

February 11, 2020

The Honorable Frank Pallone
Chairman, Energy and Commerce
2125 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Greg Walden
Ranking Member, Energy and Commerce
2322 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Jan Schakowsky
Chairwoman, CPAC Subcommittee
2367 Rayburn House Office Building
Washington, D.C. 20515

The Honorable Cathy McMorris Rodgers
Ranking Member, CPAC Subcommittee
1035 Longworth House Office Building
Washington, D.C. 20515

Chairman Pallone, Ranking Member Walden, Chairwoman Schakowsky and Ranking Member McMorris Rodgers:

Thank you for holding today's important hearing, "Autonomous Vehicles: Promises and Challenges of Evolving Automotive Technologies," to examine the promise of this technology and the federal government's role in overseeing its development. Securing America's Future Energy (SAFE) appreciates the opportunity to submit this letter for the hearing record.

SAFE is a nonpartisan, nonprofit organization committed to reducing U.S. oil dependence to improve American economic and national security. In 2006, SAFE formed the Energy Security Leadership Council (ESLC), a nonpartisan group of business and former military leaders in support of long-term policy toward this goal. The ESLC is co-chaired by Frederick W. Smith, Chairman and CEO of FedEx, and General James T. Conway, 34th Commandant of the U.S. Marine Corps (Ret.).

SAFE believes that autonomous vehicle (AV) technology presents a significant opportunity to accelerate the market-based adoption of electric vehicles and reduce oil consumption, while also delivering many other public benefits including increased traffic safety and accessibility. Accordingly, we encourage the implementation of policies that will support the safe and expeditious deployment of AVs and maximize their tremendous potential benefits.

Unlocking the Potential of AVs

In a 2018 report, *America's Workforce and the Self-Driving Future*, SAFE concluded that AVs can help to mitigate many of the current negative externalities in the U.S. transportation sector and unlock a broad range of social and economic benefits for Americans.

Our research found that the significant economic benefits from the widespread adoption of AVs could lead to nearly \$800 billion in annual social and economic benefits by 2050—mostly from reducing the toll of vehicle crashes, but also from giving productive time back to commuters, improving energy security by reducing dependence on oil, and providing environmental benefits.

A study of traffic patterns and job locations also found that some economically depressed regions could see improved access to large job markets for their residents through the deployment of AVs. In addition,

AVs will create new jobs that will, in time, replace jobs eliminated by automation. Implementing strong workforce development infrastructure could also both mitigate employment disruption and speed the evolution of worker skill requirements that will contribute to full employment and economic growth.

Quantified Benefits of Autonomous Vehicles

Public Benefits by 2050 (annual)	\$633 Billion
Congestion Mitigation	\$71 Billion
Accident Reduction – Economic Impact	\$118 Billion
Accident Reduction – Quality of Life Improvements	\$385 Billion
Reduced Oil Consumption	\$58 Billion
Consumer Benefits by 2050 (annual)	\$163 Billion
Value of Time	\$153 Billion
Reduction in Cost of Current Taxi Service	\$10 Billion
Total Annual Benefits (by 2050)	\$796 Billion

Source: David Montgomery, *Public and Private Benefits of Autonomous Vehicles*, June 2018.

Furthermore, the economic and societal benefits offered by AVs in a single year of widespread deployment will dwarf the cost to workers incurred over the entire multi-decadal deployment of AVs when measured in purely economic terms. The benefits of AVs are sufficiently large to enable investment of adequate resources in assisting impacted workers. These benefits include:

- **Accident Reduction:** Even if AVs only address crashes resulting from a gross driver error (e.g. distraction, alcohol, and speeding), the annual benefit would exceed \$500 billion.
- **Reduce Oil Consumption:** By precipitating a shift away from petroleum as the dominant fuel source, AVs can substantially reduce America’s reliance on oil.
- **Congestion:** Improved safety from AVs and better throughput (e.g. through reduced bottlenecks) could significantly reduce the current costs of congestion.
- **Improved Access to Retail and Jobs:** SAFE modelling of road speeds around specific retail establishments found that the increased willingness of shoppers to travel—even by just two minutes each way—could increase mall customer base by nearly 50 percent in some instances. SAFE modelled how increased traffic speeds from AV adoption and greater willingness to travel could impact the number of jobs within reach.

While the United States is a global leader in AV development, the nation risks falling behind if the federal government fails to modernize outdated regulations that currently act as barriers to the deployment of AVs—particularly those with novel and unconventional designs. In its 2019 Autonomous Vehicle Readiness Index, KPMG found that the United States ranks third in technology and innovation for AVs—but ranks ninth when it comes to policy and regulation.¹ Overall, the United States fell from third place in 2018 to fourth place in 2019, and now sits behind the Netherlands, Singapore, and Norway.

¹ 2019 *Autonomous Vehicles Readiness Index*, KPMG (February 17, 2019) (assets.kpmg/content/dam/kpmg/xx/pdf/2019/02/2019-autonomous-vehicles-readiness-index.pdf).

The Countries Best Prepared For Autonomous Vehicles

Index scores on level of preparedness for driverless cars in 2019 (30=best prepared)



Chart: Securing America's Future Energy • Source: KPMG • Created with Datawrapper

The Federal Role in AV Development

Last Thursday, the National Highway Traffic Safety Administration (NHTSA) announced it had granted Nuro's request for an exemption to deploy 5,000 autonomous electric delivery vehicles on public roads.² The exemption allows Nuro to deploy a low-speed vehicle without conventional human controls like steering wheels and brake pedals, nor other components that are unnecessary for vehicles without humans on board (e.g., windshields and mirrors), which are currently required under the Federal Motor Vehicle Safety Standards (FMVSS).

One common misconception about the automotive regulatory process is that FMVSS exemptions could lead to less safe vehicles being introduced to our roadways—but in fact, a key statutory requirement for any exemption to be approved is that the vehicle must be demonstrated to be *as safe as, or safer than*, an FMVSS-compliant vehicle. As SAFE has previously written, the FMVSS exemption process allows manufacturers to test vehicles with novel designs that could contribute to the introduction of new technologies, advance electrification, and prove the viability of new vehicle types.³

As SAFE argued in public comments regarding Nuro's petition for an exemption, it is firmly in the public interest to provide regulatory certainty and a clear pathway for the deployment of vehicles that will deliver significant social and economic benefits.⁴ While last week's announcement represented a positive step forward, much work remains to be done: After two years, NHTSA still has not yet issued a

² NHTSA Grants Nuro Exemption Petition for Low-Speed Driverless Vehicle, NHTSA (February 6, 2020) (nhtsa.gov/press-releases/nuro-exemption-low-speed-driverless-vehicle).

³ Correcting Common Misconceptions About the AV START Act, The Fuse (July 23, 2018) (energyfuse.org/correcting-common-misconceptions-about-the-av-start-act).

⁴ SAFE Response to Nuro Petition, Docket No. NHTSA-2019-0017, Securing America's Future Energy (May 20, 2019) (secureenergy.org/wp-content/uploads/2019/05/SAFE-Response-Nuro-Petition.pdf).

decision on the exemption request by GM/Cruise for deploying vehicles without human controls—which is a vital next step in advancing the use of purpose-built AVs for passenger service.

Furthermore, it is critical to establish a consistent and predictable regulatory framework to support the development, testing, and deployment of AVs. The cases of Nuro and GM/Cruise have demonstrated that the existing regulatory framework for motor vehicles was written with human-driven vehicles in mind, resulting in unforeseen barriers to AVs.

AV Legislation Must Be A Congressional Priority

Congress has a significant role to play in ensuring that AVs realize their full potential to make transportation safer, more efficient, and accessible to all Americans. This begins with creating a federal regulatory framework to guide the safe testing and deployment of AV technology nationwide – which will also contribute to greater certainty for companies like Nuro that are developing vehicles with novel designs. To this end, we thank this Committee for its leadership on the SELF DRIVE Act (H.R. 3388) in the 115th Congress.

While the SELF DRIVE Act ultimately was not enacted before the end of the last Congress, the need for AV legislation remains as urgent as ever: In 2018, 36,560 Americans died in traffic collisions, with millions more injured, according to NHTSA.⁵ Traffic congestion causes Americans to waste a total of 3.3 billion gallons of fuel—plus an average loss of 54 hours per commuter due to delays—every year.⁶ Furthermore, at least six million Americans with a disability have difficulty accessing the transportation they need.⁷

SAFE applauds this Committee and the Senate Commerce, Science, and Transportation Committee for undertaking a bipartisan, bicameral effort to advance AV legislation in this Congress.

SAFE urges you to consider prioritizing the following three goals in any AV legislation:

- 1) Accelerate progress toward regulatory standards that assure the safe testing and deployment of AVs and eliminate barriers to innovative AV designs by streamlining the exemption process and updating FMVSS.
- 2) Establish an interim, federal regulatory framework that can improve the governance of AVs until a long-term framework is put in place; this interim framework is critical, as it would govern AVs as they ramp up commercial operation.
- 3) Advance the societal benefits of AVs to increase transportation access for people with disabilities, wounded veterans, and disadvantaged communities.

⁵ *Traffic Deaths Decreased in 2018, but Still 36,560 People Died*, NHTSA (October 2019) (nhtsa.gov/traffic-deaths-2018).

⁶ *New Study Underscores Economy/Traffic Jam Link*, Texas A&M Transportation Institute (August 22, 2019) (tti.tamu.edu/news/new-study-underscores-economy-traffic-jam-link/).

⁷ *Self-Driving Cars: The Impact on People with Disabilities*, Securing America's Future Energy and The Ruderman Foundation (January 2017) (secureenergy.org/wp-content/uploads/2017/01/Self-Driving-Cars-The-Impact-on-People-with-Disabilities_FINAL.pdf).

At the request of the Committees, SAFE provided detailed policy recommendations for AV legislation in a letter submitted on August 22, which has also been made available on our website.⁸ We have also appreciated the opportunity to provide our feedback on the draft language that has been written to date, and look forward to continuing to work with you in advancing legislation in this Congress.

Thank you again for your attention to the federal government's role in facilitating the safe and expeditious deployment of AV technology, as well as your recognition of the tremendous potential this technology holds. We look forward to working with you and your colleagues to advance policies that will allow the U.S. transportation sector to thrive in the decades to come.

Thank you,

A handwritten signature in black ink that reads "Robbie Diamond". The signature is written in a cursive, slightly slanted style.

Robbie Diamond
President and CEO
Securing America's Future Energy

⁸ *SAFE Calls On Congress To Prioritize Self-Driving Legislation*, Securing America's Future Energy (August 27, 2019) (secureenergy.org/press/safe-calls-on-congress-to-prioritize-self-driving-legislation/).