



Opportunities to Improve Energy Security and the Environment through Transportation Policy

Statement of the American Road and Transportation Builders Association

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On behalf of its 5,000 member firms and public agencies nationwide, the American Road and Transportation Builders Association (ARTBA) would like to thank Chairman Boxer and Ranking Member Inhofe for examining opportunities to improve energy security and the environment through transportation policy.

ARTBA's membership includes public agencies and private firms and organizations that own, plan, design, supply and construct transportation projects throughout the country. The industry we represent generates more than \$200 billion annually in U.S. economic activity and sustains more than 2.5 million American jobs. ARTBA has a long history of working to find common-sense solutions to environmental issues and has been pleased to work with this committee on many prior occasions to fashion policies effectively balancing the desire to protect natural resources with the efficient delivery of transportation improvements.

Transportation infrastructure development and environmental protection have been intertwined since inception of the United States government. The quality of life, level of personal freedom and choice, and economic growth and stability any nation offers its citizens are closely related to the scope, quality and efficiency of its transportation infrastructure network. And clean air, clean water and abundant natural habitat are obviously essential to human health and well-being.

Of course, building the physical infrastructure that facilitates our personal mobility—access to jobs, shopping, recreation, worship, family and friends—and shipments of materials and finished goods, inherently involves disrupting the natural environment where it is sited. And the personal and business use our transportation infrastructure makes possible also usually involves the use of powered machines that also impact our natural environment. These are truisms whether we are

talking about streets, roads, highways, bridges, public transit systems, intercity and freight rail, airports, waterways or ports.

Some people and groups with political and fundraising agendas, try to polarize the public and policy discussions on transportation and the environment. They suggest that investing in new capacity for one type of infrastructure—highways and roads—is “bad” or “not environmentally sustainable” because they facilitate motor vehicle use, but investments in infrastructure that supports public transportation are “good” and are the foundation of “sustainable development” and “livable” communities. Such rhetoric is not very productive and ignores the overall mobility and public health needs and challenges facing America. If America is to meet its mobility and environmental challenges during this century, we must invest in significant new capacity for both highways and mass transit systems. And not do it, one at the expense of the other.

By every objective measure, the transportation sector has made substantial improvements in its environmental performance in several key areas, and transportation’s environmental footprint is dramatically smaller than it was 40 years ago. Thanks to vast improvements in technology and much cleaner burning fuels, vehicle emissions—both on the highway and at the construction site—are far cleaner. Personal vehicle emissions are 99 percent lower than in the 1960s. Diesel truck emissions have declined by as much as 60 percent. Further, thanks to enormous improvements in efficiency, fuel consumption per vehicle is up very substantially—and with that efficiency gain, per vehicle greenhouse gas emissions have been reduced commensurately.

Yet if transportation’s environmental improvements are undeniable, they are equally underappreciated. Stale thinking and attitudes often still prevail regarding air quality, despite today’s vehicles delivering dramatically cleaner air. Conventional wisdom still holds that transportation construction imposes damage to natural resources such as rivers, forests and the animals that live within, yet the natural environment is demonstrably protected by enlightened stewardship. Over the past several years, global climate change has emerged as an increasingly paramount environmental challenge, with the transportation sector often labeled as a primary offender, yet today’s vehicles and construction equipment are far less carbon intensive than their predecessors.

Highway construction has an out-of-date reputation for being environmentally damaging, causing excess pollution and waste. In fact, today’s transportation construction industry has become far more environmentally friendly by recycling construction materials, preserving and creating wetlands and woodlands, and creating emissions-reducing traffic patterns. In fact, mitigation initiatives now often result in a net increase in sensitive environmental resources. For example, wetland mitigation efforts undertaken as part of federal highway projects have resulted in a net increase in wetland acreage of nearly 50 percent between 1996 and 2006, creating just over 2 acres of wetlands for every acre of wetlands impacted.¹ Further, according to the National Asphalt Pavement Association, 100 million tons of asphalt is reclaimed annually. Approximately 75 million tons is recycled and is applied again as a hot-mix or warm-mix asphalt surface. The rest is used primarily in other highway- and pavement-related applications such as road base and shoulders. Also, according to the American Coal Ash Association, concrete is a

¹ U.S. Federal Highway Administration, “Wetland Mitigation Performance Measure for Federal-Aid Highway Projects Fiscal Year 2004,” 2004.

major consumer of industrial by-products that otherwise would end up in landfills, including 15,000,000 tons annually of fly-ash.

Today's construction equipment is much more efficient and cleaner than equipment used to build roads and transit systems in previous generations. In addition, construction contractors are employing emission-smart practices to further reduce their impact through practices such as turning off equipment rather than letting it idle, keeping their equipment maintained for maximum efficiency and lower emissions, using lower-emitting fuels (increasingly including biodiesel) and finding local sources for building materials to cut shipping-related emissions. As a result, the entire U.S. construction industry, which includes transportation construction, accounted for merely 1.7 percent of the total greenhouse gas emissions in 2002.⁵

Also, because today's vehicles are much more fuel efficient than their counterparts a generation ago, they produce commensurately lower CO₂ emissions. According to the EPA, fuel economy is up 61 percent since 1975. In 2009, the average personal vehicle got 21.1 miles per gallon, while its 1975 counterpart only managed 13.1 miles per gallon.² As America's fleet of vehicles become more and more fuel efficient, they will become less and less carbon emitting. For example, tighter fuel economy standards proposed in May 2009 by the Obama Administration will reduce vehicle greenhouse gas emissions by an estimated 900 million metric tons between 2012 and 2016. This is the equivalent of removing 177 million tons of today's automobiles from the nation's roadways.³ Additionally, CO₂ emissions are down 38 percent since 1975: A 2009 model car or light-duty truck (SUV, minivan, pickup) generates 422 grams of CO₂ per mile compared a 1975 model car, which emitted 679 grams per mile.⁴ Given this remarkable progress, policies attempting to address air quality issues, including greenhouse gas emissions, solely through attempting to remove people from their cars are somewhat misguided.

These reductions are even more extraordinary because they were achieved while the U.S. Gross Domestic Product (GDP) increased 167 percent, the number of drivers increased 73 percent, the number of vehicles increased 112 percent and the total miles driven by Americans in a year increased 157 percent.⁵ In short, more people are driving more cars greater distances and yet the nation has achieved remarkable reductions in harmful emissions.

This progress is even more noteworthy because it occurred during a period when congestion increased dramatically. Since 1980, new lane miles have increased only three percent.⁶ Traffic congestion is a major cause of vehicular CO₂ emissions. Vehicles operating at highway speeds unimpeded by congestion are far more efficient—and therefore far less carbon-intensive—than vehicles caught in stop-and-go traffic. Unfortunately, traffic congestion has grown drastically during the past quarter-century, as vehicle travel has greatly outpaced the additional highway capacity.

² Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 Through 2009, U.S. Environmental Protection Agency, November 2009.

³ Obama Administration National Fuel Efficiency Policy: Good For Consumers, Good For The Economy And Good For The Country, May 2009.

⁴ Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 Through 2009, U.S. Environmental Protection Agency, November 2009.

⁵ U.S. Federal Highway Administration : "Air Quality Selected Facts and Figures," January 2006.

⁶ *Id.*

Congestion levels have grown continuously between 1982 and 2007. Since 1982, the number of hours spent in congested traffic in the nation's largest metropolitan areas increased from 21 hours to 51 hours. In addition to being stuck in traffic, travelers are also wasting an estimated 4.2 billion gallons of fuel due to congestion.⁷ Simply put, the nation's road system is falling far behind growth in usage. The direct consequence is rampant congestion and, with it, unnecessarily increased emissions and pollution.

In order to effectively reduce transportation sector emissions, legislation should be aimed at reducing the nation's ever-growing congestion problem. It is for this reason ARTBA was disappointed with the recent climate change measures introduced in the House of Representatives and Senate. Neither legislative effort, or for that matter the current draft surface transportation reauthorization bill before the House Transportation and Infrastructure Committee, specifically incorporate direct congestion reduction to reduce greenhouse gas emissions. Future legislative attempts to address transportation-sector emissions must do so in a "mode neutral" fashion which employs all available strategies, rather than elevating one mode over the other. This means strategies such as transit and high-speed rail should be considered equally along with the addition of new capacity with states and localities having the flexibility to choose what works best for them in terms of reducing congestion.

Insufficient capacity already produces specific bottlenecks cause 50 percent of total congestion on the nation's freeways. In 2004, a study of the nation's most severely congested highways highlighted the reality that significant reductions in emissions require a reduction in vehicle time traveled, not vehicle miles traveled. The study concluded that modest improvements to traffic flow at 233 bottlenecks would reduce carbon dioxide emissions by as much as 77 percent and conserve more than 40 billion gallons of fuel over a 20-year period.⁸ These fuel savings translate directly into lower CO₂ emissions.

America must have a dynamic transportation network to address the needs of a growing population and economy. At the same time, we must preserve and protect our environment. While these critical goals may appear in conflict, one overriding truth has emerged from the past 35 years of experience. It is possible to BOTH expand our transportation network and protect the natural environment.

America's transportation future must include:

- Recognition that congestion reduction is essential to reducing GHGs. Congestion levels are increasing in metropolitan areas all over the nation. Emissions from vehicles stuck in traffic are much greater than those on roads where traffic is free flowing.
- Full implementation of the ARTBA "Critical Commerce Corridors" Program to develop a national strategy facilitating the movement of goods. Reducing freight related emissions is a required element of any plan to reduce both congestion and GHGs.

⁷ Texas Transportation Institute, 2009 "Urban Mobility Report,"2009.

⁸ Unclogging America's Arteries, Effective Relief for Highway, Cambridge Systematics, Inc., February 2004

- Adding road capacity where appropriate and desired by the majority of local citizens. Wise expansions in capacity are critical to both reducing traffic congestion AND auto, truck and bus emissions congestion.
- Providing more choices and improving public transportation systems, including the buses, vanpools and car pools that are dependent on having sufficient roadway capacity.
- Reform of the Congestion Mitigation Air Quality (CMAQ) program to allow program funds to be used for congestion reduction activities, including new roadway capacity.
- Direction of any funds collected as part of a “carbon tax” or other user-based fee to address climate change into the federal Highway Trust Fund, as these funds are being levied on those using the nation’s transportation system and, in turn, should be used to improve that same system in order to assure congestion is kept at bay.

ARTBA looks forward to continuing its long tradition of working with the Senate in order to address federal transportation policy issues in a manner which balances needed environmental protections with the efficient delivery of all modes transportation improvements vital to the nation’s public health and safety.