

STATEMENT

OF

THE ALLIANCE OF AUTOMOBILE MANUFACTURERS

BEFORE THE:

**COMMERCE, SCIENCE AND TRANSPORTATION COMMITTEE
OF THE U.S. SENATE**

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PRESENTED BY:

**FRED WEBBER
PRESIDENT AND CEO**

Thank you Mr. Chairman. My name is Fred Webber, President and CEO of the Alliance of Automobile Manufacturers (Alliance). I am pleased to be afforded the opportunity to offer the views of the Alliance at this important hearing. The Alliance is a trade association of nine car and light truck manufacturers including BMW Group, DaimlerChrysler, Ford Motor Company, General Motors, Mazda, Mitsubishi Motors, Porsche, Toyota and Volkswagen. One out of every 10 jobs in the U.S. is dependent on the automotive industry.

Today there are approximately 800 million vehicles on the road worldwide. By some estimates, this number is projected to grow to 1.2 billion vehicles by 2020. Along with this growth in the size of the vehicle fleet, there is also substantial growth in the demand for fuel because people want to go more places. As a result, growth in worldwide oil demand is expected to increase by at least 3 percent per year. With this in mind, if by some miracle it were possible to increase the fuel economy of the entire worldwide fleet of vehicles by 25 percent overnight, it would still take only six or seven years for fuel consumption to return to and surpass current levels.

This suggests that we have a daunting problem to address – not just in terms of U.S. gasoline consumption, but worldwide as well. Is it hopeless? We don't think so!!

Consider what is happening in the U.S. today. With the price of gasoline around \$2.50 per gallon, the focus on fuel economy of cars and light trucks is receiving ever-increasing scrutiny. Fortunately, the automobile industry is in a very strong position to meet any shifting consumer demands for fuel economical vehicles or vehicles that operate on non-petroleum based

fuels. Automakers currently offer more than 100 models that have EPA-estimated highway ratings of 30 miles per gallon or more. In addition, new models are increasingly available with highly fuel-efficient technologies like cylinder deactivation, variable valve timing, continuously variable transmissions and more. Ongoing advancements by automobile industry engineers will lead to even greater fuel economy gains. Furthermore, advanced technology and alternative fuel vehicles, including hybrid-electric, E-85 flexible fuel, fuel cell, hydrogen internal combustion and clean diesel vehicles, offer the current and future promise of significant increases in fuel efficiency or petroleum displacement, without sacrificing consumer expectations for safety, performance, comfort and utility. So, American consumers currently are, and should continue to be, well served in terms of the vehicles that provide outstanding fuel economy or alternatives to gasoline.

But as with the world market noted earlier, U.S. gasoline consumption is a function of much more than just vehicle fuel economy. The number of miles driven by Americans has risen dramatically over the last few decades. And the size of the vehicle fleet on American roads has also increased substantially – resulting in increases in U.S. gasoline demand despite impressive improvements in vehicle fuel economy. Any attempts to address concerns about U.S. dependence on oil cannot succeed by focusing only on one component of gasoline demand. Vehicle fuel economy has increased – and it will continue to do so as new and improved technologies find their way into the market – but that factor alone will not help slow the growing demand for gasoline in the U.S. transportation sector.

Energy Policy Act of 2005

The Energy Policy Act of 2005, recently approved by Congress and signed into law by President Bush, contains a number of provisions that are important to our industry and our nation as we look at the challenges ahead. The Alliance strongly supported the legislation because it created an effective energy policy based on broad, market-oriented principles. It also promoted policies that will foster research and development and accelerate the deployment of advanced technology vehicles by providing customer tax incentives and extending manufacturing incentives for the production of dual fuel vehicles. This focus on “accelerating the implementation of advanced technologies” leverages and enhances the intense competition of automobile manufacturers worldwide. Competition drives automakers to develop and introduce breakthrough technologies as rapidly as possible to meet the demands and needs of consumers and to try to outperform each other in the market. Market share is precious to these companies and they fight hard to maintain what they have and to wrest some from competitors.

However, often these new technologies carry significantly higher costs, at least initially, as they are developed and refined for use on the various types of vehicles needed by American consumers. Incentives can help to offset these higher costs during early market introduction and allow the demand for these technologies to progress and achieve economies of scale more rapidly than otherwise might be the case. The recently passed energy bill included consumer tax credits for various types of alternative technology vehicles, such as hydrogen fuel cells, hydrogen internal combustion engines, alternative fuels, hybrids and advanced lean-burn diesel. The tax incentives will allow the nation’s consumers to choose from a wide variety of vehicles and technologies designed to meet their needs. The acceleration of these technologies into the

market – based on incentives, not mandates -- will help automakers to continue meeting American consumers' needs while at the same time advancing the nation's broader energy policy objectives.

Alternative Fuel Vehicles

Another important provision of the new energy law 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. There are more than 5 million of these E-85 capable vehicles on the road today and nearly 1 million more are being added each year. If all of these E-85 capable vehicles were able to refuel using only E-85, the U.S. would be able to reduce its gasoline consumption by nearly 3 billion gallons per year.

One area of special concern to the auto industry and the driving public is the lack of infrastructure in the United States that allows flexible fueled vehicle owners and operators to run on "E-85" rather than on gasoline. Congress, in the Energy Policy Act of 1992, encouraged that automakers produce such flexible fuel vehicles—and they have. However, very few of the over 167,000 gas stations in the U.S. have ethanol or E-85 pumps. The recently passed energy bill will help in this 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 such pumps available to the driving public and thus saving money for consumers and helping to reduce reliance on imports. However, these incentives are only the tip of the iceberg. We need a commitment by all to accelerate their installation at many more stations to ensure greater use of ethanol and E-85 fuels.

Advanced Technology Vehicles

As I mentioned earlier, a whole array of advanced technology vehicles are also underway. Some sixty models of advanced technology vehicles are either on American roads or in development by automobile manufacturers. As they are successful, these efforts will lead to substantial improvements in efficiency and emissions performance – all, without sacrificing safety, utility, and performance.

Hybrid-Electric Vehicles

Hybrid-electric vehicles are being offered today and will increase substantially in numbers over the next several years. They offer significant improvements in fuel economy, in excess of 50 percent in some vehicles on the road today. These products use electric motors to reduce some of the burdens on the traditional internal combustion engine and they capture usable energy through regenerative braking. Hybrid vehicles do not require additional investment in fuel infrastructure which helps reflect their potential for near term acceptance. It is estimated that by 2010, more than 50 hybrid nameplates will be available in North America with volumes approaching 1 million vehicles. Hybrid technology is also complimentary to fuel cell technology especially with regenerative breaking and high capacity battery technology.

Advanced Lean-Burn Technology Vehicles

Vehicles that are powered by advanced lean-burn technology such as clean, direct injection diesels offer greater fuel economy and better performance. While diesel powered vehicles are very popular in Europe – where environmental standards are less stringent than in

the U.S. and economic incentives are provided through lower diesel fuel prices – their prospects in the U.S. market have been less certain. U.S. emissions standards for these vehicles are very challenging and diesel fuel pricing does not provide the same economic incentives. Still, the automobile industry is working now to introduce technologies that will allow diesel powered vehicles to meet the EPA’s latest emissions regulations. These types of vehicles could provide fuel economy gains in excess of 25 percent compared to conventional vehicles.

Hydrogen Powered Internal Combustion Vehicles

Another promising and enabling technology is hydrogen-powered ICEs. The concept of using hydrogen in internal combustion engines 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.

Fuel Cell Vehicles

From a vehicle perspective, hydrogen powered fuel cells offer the biggest improvement in efficiency and emissions and the greatest opportunity to dramatically reduce the environmental and energy footprints of U.S. vehicles. But the economic, technological and infrastructure challenges are still substantial. For example, onboard hydrogen storage presents great challenges. In addition, the introduction of fuel cells into America's light vehicle passenger and truck fleet will require demonstration of greater durability and overcoming the packaging restrictions of size and weight.

The Alliance believes that the hydrogen title of the new energy law will prove to be of major assistance to the automobile industry in our efforts to develop this promising technology and to get it into the marketplace as soon as is technologically and commercially possible.

Also important in pursuing this market will be a robust fuel cell commercialization plan for use in stationary power units. Experience and commercial expansion of stationary power units, relatively unconstrained by size and weight, will be helpful, gaining the experience necessary to meet the cost targets for commercialization in the vehicle sector.

Fuel Economy Regulation

A constant challenge faced by the auto industry today is the almost singular focus on CAFE standards as the “answer” to concerns about light duty vehicle gasoline consumption. As noted earlier, many factors contribute significantly to U.S. oil demand, and attempting to reduce demand by pulling only one lever will not work. In addition, the CAFE program, over its lifetime, has had unintended consequences – from adverse economic impacts to documented adverse implications for highway safety.

The National Highway Traffic Safety Administration (NHTSA) is trying to address these concerns by reforming the structure of the CAFE program. The Alliance applauds these efforts. We also note that when NHTSA is finished with its current CAFE rulemaking covering 2008-2011 model year light trucks, it will have established increases in the CAFE requirements for light trucks for seven consecutive years – from 20.7 mpg in 2004 to over 24 mpg by 2011. This represents the most aggressive increase in the CAFE standards for these vehicles in the history of

the program. For 2008-11 alone, NHTSA estimates that over 10 billion gallons of gasoline will be saved over the useful life of the vehicles produced in these model years.

Most importantly for the auto industry, NHTSA is required to carefully balance the technological feasibility, economic considerations, consumer needs, competitive impacts, vehicle and highway safety, impacts on U.S. jobs, and other considerations in setting the “maximum feasible” levels.

But I want to say again that the CAFE program is not the “answer” to U.S. gasoline consumption concerns. Vehicle fuel economy has increased and will continue to do so – but it ultimately comes down to what vehicles consumers buy and how they use them that drive U.S. gasoline consumption.

Conclusion

For its part, the auto industry is committed to advance the state of technology and bring new vehicles using these technologies to the market as quickly as possible. Competition among the automakers will drive this process far better and with fewer disruptions to the marketplace and consumers than any regulations that can be adopted. Furthermore, stimulating consumers can help accelerate this process. The recently enacted consumer tax credits provisions of the energy law will help to spur the purchase of these new vehicles which years of research and development have made possible.

A consistent government focus and market-driven incentives will help the manufacturing and fuel industries in this transition. Attached is a list of benefits, and possible policy options that would aid in this transition.

Energy Technology Opportunities

Advanced Technologies and Renewable Fuel Incentives: Transitioning away from gasoline powered internal combustion engines requires government, automotive manufacturers, auto suppliers, and fuel providers to work together to accelerate high-volume advanced technology vehicles and domestic alternative fuels. Market-driven focus and incentives for consumers will need to play a critical role.

Advanced Diesels

- Can provide 25-30 percent improvements in fuel efficiency.
- Selective Catalytic Reduction (SCR) technology (i.e., urea system) would enable diesels vehicles to meet the stringent U.S. tailpipe emissions standards.
 - ✓ Needed: Full implementation of EPA's low sulfur diesel requirements, on-time.
 - ✓ Needed: Flexibility from EPA to introduce SCR technology and support in developing urea fueling infrastructure.
 - ✓ Needed: Development of appropriate and consistent bio-diesel fuel quality standards to enable greater petroleum displacement.

Hybrids

- Current applications of hybrid technology can increase fuel economy by up to 50 percent.
 - ✓ Needed: Consumer incentives that reduce incremental vehicle costs to accelerate the acceptance of hybrids in the marketplace (currently less than 1 percent of vehicle sales).

- ✓ Needed: Manufacturing incentives and grants to facilitate conversion of facilities to production of advanced technologies; will accelerate the growth of a U.S. advanced technology supply base, especially in the areas of battery technologies, transaxles, and regenerative braking systems.

Bio-Fuels

- Over 5 million E-85 Flex Fuel Vehicles (FFVs) on U.S. roads and more in pipeline.
- Use of E10 nationwide could displace over 13 billion gallons of gasoline a year.
- Utilizing E-85 in the existing FFV fleet could displace over 3 billion gallons of gasoline a year.
- As a result of the incentives in the Energy Bill, manufacturers are expected to produce nearly 1 million more FFVs per year, which if operated on E-85 could displace over 500 million more gallons of gasoline per year.
 - ✓ Needed: Increase retail E-85 fueling infrastructure to encourage greater ethanol production and E-85 availability.
 - ✓ Needed: Accelerate R&D efforts on cellulosic ethanol production; cellulosic ethanol holds the promise of reducing net production energy needs and yielding greater reductions in GHG emissions.

Hydrogen

- Hydrogen fuel produced from renewable sources holds the promise of eliminating CO₂ emissions.
 - ✓ Needed: Government maintained long-term R&D focus on technology and innovation.