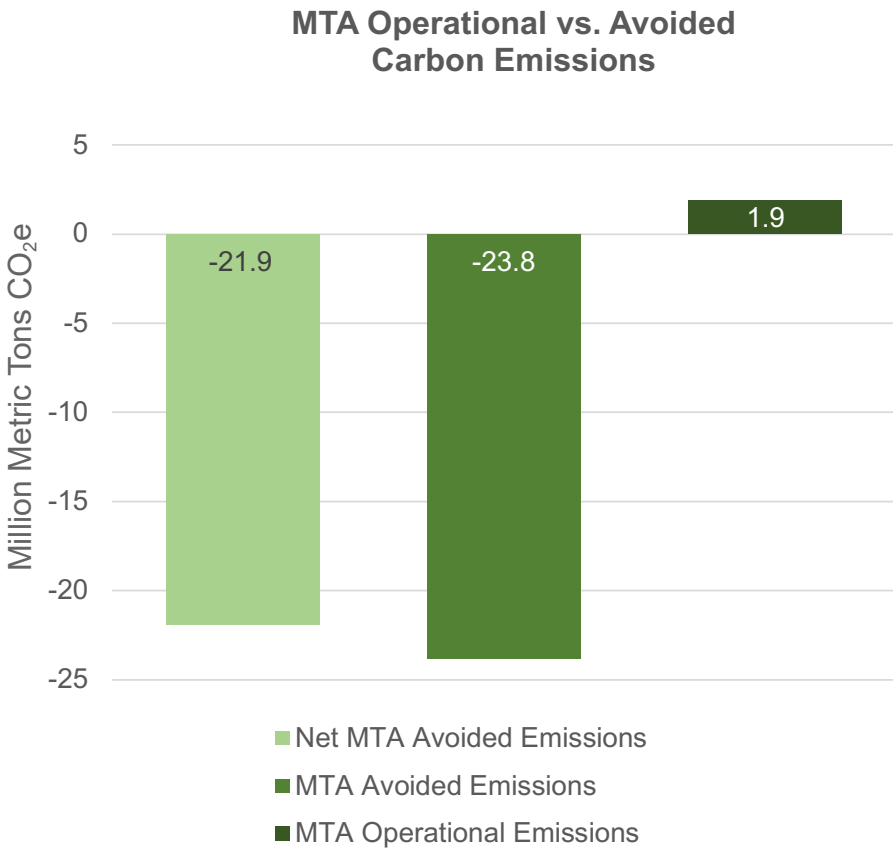
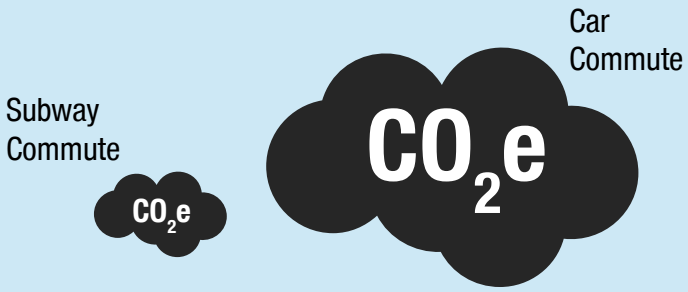
MTA Avoids More Than 20 Million Metric Tons Of Carbon Emissions Annually

With each transit ride, you do your part in reducing carbon emissions.



For every pound of carbon emitted as a result of MTA operations, almost 10 pounds are avoided through the mode shift, land use, congestion, and upstream benefits.

An average one way subway commute of 6 miles is 10 times greener than the same car commute.



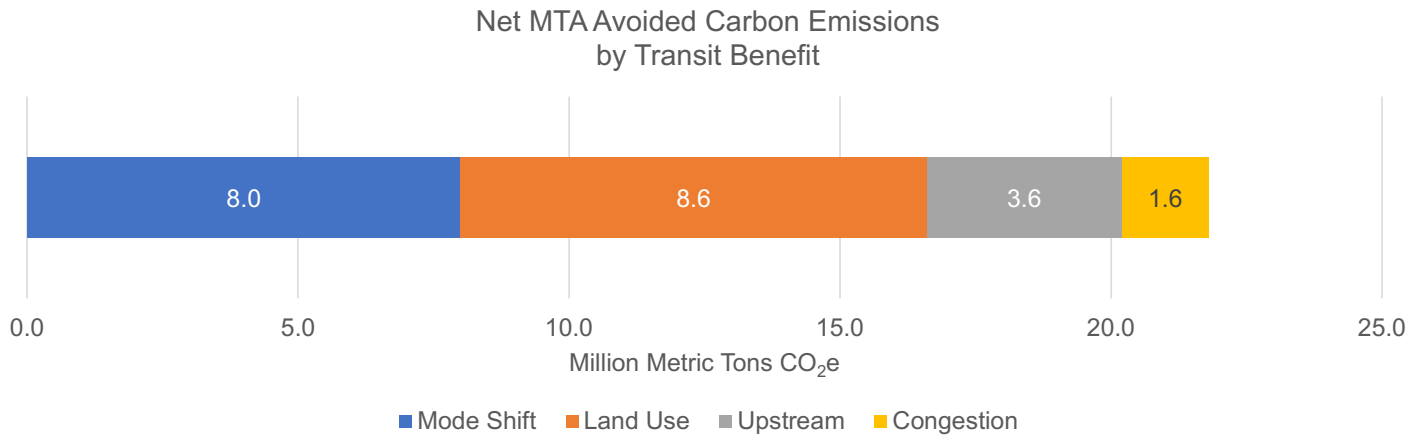
Transit reduces carbon emissions in four ways:

The **Mode Shift Benefit** accounts for emissions reduced by using transit instead of cars. Transit, walking, and biking provide low emissions alternatives to cars. In 2019, close to 10 billion miles traveled by cars (Vehicle Miles Traveled or VMT) were avoided through the use of MTA services.

The **Land Use Benefit** accounts for the emissions avoided through transit-supported compact land development that enables shorter trips between destinations, encourages walking and cycling, and reduces car use and ownership. In 2019, over 9 billion miles by car (VMT) were avoided due to the Land Use Benefit.

The **Upstream Benefit** accounts for the emissions from the production and transport of fuel for cars that are avoided when you take transit, walk, or bike. Driving pollutes the planet before you even get in your car. By choosing transit, you help reduce emissions from making the fuel and getting it to the gas station.

The **Congestion Benefit** accounts for the emissions from fuel consumed by cars driving under congested conditions that are avoided when you take transit, walk or bike. Transit use reduces the number of vehicles that contribute to roadway congestion, especially during peak commute hours.



Notes:

1. The MTA calculates avoided carbon by modeling the mode shift, land use, congestion, and upstream effects on carbon (greenhouse gas) emissions. How Avoided Carbon is Calculated:
   - Net MTA Avoided Emissions = MTA Avoided Emissions - MTA Operational Emission
   - MTA Avoided Emissions = Mode Shift Benefit + Land Use Benefit + Congestion Benefit + Upstream Benefit
2. Methodology for quantifying avoided carbon is based on the concepts from APTA Standards Development Program Recommended Practice: Quantifying Greenhouse Gas Emissions from Transit, www.apta.com/wp-content/uploads/Standards_Documents/APTA-SUDS-CC-RP-001-09_Rev-1.pdf. Data comes from public sources, such as Census Journey to Work data: www.census.gov/topics/employment/commuting.html, and MTA information, such as the congestion benefit from MTA's 2008 avoided carbon study and the Regional Transit Forecasting Model. Upstream emissions (from fuel production and transport) are included for consistency with the Council on Environmental Quality (CEQ) and New York State greenhouse gas guidance.
3. The upstream benefits reported here represent net avoided upstream emissions from fuel production and transport. They account for the upstream emissions associated with the production and transport of fuels consumed by the MTA.
4. 2019 MTA ridership statistics were used to avoid pandemic-related anomalies which have not fully stabilized and to align with the most recent year of MTA reported carbon emissions. The 2019 net benefit of MTA avoided carbon is 21.9 million metric tons. Lower ridership trends in the past few years mean reduced benefits; periods of reduced service during the pandemic would also likely translate to less emissions by the MTA. The majority of the avoided carbon would remain, due to the land use and other benefits of MTA services, even with lower ridership. Based on an initial sensitivity analysis, the net avoided carbon benefit in the more recent years is expected to be slightly less than the 2019 net number of 21.9 MMTCO2e but generally consistent with the avoided emissions reported here. The avoided carbon benefit can be updated once past years' ridership and MTA operational emissions data are finalized.