

Energy Efficient Travel Fact Sheet

Overview

Transportation generates about one-third of the greenhouse gases emitted in the country, and Amtrak and train travel offer an alternative for a reduced impact on the environment. Amtrak embraces programs to reduce greenhouse gas emissions and provide energy-efficient transportation.

A Vehicle for Change

Amtrak passenger rail service provides an energy-efficient mode of transportation. With the electrified Amtrak Northeast Corridor and plans to expand the electrified territory, Amtrak already provides the advantages of “plug-in” electric technology that automobiles are just beginning to feature.

From programs aimed at allowing individual passengers to offset their carbon footprints to recycling, from environmental management to car and station cleaning, from energy-efficient facilities to wildlife protection, Amtrak is committed to conserving resources and protecting the environment.

Energy Conservation

Passenger rail travel is 14 percent more efficient than airline travel and 31 percent more efficient than automobile travel.¹ Since 2003, Amtrak has cut its diesel fuel use by more than 5 percent while increasing train frequencies on many routes. In the Northeast Corridor, where most trains already run on electricity, solar panels have been added to power 50 track lubrication systems. Service between Boston, New York and Washington, D.C. uses electric locomotives which can use regenerative braking, a system where the braking friction generates electricity while slowing the train. The resulting electricity can then be returned to the power grid through the overhead wire. Approximately 80 percent² of the electric fleet uses regenerative braking.

Amtrak is also taking measures to reduce the use of petroleum products, improving efficiency and reducing air emissions:

- Conducted a 12-month trial on the Heartland Flyer service (Oklahoma City to Fort Worth) using 20 percent biodiesel (beef tallow)
- Reducing the amount of "idling" time of diesel locomotives
- Employing bio-lubricants in hydraulic systems
- Using lighter and more aerodynamic vehicle carriers on the Auto Train®

Carbon Footprint

Amtrak is a charter member of the Chicago Climate Exchange. This organization uses a market-based system to reduce carbon dioxide emissions. Amtrak committed to reduce emissions from diesel locomotives by 6 percent from 2003 through 2010, the largest voluntary commitment in the United States. Through 2010, Amtrak exceeded all of the required reduction targets.

In 2009, Amtrak joined The Climate Registry (TCR). TCR is a non-profit organization founded to set consistent and transparent standards for businesses

¹ U.S. Department of Energy Transportation Energy Data Book Edition 30, 2011

² 29 of 49 AEM-7 (AC units), 15 HHP-8, 40 Acela (total of 104 – 84 AC units – 80 percent of Amtrak fleet)

and governments to calculate, verify and publicly report their greenhouse gas (GHG) emissions. As a member, Amtrak is committed to the organization's comprehensive reporting standards for recording and managing GHG emissions throughout its system including those from diesel and electric locomotives, passenger rail cars, maintenance equipment, stations, offices and other facilities. Amtrak completed its first official GHG inventory for calendar year 2010 and underwent a rigorous verification process by a third party. The inventory results are available at <https://www.crisreport.org/web/guest/analysis-and-reports>.

Amtrak's partnership with Carbonfund.org gives customers the opportunity to purchase carbon offsets for their travel on Amtrak, making it easy and affordable to reduce the carbon impact of their personal Amtrak trip. The offsets provided through this partnership have three areas of investment focus: renewable energy, energy efficiency and reforestation. By choosing rail travel and offsetting emissions at Carbonfund.org, Amtrak customers can travel carbon-neutral.

To learn more about offsetting carbon footprints, visit <http://carbonfund.org/>

Freight Railroads

Freight rail transportation is an efficient form of surface transportation. A freight train can move one ton of freight nearly 5001 miles on a single gallon of diesel fuel. It also helps control air emissions. If 10 percent of long-haul freight now moving by truck moved by rail, annual greenhouse gas emissions would fall by more than 12 million tons. American railroads move 40 percent of our nation's freight, but account for just 2.2 percent of all transportation-related greenhouse gas emissions, and just 0.6 percent of total U.S. greenhouse gas emissions.

Freight railroads are three times more fuel-efficient than trucks and emit three times less carbon dioxide (CO₂) than trucks for the same transportation service. A single freight train can take the load of 280 or more trucks – equivalent to 1,100 cars – off our overcrowded highways.

Environmental Management

The Amtrak Environmental Management System has programs to improve environmental performance through operating procedures, facilities management, pollution prevention, communication and training. Examples of these efforts include:

- Recycling programs for bottles, cans and newspapers on select trains, in stations and in Amtrak facilities system wide
- Cleanup of historic railroad contamination; some Amtrak sites have contamination that dates back to Amtrak's predecessor railroads
- Employee environmental awareness and regulatory training
- Program to mitigate train / bald eagle collisions and protect this species along the Hudson River in New York

Website

<http://whistlestop.amtrak.com>