

## **Fact Sheet – Public Transportation’s Contribution to Energy Savings and U.S. Greenhouse Gas Reduction**

### ***Background on Transportation, Energy and CO<sub>2</sub> Emissions***

- Between 1982 and 2006, vehicle miles traveled (VMT) in the U.S. have increased by 47 percent per person, from an average of 6,800 miles per year for every man, woman and child to almost 10,000 miles per year.
- During this same period, national consumption of oil for transportation rose from 3.4 to 5.1 billion barrels per year - every additional barrel consumed results in more fuel imports, more money spent by consumers on fuel, more money sent over seas and more carbon dioxide and other pollutants emitted into the air.
- U.S. greenhouse gases (GHGs) from transportation represent 33% of total U.S. GHG emissions - automobiles and light trucks are the largest sources of greenhouse gas emissions from mobile sources.

### ***The National Picture – Public Transportation Contribution to Energy Savings and CO<sub>2</sub> Emissions Reduction***

- If public transit systems had never existed in American cities and their effects on our urban landscapes were completely erased, American households would drive 102.2 billion more miles per year.
- The “leverage effect” of public transportation, supporting transportation efficient land use patterns, saves 4.2 billion gallons of gasoline – more than three times the amount of gasoline refined from the oil we import from Kuwait.
- This “leverage effect” reduces the nation’s carbon emissions by 37 million metric tons annually - equivalent to the electricity used by 4.9 million households. To achieve a similar reduction in carbon emissions, every household in New York City, Washington, D.C., Atlanta, Denver and Los Angeles combined would have to completely stop using electricity.

### ***The Community Picture – Implications for Communities that Embrace Transit***

- Communities who choose to invest in transit will reduce vehicle miles of travel, reduce energy consumed and reduce carbon dioxide emissions.
- Transit systems allow areas to support more travel, with fewer roadways, in less space. This means jobs are closer to people, people are closer to shopping, and more trips can be made by walking, biking, or just a short car ride.

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- Even for those who do not take transit this means they can walk, they can drive shorter distances, and they can travel less.
- Embracing public transportation at the local level is a first step toward energy independence and protecting our environment.

***What Does this Mean for Households? The Value of Public Transportation***

- The most energy efficient households are located within America live within close proximity of a bus or rail line.
- People living in households within one-quarter mile of rail and one-tenth of a mile from a bus stop drive approximately 4,400 fewer miles annually as compared to persons in similar households with no access to public transit.

Virginia has a state mandate to reduce levels to 2000 levels.

See state legislation.

One third of emissions come from transportation.

The new brochure, Public Transportation Reduces Greenhouse Gases and Conserves Energy is at

[http://publictransportation.org/reports/documents/greenhouse\\_brochure.pdf](http://publictransportation.org/reports/documents/greenhouse_brochure.pdf)

This is the Growing Cooler Report main web page with links to the report and supporting documents <http://www.smartgrowthamerica.org/gcindex.html> Here is their press release

[http://squsa.convio.net/site/DocServer/Growing\\_Cooler\\_Press\\_Release.pdf?docID=400](http://squsa.convio.net/site/DocServer/Growing_Cooler_Press_Release.pdf?docID=400)

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There are many easy ways to obtain the mandated savings by reducing the typical household carbon footprint.

*Bill's favorite example – Let's Look At An All Too Typical Household With 2 Adults Who Both Work Outside The Home And Both Drive To Work. Let's Say They Want To Reduce Their Environmental Impact.*

*Now, This Family Could Reduce Its Carbon Footprint By:*

*Home Weatherizing And Adjusting The Thermostat, Saving 2,847 Pounds Of Carbon A Year.*

*They Could Replace Five Incandescent Bulbs With Lower-Wattage Compact Fluorescent Lamps And Save 445 Pounds Of Carbon A Year.*

*They Could Replace Their Old Fridge With An Energy-Saving New One And Save 335 Pounds Of CO2 A Year.*

*All These Are Good Things To Do, But If Just One Commuter Of The Household Switches From Daily Driving To Using Public Transport To Commute, That Single Action Can Reduce The Household Carbon Footprint By More Than 2 Metric Tonnes Or 10 Percent.*

*More Than Weatherizing Your Home, Changing Out Your Light Bulbs And Buying A New Energy Star Refrigerator Combined.*

The SAIC report from September 2007 which describes the greenhouse gas reduction from direct transit use, Public Transportation's Contribution to Greenhouse Gas Reduction, is at

[http://www.apta.com/research/info/online/documents/climate\\_change.pdf](http://www.apta.com/research/info/online/documents/climate_change.pdf)

Example – Another Bill story – congestion costs/additional gallons burned/additional greenhouse gas from idling in traffic.

This is a link to the 2007 TTI report home page <http://mobility.tamu.edu/ums/> and this will take you to their summary report

[http://tti.tamu.edu/documents/mobility\\_report\\_2007.pdf](http://tti.tamu.edu/documents/mobility_report_2007.pdf)

One more example – the multiplier of greenhouse gas savings attributed to transit

The new February 2008 ICF report, The Broader Connection between Public Transportation, Energy Conservation and Greenhouse Gas Reduction, about both direct and indirect savings in energy and emissions from transit use is at

[http://www.apta.com/research/info/online/documents/land\\_use.pdf](http://www.apta.com/research/info/online/documents/land_use.pdf) Supporting material for that study is at [http://www.apta.com/research/info/online/land\\_use.cfm](http://www.apta.com/research/info/online/land_use.cfm) A reproducible copy of the accompanying fact sheet is attached as a Word file.

Transit availability is the key to transit use – recent opening ridership figures demonstrate 'build it and they will ride.'

This is a link to "Light Rail Now" <http://www.lightrailnow.org/> which presents stories and reports about the success of light rail projects. They are often taken from the media and those done by people with the organization are well done.

Dedicated funding contributes to transit's efficiency – those with do better than those without. Without dedicated funding, transit must compete for annual funding, service varies over time, and riders are lost to uncertainty

Here is a Brookings Institution study about WMATA pointing out the need for dedicated funds for them and other major transit systems

[http://www.brookings.edu/~media/Files/rc/reports/2004/06metropolitanpolicy\\_puentes/20040603\\_puentes.pdf](http://www.brookings.edu/~media/Files/rc/reports/2004/06metropolitanpolicy_puentes/20040603_puentes.pdf) The report was written by Robert Puentes. This is a link that

has or links to several presentations he has made about financing trends for transit and the current financing environment

[http://www.brookings.edu/speeches/2005/0128metropolitanpolicy\\_puentes.aspx](http://www.brookings.edu/speeches/2005/0128metropolitanpolicy_puentes.aspx)

