mileage, just enter it in the "Rail Shipment Distance" field.)

### Step 4: Enter the Number of Trucks

(This number will represent the equivalent number of trucks to the rail units listed above)

Note: As an optional step, you can choose to input your own truck performance assumptions. If you wish to do this, select 'No' next to the 'Use BNSF Default Assumptions?' question."

The screenshot shows the BNSF Railway Carbon Estimator Entry Worksheet. At the top, there is a BNSF logo and navigation links for LOGIN, PRICES, and a Close button. The form is titled "BNSF Railway Carbon Estimator Entry Worksheet" and includes a Home link. A "Company Name" field is set to "BNSF". Below this, there are three columns for "Shipment #1", "Shipment #2", and "Shipment #3".

**Step 1: Commodity**

* Commodity Group:	?	Intermodal	Select One	Select One
* Commodity Type:	?	Trailers	Select Commodity Group	Select Commodity Group
* Tons per Unit:	?	15.6		

**Step 2: Rail Volume**

* Number of Rail Units:	?	500		
-------------------------	---	-----	--	--

**Step 3: Geography / Mileage**

Origin:	?	LOS ANGELES, CA		
Destination:	?	CHICAGO, IL		
* Miles:	?	2,192		

**Step 4: Comparable Truck Volume**

* Equivalent Trucks Required:	?	500		
-------------------------------	---	-----	--	--

**Detailed Truck Performance Assumptions**

Use BNSF Default Assumptions?

\* indicates required values

Buttons: Calculate, Clear

## ESTIMATE YOUR CARBON IMPACT TODAY

To access our Carbon Estimator and learn more about BNSF's environmental stewardship, visit [www.bnsf.com](http://www.bnsf.com).

### What is a "carbon footprint?"

A carbon footprint is a measure of the impact we have on the environment. It relates to the amount of Greenhouse Gas (GHG) emissions produced when burning fossil fuels for electricity, heating or transportation-related activities. GHG emissions, in the form of carbon dioxide, are believed to be the primary cause of climate change. The carbon footprint is expressed in metric tons of carbon dioxide equivalent (Mtons CO<sub>2</sub>e). Emissions are calculated by measuring the energy use (i.e. diesel fuel consumed) and multiplying it by emissions factors established by the U.S. Environmental Protection Agency (EPA).\*

### DID YOU KNOW ...?

- Reducing your carbon footprint by just 100 metric tons of CO<sub>2</sub>e is equal to the CO<sub>2</sub> emissions avoided from consuming 11,327 gallons of gasoline. (Source: U.S. EPA's Clean Energy Web site: [www.epa.gov/solar/energy-resources/calculator.html](http://www.epa.gov/solar/energy-resources/calculator.html) (December 2008))
- The annual carbon footprint of the average American is approximately 20 tons. (Source: EarthFirst.com)
- Railroads have increased fuel efficiency of their locomotives by 80 percent over the last 25 years.

\*BNSF Railway has provided this greenhouse gas emission comparison to illustrate the estimated environmental benefit that is obtained by utilizing rail as part of your company's transportation/distribution system. Source: The U.S. EPA's Climate Leaders program emission factors (Direct Consulting, Inc. These carbon estimation rely on data sources including BNSF shipment history and internal shipping metrics, along with assumptions for route mileage calculation, trucking system averages for empty miles, out-of-route miles, and fuel efficiency (Truck Assumption: 6.5 mpg highway, 6.1 mpg city).