

U.S. SENATE COMMITTEE ON

ENERGY & NATURAL RESOURCES



SENATOR MARIA CANTWELL, *Ranking Member*

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Opening Statement Senator Maria Cantwell (D-Wash.) Hearing on Innovative Technologies in the Automotive Industry January 21, 2016

“Thank you Madam Chairman, for holding this important hearing.

“Vehicles affect almost all Americans. Today’s hearing is a way to talk about the new vehicle technologies. So I’m interested in hearing from our panelists about the changes that we’re seeing in the transportation sector.

“The U.S. auto industry has come back during the last 7 years, and it has sold a record number of vehicles last year. But there is still a lot of work to be done. America’s vehicles are still very dependent on oil. In fact, transportation is responsible for 70 percent of U.S. petroleum usage and nearly 30 percent of greenhouse gas emissions.

“While we have significantly reduced the use of oil in our electricity generation and home heating, we now need to sharpen our focus on the transportation sector.

“This is why the Department of Energy (DOE) has had a long-standing relationship with the automotive industry to develop and deploy the next generation research of clean vehicle technologies.

“The Vehicle Technologies Office at DOE works with light-duty automobiles, as well as commercial truck manufacturers, to conduct research into improving fuel efficiency in areas such as lightweight composites, batteries and materials.

“I just want to say that lightweight composites have definitely driven great transformation in the aerospace industry and produced great benefits.

“The bipartisan energy legislation we passed out of committee last year builds on this success in part because of the great work of Senator Stabenow, Senator Alexander and Senator Peters. The bill reauthorizes the Vehicles Technology Office at the Department of Energy and directs a focus on new technologies.

“I’m looking forward to working with the DOE on these key programs and to exploring the ways in which these partnerships make additional modes of transportation more efficient.



“As the price of gas continues to drop — in some areas even below \$2 a gallon — consumers are returning to purchasing larger vehicles and SUVs.

“According to the University of Michigan’s Transportation Research Institute, the average fuel economy of all vehicles sold in the U.S. in 2015 were less fuel efficient compared to all vehicles sold in 2014.

“This is the first time since 2008 that the average fuel economy of cars sold has dropped.

“But the oil market can be volatile and we need to remember this – as we heard from our panel on Tuesday – that the market will correct and oil prices will increase.

“Increasing the fuel efficiency of U.S. vehicles is one of the biggest steps we can take to save families more money by reducing fuel costs and to help reduce emissions.

“In addition, there are promising new technologies today in alternative fuels, advanced safety features and lightweight composites that – with the right investments – can be brought to a larger market scale.

“In the state of Washington, Pacific Northwest National Lab (PNNL) has partnered with industry for decades on technologies for cleaner and more fuel-efficient vehicles. Researchers have focused on incorporating more aluminum in auto manufacturing to make vehicles lighter.

“Again, just to go back to aviation. There have been huge fuel efficiency savings in aviation. The customers are very happy with those lighter planes and the savings that they get.

“So, the technology from PNNL is being used in vehicles on the road today, including the Cadillac STS and the Chevy Malibu Maxx.

“In addition, PNNL is working on game-changing technology using catalysts to produce fuels from plant matter that could change the future of our nation’s energy economy.

“This is important work to help us diversify our sources of fuel and hedge against volatile energy markets in the future.

“But improving efficiency is also about focusing on improving the freight network.



“Each year, three billion gallons of fuel is wasted due to congestion. Businesses across the country pay the price, which is an estimated \$27 billion a year in added transportation costs.

“As our export economy continues to grow and as we continue to produce great products, we have to efficiently get them to market.

“That’s why particularly the Super Truck program is very important. My colleague from Michigan [Sen. Stabenow], is here and she has been a leader on this, in order to achieve more fuel efficiency.

“Meanwhile, electrification of the transportation sector provides important benefits to both consumers and the environment. An electric vehicle can save consumers up to \$1,200 a year in fuel prices and reduce emissions by 48 percent compared to a gasoline fueled car.

“The Department of Energy has partnered with industry to help drive down the cost of electric car batteries and improve performance.

“In 2008, the average cost of a battery pack was more than \$1,000 per kilowatt hour. Today, it is estimated to be less than \$300. This means electric vehicles can travel further with better performance.

“But we need to ensure that we’re focusing on having the infrastructure available on these next generation technologies. There are currently only 900 public, fast-charging stations and 14 hydrogen refueling stations. This is compared to almost 170,000 gas stations across the United States.

“I look forward to hearing from the witnesses today about how the federal government can best partner with state and local government, as well as industry, to further develop our electric vehicle charging infrastructure.

“Of course, self-driving cars are an important aspect of the discussion of future of automobiles and I look forward to hearing what the witnesses might have to say on that.

“Secretary Moniz and others have made a point to continue the discussion on the public-private partnerships that drive successful innovation efforts. And I know this recent Mission Innovation that the Secretary and others in the private sector, like Bill Gates, are pioneering is an important aspect for us doing our job here in making sure that we continue to have next



generation technologies so that the United States can continue to be a leader in manufacturing cars.

“Thank you.”

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