



U.S. Department of Transportation
Federal Transit Administration



The Federal Transit Administration (FTA) works with public transportation providers and other key stakeholders to implement strategies that reduce greenhouse gas emissions from the transportation sector. FTA's grants, technical assistance, research, and policy leadership all play a role in the agency's efforts to address climate change.

FTA grows and sustains public transportation as a low-emission alternative to automobiles through the agency's \$10 billion a year grant programs. Over 1,500 transit agencies representing every state in the country benefit from FTA grants. Agencies received an additional \$8.4 billion infusion of support from the American Recovery and Reinvestment Act of 2009 (ARRA), which provided funding for public transportation, among other job creating strategies.

In its grants, FTA seeks to give local communities flexibility to implement the type of projects that maximize transit's potential to reduce greenhouse gas emissions. For instance, combining investment in public transportation with compact, mixed-use development around transit stations has a synergistic effect that amplifies the greenhouse gas reductions of each strategy. To encourage these synergies, FTA's grants can be used for "joint development," or common use of property for both transit and non-transit purposes. This enables clustered development around transit. FTA's grants can also fund bicycle paths and sidewalks, helping residents better access transit and get around emissions free.

Combating climate change is a key goal of the Secretary of Transportation's signature livability initiative, of which FTA programs are a central element. According to Secretary LaHood, "livable communities are mixed-use neighborhoods with highly-connected streets promoting mobility for all users, whether they are children walking or biking to school or commuters riding transit or driving motor vehicles. Benefits

Photo credit: Larry Levine, WMATA

Climate Change

Climate Change Highlights

Transit Investments for Greenhouse Gas and Energy Reduction (TIGGER)

TIGGER supports transit agencies in pursuing cutting-edge environmental technologies to help reduce global warming and create green jobs. Among the 43 projects funded under the competitive bidding in 2009, Alabama will replace gasoline and diesel buses with electric hybrids, Massachusetts will construct wind energy generation turbines, and Vancouver, Washington will install solar panels at transit facilities. Transit agencies submitted \$2 billion in applications for this \$100 million program, indicating pent-up demand. As such, Congress included funding for the program in the 2010 appropriations.

Transit Green Building Plan

FTA published a transit facility green building plan at Congress' request. The plan includes: an overview of certified green building transit projects, an analysis of green rating systems that would be suitable for transit projects, planned FTA actions, timelines and resources to encourage green building in FTA programs, and an inventory of relevant assistance that can be provided to transit authorities.

Climate Change Standard

FTA partnered with the American Public Transportation Association (APTA) to develop a standard methodology for measuring transit greenhouse gas emissions.

Transit and Sustainability Webpage

FTA maintains a transit and environmental sustainability webpage with information on how public transportation contributes to sustainability and updates on FTA activities. <http://www.fta.dot.gov/sustainability>

Transit Greenhouse Gas Management Compendium

The compendium will provide transit agency managers with an easy to use handbook on actions to reduce greenhouse gas emissions from transit operations and construction.

Moving Cooler

This study analyzed measures to reduce greenhouse gas emissions from transportation by reducing vehicle miles of travel (VMT).

<http://www.fta.dot.gov/>



include improved traffic flow, shorter trip lengths, safer streets for pedestrians and cyclists, lower greenhouse gas emissions, reduced dependence on fossil fuels, increased trip-chaining, and independence for those who prefer not to or are unable to drive.” DOT, the U.S. Department of Housing and Urban Development (HUD) and the U.S. Environmental Protection Agency (EPA) created a high-level interagency partnership to support these goals. As part of the first batch of funding for the livability initiative, the Secretary announced \$280 million in FTA bus and urban circulator grants targeted to projects that meet livability and sustainability criteria, including greenhouse gas reduction.

In addition to FTA’s grant programs, FTA’s technical assistance is another key part of the agency’s efforts to respond to climate change. FTA’s technical assistance gives local communities the tools they need to improve planning practices, engage stakeholders, and build transit-oriented development.

FTA research on alternative fuels and high fuel efficiency vehicles has yielded the introduction of low emission technologies such as hybrid-electric buses, compressed natural gas vehicles, and biodiesel. FTA’s new Electric Drive Strategic Plan and the National Fuel Cell Bus Program are intended to introduce the next generation of low emission vehicles. With their centrally managed fleets and high visibility in urban areas, transit vehicles are an ideal demonstration tool for new technologies that can be used on other vehicle types as well. FTA encourages adoption of clean technologies by supporting a higher share of the cost of purchasing clean vehicles. In addition, FTA’s Clean Fuel Bus Program targets investment in clean transit vehicles. And a new FTA program, Transit Investments for Greenhouse Gas and Energy Reduction (TIGGER), provides discretionary grants to public transit agencies for capital investments that assist in reducing the energy consumption or greenhouse gas emissions of their public transportation systems.

FTA also conducts policy research, produces outreach materials, and engages stakeholders in addressing the challenge of climate change. Several of these activities are highlighted to the right. In addition, FTA co-sponsors multiple conferences, including the Sustainability Workshop, the New Partners for Smart Growth Conference, and Transportation Research Board conferences.

Finally, FTA contributes to research and policy development on climate change mitigation and adaptation in the transportation sector through the U.S. Department of Transportation Climate Change Center. The Center has produced key studies on the impacts of climate change on transportation infrastructure, reports on integrating climate change considerations into transportation planning, and evaluations of strategies for reducing greenhouse gas emissions from transportation. The Center also maintains a web-based clearinghouse (see www.climate.dot.gov).

Environmental Management Systems Training (EMS)

FTA sponsors EMS training to help transit agencies continually assess and reduce the environmental impact of their operations.

TCRP Synthesis: Greenhouse Gas Emissions Savings from Transit

FTA funded this new synthesis report through the Transit Cooperative Research Program (TCRP).

National Fuel Cell Bus Program

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Sustainability Partnerships

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National Fuel Cell Bus Program

This \$49 million program develops and demonstrates fuel cell technology for transit buses. The program consists of a balanced portfolio of projects to best advance fuel cell bus development leading to fuel cell bus commercialization. The program includes eight fuel cell bus demonstration projects, with both evolutionary and “clean sheet” approaches, demonstrated at transit agencies across the country including AC Transit in Oakland, CA, Central Midlands RTA in Columbia, SC, and CT Transit in Hartford, CT.

Sustainability Partnerships

FTA is working with APTA and the Association of Metropolitan Planning Organizations (AMPO) on two new projects to engage transit to address sustainability. The first will assess how the livability principles for sustainable communities are being addressed in metropolitan transportation planning, and how transit plans, programs, and agency representatives are included. The second effort will involve preparation and dissemination of planning tools and information to assist transit agencies in considering sustainability within their capital project development and operations planning, as well as working within transportation planning processes to advance sustainability efforts and strategies at regional and statewide levels.

TCRP Project: Assessing and Comparing Environmental Performance of Major Transit Investments.

FTA is participating in this project, which is exploring methods for comparing the environmental benefits of transit projects.

Mitigation and Adaptation Policy Oriented Research

FTA is developing further analysis useful to the transit industry and stakeholders on how public transportation, transit oriented development, and transit supportive policies can reduce greenhouse gas emissions. FTA is also developing research on adapting transit infrastructure and operations to the impacts of climate change such as flooding and high temperatures.

Brownfields Federal Partnership

FTA is participating in this effort together with EPA, HUD, and other federal partners to prevent, assess, safely clean up, and sustainably reuse brownfields. Actions range from making funding and technical assistance to brownfields communities a budget priority, to changing policies to facilitate brownfields redevelopment, to launching a concerted effort to share program information with respective stakeholders.