



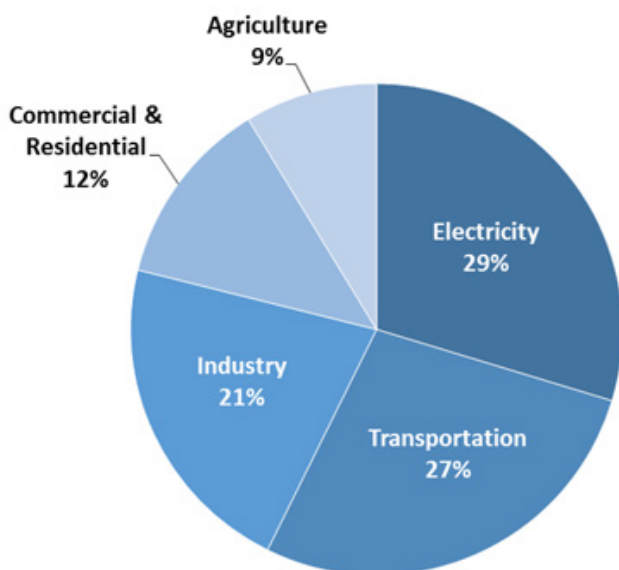
# WHY TRANSIT MATTERS

## CLIMATE CHANGE

### Want a cleaner planet? Ride public transit

Transportation is the **second largest** source of climate change causing emissions in the United States and greenhouse gases are **the chief cause of global warming**. Cars and trucks alone account for more than 50 percent of transportation related air pollution nationwide. Air pollution is estimated to cause as many as 3 million deaths per year.<sup>1</sup> Riding a bus, train or trolley is one of the best ways to reduce greenhouse gases and air pollution.<sup>2</sup> Mass public transit improves air quality through emissions reducing practices, facilitating sustainable development, conserving land and saving energy.

#### Total U.S. Greenhouse Gas Emissions by Economic Sector in 2015



Inventory of U.S. Greenhouse Gas Emissions and Sinks - Environmental Protection Agency (2015)

### Curbing Emissions

- Rail and bus transportation combine for just 6% of total transportation emissions.<sup>3</sup>
- One person switching to public transit can cut annual carbon emissions by more than 4,800 pounds.
- Public transportation use saves 37 million metric tons of carbon emission every year, and saves 4.2 billion gallons of gasoline annually.
- Since 2014, 41.3% of public transportation buses in the U.S. are using alternative fuels or hybrid technology
- Mass public transit reduces the number of vehicles on the road, mitigating emissions from traffic congestion.
- Public transit produces significantly less greenhouse gas emissions per passenger mile than single-occupancy vehicles: **Heavy rail – 76% less, Light rail – 62% less, and Bus – 33% less.**

Public transportation reduces the need for separate car trips by private vehicles in urban areas. By replacing many separate emissions producing vehicles with fewer low impact vehicles like buses and trains, public transit addresses key environmental issues.

### Sustainable Development

Access to public transportation facilitates higher density land development. In urban areas where residential centers are located near mass public transit, travel distance and time is significantly reduced, limiting the reliance on and impact of single occupancy vehicles. Compact transit oriented development also reduces land use, leaving more green space for parks, forests, wildlife preserves, and agriculture. Studies

have shown that compact development “could save the United States nearly 2.5 million acres of land”, improve water quality and preserve biodiversity.

## Save Energy

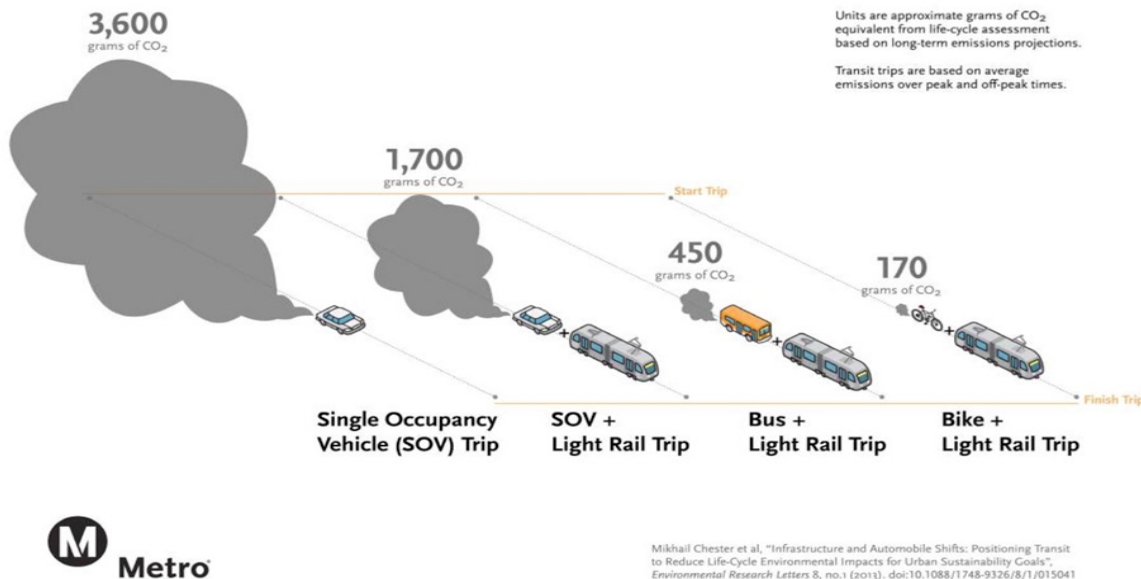
Public Transportation inherently encourages energy conservation by reducing per passenger energy consumption. The average number of passengers on public transit vehicles is significantly higher than a private automobile (10 per bus, 25 per rail car, 1.6 per private automobile). While the seating capacity of public transit directly reduces fuel consumption, it also reduces congestion, conserving energy and lowering emissions from other vehicles on the road.

Increasing demand for scarce resources like fuel and steel is driving their prices up. By reducing the need for constructing transit infrastructure, manufacturing new vehicles and extracting fossil fuels, mass public transit reduces energy consumption, saves money and mitigates negative environmental impacts.

Public transportation offers an immediate alternative for individuals seeking to reduce their energy use and carbon footprint. Riding public transit far exceeds the benefits of other energy saving household activities, such as using energy efficient light bulbs or adjusting thermostats.<sup>7</sup>

**As individuals, there is no more effective and immediate way to create a cleaner planet than to support and ride public transit.**

## Greenhouse Gas Emissions Per Person Per Trip



## Sources

1. [WHO releases country estimates on air pollution exposure and health impact](#), World Health Organization, September 27, 2016.
2. [Public Transportation Reduces Carbon Footprint](#), Public Transportation Benefits, American Public Transportation Association (APTA).
3. [Fast Facts on Transportation Greenhouse Gas Emissions](#), Environmental Protection Agency, July 2017.
4. [Public Transportation's Contribution to U.S. Greenhouse Gas Reduction](#), Davis, and Hale, Science Applications International Corporation (SAIC), September 2007.
5. [More than 35% of U.S. Public Transit Buses Use Alternative Fuels or Hybrid Technology](#), APTA, April 22, 2012.
6. [Transit's Role in Environmental Sustainability](#), FTA, May 2016.
7. [Public Transportation Reduces Greenhouse Gases and Conserves Energy](#), APTA.