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Transportation and Land Use Sector GHG Reduction Policy Options

TWG call #2, October 5, 2005, 8:00-9:30 a.m.

Indicative Potential Emission Reductions* -	**Indicative cost ($/tCO2e)**
High (H): Potentially capable of saving at least 1 Million Metric Tons CO2e per year by 2020 (~1% of current NM emissions)	**High (H)**: $50/tCO2e or above
Medium (M): Potentially capable of saving from 0.1 to 1 Million Metric Tons per year by 2020	**Medium (M):** $5-50/tCO2e
Low (L): Unlikely to yield more than 0.1 Million Metric Tons CO2e per year by 2020	**Low (L):** $5/tCO2e or lower
Uncertain (U): Too many unknowns to estimate at this time	**Negative (Neg):** Cost Savings

* Several measures may overlap in terms of the emissions reductions. Estimates assume measures would be implemented independently from other measures.

Indication of Priorities:

- **High:** High priority items are deemed deserving of considerable further analysis.
- **Medium:** Medium priority items will be carried forward, with the extent of further consideration and analysis to be determined later.
- **Low**: Low priority items will be moved to a separate list as options to be potentially considered at a later time.

** Options marked with a double asterisk in the matrix indicate policies that have been considered or undertaken at some level in New Mexico.

		Priority: High, Med, Low	Implement. Level	Potential Emission Reductions	Cost ($/tCO2 removed)	Co-benefits, Feasibility Consideration
1.	**PASSENGER SECTOR**					
1.1	**Vehicle Technology**					
1.1.1	California GHG Emission Standards for Light-duty Vehicles		State	**H**	**L**	New Mexico not eligible under CAA. Opinions vary sharply on cost. Legal challenge pending.
1.1.2	California LEV-2 Emission Standards (option: w/ or w/out Advanced Technology Component)		State	**L**	**L/M**	New Mexico not eligible under CAA.
1.1.3	State R&D on Low-GHG Vehicle Technology (e.g., fuel cell)		State	**L**	**?**	Probably best coupled w/ federal dollars
1.1.4	Promote Add-on Technologies (Low Friction Oil, Low-Rolling Resistance Tires)		State	**L**	**Neg/L**	
1.1.5	Procurement of Efficient Fleet Vehicles		State	**M**	**Neg/L**	
1.1.6	Feebates (state-specific or regional) *[Charge a fee on purchases of relatively high-emitting vehicles and give a rebate on the purchase of relatively low-emitting vehicles. Overall, fees/rebates are revenue neutral.]*		State	**?**	**?**	Considered in many states but not adopted.
1.1.7	GHG-based registration fees		State	**L**	**?**	
1.1.8	Tax Credits for Fuel Efficient Vehicles		State	**L**	**?**	Federal tax code provides tax credits for alternative fuel vehicles
1.1.9	Vehicle Scrappage		State, Local	**L**	**L/M**	Pilots undertaken in several cities.
1.2	**Fuel**					
1.2.1	Low-GHG Fuel Standards (e.g., minimum ethanol content)		State	**H**	**L/M**	
1.2.2	Low-GHG Fuel for Public and/or Private Fleets (e.g., ethanol, biodiesel, compressed natural gas (CNG))		State, Local	**M**	**L/M**	

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1.2.3	Promote Expansion/Availability of Low-GHG Fuels (CNG, LPG, ethanol)		State, local	**L**	**L/M**	
1.2.4	Expand Alternative Fuel Infrastructure Development (e.g. hydrogen, CNG)		State	**L**	**?**	
1.3	**Operation**					
1.3.1	Enforce and/or Lower Speed Limits		State	**L**	**?**	
1.3.2	Vehicle Maintenance, Driver Training		State	**L**	**?**	
1.3.3	Transportation System Management		State	**L**	**?**	
1.4	**Demand – Land Use/Location Efficiency**					
1.4.1	Infill, Brownfield Re-development		State, local	**H**	**?**	
1.4.2	Transit-Oriented Development		State, local	**H**	**?**	
1.4.3	Smart Growth Planning, Modeling, Tools		State, local	**H**	**?**	
1.4.4	Targeted Open Space Protection		State, local	**H**	**?**	
1.4.5	GHG Offset Requirements for Large Developments *[Require developer to offset GHG emissions attributable to a development]*		State, local	**?**	**?**	
1.5	**Demand – Transit Alternatives**					
1.5.1	Make better use of CMAQ funds		State, local	**L**	**L**	
1.5.2	"Fix-it-First" *[Earmark transp. funds toward repair of existing transp. network before funding new transportation infrastructure]*		State, local	**L/M**	**?**	

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1.5.3	Expand Transit Infrastructure (rail, bus), Improve Transit Marketing and Service (frequency, convenience, quality)		State, local	**H**	**M/H**	
1.5.4	Integrated Aviation, Rail, Bus Networks		State, local	**?**	**?**	
1.5.5	Transit Prioritization (signal prioritization, HOV lanes)		State, local	**L**	**?**	
1.5.6	Bike and Pedestrian Infrastructure		State, local	**L**	**?**	
1.5.7	Telecommute and Live-Near-Your-Work		State, local	**L**	**?**	
1.5.8	Car sharing / pooling		Local	**L**	**?**	
1.5.9	E-Commerce		State, local	**L**	**?**	
1.5.10	Employer-provided Commuter Incentives (transit passes, , vanpools, preferential parking) *[includes "Parking Cash Out" -- an employer that offers free parking also offers the parking subsidy in cash)*		State, local, private firms	**L**	**?**	
1.6	**Demand – Market Mechanisms**					
1.6.1	VMT Tax *[tax on miles driven]*		State	**L/M**	**?**	
1.6.2	Pay As You Drive Insurance *[part of a vehicle's insurance premium is determined by annual miles driven]*		State, insurance companies	**?**	**?**	Revenue neutral to drivers as a whole
1.6.3	Increased Fuel Tax (w/ targeted use of revenue towards travel alternatives)		State	**L**	**?**	
1.6.4	Congestion Pricing (or tolls) (w/ targeted use of revenue towards travel alternatives)		State, local	**?**	**?**	
1.6.5	Parking Pricing or Supply Restrictions		Local	**?**	**?**	

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1.6.6	Benefits for Low GHG Vehicles (e.g., preferential parking, use of HOV lanes)		Local, private firms	**?**	**?**	
2.	**FREIGHT**					
2.1	**Technology**					
2.1.1	Vehicle Technology Improvements (e.g., engines, aerodynamics)		**?**	**L**	**?**	New EPA emission standards for heavy-duty engines take effect in 2007.
2.1.2	Voluntary diesel retrofit program		State, local, priv firms	**L**	**L/M**	See EPA National Clean Diesel Campaign
2.1.3	Black carbon control technologies (e.g., use of particulate traps, other complementary technologies)		State, local, priv firms	**?**	**M**	Large co-benefits in PM reduction
2.1.4	Procurement of Fuel Efficient Fleet Vehicles (public, private or other)		State, local, priv firms	**M**	**Neg/L**	
2.1.5	Incentives to Retire or Improve Older Less Efficient Vehicles		State, local, priv firms	**L**	**L**	
2.2	**Fuel**					
2.2.1	Promote and/or Require Low-sulfur diesel		State, local, priv firms	**L**	**H**	New EPA low-sulfur diesel stds take effect in 2006.
2.2.2	Low-GHG Fuel Standards (e.g., minimum biodiesel content)		State	**L**	**?**	
2.2.3	Promote Expansion/Availability of Biodiesel, CNG		State	**L**	**?**	
2.3	**Vehicle Operation** ***[these options sometimes bundles for analysis]***					
2.3.1	Freight Logistics Improvements/GIS		State	**L**	**Neg/L**	
2.3.2	Enforce Speed Limits		State	**L**	**?**	
2.3.3	Improve Traffic Flow		State	**L**	**?**	
2.3.4	Increased Size & Weight of Trucks		State	**L**	**?**	
2.3.5	Pre-clearance at Scale Houses		State	**L**	**?**	

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2.3.6	Promote Truck Stop Electrification *[reduces idling]*		State	**L**	**M**	
2.3.7	Maintenance and Driver Training *[to improve fuel efficiency]*		State	**L**	**Neg/L**	
2.3.8	Enforce Anti-Idling		State	**L**	**Neg/L**	
2.4	**Demand**					
2.4.1	Intermodal Freight Initiatives *[increase rail use through better intermodal connections]*		State	**L**	**?**	See e.g. EPA SmartWay program
2.4.2	Increased Truck Tolls or Highway User Fees		State	**?**	**?**	
3.	**AVIATION, OFF-ROAD**					
3.1	**Aviation**					
3.1.1	Aircraft emissions *[improved operation of aircraft and runway management]*		State, local	**L**	**?**	
3.1.2	Use of Alternate Fuels in Airport Ground Equipment		State, local	**L**	**?**	
3.2	**Off-Road Vehicles (construction equipment, out-board motors, ATVs, etc)**					
3.2.1	Incentives for Purchase of Efficient Vehicles/Equipment		State, local	**L**	**?**	
3.2.2	Improved Operations, Operator Training		State, local	**L**	**?**	
3.2.3	Maintenance Improvements		State, local	**L**	**?**	
3.2.4	Increased Use of Alternative Fuels or Low Sulfur Diesel		State, local	**L**	**?**	