



The Center for Climate Strategies

Helping States and the Nation Tackle Climate Change

Catalog of State Climate Actions: Transportation and Land Use

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

Example State Greenhouse Gas Pollution Reduction Policy Actions

PASSENGER VEHICLES

Passenger Vehicle Technology

- New vehicle standards: tailpipe greenhouse gas (GHG) and fuel economy
- ZEV / LEV-2 (zero emission vehicle / low emission vehicle) implementation
- Research and development (R&D) and bringing to market lower-GHG vehicle technologies
- Vehicle add-on technologies (low friction oil, fuel-efficient tires)
- Hybrid buses
- Support stronger federal corporate average fuel economy (CAFÉ) standards
- Programs for GHG emission consumer information for newly purchased cars
- Develop infrastructure for plug-in vehicles

Passenger Vehicle Operations

- Enforce speed limits
- Vehicle maintenance and driver training
- Improved transportation system management (e.g., traffic signal synchronization and intelligent transportation systems)
- Driver information technologies, including pay-as-you-drive insurance
- Tune-up services, including tire pressure checks
- Passenger vehicle idling restrictions

- School education programs
- Public education

Passenger Vehicle Incentives and Disincentives

- Procurement of efficient fleet vehicles
- Feebates (state-specific or regional)
- CO₂-based registration fees and vehicle licensing fees
- Tax credits for efficient vehicles
- Vehicle scrappage
- Emission-based tolling (discounts for clean vehicles)
- Establish a carbon emission tax modeled after the Clean Air Discount Bill
- Establish a fleet replacement grant program
- Provide a tax incentive for adult bicycles
- Support alternative travel in the advertising mainstream

Fuel-Related Measures

- Low-GHG fuel standard (e.g., renewable)
- Low-GHG for state fleets (e.g., compressed natural gas [CNG], biodiesel)
- Biodiesel expansion (biodiesel, CNG, liquefied petroleum gas [LPG], cellulosic, ethanol)
- Alternative fuel infrastructure development
- Fund R&D for a full range of renewable transportation fuels
- Develop life cycle analyses of transportation fuels to determine the appropriate pathways to sustainably protect natural resources

LAND USE EFFICIENCY AND MODAL OPTIONS

General Location Efficiency

- Statewide growth management plan
- Include GHG evaluations in state policies
- Shape investment to maximize GHG reductions
- Provide technical and financial support to local agencies

- Smart growth planning, modeling, tools
- Land use, zoning, tax, and building code reform
- State congressional advocates for federal action
- Use of flexible federal transportation funding
- Downtown revitalization
- Brownfield redevelopment
- Infill redevelopment
- Transit-oriented development
- Traffic calming
- Targeted open space protection
- Balance economic development with agriculture, protection of natural resources, and preserving rural character

Increasing Low-GHG Travel Options

- Make full use of Congestion Mitigation and Air Quality (CMAQ) funds—with application reviews that consider GHG reductions
- Improve transit service (frequency, convenience, quality)
- Transit marketing and promotion, including individualized transit marketing
- Expand transit infrastructure (rail, bus, bus rapid transit)
- Transit prioritization (signal prioritization, high-occupancy vehicle [HOV] lanes)
- Guaranteed ride home
- Create regional intermodal transportation centers
- Bike and pedestrian infrastructure
- HOV lanes
- Vanpooling and carpooling
- Park-and-ride lots
- Car sharing
- Telecommute, live-near-your-work, and compressed work week
- Require government agencies to use telecommuting

- Telecommuting centers, support, and incentives
- E-commerce

Incentives and Disincentives

- Commuter choice programs / parking cash-out
- Adopt best workplaces for commuters policies
- Issue free bus passes to downtown workers, students, and retired people
- Transit pricing incentives
- Free downtown parking to carpoolers
- Reserve parking spaces for high-occupancy vehicles and car-sharing programs
- Benefits for low-GHG vehicles (preferential parking, use of HOV lanes)
- Location-efficient mortgages
- Vehicle miles traveled (VMT) charges
- Increased fuel tax (with targeted use of revenue toward travel alternatives)
- Pay-as-you-drive insurance
- Congestion pricing (with targeted use of revenue toward travel alternatives)
- Emission-based tolls (with targeted use of revenue toward travel alternatives)
- Urban and intercity road rolls (with targeted use of revenue toward travel alternatives)
- Cordon pricing
- Parking pricing, excise tax, and/or supply restrictions
- VMT / GHG offset requirements for large developments
- Research the impact of GHG emission reduction strategies on transportation revenue sources
- Research alternative ways to fund transportation that creates incentives to drive less
- CO₂ conformity requirements

HEAVY-DUTY VEHICLES

Heavy-Duty Vehicle Technologies

- Vehicle technology improvements (e.g., aerodynamics)
- R&D on low-GHG vehicle technology

- Black carbon control technologies (e.g., use of particulate traps, other complementary technologies)
- Facilitate adoption of new clean technologies—rail and marine engines
- Single-wide tires, low-rolling-resistance radials, automatic tire inflation

Heavy-Duty Vehicle Operations

- Freight logistics improvements / geographic information system (GIS)
- Enforce speed limits
- Improve traffic flow
- Increased size and weight of trucks
- Pre-clearance at scale houses
- Truck stop electrification
- Enforce anti-idling
- Clean freight operating improvements
- Freight villages / consolidation centers

Increasing Low-GHG Heavy-Duty Travel Options

- Intermodal freight initiatives
- Feeder barge container service
- Increase rail capacity and address rail freight system bottlenecks
- Shift freight movements from truck to rail
- Promote strategies to ease the movement of freight in more GHG-efficient ways

Heavy-Duty Vehicle Incentives and Disincentives

- Procurement of efficient fleet vehicles (public, private, or other)
- Incentives to retire or improve older, less efficient vehicles
- Maintenance and driver training
- Increased emission-based truck tolls or highway user fees

INTERCITY PASSENGER TRAVEL: AVIATION, RAIL, & BUS

- High-speed rail
- Integrated aviation, rail, bus networks (planning, governance, and investment)
- Aircraft emissions
- Airport ground equipment
- Intercity bus incentives and subsidies

OFF-ROAD VEHICLES (E.G., CONSTRUCTION EQUIPMENT, OUTBOARD MOTORS, ATVS)

- Incentives for purchase of efficient vehicles and equipment
- Improved operations, operator training
- Increased use of alternative fuels or low-sulfur diesel
- Adopt green port strategy (port land-side: clean up port-dwelling and cargo-handling equipment operations)
- Low-carbon fuel (off-road and recreational marine)
- Locomotive idling reductions
- Inclusion of idling reduction requirements
- Diesel cranes at port-electrification or other GHG-reducing alternatives
- “Shore power” at port sites