

Opening Statement Field Hearing at Washington Auto Show Chairman Lisa Murkowski January 25, 2018

Good morning, everyone. The committee will come to order. It's a little bit unusual to be at the convention center for an energy hearing, but I think it is certainly appropriate given the subject matter that we have today. I certainly did not mind the short commute over this morning. And what a great setting, here at the Auto Show, surrounded by the latest and greatest the auto industry has to offer.

I'm joined this morning by Senator Stabenow, from the great state of Michigan, and she has encouraged me that while the Washington Auto Show is good, the Detroit Auto Show is great. So that might be the location for our next field hearing next year on this same subject. I appreciate you sitting in this morning for Senator Cantwell, our Ranking Member on the committee. I understand that Senator Manchin will also be joining us, but he is enjoying the auto show right now, but he will be here as soon as he can peel himself away from some of the latest and the greatest.

I want to start by thanking the City of Washington for hosting us. I also want to thank the Washington Area New Auto Dealers Association, which puts on this Auto Show every year, for helping us coordinate this hearing.

I really do think that is an exciting time for the automotive sector, with a host of new technologies that have emerged in the recent years. Lightweight materials like carbon fiber, titanium, aluminum, and composites are increasing vehicle efficiency while boosting performance. At the same time, advanced manufacturing technologies, like 3D printing, are decreasing the time and cost of bringing new concepts to market. This has increased the productivity of our automotive suppliers, allowing U.S. manufacturers to thrive in a hyper-competitive global market.

Lithium-ion battery prices are falling precipitously, and a new generation of batteries is powering today's electric vehicles, like the Chevy Bolt and Tesla's Model 3. Meanwhile, sales and consumer adoption have increased for other alternative fuel vehicles, including the hydrogen-powered Toyota Mirai.

While technologies are changing, so, too, are policies, in many countries across the map. In the past year a number of nations have issued new targets, mandates, and regulations. India, for instance, has committed to banning petroleum-powered vehicles by 2030, France has made that same commitment by 2040. China, which has the world's largest automotive market, has

mandated that 10 percent of the vehicles sold by an automaker be electric by the year 2019, with annual target increases after that.

Here in the United States, we are going to do what we do best—better than anyone in the world—and that's innovate. I am particularly interested in hearing from our witnesses this morning about the status of their efforts, whether at private companies or national laboratories, and how research across the technology readiness spectrum can be brought to market.

As we think about new automotive technologies, it is important that we ensure that our federal policies are modern, neutral, and working as intended. We also need to make this a holistic determination, by considering how electric and hydrogen vehicles will affect, and be affected by, our energy system.

I was mentioning as we were gathering in the back before this, that in Alaska, in our capital city of Juneau, which is on an island, we have a burgeoning electric vehicle market. The local utility provides nearly 100 percent renewable power to its customers via five hydroelectric plants, and has engaged in a successful demand response program to incentivize charging at specific times of the day. These efforts are cutting costs and emissions and the result that we're seeing in Juneau is one new EV registration per week – which in a smaller community, it's about 35,000 people there in our capital, that's meaningful and it's really kind of exciting.

Many of our remote communities are completely disconnected from a traditional grid. Yet, we are innovating in some ways that are pretty unique, bringing local resources together to decrease costs in very high cost rural areas. Last year we held a field hearing, Senator Cantwell was able to join us, in Cordova, a fishing village in southcentral Alaska not connected by road to anywhere else. So not only not a transportation grid but not an electric grid. We focused on hybrid microgrids. Now Cordova's innovators are working with the national laboratories, the University of Alaska, and industry to further test the bounds of their microgrids. One of their next steps will be installing four EV chargers at their city center and studying how EV charging can benefit their microgrid. We're testing applications even in the furthest north of this country.

This morning, I'm happy to welcome a distinguished panel of witnesses to tell us about the next generation of advanced vehicle technologies. We have representation from across the automotive sector, and across multiple technology development stages, from research to suppliers to automakers.

We have considerable opportunities in front of us. But we also have a lot of work to do to realize them—whether it is moving our most promising concepts from the lab benchtop to the dealership lot and out onto the road, or addressing lesser recognized challenges, such as our mineral security, which could make or break entire technologies. We cannot allow that to worsen as advanced vehicle technologies are increasingly adopted.

So again, I thank our witnesses in advance of their testimonies for being here this morning, and all who helped make this hearing possible, and will now turn to Senator Stabenow for any comments she wishes to make.

###