

**STATEMENT**  
**OF**  
***THE ALLIANCE OF AUTOMOBILE MANUFACTURERS***

**BEFORE THE:**  
**U.S. SENATE COMMITTEE ON**  
**COMMERCE, SCIENCE, AND TRANSPORTATION**

**MAY 3, 2007**

**PRESENTED BY:**

Dave McCurdy  
President and CEO

Mr. Chairman,

Good afternoon, my name is Dave McCurdy and I am the president and CEO of the Alliance of Automobile Manufacturers. The Alliance is the auto industry's leading trade association representing nine manufacturers including BMW, DaimlerChrysler, Ford Motor Company, General Motors, Mazda, Mitsubishi, Porsche, Toyota and Volkswagen.

On behalf of our members I'd like to thank you for giving me an opportunity to be here today to share with you both the industry's progress in, and future challenges to, increasing fleet fuel economy. Alliance members share the concerns of our customers, the Congress and the American public about fuel economy and carbon dioxide emissions.

As an introduction, it is the view of the Alliance of Automobile Manufacturers that enhancing energy security and reducing carbon dioxide emissions are priorities to all Americans, and the auto industry must continue to aggressively pursue its innovation agenda. At a March 14, House Energy and Commerce Committee hearing, CEOs from DaimlerChrysler, Ford Motor Company, General Motors and Toyota all committed to working with Congress to find new ways to address the issues of climate change and fuel economy. I am here today to share that message with this Committee.

Because the only feasible way to reduce the amount of current carbon-based fuel from automobiles is to reduce the amount of fuel a vehicle uses, auto engineers are working hard to include a diverse range of highly fuel-efficient technologies in new vehicles. Today, every model is available with some kind of fuel-efficient technology, including direct fuel injection, four cylinder engines, variable valve timing, continuously variable transmissions, cylinder deactivation and more.

Automakers are investing significantly in advanced technology vehicles powered by electricity, biofuels, diesel, hydrogen and compressed natural gas. Still, autos are only one part of the energy security picture. Through the Corporate Average Fuel Economy (CAFE) program, we are already a "carbon-constrained" industry and one that is heavily regulated.

Manufacturers believe that the best way to enhance energy security and reduce carbon dioxide emissions is through the use of alternative fuels including E85 and flexible fuel vehicles. Today, 10.5 million alternative fuel autos that operate with hybrid technology or run on fuels like clean diesel, ethanol, hydrogen and others are already on the road, and Alliance members are offering more for sale this year. Additionally, there are 60 models of alternative fuel vehicles on sale today, up from 12 in 2000 and many more models are planned for future production.

Since the 1970s, new vehicles have continued to become more fuel-efficient. EPA data demonstrates that fuel efficiency has increased steadily at 1-2 percent per year on average from 1975 for both cars and light trucks. Passenger car fuel economy has more than doubled from 14.2 mpg in 1974 to 29.8 mpg in 2006 and light truck fuel economy has increased by 60 percent since 1974. But as we have noted on many previous occasions, the ultimate decisions about what vehicles are purchased and how they are driven belong to American consumers.

And while consumers value fuel economy, they also want many other attributes in today's vehicles, such as safety, passenger and cargo room, performance, towing and hauling capacity. Our challenge is to develop vehicles that combine these attributes with improved fuel efficiency...and an affordable price.

The auto industry leads the way when it comes to investing in research and development. Automakers are committed to being first to market with breakthrough technologies that can produce new generations of autos with advanced powertrains and fuels. Automakers are competing to bring these vehicles to market, as soon as the technology is feasible, affordable and meets consumer expectations.

The U.S. cannot achieve energy security through CAFE alone. CAFE is a one-dimensional and incomplete program. Any transportation energy policy must be comprehensive and multi-dimensional to be effective, and we believe that all sectors of the economy, not just transportation and certainly not just automakers, should strive to reduce petroleum consumption.

The Alliance believes Congress should look beyond CAFE and should consider a multi-sector, integrated transportation energy policy that motivates all stakeholders to make decisions consistent with the shared goal of reducing petroleum imports. An effective transportation energy policy needs to:

- Foster more alternative fuel choices, especially more low-carbon, renewable fuels;
- Implement an aggressive program to enhance the alternative fuels infrastructure in America;
- Empower the research and development community to move us closer to breakthroughs on technologies like batteries for full electric vehicles, as well as for plug-in hybrids and fuel cells;
- Encourage the U.S. investment community to stimulate economic investments in our future fuels and technologies;
- Involve all levels of government; and,
- Motivate consumers to conserve fuel and to consider purchasing one of the many fuel-efficient autos on sale today.

### **Corporate Average Fuel Economy**

The Corporate Average Fuel Economy (CAFE) program was established by Congress in 1975 to reduce U.S. dependence on foreign oil by reducing overall fuel consumption. The Energy Policy and Conservation Act directed the National Highway Traffic Safety Administration (NHTSA) to set national fuel economy standards at the “maximum feasible” level taking into account key elements such as technological feasibility, affordability, safety, emissions controls, consumer choice, disparate impacts on manufacturers and effects on American jobs.

For Model Year (MY) 2008, each automaker's fleet must average 27.5 mpg for cars and 22.5 mpg for light trucks (pickups, vans, minivans and sport utility vehicles). For light trucks, NHTSA recently reformed the standard setting system for light trucks. Automakers are currently in the fourth year of seven straight years of light truck CAFE increases, which started in MY 2005 and proceeds through MY 2011.

When reforming light truck Corporate Average Fuel Economy (CAFE) standards, NHTSA used an attribute-based approach that acknowledged consumers require different sized vehicles for their business and family needs. NHTSA's attribute-based approach addressed some of the previous concerns about safety and about inequitable effects on different manufacturers arising from the previous "one size fits all" standards.

The Alliance supports NHTSA's obtaining the authority to reform the CAFE standard for cars into an attribute-based system, but NHTSA should not prejudge the issue by assuming that the footprint-based system used in the light truck reform rulemaking makes the most sense for cars. The Alliance supports a rulemaking process that maximizes consumer choice, avoids safety concerns, and allocates the burdens of the CAFE program equitably among manufacturers, without injuring competition or any individual automaker. Attribute-based approaches, when properly designed, can help achieve these objectives, but ultimately, success in meeting these objectives depends on the provisions of the program, such as the specific attributes or set of attributes that are chosen, the level at which standards are set, and the adequate provision of lead-time. Whatever attributes are considered for cars must preserve the diverse types of passenger cars.

### **CAFE, Consumers and Gasoline Use**

While the CAFE program targets the fuel economy of the new vehicles that automakers produce, other factors have dramatically increased gasoline use in the light duty fleet. Relatively low fuel costs (compared to the rest of the world) coupled with increasingly fuel-efficient autos have resulted in consumers driving more miles. The Department of Transportation documents that "vehicle miles traveled" (VMT) has increased 40 percent during the timeframe CAFE has been in effect, from 10,000 miles per licensed driver in 1977 to almost 14,000 miles per licensed driver in 2001. Analysts predict that, as auto fuel efficiency continues to improve, VMT will continue to increase.

Higher CAFE standards would have no near term impact on gasoline use. First, increases in the size of the overall vehicle fleet and the number of vehicle miles traveled each year are far greater influencers of U.S. oil consumption – and gasoline prices -- than CAFE requirements. (Even though the fuel economy of the light duty fleets of vehicles has increased dramatically since the 1970s, U.S. demand for oil has not declined and imports have increased substantially.) Second, with over 230 million vehicles on the road and only 17 million new vehicles sold each year, it takes 15-20 years for higher fuel economy vehicles to displace the ones on the road today.

Automaker product decisions alone cannot guarantee compliance with CAFE standards. Because CAFE is based on the mix of vehicles sold each year, whether a manufacturer meets the CAFE standard or not depends both on what products are offered, and on what products

consumers purchase. While the law holds manufacturers responsible for meeting CAFE standards, in reality consumer purchases play a huge role in determining whether a manufacturer meets, exceeds or falls short of the standard in any given year.

When considering what kind of vehicle to buy, consumers evaluate all the different uses they will demand of their new car or light truck. Most consumers select vehicles that best serve their peak uses, whether carrying kids, carpooling adults, towing trailers, hauling supplies, accommodating handicapped, handling adverse terrain and weather, addressing recreational needs and/or meeting job/business demands—even if these attributes may be used infrequently.

Automakers share the goal of increasing fuel efficiency as they develop vehicles that meet the various needs of American families and are committed to offering fuel efficient vehicles in every segment. According to [www.fueleconomy.gov](http://www.fueleconomy.gov), automakers offer close to 200 models that have EPA-estimated highway ratings of 30 miles per gallon or more. However, each year since 2001 American consumers have purchased more light trucks than passenger cars. In 2006, for the fifth year in a row, pickups, minivans, vans and SUVs outsold passenger cars. More than 53 percent of all new vehicles purchased last year were light trucks.

By failing to take into account the cost of fuel and consumer buying habits, CAFE addresses only one component of the fuel economy equation. Consumers value fuel economy, but they typically value even more the other attributes of the vehicles they purchase. As a result, when CAFE pushes automakers to add technology or reduce size/weight of vehicles, the additional costs involved and the tradeoffs of other attributes may not be embraced by consumers. These vehicle decisions can have dramatic and adverse competitive implications among automakers.

### **Proposed CAFE Legislation**

Regarding S. 357, as well as S. 183, S. 1118, and S. 767, the most important message of Alliance members is very clear:

**We support improving fuel efficiency to the maximum feasible level. Improving fuel economy is a consumer issue, an economic issue, a climate change issue, an energy security issue, and a priority.**

The Alliance opposes legislation that is not technologically feasible, because of the proposed arbitrary CAFE target and/or the proposed arbitrary lead time. The Alliance also opposes CAFE targets that are not based on a balance of objective criteria. When setting “maximum feasible” fuel economy standards for the nation, Congress required NHTSA to gather extensive data on technological feasibility, affordability, safety, emissions, consumer choice and effects on American jobs. This approach balances the many trade-offs and consequences, and it remains a solid policy approach.

We oppose the provision in S. 357 that would combine car and light truck CAFE standards. Starting with the 2010 model year, the overall car/truck fleet would face an increase in CAFE requirements of over 40 percent by 2019. Based on today’s 50/50 split between cars

and light trucks, achieving this level would require the car fleet to reach nearly 40 mpg and the light truck fleet to reach nearly 32 mpg. These are essentially the same levels of increase that have been proposed legislatively in the last three energy bill debates and soundly defeated in both the House and the Senate.

Existing federal law rightfully separates cars and light trucks in the CAFE program by setting differing fuel economy standards for each. Cars and light trucks have distinct characteristics, so the two programs should not be combined into a single standard, as these characteristics are essential and need to be preserved for consumers who value different attributes in their vehicles. Combining car and light truck standards would raise the costs of many popular utility and work-related vehicles, hurting small businesses, trades people, farmers and others who are dependent on light duty trucks for their livelihoods. However, automakers support both the car and light truck programs being based on attribute-based systems, though the attributes may differ since cars and light trucks have different characteristics.

### **Alternative Fuel Autos**

Alliance members support enhancing energy security, promoting fuel diversity and increasing fuel efficiency through accelerating the availability of the growing number of advanced technology and alternative fuel automobiles in the market. Alternative fuel autos, including vehicles that run on hybrid-electric technology, clean diesel, and alternative fuels like E85 ethanol and hydrogen, will help our country address the growing concerns about U.S. gasoline consumption and oil imports.

Federal and state incentives for consumers who purchase alternative fuel automobiles can accelerate the introduction of these highly fuel-efficient vehicles. Working together, we believe that government and industry can put more alternative fuel automobiles on our roadways.

An important provision of the Energy Policy Act of 2005 (EPACT 2005) is the increased promotion of renewable fuels in the transportation sector. Since 1996, auto manufacturers have been producing vehicles capable of using high concentration blends of ethanol, including E85. Currently there are more than five million of these E85 capable vehicles on the road with nearly one million more being added each year.

And while EPACT 2005 will help in E85 infrastructure development by raising the requirement for the use of ethanol and other renewable fuels to 7.5 billion gallons per year by 2012 and providing tax incentives aimed at making more E85 pumps available to the driving public and helping to reduce reliance on oil imports, we still have a long way to go before widespread availability of E85 is achieved. Of the more than 170,000 fueling stations nationwide, roughly 1,200 currently offer E85 to consumers.

Hybrid-electric vehicles are on sale today and already saving fuel. The number of these vehicles will increase substantially over the next years. They offer significant improvements in fuel economy, up to 50 percent, and reduced emissions. These vehicles use electric motors for propulsion and to reduce some burdens on the traditional internal combustion engine, and they capture usable energy through regenerative braking. By 2010, more than 50 hybrid nameplates

are expected to be available in North America, with volumes approaching one million vehicles. Hybrid technology can also be applied to diesels, alternative fuel and fuel cell vehicles.

Vehicles that are powered by clean diesel technology, such as direct injection diesels, offer greater fuel economy and better performance than conventional gasoline-powered engines. In Europe more than 50 percent of all new vehicles purchased are diesel vehicles, compared to less than 1 percent in the U.S. Diesel-powered vehicles are popular in Europe for several reasons. Economic incentives have been established to enhance their appeal. Because of higher fuel costs, European drivers tend to put a premium on fuel economy. In the European Union, tax policies drive consumers to highly value fuel economy. The EU taxes gasoline at \$4.02/gallon and diesel at \$3.04, which incentivizes diesel. In contrast, the U.S. taxes gasoline at \$.38 per gallon and diesel at \$.45 per gallon.

The EU also prioritizes fuel economy over nitrogen oxides (NOx) emission standards. For instance, NOx standards for diesel in the light-duty fleet are more than seven times higher in the EU than in the U.S. Achievement of U.S.-level NOx standards would require expensive after-treatment, raising the costs of diesel vehicles, eroding the fuel-economy benefits, and reducing consumer demand.

Recently, ultra-low sulfur diesel fuel (ULSD) that is 97 percent cleaner went on sale in the U.S. This new diesel fuel opens the door for a new generation of highly fuel-efficient diesel vehicles to be sold in the U.S. that will run dramatically cleaner than their predecessors.

These types of vehicles could provide fuel economy gains of up to 30 percent compared to conventional vehicles. In addition, most diesels are capable of running on good quality biodiesel blends of up to five percent (B5) and many are designed to use up to 20 percent or 100 percent biodiesel fuel (B20 or B100). If all diesel vehicles on the road today were fueled with B5 (5 percent biodiesel) we could displace 1.85 billion gallons of petroleum per year; and 7.4 billion gallons per year if B20 (20 percent biodiesel) were utilized.

Several manufacturers have also announced progress toward the introduction of plug-in hybrid vehicles. Once batteries become available in affordable power trains, these products may be of interest to consumers. Plug-in hybrid-electric vehicles, which are hybrid cars with a larger capacity battery, look and perform much like "regular" cars but they can be plugged into a 110-volt outlet (for instance each night at home, or during the workday at a parking garage) and charged. Plug-in vehicles can reduce oil consumption and rely on domestically produced energy for a greater portion of their operation. Once the range of the battery is exceeded, the vehicle will automatically switch to a conventional internal combustion engine. Manufacturers are still working on several significant issues, including size, lifetime cost and recyclability of the battery, but we remain optimistic.

From a vehicle perspective, hydrogen-powered fuel cells offer the greatest potential improvement in fuel efficiency and emissions reductions. They also create a great opportunity for eliminating dependency on petroleum. However, widespread commercialization of this technology and establishment of the hydrogen infrastructure are some years away.

Another promising and enabling technology is hydrogen-powered internal combustion engines (ICEs). The concept of using hydrogen ICEs offers several advantages: near-zero emissions, maintaining the utility, flexibility, and driving dynamic of today's automobile, assisting in the development of hydrogen storage technology, and developing hydrogen distribution channels and helping to promote hydrogen refueling infrastructure.

While fuel-efficient technologies are on sale today, more technology is being developed for possible future introduction. Thousands of automotive engineers are working on innovative technologies every day, but many promising technologies, such as plug-in hybrids and fuel cells, still need significant research and development before they will be commercially ready.

## **Conclusion**

Today, there is a clear choice before the Senate Commerce, Science, and Transportation Committee. Policymakers can continue to look backward, reworking a 1970s program that was created in a very different world. Or, policymakers can move forward, focusing on broader climate change issues in a rapidly changing world.

In March, the auto industry testified before the House Energy and Commerce Committee to consider the creation of a broad, multi-sector cap and trade approach to regulating carbon dioxide. While the Senate Commerce, Science, and Transportation Committee is focusing on CAFE, we encourage the Senate to consider autos in the context of a broader carbon dioxide program. There are strong reasons to do so.

CAFE alone does not address consumer preferences. In the U.S., 70 percent of the new vehicles purchased by consumers have a 6-cylinder or 8-cylinder engine. In the European Union, fleet fuel economy is about 35 mpg, or the goal of S. 357. But in Europe, 89 percent of new automobiles are sold with a 4-cylinder *or smaller* engine. In the U.S., 92 percent of new autos are sold with automatic transmissions, compared to 20 percent in Europe.

Vehicle miles traveled (VMT) will continue to increase in the United States. VMT is a result of population growth and affluence, two factors that policymakers should never seek to restrict. In fact, as autos become more fuel-efficient, consumers tend to drive more, which ultimately has the opposite effect of increasing gasoline use. CAFE has no effect on the price of gasoline, so a broader approach is needed.

The carbon burden needs to be shared. Reducing carbon is dependent on three intertwined factors: VMT (which includes consumers), fuels substitution, and vehicle technology. Attempts to address concerns about energy security and carbon dioxide emissions cannot succeed by focusing only on one component of gasoline demand. Vehicle fuel economy will continue to increase as new and improved technologies find their way into the market, but vehicle technology alone will not slow the growing demand for gasoline in the U.S. transportation sector.



Clearly, an integrated approach is needed. In 1999, President Clinton signed into law EPA's landmark regulations called Tier 2. These regulations are noteworthy because for the first time, autos and fuels were regulated as a system. Our clean autos needed clean fuels, and the higher sulfur fuel sold in the 1990s would have disabled our new clean vehicle technology. As Congress considers the broader climate change issue, one important goal is to consider fuels and autos together. Automakers need to invest to accommodate alternative fuels, and energy providers need certainty that more alternative fuel autos will be on U.S. roads.

An economy-wide approach is needed. The costs of reducing a ton of carbon dioxide are not the same in every sector. For autos, the costs of reducing carbon dioxide are extremely high compared to other sectors. The most effective way to reduce carbon, as well as the most cost-effective way, may be through an economy-wide cap and trade program.

An economy-sensitive approach is needed. Many segments of our economy depend on cars and light trucks. Farmers, tradesmen, small businesses and others need vehicles, especially larger cars and light trucks, for their livelihoods. Any program that reduces the availability of these work vehicles or significantly raises their costs represents a burden on the U.S. economy, and especially a burden on independent and small businesses.

A market-driven, market-responsive approach is needed. Any effective program needs to consider the realities of the marketplace. CAFE can create distortions in the market, depending on the price of gasoline. By contrast, incentives in place for the renewable fuels program enable competitive pricing of ethanol, which is resulting in increased consumer demand for this alternative fuel.

Incentives are needed to encourage real reductions in carbon dioxide. Incentives can encourage consumers to purchase the many advanced technology autos on sale today. Incentives can encourage energy providers to increase availability of alternative fuels. And incentives can reward automakers for high achievement in developing new technologies and producing more alternative fuel autos. CAFE, by contrast, has few incentives and fails to bring consumers into the equation.

Any effective, broader program to reduce carbon dioxide needs to allow for companies to grow and thrive, without imposing provisions that would result in job loss. The ultimate goal is real reductions in tons of carbon dioxide, not wealth transfer among companies or higher cost autos.

Fuel economy/carbon dioxide targets are important as part of a reformed, broader-based economy-wide program, but lead time is critical. Some climate change program proposals incorporate a "step-down" approach, which includes reductions over a specified period of years, such as every five years. This approach provides more certainty to manufacturers, and a step-down approach enables an industry such as auto manufacturing that requires five years to develop and introduce a new model, and seven years to make significant changes to power trains.

Finally, any effective approach needs to be comprehensive and nationwide. The United States needs a consistent national policy that avoids the marketplace chaos that would surely arise from a patchwork of conflicting state fuel economy/carbon dioxide mandates.

Once again, autos are only one part of the energy security picture. For 30 years we have been a “carbon-constrained” industry. Broader based policies addressing fuels and the use of those fuels by consumers need to be explored as well. To be effective, these policies must incorporate all stakeholders, including alternative energy suppliers, the R&D community, the investment community, government at all levels, and especially consumers. To be successful, the goal of reducing petroleum consumption and carbon dioxide must be viewed as a shared responsibility.

I thank the Committee for giving me the opportunity to testify and welcome any questions you may have regarding the Alliance positions on improving fuel economy and reducing carbon dioxide.

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