

AMERICAN ASSOCIATION OF
STATE HIGHWAY AND
TRANSPORTATION OFFICIALS

AASHTO
THE VOICE OF TRANSPORTATION

Overview on Climate Change

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Climate Change and Transportation

- State DOTs committed to do their part to reduce GHG emissions 80% by 2050
- Enactment of comprehensive legislation unlikely
- Enactment of planning mandate on State DOTs and MPOs to identify strategies for GHG reduction and set targets, likely



Recent Climate Change Research



- Number of vehicles worldwide to double by 2030 from one to two billion.
- International transportation energy demand will increase 50% by 2030, 100% by 2050
- “Achieving 80% GHG reduction goal by 2050 will almost certainly require a transition from petroleum to either electricity or hydrogen for light duty vehicles.”

Overall GHG Reduction Strategies

- Fuel efficiency and alternative fuels will account for 68% of emission reduction.
- Pricing 18%
- Reductions in vehicle travel (VMT) 13%
 - (Highway traffic flow 1%)
 - (Ridesharing 1%)
 - (Transit and Compact Development 6%)

Promise of Electric Vehicles

Car	Price	Range
Chevy Volt	\$33,500	340 miles
Nissan Leaf	\$22,000	100 miles
SmartCar Electric	\$600mo.	82 miles
BMW MiniElectric	\$600mo.	100+miles
Tesla Sports Car	\$57,400	160 miles

***US DOE to fund: 10,000
charging stations by 2011***



VMT Reduction Strategies Below Growth of 1% per year

- Difficult to achieve
- Will hurt the economy
- U.S. DOT's 2010 Strategic Plan proposes to “advance (only) transportation investments that reduce carbon emissions.”
- Translation: Build no additional highway capacity.



Reduce Highway Travel Demand

- Increase trips – walking and biking
- Increase telecommuting
- Compact land use
- Double transit ridership by 2030, and again by 2050
- Congestion Pricing



Reduce Highway Travel Demand



- Increase market share of freight moved by rail
- Increase intercity passenger rail