

November 22, 2016

Mark A. Rosekind  
Administrator  
National Highway Traffic Safety Administration  
1200 New Jersey Avenue SE  
Washington, DC 20590

*Submitted via regulations.gov*

**Re: Request for Comment on “Federal Automated Vehicles Policy,” Docket No. NHTSA–2016–0090**

Dear Administrator Rosekind:

Enterprise Holdings, Inc., on behalf of itself and its network of affiliates operating the Enterprise Rent-A-Car, National Car Rental, Alamo Rent A Car brands and its Enterprise Fleet Management, car sharing, van pooling, car sales, truck rental and other transportation service businesses (collectively, Enterprise Holdings), is pleased to provide comments on the National Highway Traffic Safety Administration’s (NHTSA) Federal Automated Vehicles Policy (hereinafter, the Policy), as solicited by NHTSA and the Department of Transportation’s (DOT) Request for Comment published in the Federal Register on September 23, 2016.<sup>1</sup> Specifically, in these comments, Enterprise Holdings:

1. Encourages NHTSA to recognize the rental industry and fleet management operators as key stakeholders in the development of state and federal policies;
2. Cautions that new definitions of a vehicle “driver” that focus on the owner of a vehicle should not unintentionally expand liability to fleet owners;
3. Welcomes the effort to harmonize laws related to highly automated vehicles (HAVs) across jurisdictions;
4. Calls for safety standardization that will ensure reasonable policies are in place to enable fleet owners to provide safe vehicles to consumers;
5. Calls for NHTSA to ensure that any final framework or policy regarding HAVs preserves the right of vehicle owners to control and own the data generated by their vehicles; and
6. Urges NHTSA to clarify that important cybersecurity obligations are undertaken by the manufacturers and designers that are best positioned to carry them out.

As the largest rental car company in the world and the owner of over 1.9 million vehicles, Enterprise Holdings has a strong interest in the development and deployment of HAVs and related transportation technology. We believe that the Policy, published for comment by NHTSA in September 2016, expands the agency’s initial 2013 effort on automated vehicles. We

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<sup>1</sup> National Highway Traffic Safety Administration (NHTSA) & Department of Transportation (DOT), Request for Comment on Federal Automated Vehicles Policy, 81 Fed. Reg. 65,703 (Sep. 23, 2016), <https://www.gpo.gov/fdsys/pkg/FR-2016-09-23/pdf/2016-22993.pdf>.

applaud NHTSA's efforts to stay current with the rapidly developing HAV landscape and appreciate the agency's flexible approach that supports innovation. Below, we provide additional detail and context for consideration.

## **I. Background on Enterprise Holdings**

Enterprise Holdings is a 60-year old, family-owned company that operates the Enterprise Rent-A-Car, National Car Rental, and Alamo Rent A Car brands, among others. Enterprise Holdings is a total transportation service provider, offering a network of services that includes car rental, retail car sales, hourly car sharing, ridesharing or vanpooling, truck rental, ride matching, and, through our affiliate, Enterprise Fleet Management, full-service, mid-size fleet leasing. The company operates more than 9,000 locations across the globe, employs more than 95,000 people, and owns and operates more than 1.9 million vehicles, making Enterprise Holdings the owner of one of the largest vehicle fleets in the world.

## **II. Fleet Owners and Operators as HAV Stakeholders**

Enterprise Holdings believes HAV technology is beneficial and inevitable. As NHTSA has acknowledged, the questions and issues that will arise during this process will be complex and will require considerable effort to solve. Input from key stakeholders will be critical to navigating the landscape ahead. The car rental industry purchased nearly two million vehicles in 2015, or one out of every nine new vehicles sold in the United States during that time. Given the sizeable role the rental industry plays in the nation's vehicle fleet, we encourage NHTSA to recognize the rental industry as a key stakeholder in the development of federal HAV policy. The rental industry—with millions of the newest vehicles in its fleets and a customer base accustomed to experiencing new vehicles through rentals—will provide a valuable perspective as policymakers contemplate how to best integrate HAVs into existing fleets.

In this respect, we note that the Policy is ambiguous with regard to whether some or all of the guidance, standards, and reporting requirements apply to fleet owners, as they do for HAV manufacturers. For example, the Policy is unclear as to whether the agency considers those who operate HAVs to be covered by the Vehicle Performance Guidance.<sup>2</sup> Additionally, the phrase “manufacturers and other entities” is used throughout the Policy, which could imply that a fleet owner would fall within the scope of the Policy. We urge NHTSA to resolve this ambiguity in favor of maintaining the current regulatory approach, that safety, security, and other performance inherent to the vehicle is the responsibility of the manufacturer of the vehicle, and not of the owner of the vehicle.

## **III. Definition of “Driver” and Expansion of Liability**

We appreciate NHTSA's recognition that liability rules and insurance requirements will need to be updated when considering their application to HAVs, which shift the concept of “driver” away from humans and toward the vehicle itself.<sup>3</sup> For lower levels of automation where

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<sup>2</sup> National Highway Traffic Safety Administration, Federal Automated Vehicles Policy 11 (2016), <https://www.transportation.gov/sites/dot.gov/files/docs/AV%20policy%20guidance%20PDF.pdf>.

<sup>3</sup> *Id.* at 45-46.

vehicles still incorporate a human driver, we encourage the agency to work with the states on developing a clear policy on driver qualifications necessary to operate an automated vehicle. As this definition of “driver” evolves, particularly as liability shifts from the human driver to the HAV itself, we ask that NHTSA clarify that vehicle ownership does not per se expand liability to the fleet owner in the case of fleet ownership. Such a clarification will promote the successful build-out of the HAV ecosystem. For liability purposes, fleet owners, such as rental companies, should not be regarded as the “driver” when vehicles are out of the fleet owner’s possession and control (such as vehicles that have been leased or rented).

On the question of assigning liability in the event of a crash, we appreciate NHTSA’s recognition of the states’ responsibility and authority in regulating motor vehicle insurance and liability. While we recognize the status quo, we encourage both the agency and states to avoid the unintentional application of vicarious liability to non-operational owners of HAV fleets, such as rental car and fleet management companies. Avoiding vicarious liability for fleet owners is particularly important given the widespread expectation that initial deployment of HAVs will be through a fleet-based approach. As such, we ask that the agency include the rental car and fleet management industries in any workshops, studies, or other stakeholder engagements regarding the establishment of guidelines for liability allocation, and work with the states to ensure consistency with regard to liability rules and insurance regulations. To that end, we support the suggestion in the Policy that states look to create a commission to study liability and insurance issues and to make recommendations, and we look forward to engaging on that matter.<sup>4</sup>

#### **IV. Regulatory Harmonization**

We appreciate NHTSA including in the Policy a section that sets forth a Model State Policy and that delineates between federal and state responsibilities.<sup>5</sup> At the same time, NHTSA’s authority to promote and enforce vehicle safety should not be diluted. Enterprise Holdings strongly believes that NHTSA’s authority can and should be pressed more vigorously against state and local entities to clarify and direct that NHTSA alone is responsible for regulating HAV safety and performance. NHTSA will play a critical role in the deployment of HAVs and the subsequent evolution of the industry by helping to ensure that state and local governments refrain from legislating in ways that add redundant and potentially conflicting obligations on entities seeking to incorporate and adhere to NHTSA’s voluntary framework set forth in the Policy. We therefore urge NHTSA to bring consistency across states to prevent the emergence of a patchwork of state and local laws that would impede innovation and the widespread deployment of HAV technology.

As regulators and policymakers consider deployment models, we further urge NHTSA to establish a single framework addressing HAV technology, rather than separate sets of regulations addressing human-operated and driverless vehicles. As we have seen with the advent of ride-sharing, technology driven developments within an industry often are accompanied by new entrants seeking separate regulatory frameworks. Likewise, regulators may be asked to treat HAV-centric services and service providers differently from other providers. We believe that a

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<sup>4</sup> *Id.* at 46.

<sup>5</sup> *Id.* at 39-44.

single framework will promote consumer and business interests alike and provide a more coherent set of rules and best practices.

## **V. Safety Standardization**

Enterprise Holdings appreciates NHTSA's attempt to advance a standardized "Vehicle Performance Guidance" for submitting a voluntary Safety Assessment letter for HAVs under the Policy. However, we would recommend further clarification to the framing of the Vehicle Performance Guidance. Specifically, item 9 of the 15-point assessment, Post-Crash Behavior, calls for "manufacturers and other entities" to have "a documented process for the assessment, testing, and validation of how their HAV is reinstated into service after being involved in a crash," and that "if sensors or critical safety control systems are damaged, the vehicle should not be" put back into HAV service.<sup>6</sup> We agree with NHTSA that inadequate maintenance of HAVs is a serious safety concern and note that there is a lack of industry-wide standards for sensor calibration, repair procedures, and validation processes to ensure that the automotive repair market can effectively maintain the safety of HAVs. To improve the efficacy of this element of the Guidance, we recommend that NHTSA add hardware and software sensor recalibration standards and guidelines as an additional item to include in the Safety Assessment letter to NHTSA. We further suggest that NHTSA make clear that maintenance and diagnostic data of core safety functions will be available to OEM and non-OEM repair facilities alike.

Our customers routinely adjust vehicle settings, and we note that it would be beneficial for manufacturers to provide a way for operators or subsequent owners to quickly restore a vehicle's operating settings to factory defaults. Similarly, we believe that we can improve safety by requiring manufacturers to equip vehicles with clear indicators that vehicle settings have been altered from factory default. Such indicators would allow users and operators to be aware when a vehicle is outside a default state.

We commend the agency on highlighting the importance of consumer education and training. We agree with NHTSA that "proper education and training is imperative to ensure safe deployment of automated vehicles."<sup>7</sup> It is critical that consumers fully understand the capabilities and limitations of HAVs. For consumer-facing organizations, like rental companies, clear end-user educational materials are crucial to ensuring that HAVs are used safely and appropriately, and we recommend adding the development of these materials to the Guidance. We further encourage the agency to consider how those educational efforts will be provided to, or shared with, other stakeholders in the HAV ecosystem beyond manufacturers and dealerships to maximize the potential for consumer education and understanding.

## **VI. Data Ownership and Privacy**

We support the agency's efforts to address the issue of data ownership and privacy through this Policy and Guidance development process. As related to our business operations, Enterprise Holdings purchases vehicles from the manufacturer, and as a result owns and controls not only the vehicle itself, but also its equipment and the data generated by the vehicle, in

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<sup>6</sup> *Id.* at 25.

<sup>7</sup> *Id.* at 24.

accordance with the company's privacy policies and applicable law. Maintaining ownership and control of the data generated by our vehicles is critical to improving customer safety, ensuring proper fleet maintenance, proper damage repairs, and effective operating of our businesses. NHTSA should make clear in the Policy that vehicle owners have control and ownership over data from the vehicle.

To this end, we highlight the important distinction between data that is necessary to ensure proper vehicle function (*e.g.*, basic safety messages in vehicle-to-vehicle communications, crash notifications, repairs, cybersecurity logs, etc.) and data that may be used to enhance the driver's comfort or experience. The agency should not consider these disparate data sets to be within one category. As a large fleet owner with many safety and compliance obligations, Enterprise Holdings must be able to maintain, service, and manage its fleet independently from the manufacturer, a function that would be difficult, if not impossible, if HAV data reverts to the sole possession and control of manufacturers. To avoid this outcome, we strongly urge NHTSA to preserve existing ownership and control rights over vehicle data.

Achieving the objective of preserving data rights for vehicle owners may require modifying how the agency proposes to define "third party" in the context of data sharing, and whether such data would have to be de-identified before being provided to a third party.<sup>8</sup> We note with concern that, if NHTSA fails to specify that vehicle data belongs to owners, the agency could unintentionally enable auto manufacturers to create a closed market and limit information sharing and data access, which would have a negative impact on the ability of NHTSA and the broader HAV industry to fulfill the goals of the Policy and advance consumer safety. To be sure, such a data ownership structure would mean that applicable legal obligations regarding sensitive customer data (such as geolocation and GPS data) would apply to entities like Enterprise Holdings, as they would for less sensitive vehicle related data that Enterprise Holdings would collect and maintain (such as mileage, last oil change, fuel level, etc.).

## **VII. Cybersecurity**

As a large fleet owner, we are concerned for the safety of passengers and the security of our fleet. To that end, Enterprise Holdings supports NHTSA's call for a robust product development process based on a systems-engineering approach, including systematic and ongoing safety risk assessment for the HAV system and the broader transportation ecosystem. The Policy should call for manufacturers to provide for a systems approach to cybersecurity—for communications within the vehicle, between the vehicle and infrastructure, among multiple vehicles, and from the vehicle to the Internet. As manufacturers design and deploy HAVs, we want to ensure that responsibility for the security of the HAV rests with the manufacturer who has designed and engineered the entire vehicle system. The Policy suggests that operators—in addition to manufacturers—may have some cybersecurity responsibility for HAVs. However, it is unclear what the agency envisions that responsibility to be, and we seek clarification on this point as NHTSA considers modifications to the Policy in the weeks and months ahead. Specifically, we encourage the agency to align the cybersecurity requirements in the Policy with NHTSA's recently published cybersecurity best practices, which was more limited in scope and

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<sup>8</sup> *Id.* at 18.

applied to “individuals and organizations manufacturing and designing vehicle systems and software.”<sup>9</sup>

As a related matter, we recognize that proper maintenance of HAVs will likely involve periodic software updates to improve vehicle performance and patch vulnerabilities. Enterprise Holdings encourages NHTSA to work with the industry to develop a defined, timely, and consistent update cycle. Any proposed cycle should include assigning responsibility between the manufacturer and the vehicle owner for maintaining the proper software version on the vehicle. An approach that assigns responsibility for software patching to the vehicle owner must address the challenges for fleet owners in managing and deploying updates for such a large software inventory. In this respect, we strongly urge the agency to require remote over-the-air software updates in order to provide an easily scalable solution. NHTSA currently requires manufacturers to remedy defects for vehicles up to 15 years old, and we are concerned whether this 15-year limit will also apply to software, especially if software updates are necessary for vehicle operation, safety, or security.

Given the widespread discussion about a fleet-based approach for HAV deployment, we encourage the agency to consider ways for HAV manufacturers to incorporate consumer protection mechanisms for vehicles involved in fleet usage. For example, a central challenge for Enterprise Holdings is returning the vehicle to a “default” state that wipes personal data in the vehicle between rentals. For fleet deployments, NHTSA should encourage HAV manufacturers to develop mechanisms that automate or facilitate this process.

Finally, we note that there is a legitimate need to make maintenance and diagnostic data of core safety functions available to non-OEM repair facilities. This issue begs the question of how to segregate that data, but also keep it accessible. We urge NHTSA to give careful consideration to how to balance these competing priorities in light of the fact that, with almost 2 million vehicles, we will need adequate access to maintenance and repair providers.

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We appreciate the opportunity to provide comments on NHTSA’s Federal Automated Vehicles Policy. Enterprise Holdings will continue to engage with NHTSA in developing and advancing this important initiative. Should you have any questions regarding any of the comments above, please contact me at 314.512.4123.

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<sup>9</sup> See Cybersecurity Best Practices for Modern Vehicles at 5, available at [http://www.nhtsa.gov/staticfiles/nvs/pdf/812333\\_CybersecurityForModernVehicles.pdf](http://www.nhtsa.gov/staticfiles/nvs/pdf/812333_CybersecurityForModernVehicles.pdf).