

# Oregon Greenhouse Gas Reduction Toolkit: Strategy Report

## OREGON SUSTAINABLE TRANSPORTATION INITIATIVE



### EcoDriving and Idle Reduction

*This report outlines how EcoDriving and Idle Reduction strategies can encourage energy-efficient driving and help reduce fuel consumption and greenhouse gas (GHG) emissions per vehicle mile.*



#### What is it?

The human element is an important component of fuel efficiency in motor vehicles. The simple acts of driving sensibly and proper maintenance can significantly improve fuel economy, lower vehicle emissions, reduce wear and tear, and increase road safety. Greater gains in miles per gallon (MPG) can be achieved when using an “instant fuel consumption display” that allows the driver to continuously monitor fuel efficiency.

Government agencies have shown leadership in developing EcoDriving programs. EcoDriving training and outreach may be oriented to the general public or focus on entities with a fleet of vehicles at their disposal, such as municipalities or private companies. These programs may be initiated by a variety of organizations, including Transportation Management Agencies (TMAs), city/county governments, transit agencies, and state Departments of Transportation. The Oregon Department of Transportation developed the **EcoDrive Campaign** in partnership with the Department of Environmental Quality (DEQ), the Oregon Department of Energy (ODOE) and the Oregon Chapters of the Clean Cities Program (a program of the National Department of Energy).

**Engine idling** is another source of unnecessary automobile emissions, air pollution, and vehicle wear and tear. Idle reduction programs can be utilized as an aspect of an EcoDriving, or as a stand-alone initiative. Idle reduction programs may focus on trucks, buses, school zones, or other areas where excessive idling occurs.

#### How well does it work?

The US Department of Energy provides figures for efficiency gains from EcoDriving<sup>1</sup>:

- » **Proper Maintenance.** Keeping tires inflated, wheels aligned, engine well-tuned and using the recommended grade of motor oil can increase fuel economy by up to 9%.
- » **Sensible Driving.** Rapid acceleration, high speeds, and excessive braking waste gas, lowering mileage by up to 33% at highway speeds and around 5% in town.
- » **Efficient speed.** Optimal speed depends on the vehicle, but gas mileage usually decreases rapidly at speeds above 50 mph. Driving at 50 mph or below can improve fuel consumption by up to 14%.
- » **Removing excess weight.** Keeping unnecessary items in your vehicle reduces MPG by up to 2% per 100 lbs.
- » **Avoiding idling.** Idling can use ¼ to ½ gallon of fuel per hour.
- » **Minimizing use of air conditioning.** A useful guideline is to simply open windows when driving under 40mph. At higher speeds, using the air conditioner is more efficient.

EcoDriving can reduce GHG emissions between 1.1 and 2.7 percent from the baseline through 2050, according

<sup>1</sup> Figures from [www.fueleconomy.gov](http://www.fueleconomy.gov)

to the Moving Cooler analysis, and EcoDriving programs have been shown to achieve reductions of up to 340 lb of CO<sub>2</sub> per driver each year.<sup>2</sup>



## How can it benefit my community?

In addition to reducing GHG emissions, EcoDriving programs can:

- » Promote sensible driving at lower speeds, which increases safety
- » Provide cost savings to drivers and fleet operators
- » Improve traffic flow by reducing aggressive driving habits

## What does it cost?

With any outreach campaign, costs will vary depending on the scale of the effort and target audience. Providing print and online materials is relatively inexpensive, while a major media campaign can be quite costly. Free materials, such as those on the EcoDrive Campaign's website can help defray costs.<sup>3</sup>

## Where has it been used?

- » **The Oregon legislature passed a Commercial Vehicle Idle Reduction statute which took effect in 2012.**<sup>4</sup> Under this law, a driver of a commercial vehicle may not idle the engine for more than five minutes in any sixty-minute period, unless the vehicle is using an auxiliary power unit, generator set, cargo temperature control unit, or other idle reduction technology that maintains heat or air conditioning or provides electrical power. Exceptions apply in certain situations and for certain vehicles.
- » **There are currently 13 states with statewide truck idling regulations.** Another 17 states and the District of Columbia have regulations specific to local jurisdictions. In Oregon, Ashland has had an ordinance in place since 2002 prohibiting a truck or bus from idling more than five minutes when loading or unloading in a public area. Cities and school districts around the country have school zone idling regulations which apply to school buses and/or passenger vehicles.
- » **EcoDriving techniques are used by many businesses to improve fuel efficiency and cost effectiveness.** Several states, including Oregon, have state-sponsored campaigns. In addition, cities, port authorities and other governmental entities are sometimes sponsors.

## Where can I learn more?

Other great resources, some of which include downloadable and customizable implementation tools, include:

- » Oregon Department of Transportation's EcoDrive website  
<http://www.oregon.gov/ODOT/TD/TP/Pages/ecodrive.aspx>
- » The American Lung Association  
<http://www.lung.org/healthy-air/school/protecting-air-at-school/government.html>
- » US Environmental Protection Agency's Clean School Bus Campaign  
<http://www.epa.gov/cleandiesel/sector-programs/csb-overview.htm>
- » US Environmental Protection Agency's Idle Free School Zones website  
<http://www2.epa.gov/region8/idle-free-schools>
- » US Department of Energy, Idle Reduction website  
[http://www.afdc.energy.gov/conserve/idle\\_reduction\\_basics.html](http://www.afdc.energy.gov/conserve/idle_reduction_basics.html)

*The Toolkit is a component of the Oregon Sustainable Transportation Initiative (OSTI), which was formed to address the requirements of Senate Bill 1059 (2010).*

*For more information, please visit:*

*<http://cms.oregon.gov/ODOT/TD/TP/pages/ghgtoolkit.aspx>*



<sup>2</sup> Moving Cooler: An analysis of transportation strategies for reducing Greenhouse Gas Emissions. July, 2009.

<sup>3</sup> <http://www.oregon.gov/ODOT/TD/TP/Pages/ecodrive.aspx>

<sup>4</sup> [Oregon Revised Statutes](#) 825.605 - 825.610