

Moving Cooler Study Findings

Moving Cooler



presented by
Cambridge Systematics, Inc.

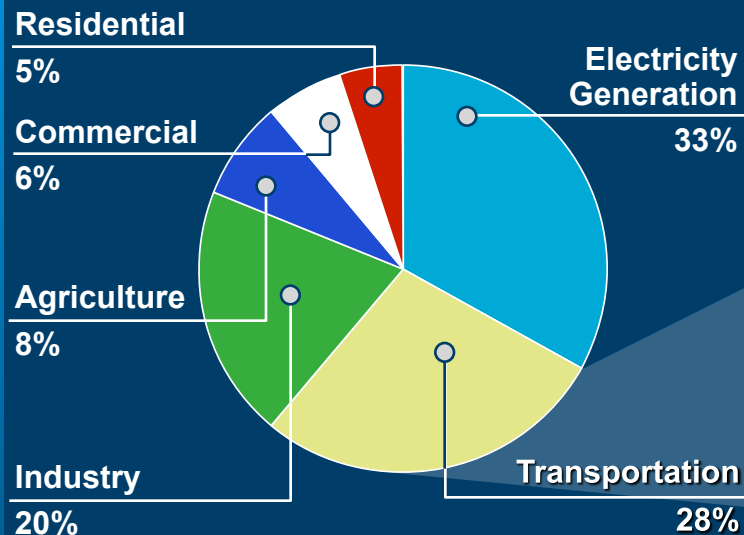
July 28, 2009

Transportation leadership you can trust.

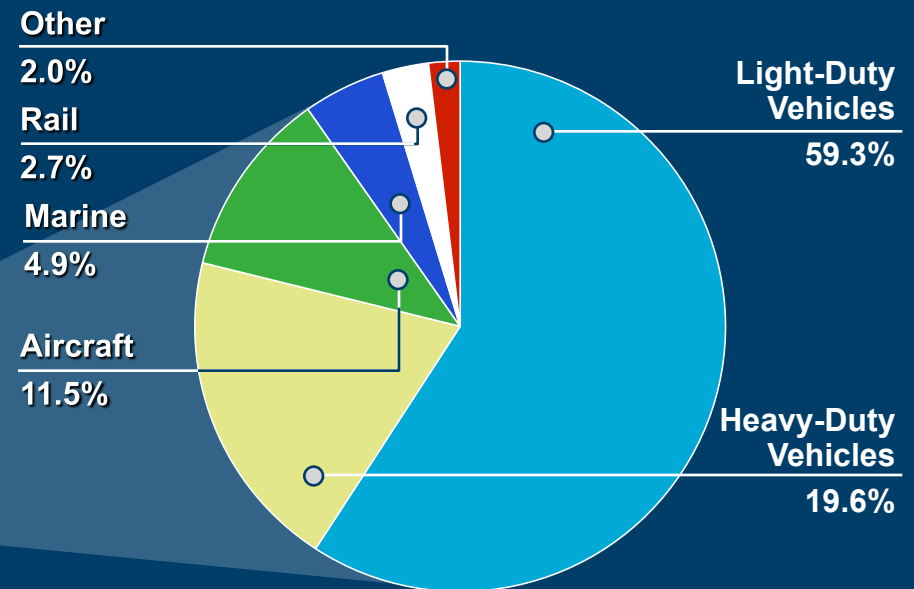


Transportation's Contribution to U.S. GHGs

U.S. GHG Emissions by
End Use Economic Sector 2006



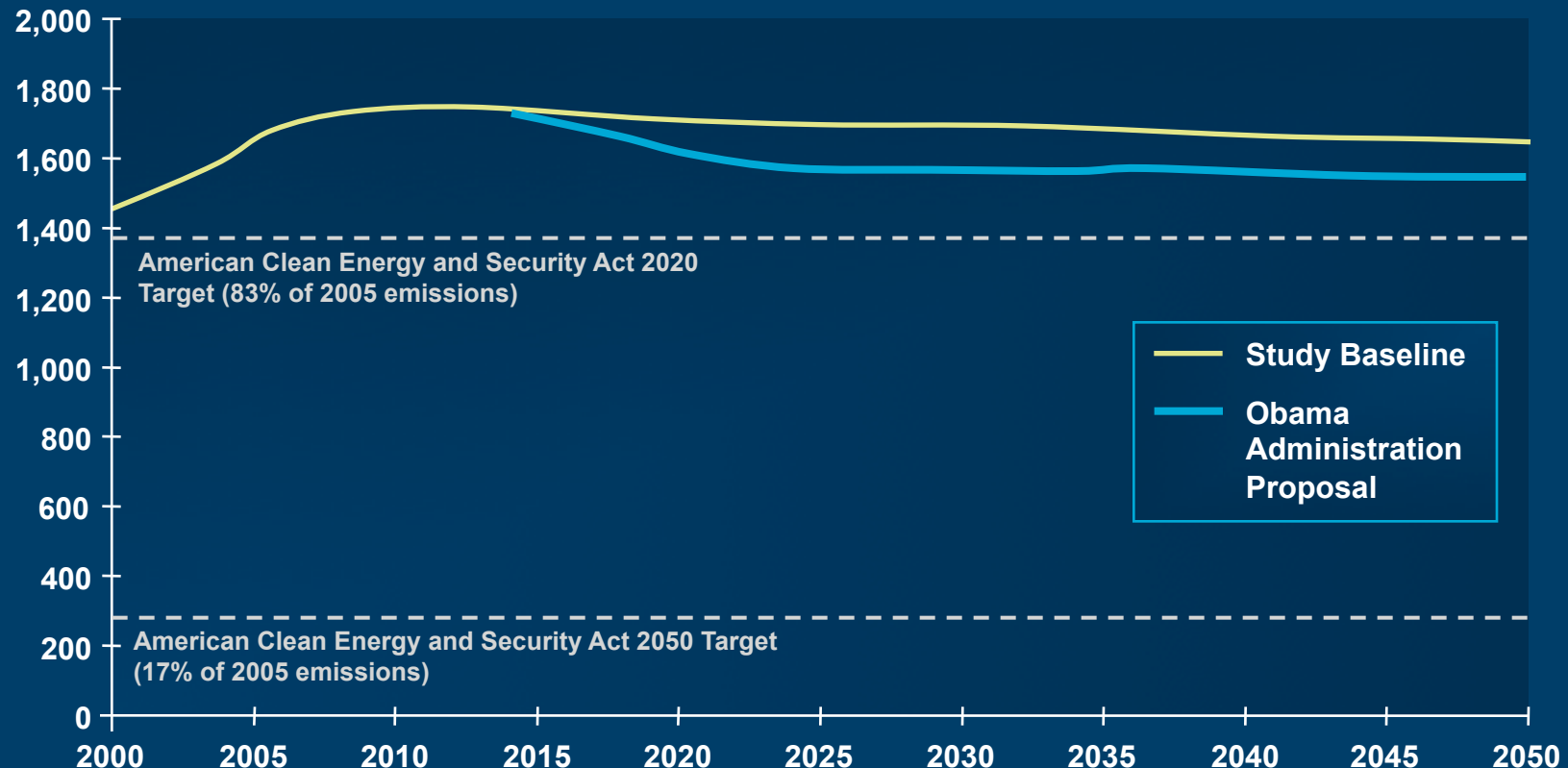
U.S. GHG Emissions
Breakdown by Mode



Source: Environmental Protection Agency (EPA). "Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2007," April 2009, <http://epa.gov/climatechange/emissions/usinventory.html>.

Moving Cooler Baseline to 2050

National On-Road GHG Emissions (mmt)



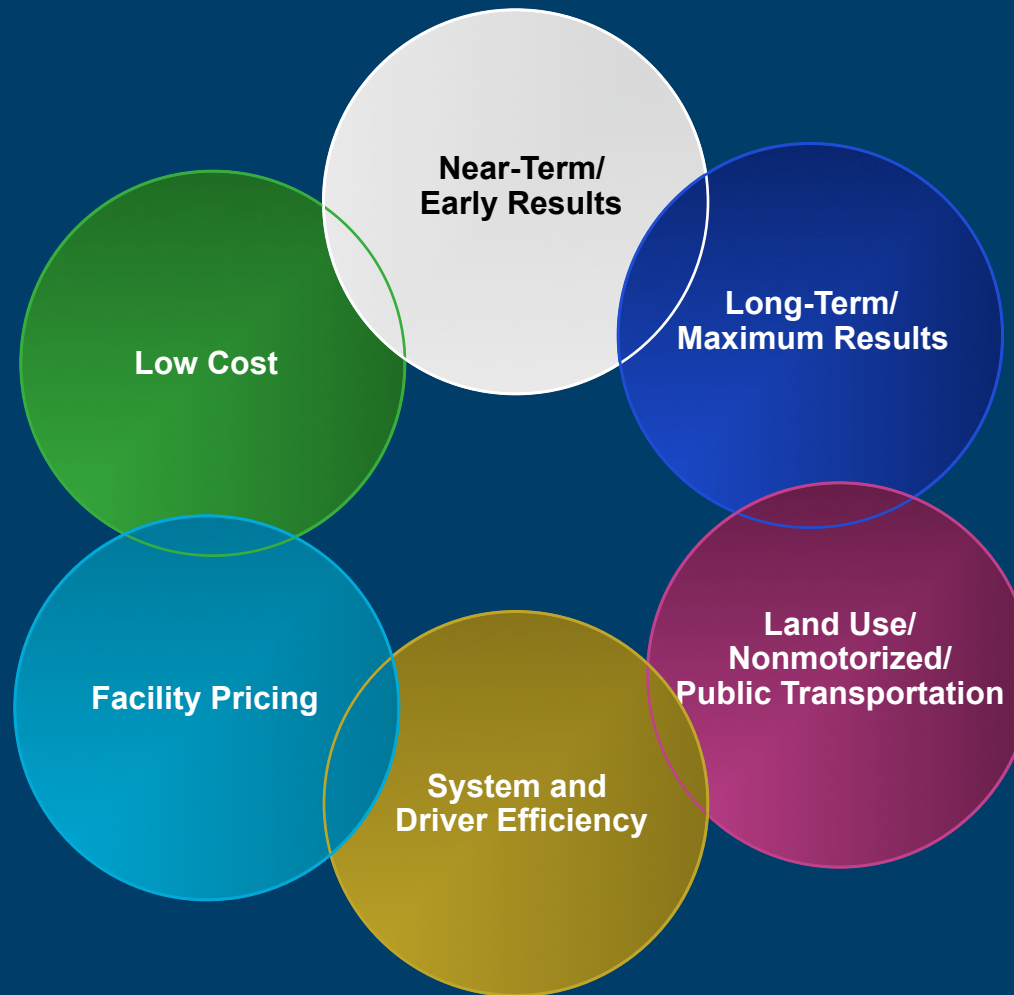
Note: This figure displays National On-Road GHG emissions as estimated in the Moving Cooler baseline, compared with GHG emission estimates based on President Obama's May 19, 2009, national fuel efficiency standard proposal of 35.5 mpg in 2016. Both emission forecasts assume an annual VMT growth rate of 1.4 percent. The American Clean Energy and Security Act (H.R. 2454) identifies GHG reduction targets in 2012, 2020, 2030, and 2050. The 2020 and 2050 targets applied to the on-road mobile transportation sector are shown here.

Wide Range of Strategies Examined

- Pricing, tolls, PAYD insurance, VMT fees, carbon/fuel taxes
- Land use and smart growth
- Nonmotorized transportation
- Public transportation improvements
- Regional ride-sharing, commute measures
- Regulatory measures
- Operational/ITS strategies
- Capacity/bottleneck relief
- Freight sector strategies

Strategy Bundles Illustrative Analysis

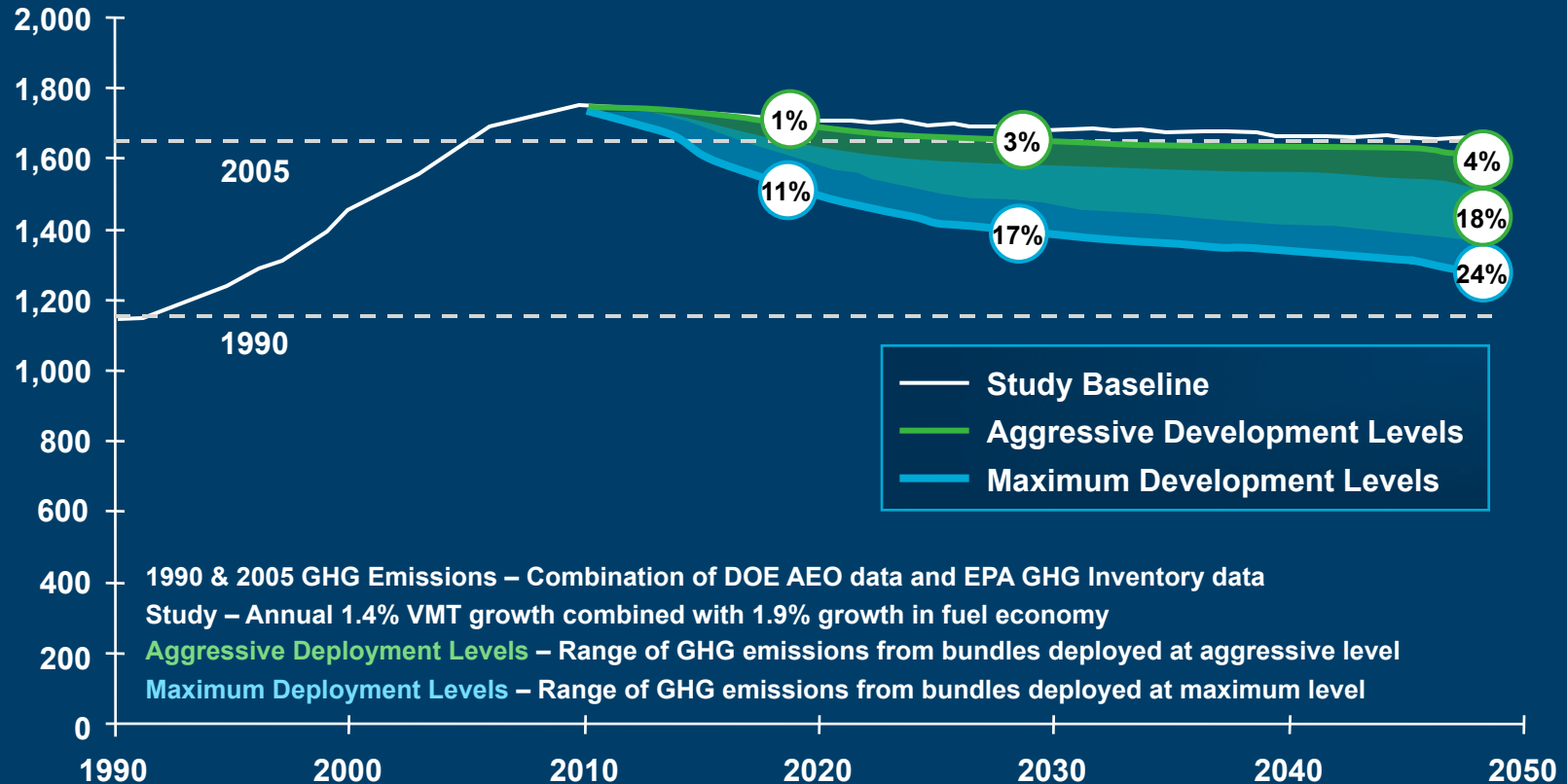
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Range of Annual GHG Reductions of Six Strategy Bundles (Aggressive and Maximum Deployment)

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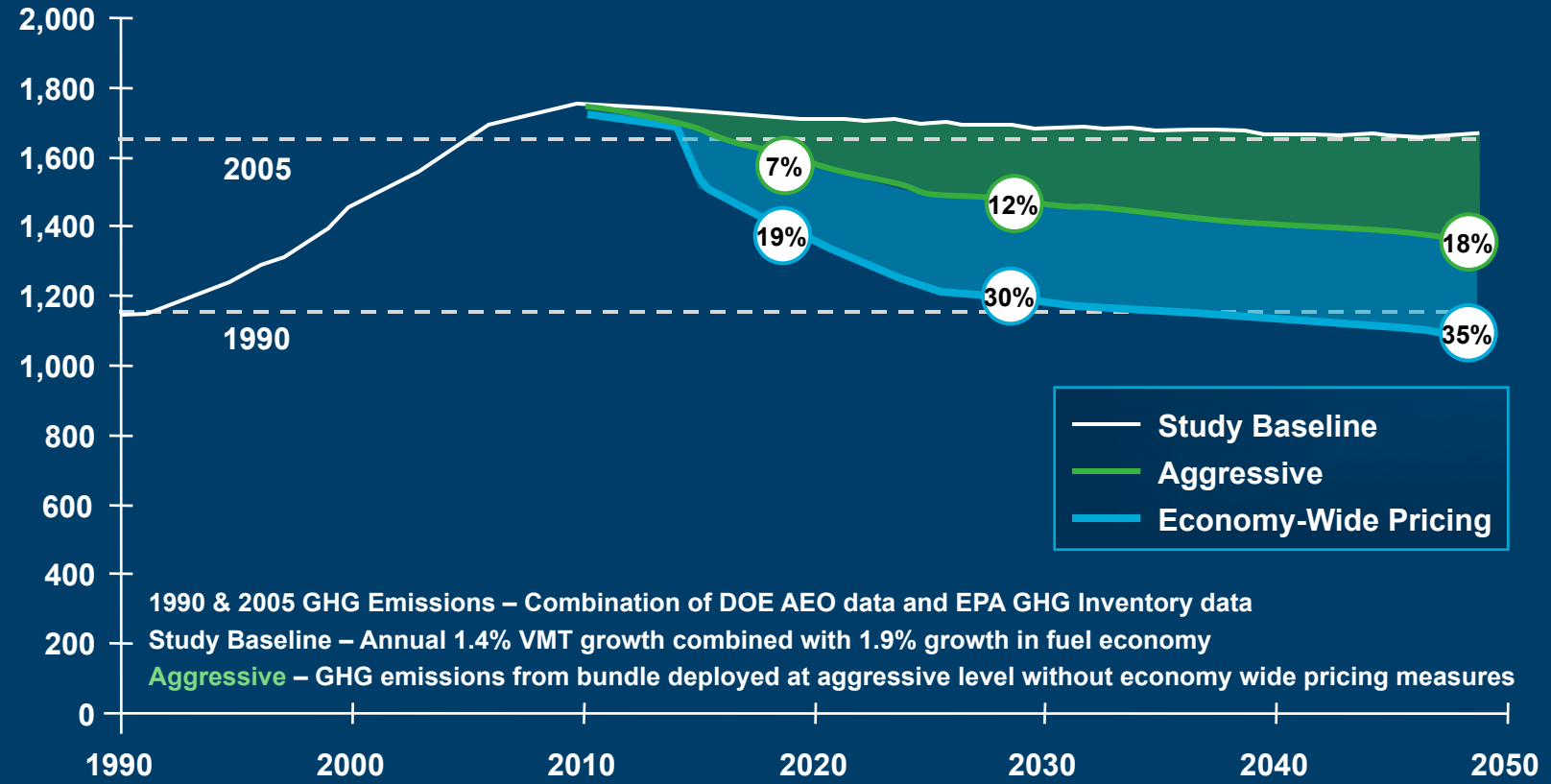
Total Surface Transportation Sector GHG Emissions (mmt)



Note: This figure displays the GHG emission range across the six bundles for the aggressive and maximum deployment scenarios. The percent reductions are on an annual basis from the Study Baseline. The 1990 and 2005 baseline are included for reference.

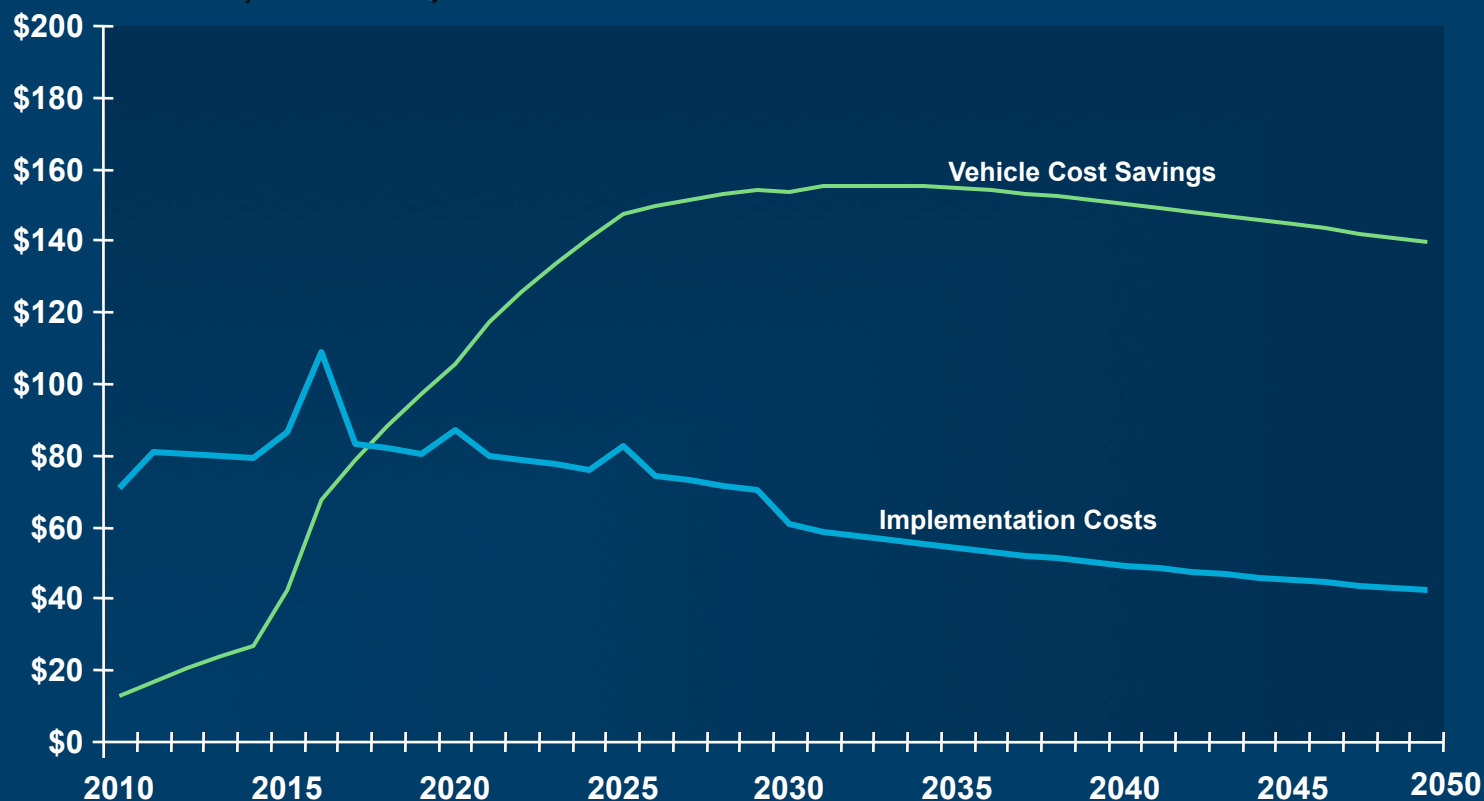
Economy-Wide Pricing

Total Surface Transportation Sector GHG Emissions (mmt)



Direct Vehicle Costs and Costs of Implementing Strategy “Bundles”

2008 Dollars (in Billions)



Note: This figure displays estimated annual implementation costs (capital, maintenance, operations, and administrative) and annual vehicle cost savings [reduction in the costs of owning and operating a vehicle from reduced vehicle-miles traveled (VMT) and delay. Vehicle cost savings DO NOT include other costs and benefits that could be experienced as a consequence of implementing each bundle, such as changes in travel time, safety, user fees, environmental quality, and public health.

Near-Term and Long-Range Strategies

- Some strategies are effective in achieving **near-term** reductions, reducing the cumulative GHG challenge in later years
- Investments in land use and improved travel options involved **longer timeframes** but would have enduring benefits

Other Societal Goals

- Many strategies contribute to other social, economic and environmental goals while reducing GHGs
- Some strategies have significant equity implications that should be examined and addressed
- Both national level and state/regional/local strategies are important