National Capital Region Transportation Planning Board

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Memorandum

To: TPB Technical Committee

From: Daivamani Sivasailam

Subject: Transportation and Land Use Strategies for Greenhouse Gas Reduction

This memorandum updates the greenhouse gas (GHG) reduction materials that were mailed to the Committee in support of agenda item # 9, "Report on the Travel Management Subcommittee Activities".

Since the last Travel Management Subcommittee (TMS) meeting on October 21, the COG Board's Climate Change Steering Committee met and made changes to the recommended transportation and land use strategies for greenhouse gas reduction in its draft "National Capital Region Climate Change Report". In order to reflect these changes and staff's recommended next steps, we prepared a matrix which identifies those strategies to be analyzed by DTP staff as technical measures, either under the TMS umbrella or the TPB Scenario Task Force, and those strategies to be discussed as policy measures by the TPB or its Scenario Task Force. Staff also updated the draft "Analysis of GHG Reduction Strategies" report (outline describing the strategies and identifying the approach / assumptions for each measure), which was discussed at the October TMS meeting. In addition the previously developed ranges of CO_2 cost-effectiveness table would be used in the strategy analysis.

The following documents are transmitted in support of these work activities:

A) Matrix recommending an analysis approach for each transportation and land use measure in the COG Board's draft climate change report,

B) Revised "Analysis of GHG Reduction Strategies" report, and

C) Ranges of CO_2 cost-effectiveness for categories of already implemented or planned / programmed TERMs.

Attachments (3)

Analysis Approach for Recommended Measures in the "National Capital Region Climate Report"

Recommendations for Reducing GHG from Transportation and Land Use
Local and Regional Strategies for Government and Business

	Type of Analysis[1]			Comment
	TERM	Scenario	Policy	
A. Increase Fuel Efficiency and Use of Clean Fuel Vehicles				
1. Promote Clean Fuel Vehicles (cars, trucks, buses)				
i. Promote/accelerate adoption of efficient clean-fuel vehicles, including hybrids (cars, trucks, and buses).			X	This is a policy measure rather than a technical measure
ii. Evaluate options for promoting CA LEV-II, extending CAFE requirements past 2020 and to cover heavy trucks, and facilitating adoption of high-mileage vehicles through incentives and tax policies	X			Scope out scenarios for additional CAFÉ regulations and phasing
iii. Assess the benefits from a "Cash-for-Clunkers" program and rebates or tax incentives for the purchase of hybrid vehicles	X			Analyze as a Cash-for-Clunker
2. Adopt regional green fleet policy				
i. Establish a regional green fleet policy with measurable goals and timetables. Target public and private fleets, transit, taxicabs, rental cars, and refuse haulers. Evaluate the benefits of specific "green fleet" conversion percentages	X			Analysis approach: (1) Survey public fleet to assess market (2) Research green fleet policies in other regions (3) Propose and test scenarios accordingly
3. Promote use of clean fuels		X		See TPB Scenario Study
B. Reduce Vehicle Miles Traveled (VMT)				
1. Adopt VMT reduction goals				
i. Collaborate with the TPB to develop VMT reduction goals for 2012 and 2020 and associated options for meeting the goals			X	Policy, not technical
ii. Evaluate the potential greenhouse gas emission reduction benefits and costs of using financial incentives (e.g., pay as you travel insurance, tolling, or congestion pricing) to reduce VMT		X		See TPB Scenario Study
iii. Identify the percentage of auto trips under 3, 2, 1, and ½ miles; develop a strategy to shift half of these trips to bike, pedestrian, or transit modes; and evaluate the benefits of such a shift	X			different shift % to be studied
2. Expand transit use (incentives, exclusive transit lanes)				Will be combined with the next measure
i. Examine options to promote the increased use of existing transit capacity		X	X	
ii. Evaluate funding requirements for transit incentives and an expanded metrocheck program			X	Policy, not technical
3. Invest/Expand transit infrastructure				
i. With the Washington Metropolitan Area Transit Authority, MARC, VRE, and the local transit operators, evaluate the greenhouse gas reduction benefits of specific incremental expansion of transit capacity and commuter rail service		X		Scenario analysis
ii. Evaluate the greenhouse gas reduction benefits of expanding existing and establishing new exclusive bus transit routes, lanes, on-ramps, corridors, and intercity high-speed rail		X		Scenario analysis
4. Expand commuter options (car sharing, bicycle/pedestrian, financial incentives)				New programs and expanding current programs
i. Building on the accomplishments of Commuter Connections, develop specific targets for shifting modes from single-occupancy vehicles to transit, walking, and bicycling for commuting and noncommuting trips.	X			See State of the Commute Report and previous TERM analysis including cost-effectiveness ranges
ii. Expand existing and fund new programs to enhance access to transit and alternative modes, commuter connections, guaranteed ride home, telework programs, bike/pedestrian access, and park/ride lots	X			"
iii. Fully fund the construction of bicycle/pedestrian paths in the region, as outlined in the regional bicycle/pedestrian plan.	X			"
iv. Provide incentives to developments that speed improvements in bicycle/pedestrian access, including improvements in sidewalks, curb ramps, crosswalks, and lighting	X			"
v. Address the need for on-road bicycle accommodations and facilities	X			See "Commuter Connections Carshare Survey 2008"
vi. Promote regional implementation of SmartBike program similar to the Zipcar concept	X			Needs further review

3. *Consult with other progressive regions around the country to broadly evaluate options for regional approaches to greenhouse gas reductions that include cap and trade, an allocated VMT budget (e.g. California SB 375), and other approaches that might be relevant to our region or that might be under consideration in upcoming national Climate, Energy or Transportation legislation*			X

[1] TERM - Sketch planning analysis methods emoplyoed in previouse SIP and air quality conformity analysis

Scenario - TPB's Scenario Task Force work activities

Policy - TPB policy/goal, rather than a technical assessment

CO2 Cost-Effectiveness of TERMs		
	(TIP Projects)	
Number	Category Description	CO2 Cost Effectiveness Range *
1	Access Improvements to Transit/ HOV	$100 to $400
2	Bicycle / Pedestrian projects	$50 to $100
3	Transit Service improvements	$100 to $800
4	Rideshare Assistance Programs	$30 to $300
5	Park & Ride Lots (Transit and HOV)	$100 to $500
6	Telecommute Programs	$10 to $40
7	Signal Optimization	$30 to $50
8	Bus Replacement Programs	$525 to $775
	* Several locations / applications studied	