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KAPTUR(OH-09)
ON BEHALF OF THE HOUSE CONGRESSIONAL AUTO CAUCUS**

**STATEMENT BEFORE THE HOUSE COMMITTEE ON ENERGY & COMMERCE
SUBCOMMITTEE ON CONSUMER PROTECTION & COMMERCE**

**MEMBER DAY HEARING
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2123 RAYBURN HOUSE OFFICE BUILDING**

We would like to begin by thanking Subcommittee Chairwoman Jan Schakowsky and Ranking Member Cathy McMorris Rogers, as well as Chairman Frank Pallone and Ranking Member Greg Walden for the opportunity to present this testimony to the House of Representatives' Energy and Commerce Committee's Consumer Protection and Commerce Subcommittee. As co-chairs of the House Congressional Auto Caucus, we relish every opportunity to talk about how important the automotive sector is to our American economy and legacy. Arguably, no other historical force has so revolutionized the way Americans work, live, and play. Given the electronic and information-age revolution afoot, special attention is due to this industry to ensure America maintains leadership and repeats the resulting benefits for years to come.

Created in 1983, the House Auto Caucus has a long history of bipartisan collaboration to promote a strong and vibrant American automotive industry. Our Caucus is supported by a diverse group of automotive associations and carries out the tradition of working with industry stakeholders to educate Capitol Hill policy makers and advance a legislative agenda that encourages an innovative, competitive, and growing automotive sector.

The greater automobile industry extends well beyond the iconic names of auto companies familiar to us all. Today, fourteen automakers are building cars and light trucks in America. The automotive industry depends on thousands of companies supplying parts, components and materials, as well as a vast retail and vehicle maintenance network of dealers. No other industry in America has such an expansive reach to every state, delivering economic benefits and creating jobs in so many different sectors.

Let's talk numbers. Represented by manufacturers, suppliers, dealers, and many auto affiliated businesses, the automotive industry employs more than 9.9 million American workers. Annually it drives more than \$953 billion into the economy through the sales, servicing of autos, and paychecks for workers throughout the sector, as well as income for auto-related small business, and government revenues. Historically, the auto industry has contributed 3-3.5% of America's total gross domestic product.¹

¹ Auto Alliance, <https://autoalliance.org/economy/> (last visited 7-20-2019).

The automobile was a key force for change in twentieth-century America. With the right support and stability, it will surely remain one in the twenty-first century. This Committee has already taken action on many of these issues, which we commend. The question before us today, is what further role can and should Congress play to facilitate cutting edge innovation, market leadership, and regulatory consistency?

We would like to discuss three primary subject areas: nontraditional automotive infrastructure, alternative energy, and automotive cyber security. None of these fit neatly into a box nor are they exclusive to the jurisdiction of this Committee. It is for these reasons we believe there is great potential with appropriate Congressional participation but also great concern if limited to a siloed approach.

Nontraditional Automotive Infrastructure

For the automobiles' first century there was significant influence with ancillary industries, particularly steel and petroleum, revolutionized by the demands of vehicle's needs. Once again, the automotive world is hand in hand with the leading sector of the day, the tech and information industry, as the technological revolution is rapidly afoot.

There is significant potential to increase mobility options and improve tragic trends in automobiles accidents with advanced technology in autonomous vehicles, but public acceptance and satisfaction with safety is key. In consumers eyes, these advances are viewed through the lenses of safety concerns. Thus far, a balanced relationship between manufacturers and the federal government have allowed incremental progress in technology to make vehicles safer, many of these advances entail semi-autonomous, advanced driver assist systems (think cruise control, parking assist, etc). Yet, anticipated leaps in current technological advancement leave much to be undetermined with how best to proceed, which is where Congress has an important role to perform.

The first two non-traditional infrastructure components we want to discuss will enable or hinder forward progress on these technological advances for automated vehicles, spectrum availability and infrastructure, and vehicle sensor connectivity, the third, advanced alternative energy infrastructure blends nicely into the following section on energy, and how infrastructure can revolutionize mobility.

Automated vehicles and eventually fully driverless vehicles need futuristic roads. This doesn't just mean the smoothest asphalt and brightest new lines. The roads of tomorrow must hold as much technological potential as the vehicles themselves. Connected vehicle technology, Vehicle to Vehicle (V2V), Vehicle to Infrastructure (V2I), and Vehicle to Pedestrian (V2P), collectively known as Vehicle to Everything (V2X) have the potential to enable Smart Cities and transportation ecosystems. Advanced sensors throughout traditional infrastructure (roads, traffic lights, signs, etc), on vehicles and wireless communications infrastructure is what enables the connectivity, and as we understand it today, the secured spectrum ensures it is safe.

In 1999, the FCC reserved 75 megahertz of spectrum in the 5.9 GHz band for automakers to develop technology to allow vehicles to communicate with each other, the technology was

Dedicated Short Range Communications (DSRC). This dedicated spectrum is essential to support V2X communications to save lives and support mobility today and into the future. Many automotive manufacturers have relied upon or planned to utilize its availability in current product development. But just last month FCC Chairman Ajit Pai called for a comprehensive review to determine whether to open this band as the Internet & Television Association has criticized its under-usage.²

Perhaps the exploration and comprehensive review are worthy pursuits, if nothing else to eliminate the regulatory uncertainty that has hindered the automotive industry for the last several years. But this regulatory review should be paralleled with Congressional oversight and analysis, and perhaps additional funding support or federal site designations to more rapidly advance V2X deployments, which could help increase the technology's efficiency and safety. There is no going back once the cat is out of the bag and unlicensed devices share the automotive sector's dedicated spectrum. The safety of connected and automated vehicles and the future of the automotive industry could pivot on this decision, as ultimately these safety concerns drive consumer confidence.

Right as the reserved spectrum debate heats-up, sensor technology is advancing rapidly in capabilities and cost. Unlike Lidar sensors mounted directly on vehicles, which perform best under 100 meters, increased usage and development on-board and of road-side V2X radios could allow vehicles too "see" activity far ahead, extending available reaction time for drivers when necessary and further increasing safety of increased autonomous vehicles. As traditional transportation infrastructure investments are made, Congress should consider and advocate for adaptations for smart city, nontraditional transportation infrastructure sensors to extend the relevance of today's federal investments.

A significant reason these road-side units have not yet taken priority is because hurdles involved in the extensive government intervention involved. Congress could easily expand designated advanced transportation zones for these purposes to support development. With expanded usage and data points to exemplify how connected and automated vehicle technology will continue to improve safety, Americans will become more comfortable with the concepts and technology. Congressional support, interest, and discussions about these technological and safety advances has a role in building consumer acceptance.

Shifting gears slightly on the non-traditional infrastructure front, is the need for additional Congressional support to expand alternative energy, refueling and recharging centers. The lack of confidence Americans have they will be able to go where they wish and access necessary refueling and recharging centers when necessary remains a top reason Americans are hesitant to purchase alternative energy vehicles. Communities and states that have adapted more expeditiously are seeing the consumer trends follow. Once again, Congress can be a more active partner with industry to help facilitate these investments on behalf of the American people and better prepare the nation for, as we will discuss in the next sections, the global automotive-energy revolution that is leaving America behind.

² David Shepardson, U.S. to take 'fresh look' at opening automakers' key spectrum band, Reuters, May 14, 2019, <https://www.reuters.com/article/us-usa-spectrum-fcc/u-s-to-take-fresh-look-at-opening-automakers-key-spectrum-band-idUSKCN1SK297>

Alternative Energy

Even while electric vehicle demand in the United States remains tepid, walk any of the American Auto Show circuit floors and you will see global and American auto companies alike feel differently. They continue to invest billions in research and development and retooling of manufacturing lines.

In November 2018, when General Motors announced the closure of five assembly plants, including the Lordstown plant midway between our two districts, they also announced they would double investments in electric vehicles. Shortly after the New Year we saw specifics on a plan to introduce a whole new line-up of electric vehicles, beginning with a Cadillac series.³ Last summer FCA announced a \$10 billion investment in electric vehicles⁴ including \$4.5 billion for Michigan plant development and upgrades for electric plugin models for their Jeep and Ram series.⁵ Hyundai Motor Group made a similar \$6.7 billion electric investment announcement last fall to build on its long history and leadership with electric vehicles. Their rationale? Anticipated growing global demand and increased global regulatory requirements for emission standards.⁶

Despite America's dominance as a leading consumer automotive marketplace, our electric preferences are trending behind the direction of global demand. Congressional action doesn't make or break American industry's leadership opportunities in electric vehicles, but we could do more to boost consumer confidence. Instead, we have seeded a gap for China to step up and now lead in both electric vehicle production and sales.⁷

Think back to the significance American autos played in the allied response and victory in World War I and World War II. Not only in military vehicles, but also production of essential military items.⁸ Imagine if America's elected leadership failed to facilitate and support the next revolution in automotive technology, at the same time we confront threats of near-peer competitors, such as China. It's inconceivable.

This body must do everything in our power to remove barriers to energy storage and commercial batteries, and recharging infrastructure to promote increased demand for electric vehicles. Just as DARPA first funded the futuristic driverless cars fantasy, which are becoming a reality, and

³ David Shepardson, Exclusive: GM's Cadillac will introduce EV in fight against Tesla – sources, Reuters, January 10, 2019, <https://www.reuters.com/article/us-gm-electric-exclusive/exclusive-gms-cadillac-will-introduce-ev-in-fight-against-tesla-sources-idUSKCN1P502G>

⁴ Aaron Brzozowski, FCA's Investor Day Presentation Reveals \$10.5 Billion Bet on Electrification, Fiat Chrysler Authority, June 1, 2018, <http://fcauthority.com/2018/06/fcas-investor-day-presentation-reveals-10-5-billion-bet-on-electrification/>

⁵ John Beltz Snyder, FCA to invest \$4.5 B for new Detroit plant, expanded production at current facilities, AutoBlog, February 26, 2019, <https://www.autoblog.com/2019/02/26/fca-invest-new-detroit-plant-phev-jeep/>

⁶ Emily Holbrook, Hyundai to Invest \$6.7 Billion in Electric Vehicle Production, Energy Manager Today, December 12, 2018, <https://www.energymanagertoday.com/hyundai-to-invest-6-7-billion-in-electric-vehicle-production-0180680/>

⁷ Alex Thornton, World Economic Forum, China is winning the electric vehicle race (2019), <https://www.weforum.org/agenda/2019/02/china-is-winning-the-electric-vehicle-race/>

⁸ History.Com Editors, Automobile History, History Channel, April 26, 2010, <https://www.history.com/topics/inventions/automobiles>

ARPA-E lead in energy storage leadership, particularly with batteries, this body must communicate a clear message to the American people on why clean energy technologies and energy innovation are fitting of American leadership. Congress must better assert U.S. leadership on the future of vehicle electrification policy or more broadly, alternative fuels.

Just as President Dwight D. Eisenhower understood the significance of an interstate system to connect this nation, we must show Americans they can transverse it in alternative fuel vehicles with adequate investments in refueling and recharging infrastructure. Equally important, we must modernize and improve the resiliency of our electric grid to ensure its reliability under new demand. This demand will not happen overnight. But have we adequately explored how an increase in electric vehicles might change how energy is supplied and consumed, and the shifts in demands placed on our old systems? We must look to the future here, not just at the immediate concerns.

What has always set the American automotive sector apart has been the workforce. From the individuals on the lines, to engineers developing and designing concepts beyond our wildest imaginations, the millions of Americans who rely on this industry need Congressional leadership to remain relevant and employed. New powertrain systems will have dramatic impact on the labor force. Like the threat of increased automation, mechanical and materials engineering work could be replaced with jobs requiring different skill sets, such as chemical, battery, and software engineering. Are our energy centers adequately engaged with education facilities to prepare this generation and the next?

The Auto Caucus has heard loudly the challenges industry already faces on workforce skills gaps. Although this isn't the Education and Labor Committee, as Members of Congress we each have a responsibility to think about our workforce and do all we can to smooth the transition and ease anxiety of new technology, including changes in the automotive-energy sector. We must strike an optimistic message, and support educational development in areas our nation lacks, like battery engineering, advanced manufacturing.

Perhaps what Americans and the automotive industry needs most importantly though is a consistent message. Federal and state policymakers should work together to support clear rules that encourage innovation. There is no room for deviousness towards innovation here, no matter why one believes the technology needs focus.

Automotive Cybersecurity

The transformation in technology seen in the last decade has revolutionized automotive ingenuity. Americans lead increasingly connected worlds and expect their automobile to fit seamlessly into, if not fully facilitate their connected life. With connectivity and increased automation comes the question of how to secure personal data. Cybersecurity in the automotive world is a relatively new concern, but one that needs considerable attention regarding who owns the collected data and how is it vulnerable to breaches.

Many vehicles of today already rely extensively on the collection and use of data about the driver and the vehicle's whereabouts. Data is used for safety, to improve efficient performance, for

convenience, and entertainment. Options currently available on many models include: navigation, blind spot detection, automatic emergency braking, parking assist, land departure warnings, “infotainment” features, in-car “apps,” phone-sync with telephone contacts to enable hand-free calls and texts, and even in-vehicle internet connectivity. The collected data tells a very detailed story of each driver and vehicle.

How this data is used beyond the immediate understanding of the consumer is important. The last several years have exposed a fearsome reality of how companies believe they are operating and securing private data, when in fact their collections are incredibly vulnerable.⁹ Increased concerns within industry of who has access to this data and who does not have arisen between original equipment manufacturers (OEMs) and parts suppliers too. The control of this information is powerful and lucrative.

Most importantly though, do Americans fully understand the scope of their collected data, how it can be used, and how its collection impacts their privacy rights? Without early and adequate security, hackers could gain access to payment accounts, personal data, and possibly entire data systems (automated braking, acceleration, automated guidance systems, etc.). Consumer privacy and data ownership questions warrant ongoing Congressional attention, especially as the technology continues to evolve and becomes increasingly interconnected.

Cyber security vulnerabilities are not limited to personal data of an individual either. Automobiles are just one aspect of the growing tech-enabled transportation ecosystem. A forward-leaning approach will better ensure software security keeps pace with technology in the automotive industry, especially as we rely increasingly on artificial intelligence and develop Smart Cities with significant connectivity points.

The U.S. auto industry is already a leader in protecting consumer privacy and data, committing to the Automobile Industry Privacy Principles in 2014 and establishing the Automotive Information Sharing and Analysis Center (Auto-ISAC) in 2015.

When networks of transportation ecosystems are established, hackers and nefarious forces will seek means to manipulate them with potentially destructive consequences. This reality seemed to catch the tech industry off-guard in the promulgation of manipulative propaganda on social media and recent election interference. Too much is at stake with connected smart infrastructure and transportation to be caught off guard. These are details that are never too early to consider and deserve Congressional attention since industry cannot do it alone.

⁹ Taylor Telford and Craig Timberg, The Washington Post, Marriott discloses massive data breach affecting up to 500 million guests, November 30, 2018, https://www.washingtonpost.com/business/2018/11/30/marriott-discloses-massive-data-breach-impacting-million-guests/?utm_term=.b37c5d45c7ff; Craig Timberg, Elizabeth Dvoskin, and Brian Fung, The Washington Post, Data of 143 million Americans exposed in hack of credit reporting agency Equifax, September 17, 2017, https://www.washingtonpost.com/business/technology/equifax-hack-hits-credit-histories-of-up-to-143-million-americans/2017/09/07/a4ae6f82-941a-11e7-b9bc-b2f7903bab0d_story.html?utm_term=.c60d23c32e28; Cybersecurity Resource Center, Office of Personnel Management, <https://www.opm.gov/cybersecurity/cybersecurity-incidents/> (Last visited July 22, 2019)

Conclusion

A common frustration across all these areas confronting the future of America's automotive industry is the question of federal leadership and action, followed by appropriate regulation to streamline consistency. Alternatively, industry is left confronting a diverse and possibly even conflicting set of state and global regulatory standards.

The full Energy and Commerce Committee and its subcommittees have taken very commendable action over the past several years in holding hearings and passing legislation, to address to a degree many of the concerns we discussed; as have the relevant Senate committees. It is our hope today, to remind the Committee how important these issues are for many of us who do not have the privilege to participate in these in-depth discussions.

As leaders of a diverse Auto Caucus, we do not take a position on how best to achieve solutions to these complicated issues, but we believe strongly they all warrant Congressional oversight and exploration. With adequate attention, we know Congress can provide opportunities for the automotive industry to continue to thrive well into the next century. It is our constituents and local businesses involved in the auto sector who propel us to action. On their behalf, we thank you again for the opportunity to present policy concerns of the House Congressional Auto Caucus.