

# OPPORTUNITIES FOR DEMAND MANAGEMENT

## Climate Change

### Reduced Transportation Demand Needed to Meet Governor's Targets

#### Overview

On February 7, 2007, Governor Gregoire issued Executive Order 07-02, which set targets for the state of Washington to reduce emissions of greenhouse gases to 1990 levels by the year 2020, and to 50% below 1990 levels by 2050. The use of vehicles produces 47% of the state's emissions now, with on-road transportation producing more than 72% of this. Even with recent federal legislation to improve vehicle fuel efficiency, and with aggressive development and use of biofuels, it will be difficult to reduce emissions of greenhouse gases from transportation enough to meet these targets without also reducing transportation demand.

#### Washington State's CTR Program Helps Manage Demand

The CTR program contributes to emission reductions and will continue to have an effect on total transportation demand. Commute trips by employees who work at CTR worksites account for 4.6% of statewide vehicle-miles traveled (VMT). So even if the CTR program could get all employees who are covered by the program to walk, bicycle, or telework for all of their commute trips, statewide VMT and its associated greenhouse gas emissions would decrease by 4.6%. This is because employees who work at these sites are only about 20% of total state employment, and because commuting accounts for only about 20% of individual and household VMT. Using CTR survey data, we estimate that the employees at CTR worksites would have accounted for 4.8% of statewide VMT if the changes seen since the program's inception had not occurred. The addition of GTECs to the CTR program, via the CTR Efficiency Act and subsequent funding, makes roughly another 2% of VMT accessible to the program.

## Future Opportunities for Demand Management

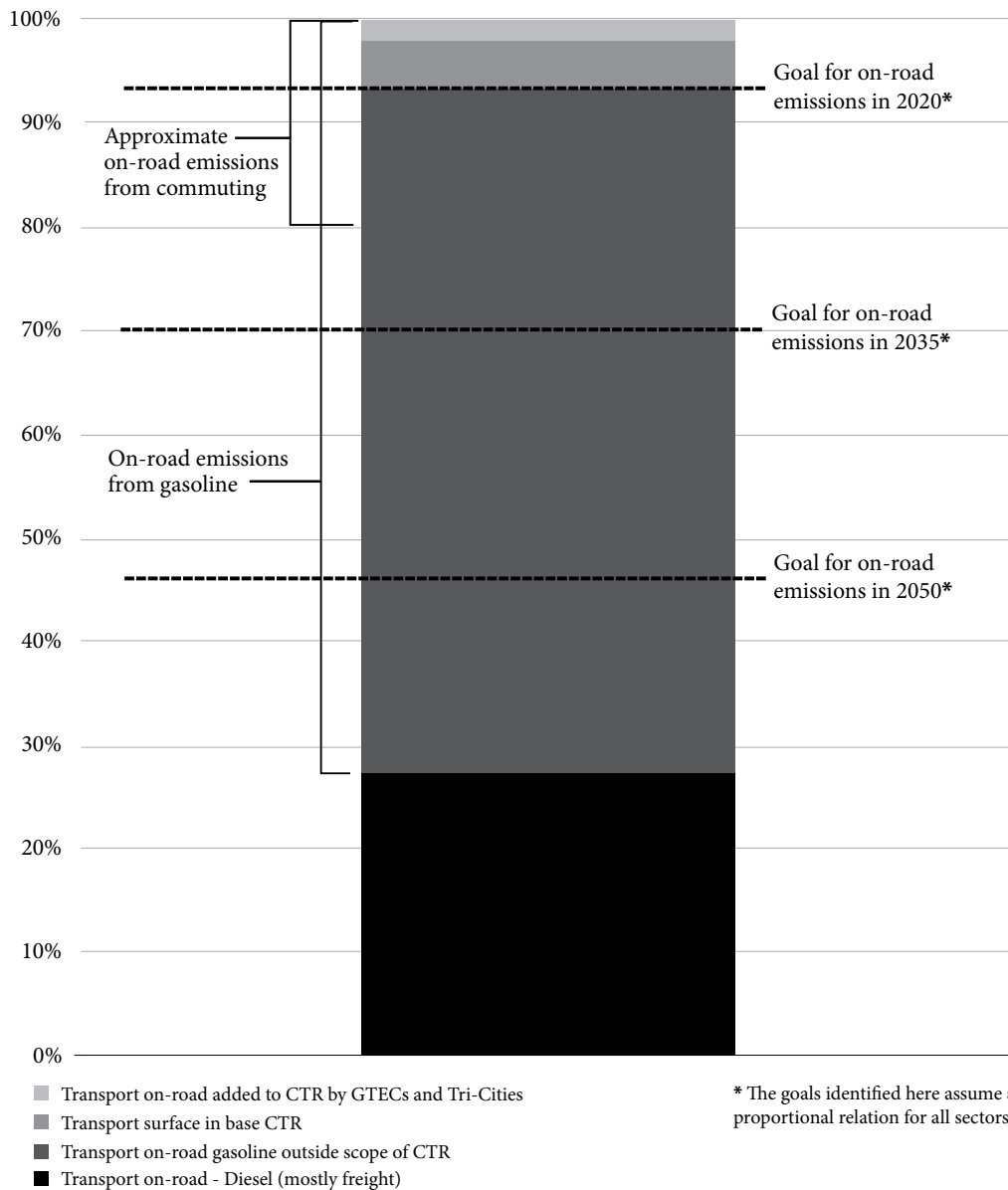
Washington's demand management activities must change in order for demand management to make a more sizable contribution to achieving the goals of Executive Order 07-02. In the short term, focusing on longer commute trips, vanpooling, express bus service, and telework have the greatest potential to yield rapid reductions in VMT and emissions within the present base of employees in the CTR program. The 10% of employees who live farthest from their CTR work locations account for 30% of the VMT within the program, compared to less than 1% for the 10% of employees who live closest. Shifting the focus this way will require a change in marketing strategy by employers, to identify and focus on their more distant employees, and support for transportation services to enable these employees to drive less frequently to work.

In the longer term, the scope of demand management efforts will need to expand, both to work with more than the present 20% of the state's commuters, and to develop and implement strategies to enable citizens to reduce the amount of driving they now need to do for other kinds of trips. Trips made for shopping, to get children to and from school, and for some types of recreation are probably the types of trips better suited for effective demand management. Enabling more persons to live closer and more conveniently to work, school, and other activities would also help to reduce future demand for travel.

## WSDOT's Commitment to Reducing Greenhouse Gases

As part of its commitment to reducing greenhouse emissions, WSDOT's Climate Change Team will develop a means to measure changes in the agency's carbon footprint and reductions in emissions attributable to changes in projects, programs and policies. WSDOT will develop a plan for reducing its greenhouse gas emissions and will lead the development and refinement of transportation and land use strategies.

## Percentage of Washington State On-Road Transportation Emissions in 2005



The above graph shows the 2005 emission percentages caused by transportation in Washington state and the percentage attributed to the commuting population. Also shown is the relationship to the Governor's goals for emission reductions by 2020, 2035 and 2050. The procedures used to estimate the emission level in the above graph are subject to revision in order to remain consistent with Washington's broader climate change program calculations.

Source: Department of Ecology – Washington State Greenhouse Gas Inventory and Reference Case Projections, 1990-2020, Dec. 2007. WSDOT CTR database and WSDOT Highway Performance Monitoring System database.

### Washington State Emissions in 2005

Percent of Non-Transportation vs. Transportation Emissions

