

An Energy-Efficient Transportation System

For 29 years, ACEEE's energy efficiency experts have helped to shape our nation's energy efficiency research and policy agenda. We achieve our success through...

- conducting in-depth technical & policy analyses
- advising policymakers, energy professionals & utilities
- working collaboratively with businesses & other organizations
- organizing conferences
- publishing conference proceedings and reports
- educating consumers & businesses

Collaboration is key to ACEEE's success. We work with organizations around the globe including federal, state, and local government agencies, utilities, research institutions, businesses, and public interest groups. Our focus is on 6 primary program areas:

- Energy Policy
- Economic Analysis
- Buildings, Appliances, & Equipment
- Utilities
- Industry & Agriculture
- Transportation

ACEEE is leading the development of technology and policy solutions that ensure the security of our energy systems. As energy leaders, we promote the vibrancy of the American economy and the sustainability of the environment worldwide.

ACEEE PRIORITIES

Congress should...

- In climate legislation:
 - Set national transportation sector greenhouse gas emissions targets and a means of suballocating those targets to states
 - Establish a major, funded program to grow transportation planning and technical capacity at the state and regional levels
- In the reauthorization of the federal transportation spending bill:
 - Increase investment in energy-efficient modes of transportation and facilitate adoption of market-based policies to improve the efficiency of transportation systems
 - Establish performance measures for state transportation system efficiency and associate significant federal funding with good performance.

THE ISSUE

The transportation sector accounts for one-third of U.S. carbon dioxide emissions, making it the nation's second largest greenhouse gas emissions source. Motor vehicle fuel efficiency will rise in the coming years due to more stringent fuel economy and greenhouse gas standards and rising fuel prices. Production of low-carbon fuels may rise as well. But growing vehicle miles traveled can offset these gains, keeping the U.S. heavily oil-dependent and allowing the transportation sector's carbon footprint to expand.

SUMMARY

A transportation system that reduces the need to drive can help to achieve climate and energy security goals while bringing major economic and social benefits. This requires far greater investment in public transit projects, intercity passenger rail service, and bicycle and pedestrian infrastructure. Appropriate pricing of transportation infrastructure usage and services (for example, through congestion pricing, use-based insurance, and parking policies) can also improve system efficiency by promoting the best choice of mode and time for each trip.

In most U.S. communities, however, alternatives to driving are not practical for most trips, and many of those communities are especially hard-hit by gas price spikes. A major effort to integrate transportation and land use planning will be required to reduce this vulnerability, including updates to zoning and land use regulations that promote compact, mixed use and transit-oriented development. Such changes must occur at the state, regional, and local levels, but the federal government can play a crucial role by establishing national goals, setting performance measures for the transportation system, and improving technical planning capacity. Major improvements are needed in data collection and travel demand modeling to allow planners to understand travel behavior and provide attractive alternatives to driving.

Two major opportunities to improve transportation system efficiency are the federal climate and transportation bills moving through Congress. Because transportation is not well-addressed by the proposed cap-and-trade schemes and thus stands to lag behind other sectors despite large opportunities for low-cost emissions reduction, climate legislation should set separate emissions targets for transportation and establish a framework for achieving those targets. This means providing substantial funding to build technical

capacity and try innovative policies and services, and linking federal infrastructure funding to progress towards meeting national objectives.

The reauthorization of SAFETEA-LU, the federal transportation spending bill, needs to complement the transportation provisions of the climate bill and help to realize its goals. This and other aims of the transportation bill will be best accomplished through establishment of performance measures for the transportation system and distribution of federal dollars to improve performance accordingly. Properly applied performance measures relating to emissions, energy use, and cost will lead to greatly increased investment in public transportation and non-motorized travel modes, and will be a major step toward a sustainable transportation system for the United States.

FOR MORE INFORMATION:

Summary of Current Federal VMT Legislation: www.aceee.org/transportation/dmndmgt.htm

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