

Remarks Delivered by
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National Highway Traffic Safety Administration
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**Thank you, Dennis. [Dennis McGinn, President of
ACORE, is the moderator] for that generous
introduction.**

**I am truly honored to speak to all of you today. I thank
the American Council on Renewable Energy for hosting
this important conference—and all of you who are
participating this week.**

I won't pretend to be an expert in renewable energy. I defer to the expertise of our colleagues here who can speak to that issue. What I can do is address the incredible scope and vitality of our evolving transportation sector—and speak about how technology is enhancing highway safety.

In the broadest sense, the Department of Transportation is engaged in extraordinary, cutting-edge work that that will transform our nation's transportation systems—including advances in high-speed rail, fuel efficiency, new vehicle design, and next-generation vehicle safety technologies.

I'd like to start by touching on two long-term initiatives that have been a prominent part of our agenda at the National Highway Traffic Safety Administration.

MAP 21

I'll begin with a brief overview of DOT's renewed commitment to a strong transportation future. As you know, in July the President signed the bipartisan MAP-21 legislation into law. Now we truly are "Moving Ahead Through Progress" on a number of fronts.

MAP-21 provides states and communities with two years of steady funding and the certainty they need to invest in critical road, bridge, and transit projects. As we implement the bill, we are working to make sure that local communities are able to build the

**multimodal, sustainable projects they want—
transportation options ranging from passenger rail and
transit to bicycle and pedestrian paths.**

**And for the first time, this legislation gives the
Department oversight over transit safety, a long
overdue step that will provide Americans with the
confidence that the buses, subways, streetcars, and
light rail systems they ride every day are the safest in
the world.**

**MAP-21 also builds on NHTSA's diverse safety agenda
by including a grant program to combat distracted
driving and a new focus on teen driver safety. The bill
also increases civil penalties for vehicle manufacturers
that fail to meet their reporting or compliance**

obligations from the current maximum of \$17,350,000 to \$35 million (one year after the date of enactment.)

FUEL EFFICIENCY

As you know, the Administration's new standards for fuel economy and greenhouse gas emissions were finalized in late August, and their implications are tremendous. We have now set a course to achieve the equivalent of 54.5 mpg for cars and light-duty trucks by Model Year 2025. This is new territory for everyone. During this Administration, NHTSA and EPA have set new fuel efficiency/GHG standards for model years 2011, 2012-2016, and 2017-2025 for light vehicles. And NHTSA and EPA jointly promulgated the first ever fuel economy/GHG standards for heavy duty trucks.

The Department of Transportation and Environmental Protection Agency worked closely with auto manufacturers, the state of California, environmental groups, and other stakeholders to help ensure that these latest standards are achievable, cost-effective, and preserve consumer choice.

The 2012-2025 standards, taken together, will save American families more than \$1.7 trillion dollars in fuel costs, resulting in an average fuel savings of more than \$8,000 over the lifetime of the vehicle. In addition, the standards will dramatically cut the amount of oil we consume, saving a total of 12 billion barrels of oil and reducing oil consumption by more than two million barrels per day by 2025—as much as half of the oil we import from OPEC each day.

Last year, we were gratified to see that 13 major automakers, which collectively account for more than 90 percent of all vehicles sold in the United States, announced their support for the new standards. By aligning Federal and state requirements and providing manufacturers with long-term regulatory certainty and compliance flexibility, the standards encourage investments in clean, innovative technologies that will benefit families, promote U.S. leadership in the automotive sector, curb pollution and reduce GHG emissions.

In order to achieve the new fuel efficiency standards, vehicle manufacturers will be challenged to innovate and invest in advanced technologies. We believe this will not only support high-quality domestic jobs in the

auto industry, but also contribute to the country's overall economic competitiveness.

Major auto manufacturers are already developing the technologies that will be needed to significantly reduce fuel use and greenhouse gas emissions beyond the existing model year 2012-2016 standards. There are a wide range of technologies available to meet the new standards, including: advanced gasoline engines and transmissions, vehicle weight reduction, lower tire rolling resistance, improvements in aerodynamics, diesel engines, more efficient off-cycle accessories, and efficiency improvements in air conditioning systems.

The program also includes targeted incentives to encourage early adoption of advanced technologies to dramatically improve vehicle performance, including: incentives for:

- **Electric vehicles, plug-in hybrids, and fuel cell cars.**
- **Technologies that achieve high fuel economy levels for large pickups.**
- **Incentives for natural gas vehicles.**
- **Credits for technologies with the potential to achieve real-world greenhouse gas reductions.**

Next, I want to give you an example of how NHTSA's safety mission intersects with emerging vehicle technology.

ELECTRIC VEHICLES

At NHTSA and the Department of Transportation, we believe electric vehicles have an important role to play in reaching our goals of decreasing fuel consumption and

U.S. dependence on oil. The transition to the next generation of fuel efficient vehicles is already underway.

At NHTSA, safety is our focus for all vehicle types. This includes ensuring that new electric vehicles and plug-in hybrids are safe. Safety is crucial in all modes of operation, whether during charging, normal driving, or during and after crash events. It's important that everyone who has a role to play in EV safety—from automakers to battery manufacturers to first responders—continues to share ideas and collaborate effectively.

That is why we are engaged in this area—testing new electric vehicles, collaborating with U.S. and international partners to promote EV safety, and conducting Lithium-ion battery safety research.

Earlier this year, with the assistance of the National Fire Protection Association and DOE, we issued interim guidance for consumers, emergency responders, and tow truck operators aimed at increasing awareness about the specific attributes of lithium-ion battery-powered vehicles and identifying appropriate safety measures to be used in the event of a crash involving such a vehicle.

We are also moving forward to begin working with our international partners on a Global Technical Regulation (GTR) on electric vehicle safety. The goal is to promote harmonized regulations for electric vehicle safety. This cooperative effort will help us identify and prioritize safety issues for our research and potential rulemaking in this area.

NHTSA is also working with a variety of groups to tackle a wide range of related issues including: performance data, failure analysis, and application limitations. We are collaborating with government, industry groups, and experts on a wide variety of issues related to electric vehicles.

V2V RESEARCH

These are truly dynamic times for vehicle manufacturers and for all of us at the Department of Transportation. Evolving vehicle designs have already made cars safer than ever before.

I want to conclude this morning by updating you on another technical frontier that NHTSA has been

exploring: Vehicle-to-vehicle technologies that are on course to help us prevent crashes from occurring in the first place. We're working to understand how to apply this technology in an effective way in the real world, to bring us closer to making crash-avoidance the ultimate game-changer of highway safety.

V2V communication technology enables vehicles to send information on the vehicle's location, speed, and direction 10 times per second. This information allows the vehicles to provide drivers with warnings about impending crashes so they can take action to avoid a collision. We estimate that this technology has the potential to address approximately 80 percent of the vehicle crash scenarios involving unimpaired drivers.

Since 2011, NHTSA has been working with the DOT's Research and Innovative Technologies Administration (RITA) and auto industry partners to test the next generation of vehicle-to-vehicle communications.

NHTSA and our research partners have been conducting "Safety Pilot" driver clinics that gather information about what drivers think about the in-car collision warnings, such as "do not pass" alerts, lane-change messages, and warnings that a vehicle ahead has stopped suddenly.

We've learned that an overwhelming majority of drivers who have experienced these safety features (9 out of 10) have a highly favorable opinion of the safety

benefits and would like to have this technology on their personal vehicle.

In late August this year, Secretary LaHood launched the second phase of our V2V and the related vehicle-to-infrastructure (V2I) research—a real-world field test that will continue through the summer of 2013. This model deployment is being conducted by the University of Michigan’s Transportation Research Institute in Ann Arbor, Michigan. It will ultimately involve approximately 2,800 cars, trucks, and transit buses equipped with vehicle-to-vehicle communications technology.

The research includes vehicle original equipment and aftermarket equipment to test the potential of early safety benefits.

The V2V research program was initiated with light-duty vehicle manufacturers. Then, three years ago, we began working with the heavy vehicle industry to tailor the technology for the unique demands and environment that commercial motor vehicle operators face.

Ultimately, blending V2V communications with increasing levels of automation of the driving task through the use of sensors, computing capability, and algorithms to detect and avoid potential collisions could

result in the most dramatic safety improvements in our nation's driving history.

The information collected from the Safety Pilot, and other key research projects, will be used to determine key program objectives:

- **2013: Decision on Vehicle Communications for Safety (light vehicles)**
- **2014: Decision on Vehicle Communications for Safety (heavy vehicles)**
- **2015: Federal Highway Administration Infrastructure Implementation Guidance**

Thank you so much for inviting me. Have a great conference!