

Catalog of State Actions Transportation and Land Use (TLU) Policy Working Group

A catalog of state-level, GHG-reducing actions and policy options prepared by the Center for Climate Strategies (CCS) and the Rocky Mountain Climate Organization based on actions undertaken or considered by Colorado and other states, including regional, state, local and private actions.

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 Colorado 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	Uncertain (U): Not able to estimate at this time
<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. <u>2/</u> Costs are denoted by a positive number. Cost savings (i.e., “negative costs”) are denoted by a negative number.	

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.

Notation of Options:

Options marked with an asterisk (*) indicate options that are at least partially “base case” policies, i.e., that have been considered or undertaken at some level in Colorado. Distinctions are made between statewide (S) and local (L) policies where appropriate. Options marked with two asterisks (**) indicate options that have been proposed for consideration.

Transportation and Land Use (TLU)

CATEGORIES

TLU-1: VEHICLE TECHNOLOGY (including alternative fuel vehicles)

TLU-2: VEHICLE OPERATION

TLU-3: ALTERNATIVE FUELS (focused on production and use)

TLU-4: LAND USE AND LOCATION EFFICIENCY

TLU-5: TRANSPORTATION SYSTEM EFFICIENCY

TLU-6: MISCELLANEOUS

Alternative fuels include: ethanol, biodiesel, compressed natural gas (CNG), and all-electric or electric-hybrid vehicles.

Option No.	GHG Reduction Policy Option	Priority for Analysis	Potential GHG Emissions Reduction	Potential Cost Effectiveness	Ancillary Impacts, Feasibility Considerations	Notes
TLU-1	VEHICLE TECHNOLOGY					
1.1	Clean Car Program (Pavley standards)		H	H		Included in Arizona (AZ) and New Mexico (NM) climate action plans, and under consideration in Montana (MT). Abbreviated as AZ, NM , MT in other catalog options below.
1.2	Fuel-Efficient Tires		M	H		AZ, NM, MT
1.3	Freight Vehicle Technology Improvements		H	U	New EPA emissions standards for heavy-duty engines take effect in 2007	
1.4	Allow Increased Size and/or Weight of Trucks		L	H		

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1.5	Black Carbon Control for Freight Vehicles (e.g., particulate traps) *(S)		U	U		Large co-benefits in PM reduction
1.6	Procurement of Low-GHG Fleet Vehicles (fuel efficiency, alternative fuel)		L	H/M		AZ, NM, MT
1.7	“Feebates” (state-specific or regional)		L/M	H		AZ, NM, MT
1.8	GHG-linked Registration Fees (e.g., to fuel efficiency, alternative fuel, or VMT)		L/M	H		NM, MT
1.9	Tax Credits for Low-GHG Vehicles (fuel efficiency, alternative fuel) *(S)		L	H	Federal Tax Code provides tax credits for alternative fuel vehicles	NM, MT
1.10	Incentives for Low-GHG Vehicles (preferential parking, use of HOV lanes)		L	H		
1.11	Incentives to Retire or Improve Older High-GHG Vehicles (passenger or freight)		L	H/M		AZ, NM
1.12	R&D on Low-GHG Vehicle Technology (e.g., fuel cells) *		L	U	Probably best coupled with Federal dollars	
TLU-2	VEHICLE OPERATION					
2.1	Lower and/or Enforce Speed Limits		M	M		AZ, NM

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2.2	Vehicle Maintenance, Driver Education (e.g. tire inflation) *		L	U		MT
2.3	Adopt and/or Enforce Anti-Idling Regulations for Buses/Trucks *(L)		M	H		AZ, NM, MT
2.4	Truck Stop Electrification		M	H		AZ, NM, MT
2.5	Pre-Clearance at Truck Scale Houses *(S)		L	H		
TLU-3	ALTERNATIVE FUELS					
3.1	Renewable Fuel Standard (ethanol and/or biodiesel)		L/M	H		AZ, NM, MT
3.2	Fuel Quality Standards (e.g., ASTM standards for ethanol/biodiesel)					*Enabling policy in AZ
3.3	Alternative Fuel Mandates for State/Local Fleets *(S)		L	H		NM
3.4	Alternative Fuel Production Incentives (reduced fuel taxes, production tax credits, loans, etc.)		L	M		NM
3.5	Targeted State Fuel Procurement to Encourage Alternative Fuel Production (Pennsylvania example)		L	L		PA organized a public/private fuel-buying consortium to enter a long-term contract to buy the output of a coal-to-diesel plant
3.6	Alternative Fuel Infrastructure Development *(S)		L	H		NM

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TLU-4 LAND USE AND LOCATION EFFICIENCY						
4.1	Infill, Brownfield Re-development *(S,L)		M/H	M		AZ, NM, MT
4.2	Transit-Oriented Development *(L)		M/H	H/M		AZ, NM
4.3	Smart Growth Planning, Modeling, Tools *(S,L)		M	M		AZ, NM, MT
4.4	Targeted Open Space Protection *(S,L)		M	M		NM, MT
4.5	“Fix-it-First” Funding Strategies		L/M	H		
4.6	Location-Efficient Mortgages		L	H		
4.7	Parking Pricing or Supply Restrictions		H	H		
4.8	VMT/GHG Offset Requirements for Large Developments		L/M	H		
4.9	Assess Use of CMAQ Funds		L	L		
TLU-5 TRANSPORTATION SYSTEM EFFICIENCY						
5.1	Transportation System Management (improved traffic flow, HOV lanes, intelligent transportation systems, etc.) *(S,L)		L	H		MT
5.2	Integrated Air/Rail/Bus Networks **		M	M/L		

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5.3	Multi-Modal Freight Initiatives		M	M		NM
5.4	Expand Transit Infrastructure (rail, bus, Bus Rapid Transit) *(S,L)		M	M		NM
5.5	Improve Transit Service (frequency, convenience, quality) *(L)		M	M		MT
5.6	Transit Prioritization (signal prioritization, HOV lanes) *(L)		L	H/M		
5.7	Transit Marketing, Promotion, and Pricing Incentives *(L)		M/H	H		
5.8	Bike and Pedestrian Infrastructure *(S,L)		L	H		MT
5.9	Telecommute and Live-Near-Your-Work *(S,L)		L	H		
5.10	Car Sharing Programs *(S,L)		L	H		
5.11	Commuter Choice/Parking Cash Out		H	H		
5.12	“Pay-As-You-Drive” Auto Insurance		H	H		AZ, NM
5.13	Road Pricing and User Fees		L/M	H		
5.14	Fuel Tax		M	H		
5.15	VMT Tax		H	H		

Option No.	GHG Reduction Policy Option	Priority for Analysis	Potential GHG Emissions Reduction	Potential Cost Effectiveness	Ancillary Impacts, Feasibility Considerations	Notes
TLU-6	MISCELLANEOUS					
6.1	Aircraft Emissions		L	H		MT
6.2	Airport Operations and Ground Equipment *(L)		L	H		
6.3	Off-Road Vehicles (construction, recreational, etc.)		L	H		MT