Passenger Trains: An Energy and Climate Solution

Modern passenger rail can carry large numbers of people longer and faster, more efficiently than ever before. Whether using fuel-efficient diesel engines or electrified train corridors, passenger rail does more to mitigate air pollution than automobiles or aircraft. Properly funded and developed, energy-efficient rail networks can help cut fuel use by the transportation sector, and lower carbon emissions.

Energy Efficient Mass Transit

23.5% more energy efficient per passenger-mile than cars
31.4% more energy efficient than light trucks
- Public transit saves the U.S. 4.2 billion gallons of gasoline annually (APTA)
- Public transit reduces carbon emissions in the U.S. by 37 million metric tons annually (APTA)
- 3.3 billion gallons of fuel were wasted in traffic congestion last year (TTI)
- Transportation accounts for about 29% of US greenhouse gas emissions (EPA)
- Individuals can avoid driving 4,400 miles each year by taking public transportation

Smaller Footprint

- It takes 16 lanes of highway to carry as many people per hour as just a single two-track railroad.
- Railroads reduce the amount of paved surface required for transportation. Serious degradation of aquatic ecosystems occurs when more than 10% of a watershed is paved.
- 300 miles of railroad uses less land than a single commercial airport.

Amtrak is the Green Travel Option

Even undercapitalized, Amtrak is enhancing energy efficiency with improved operating practices and higher load factors. Proper funding would let Amtrak modernize its fleet with new energy-efficient technologies and further boost its energy advantage.
Innovative equipment helps Amtrak find solutions for energy efficiency:
Amtrak reduced its greenhouse gas emissions by 17%—the equivalent of removing 42,000 passenger vehicles from the road.

Amtrak Diesel and Electric Trains
55% more energy efficient per passenger-mile than light trucks
47% more energy efficient than automobiles
33% more energy efficient than domestic airline travel

Amtrak Helps Mitigate Direct and Indirect Air Pollution:
● Running electric locomotives on the Northeast Corridor and fuel-efficient diesels elsewhere
● Removing tens of millions of passengers a year from highways and airports
● Encouraging denser development around many of its stations
● Adding to the appeal and cost-effectiveness of rail travel by serving passengers, making connections and sharing facilities