

Catalog of State Actions Transportation Working Group

A catalog of state-level, GHG-reducing actions and policy options based on actions undertaken or considered by state, local and private actors.

Key to Future Rankings of Options in the Tables that Follow:

| Potential GHG Emission Reductions <u>1/</u> | Potential Cost or Cost Savings <u>1/ 2/</u> |
|--|--|
| High (H): At least 1.0 million metric tons (MMt) carbon dioxide equivalent (CO ₂ e) per year by 2020 (~1% of current WA emissions) | High (H): \$50 per metric ton CO ₂ e (tCO ₂ e) or above |
| Medium (M): From 0.1 to 1.0 MMtCO ₂ e per year by 2020 | Medium (M): \$5-50/tCO ₂ e |
| Low (L): Less than 0.1 MMtCO ₂ e per year by 2020, or 1 MMtCO ₂ e by 2050 | Low (L): Less than \$5/tCO ₂ e |
| Uncertain (U): Not able to estimate at this time | Negative (Neg): Net cost savings |
| | Uncertain (U): Not able to estimate at this time |
| <p><u>1/</u> Several measures may overlap in terms of emissions reductions and/or cost impacts. Estimates assume measures would be implemented independently from other measures.</p> <p><u>2/</u> Costs are denoted by a positive number. Cost savings (i.e., “negative costs”) are denoted by a negative number.</p> | |

Definition of “Priorities for Analysis”:

- **High:** High priority options will be analyzed first.
- **Medium:** Medium priority options will be analyzed next, time and resources permitting.
- **Low:** Low priority options will be analyzed last, time and resources permitting.

Table-3 Transportation (T)

| Option No. | GHG Reduction Policy Option | Potential GHG Emissions Reduction | Cost per Ton | Externalities, Feasibility Considerations | Priority for Analysis | Notes / Related Actions in WA State |
|-------------------------------|--|-----------------------------------|--------------|---|-----------------------|--|
| T-1 VEHICLE TECHNOLOGY | | | | | | |
| 1.1 | Clean Car Program (“Pavley” GHG standards for autos) | | | | | Beginning January 1, 2009, new cars and light trucks sold in the State must meet the California Clean Car vehicle emissions standards. |
| 1.2 | Fuel-Efficient Tires | | | | | |
| 1.3 | Freight Vehicle Fuel Efficiency Improvements | | | | | |
| 1.4 | Black Carbon Control for Freight Vehicles (e.g., particulate traps) | | | New EPA emission standards for truck engines take effect in 2007 | | In 2005, Legislature authorized \$2 million (and an additional \$2.3 million in 2007) to retrofit 20% diesel engines owned by public entities. Prior funding can also be used to retrofit privately-owned diesel vehicles. |
| 1.5 | Vehicle Purchase or Registration Incentives (registration fees, tax credits, feebates, etc.) | | | Federal Tax Code provides tax credits for alternative fuel vehicles | | Clean alternative fueled vehicles and hybrid passenger vehicles with a fuel economy of at least 40 mpg on the highway are exempted from state sales and use taxes starting in 2009. |
| 1.6 | Operational Incentives for Low-GHG Vehicles (preferential parking, use of HOV lanes, etc.) | | | | | |
| 1.7 | Incentives to Retire or Improve Older High-GHG Vehicles (passenger or freight) | | | | | |
| T-2 VEHICLE OPERATION | | | | | | |
| 2.1 | Lower and/or Enforce Speed Limits | | | | | |
| 2.2 | Vehicle Maintenance, Driver Education (e.g., tire inflation) | | | | | |

| Option No. | GHG Reduction Policy Option | Potential GHG Emissions Reduction | Cost per Ton | Externalities, Feasibility Considerations | Priority for Analysis | Notes / Related Actions in WA State |
|------------------------------|--|-----------------------------------|--------------|---|-----------------------|---|
| 2.3 | Heavy-duty Vehicle Idling Regulations and/or Alternatives (e.g., electrification) | | | | | A business and occupation state tax deduction is provided from the sale, lease, or rental of auxiliary power to heavy duty diesel vehicles through on-board or stand-alone electrification systems. |
| T-3 ALTERNATIVE FUELS | | | | | | |
| 3.1 | Renewable Fuel Standard (ethanol and/or biodiesel) | | | | | Beginning in November 30, 2008, fuel suppliers must ensure a minimum of 2% of total annual diesel and 2% of total annual gasoline sold in the State must be biodiesel or ethanol. |
| 3.2 | Alternative Fuel Mandates for State/Local Fleets | | | | | An Executive Order directs agencies to reduce 20% petroleum use in the operation of state vehicles and privately-owned vehicles used for state business, by September 1, 2009. By that date, standard diesel must be replaced with 20% biodiesel blend, and as soon as practical, agencies must begin using a minimum 5% biodiesel blend. |
| 3.3 | Alternative Fuel Production Incentives (reduced fuel taxes, production tax credits, loans, etc.) | | | | | Legislature passed four bills which provide various tax and use incentives to encourage the development, distribution, and sale of biodiesel and ethanol fuels. |

| Option No. | GHG Reduction Policy Option | Potential GHG Emissions Reduction | Cost per Ton | Externalities, Feasibility Considerations | Priority for Analysis | Notes / Related Actions in WA State |
|--|---|-----------------------------------|--------------|---|-----------------------|---|
| 3.4 | Alternative Fuel Infrastructure Development | | | | | 2006 Legislature appropriated \$17 million for the Energy Freedom Loan Program to develop a viable bioenergy industry, promote research, and develop bioenergy sources and markets to support growth of bioenergy crops. 2007 Legislature authorized a bill to create a vehicle electrification grant program. The bill also authorizes state agencies to provide electricity at state facilities for operation of state electric vehicles and privately-owned electric vehicles used for state business. |
| T-4 SMART GROWTH | | | | | | |
| 4.1 | Promote Infill and/or Transit-Oriented Development | | | | | Washington’s Brownfield Coalition offers low-interest loans to local governments and property owners to clean up Brownfields through the Brownfield Loan Fund. The Legislature adopted the Growth Management Act in 1990 that requires state and local governments to manage Washington’s growth by protecting critical and natural resource areas and designating urban growth areas. |
| 4.2 | Targeted Open Space Protection | | | | | |
| 4.3 | Parking Management (pricing, supply restrictions, etc.) | | | | | |
| 4.4 | VMT/GHG Offset Requirements for Large Developments | | | | | |
| T-5 SYSTEM EFFICIENCY AND DEMAND MANAGEMENT | | | | | | |

| Option No. | GHG Reduction Policy Option | Potential GHG Emissions Reduction | Cost per Ton | Externalities, Feasibility Considerations | Priority for Analysis | Notes / Related Actions in WA State |
|------------|---|-----------------------------------|--------------|---|-----------------------|---|
| 5.1 | Transportation System Management (signal timing, HOV lanes, intelligent transportation systems, etc.) | | | | | |
| 5.2 | Ridesharing (carpool and vanpool programs, park-and-ride, etc.) | | | | | |
| 5.3 | Expand Transit Infrastructure (rail, BRT) and/or Improve Existing Service (frequency, quality, etc.) | | | | | |
| 5.4 | Transit Marketing, Promotion, and Pricing Incentives | | | | | |
| 5.5 | Bike and Pedestrian Infrastructure Improvements | | | | | |
| 5.6 | Commuter Choice Programs (pre-tax transit, telecommute, parking cash-out, etc.) | | | | | Legislature passed the Commute Trip Reduction Efficiency Act that uses partnerships among employers, local jurisdictions, transit systems, and the State to discourage traveling by single-occupant vehicles to the work place. |
| 5.7 | Expand Roadway Pricing (e.g., tolling) | | | | | PSRC recently conducted a pilot test of an in-vehicle taxi-like metering device to assess roadway user charges. This Traffic Choices Study involved 500 vehicles from more than 300 households. |
| 5.8 | Increase Motor Fuel Taxes | | | | | |
| T-6 | NON-ROAD OPTIONS | | | | | |

| Option No. | GHG Reduction Policy Option | Potential GHG Emissions Reduction | Cost per Ton | Externalities, Feasibility Considerations | Priority for Analysis | Notes / Related Actions in WA State |
|-------------------|--|--|---------------------|--|------------------------------|--|
| 6.1 | Intermodal Rail Improvements | | | | | |
| 6.2 | Aircraft GHG Reductions | | | | | |
| 6.3 | Airport Operations and Ground Equipment | | | | | |
| 6.4 | Harbor Craft GHG Reductions (ferries, tugs, etc.) | | | | | |
| 6.5 | Off-Road Vehicle GHG Reductions (construction, recreational, etc.) | | | | | |
| 6.6 | Port Electrification | | | | | |