The transportation sector is the largest user of energy in Vermont, accounting for approximately one-third of all energy use.
Transportation & Energy Use

Vermont Greenhouse Gas Emissions by Source

- Transportation: Fossil Fuel Combustion, 44%
- Residential Fossil Fuel Combustion, 18%
- Commercial Fossil Fuel Combustion, 7%
- Industrial Fossil Fuel Combustion, 7%
- Livestock, Manure & Fertilizer, 9%
- Biomass Combustion, 10%
- Electric Utility Fossil Fuel Combustion, 1%
- Landfills, 4%

Source: Vermont Agency of Natural Resources, 2007
Transportation & Energy Use

The Transportation GHG Emissions Challenge
Transportation & Energy Use

Total Annual Spending on Gasoline and Diesel in Vermont, 2005-2009

- Annual spending on gasoline and diesel declined from $1.3 billion in 2008 to $941 million in 2009.
- Spending on transportation is the 2nd highest category of household expenditures in Vermont, behind housing costs.
Transportation & Energy Use

Journey-to-Work Travel Mode

- Personal Vehicle, 94%
- Walk, 3%
- Bus, 1%
- Bike, 1%


- Over 94% of all work trips are made with personal vehicles.
Transportation & Energy Use

Energy Use per Passenger-Mile by Transport Mode and Occupancy

- SUV - solo driver: 6,831 Btu/passenger-mile
- Car - solo driver: 8,465 Btu/passenger-mile
- Transit bus (avg. Occupancy): 4,434 Btu/passenger-mile
- Rail (Amtrak): 3,011 Btu/passenger-mile
- Airplane: 2,986 Btu/passenger-mile
- Car - 1 passenger: 2,733 Btu/passenger-mile
- Car - 2 passengers: 1,822 Btu/passenger-mile
- Transit bus (at capacity): 570 Btu/passenger-mile


- Single-occupancy vehicles account for the vast majority of transportation energy use.
VMT in Vermont increased three-fold from 1975-2005, followed by a gradual decline. Between 2006 and 2009, Vermont’s VMT dropped 7.7%.

Source: Vermont Agency of Transportation Highway Research VMT Report
Transportation & Energy Use

Vehicle purchase trends in Vermont reflect growth in energy-efficient power-trains.

Electric Vehicles Policy Question – Very low sales to date. Do we wait until there is demand to develop infrastructure or develop infrastructure to spur demand?

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<thead>
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</thead>
<tbody>
<tr>
<td>Hybrids</td>
<td>2,358</td>
<td>3,651</td>
<td>4,565</td>
<td>5,473</td>
<td>132%</td>
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<tr>
<td>Electric</td>
<td>110</td>
<td>106</td>
<td>101</td>
<td>94</td>
<td>-14%</td>
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<tr>
<td>Propane</td>
<td>110</td>
<td>93</td>
<td>75</td>
<td>69</td>
<td>-37%</td>
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<tr>
<td>Diesel</td>
<td>29,161</td>
<td>31,648</td>
<td>32,140</td>
<td>30,724</td>
<td>5%</td>
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<tr>
<td>Gasoline</td>
<td>542,126</td>
<td>583,568</td>
<td>578,881</td>
<td>528,930</td>
<td>-2%</td>
</tr>
</tbody>
</table>

Transportation & Energy Use

Vehicle Class of New Vehicle Purchased in Vermont, 2009

<table>
<thead>
<tr>
<th>Vehicle Class</th>
<th>% of New Vehicle Purchases in 2009</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economy (i.e. Honda Civic, VW Rabbit)</td>
<td>35%</td>
</tr>
<tr>
<td>Midsize &amp; Large Sedan (i.e. Toyota Camry, Ford Fusion)</td>
<td>24%</td>
</tr>
<tr>
<td>S.U.V., Pick-up Trucks, Minivan &amp; Van</td>
<td>40%</td>
</tr>
<tr>
<td>Other</td>
<td>1%</td>
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</table>


- While economy-class vehicle sales remain strong, less energy-efficient S.U.V., pick-up trucks, minivan and van sales account for the majority of vehicles sold in Vermont.
Transportation & Energy Use

How VTrans Supports Energy-Efficient Transportation
Transportation & Energy Use

Commuting & Ridesharing Resources for Vermonters

A Carpool Story
Ride along with three Go Vermont carpoolers and learn the benefits of sharing a ride.
Watch their video

Go Vermont is a free resource that provides transportation options for people who want to reduce the cost and environmental impact of driving. The program features a free carpool/vanpool matching service, event and single trip ride matching, ridesharing tips, and other practical information on getting around by biking, walking, bus, train and ferry.

Get started
Click here to connect with commuters looking for carpool and vanpool opportunities, whether it be for a work commute or for a meeting or conference. Answer a few simple questions about your commute, schedule, and ideal carpool or vanpool partners, and we’ll match you to ridesharing candidates.

Guaranteed Ride Home
Registered Go Vermonters who share a ride two or more days per week are eligible for the Guaranteed Ride Home benefit, which reimburses up to $70 towards getting you home in case of an unexpected change of plans.

Calculate Your Commute
Find out what your commute is costing you and measure the environmental impacts, as well as estimate what you could save by ridesharing.

www.connectingcommuters.org/
Transportation & Energy Use

www.connectingcommuters.org/about/commute-calculator
Transportation & Energy Use

- VTrans’ Public Transit funding has increased by 106% from FY2002-FY2012 (7.8% annual average), more than double the 48% growth in the overall transportation budget.

- ARRA and discretionary funding in the past two years has resulted in 140 new transit vehicles, replacing close to a quarter of the state’s transit fleets.
Public Transit ridership has increased by 482,640 trips, or 13.8% since 2007.
Transportation & Energy Use

- There are 27 State Park-and-Ride lots in Vermont, encompassing 1,142 spaces.
- Average utilization rates for all State Park-and-Ride lots has increased from 60% to 70% since 2007.
- Utilization rates at 1/4 of State Park-and-Ride lots exceed capacity.
Transportation & Energy Use

- Intercity passenger rail trips in Vermont has increased by 60% to over 97,000 since 2006.
- ARRA funding for intercity passenger rail - $75 million (FRA and Railroad) to improve track speeds to 59-79MPH along the Vermonter Route.

Vermont Amtrak Ridership

Source: Amtrak

Increasing fuel prices
Policy Challenge

State policies that enhance energy-efficient transportation reduce the transportation revenue base.

Source: Wall Street Journal
Transportation & Energy Use

The fork in the road
Questions or Comments?