



**Alliance for Automotive Innovation Testimony Regarding
S. 2754, *The American Innovation and Manufacturing Act of 2019*
April 8, 2020**

The Alliance for Automotive Innovation¹ (Auto Innovators) appreciates the opportunity to provide feedback on S. 2754, *The American Innovation and Manufacturing Act of 2019*. Auto Innovators represents the manufacturers producing nearly 99 percent of cars and light trucks sold in the U.S. Our members include motor vehicle manufacturers, original equipment suppliers, as well as technology and other automotive-related companies. With some revisions and reconsideration of the bill, Auto Innovators believes this legislation can provide an appropriate transition to alternative refrigerants. We caution, however, that significant changes to commerce must be fully analyzed and understood in the context of costs and resource demands.

Due to the COVID-19 public health emergency, our members are facing unprecedented challenges with widespread closures of manufacturing facilities, laboratories and offices across the nation. The auto industry remains focused on ensuring that our workforce and our customers are safe and have a path to economic recovery. The auto industry is the largest manufacturing sector in the United States; we employ roughly 10 million Americans, in addition to those who are also employed in the technology and mobility sectors directly. The impact of the current situation is yet to be fully understood and continues to evolve. Thus, Auto Innovators strongly supports initiatives to help those affected by the current public health and economic situation, while returning the economy to full strength. Legislation, such as S. 2754, should be carefully assessed to ensure that the economic and environmental benefits associated with such a significant change are aligned with the near-term challenges facing our nation while considering the longer-term potential benefits of this bill.

The Light-Duty Automobile Sector Is Transitioning to Alternative Refrigerants

The light-duty automotive sector has been transitioning to alternative refrigerants since 2012, substituting HFO-1234yf in place of HFC-134a in many new vehicles designed for sale in the United States.² This transition is encouraged by the design of the U.S. Environmental Protection Agency's (EPA) light-duty vehicle greenhouse gas (GHG) regulations, which recognize the GHG benefits associated with the use of refrigerants with a lower global warming potential (GWP).³ These regulations provide a GHG emissions value for lower GWP refrigerants, which can be used to count toward a vehicle's overall GHG standard.

When this provision was first implemented, alternative refrigerants were not generally used by the light-duty sector for several reasons: inadequate supply, higher costs, a lack of a repair network and infrastructure, and ongoing evaluations and updates to EPA's Significant New Alternatives Policy (SNAP) program's approval of alternative refrigerants. Many of these concerns have slowly disappeared over the last eight years. Although the overall costs of alternative refrigerants have reduced over time as supplies increased, we understand that HFO-

¹ Formed in 2020, the Alliance for Automotive Innovation is the singular, authoritative and respected voice of the automotive industry. Focused on creating a safe and transformative path for sustainable industry growth, the newly established organization, a combination of the Association of Global Automakers and the Alliance of Automobile Manufacturers, is directly involved in regulatory and policy matters impacting the light-duty vehicle market across the country. The Alliance for Automotive Innovation is headquartered in Washington, DC, with offices in Detroit, MI and Sacramento, CA. For more information, visit our website <http://www.autosinnovate.org>.

² For purposes of this testimony, Auto Innovators focuses on light-duty vehicle air conditioner systems. There may be other uses in our industry, such as foams and blowing agents, for which we are not providing comment at this time.

³ HFO-1234yf has a GWP of 4 as compared to HFC-134a at 1,430.

1234yf continues to be more expensive than HFC-134a.⁴ As the light-duty vehicle GHG standards have become more stringent, the cost-effectiveness of introducing this alternate refrigerant as part of a vehicle's lower GHG technologies has become more advantageous. In addition, the outcome of this regulatory structure has meant that the light-duty automotive sector has been able to transition to a refrigerant with lower GWP at a slow, but steady pace, that is well-aligned with companies' product plans, investment strategies, and GHG reduction targets. The transition to alternative refrigerants has also been aligned with a growing supply of HFO-1234yf, ongoing decreases in price, and a growing repair network in the U.S.

Many, but not all, new light-duty vehicles now use the alternative refrigerant HFO-1234yf. There remain some product lines that have not made the changeover. The reasons for these remaining uses include the fact that an alternative refrigerant may not be feasible (see *Exports of Light-Duty Vehicles with HFC-134a Should be Exempted* below), or a specific vehicle model may be scheduled to end production in the near future making the transition an unnecessary cost at this time. It is our expectation that the light-duty sector will reach 100 percent use of alternative refrigerants, with some exceptions, in model year 2025; this expectation is based on previously collected blinded and aggregated data from the light-duty vehicle sector.

In considering S. 2754's schedule, we believe the phase-down generally aligns with the light-duty vehicle sector's ongoing transition. By providing a phase-down over a number of years, the incumbent refrigerant HFC-134a can continue to be produced into the near future. This should ensure access to HFC-134a for the remaining years it is needed, for specific uses, and most importantly, for the ability to repair and maintain existing vehicles across the country. The average life of a light-duty automobile on the road today is nearly 12 years, and vehicles can remain on the roads for significantly more than 12 years. As a result, it is necessary to ensure a supply of HFC-134a that can be used to repair these vehicles' air conditioning systems throughout their lifetime and at a reasonable cost for vehicle owners.

The light-duty sector's transition to alternative refrigerants is on a trajectory ahead of the legislation's phase-out schedule and represents a significant amount of progress and investment to date. We are not, however, the only mobile source sector that uses HFC-134a. Many of Auto Innovators' member companies also produce and sell medium- and heavy-duty vehicles that do not use alternative refrigerants, in part because these alternative uses have not been approved under EPA's SNAP program. As a result, it is important to assess the needs of other sectors and whether their ongoing uses will result in an inadequate supply of HFC-134a for necessary, but diminishing, light-duty uses over the proposed phase-out timeframe.

Auto Innovators has several additional areas of input for your consideration, as described in the following sections.

Protect and Encourage Industry Practices that Reduce the Need for Production

S. 2754 should ensure that the recycling and reuse of HFC-134a is encouraged and does not count against the production or consumption requirements. Currently the bill seems to discourage recycling by requiring recovered refrigerant to be reclaimed. The recycling and reuse of HFC-134a has been a common practice for the automotive industry since the 1990s and has a well-developed and integrated infrastructure. Unlike reclamation, which is encouraged in the bill and requires transportation to a reclaimer for processing to virgin refrigerant specifications, recycling is typically done at thousands of vehicle repair sites using equipment certified per EPA regulations. Recycling involves recovering the refrigerant and removing moisture, lubricant, particulates, and non-condensable gases (air). That refrigerant is then suitable to be used in a vehicle air conditioning system. This practice reduces the amount of new HFC-134a that needs to be produced and limits and prevents release to the environment. It can also help ensure lower-cost, but high-quality, repair of mobile source air conditioner systems. Thus, the

⁴ *E.g.*, the alternative refrigerant used in light-duty vehicles, HFO-1234yf, costs approximately \$42 per pound as compared to HFC-134a at \$7 per pound. (Prices based on 25 lb and 30 lb cylinders, respectively, from refrigerantdepot.com.)

legislation should encourage and allow for the continuation of industry best practices, like the recycling and reuse of HFC-134a.

Exports of Light-Duty Vehicles with HFC-134a Should be Allowed

Imports and exports of refrigerant uses should be clearly defined. We understand that the import of light-duty vehicles would likely be covered by the reporting requirements of this regulation, since these vehicles would be intended for sale and use in the U.S. This approach is reasonable; the consumption requirements should be applicable only to the light-duty vehicles manufactured or imported for use in the U.S. market.

On the other hand, light-duty vehicles that are manufactured in the U.S. for export purposes only should be allowed to continue; these exports are important to our U.S.-based manufacturing sector and economy. These vehicles would continue to use HFC-134a for export to markets that meet at least one of several extenuating circumstances. For instance, the market may not have approved uses for alternative refrigerants, or it does not yet have infrastructure or repair capabilities for new refrigerants. While we expect many markets will transition to lower GWP refrigerants over time, until these markets are prepared and ready for the new refrigerants, the light-duty sector needs to be able to manufacture the vehicles appropriate for those markets, i.e. exporting vehicles with HFC-134a for the foreseeable future. Another consideration is that there are several extreme heat regions where alternative refrigerants are not feasible. As a result, the continued use of HFC-134a for exports to these markets is needed.

Reduce Duplicative and Unnecessary Reporting Requirements

Auto Innovators encourages efforts to reduce duplicative or unnecessary reporting under this legislation. We believe EPA has existing platforms that collect GHG related information and should be appropriate for developing a baseline. To the extent possible, EPA should utilize these existing platforms rather than develop new reporting requirements. For example, the light-duty sector currently reports on alternative refrigerants as part of its light-duty vehicle GHG requirements, and under EPA's existing GHG reporting program,⁵ some of our members may submit the "Subpart QQ – Imports and Exports of Equipment Pre-charged with Fluorinated GHGs or Containing Fluorinated GHGs in Closed-cell Foams" reports.⁶ It is likely that no new reporting requirements are needed, but instead EPA can amend existing platforms for annual tracking of HFC-134a production and consumption.

Timing and Impact on U.S. Market

There are three final areas related to timing and alignment where Auto Innovators believes specific attention is needed to ensure a workable approach based on the existing legislative text contained in S. 2754.

First, the legislation suggests applying a 90% requirement for production and consumption starting with 2020. Given that we are already well into calendar year 2020, we suggest that the bill change the start time to provide five years of lead time. Lead time is needed to provide all sectors time to plan for a transition to alternatives. It is also appropriate to ensure EPA has adequate time to update reporting systems, collect and release baseline data, and consider SNAP approval for sectors that cannot currently use alternative refrigerants – all of these are necessary for a successful implementation of S. 2754.

⁵ EPA, "Greenhouse Gas Reporting Program (GHGRP)." <https://www.epa.gov/ghgreporting>.

⁶ EPA, "Subpart QQ – Imports and Exports of Equipment Pre-charged with Fluorinated GHGs or Containing Fluorinated GHGs in Closed-cell Foams." <https://www.epa.gov/ghgreporting/subpart-qq-imports-and-exports-equipment-pre-charged-fluorinated-ghgs-or-containing>.

Second, the Section 7 provisions that would allow an accelerated phase-down schedule are unnecessary. It is our understanding that this legislation generally aligns with global targets, but it also proposes to move on a quicker time schedule. S. 2754 would reach an 80 percent reduction in production and consumption over ten years in advance of the Kigali amendments and would exceed the Kigali amendments with an aspiration to achieve an 85 percent reduction overall. The U.S. should make every effort to be aligned and not move too quickly to get in front of the rest of the world. For instance, the U.S.'s light-duty vehicle sector is well-positioned and prepared for a phase-down, because we have been undertaking a progressive transition over the last eight years. Other sectors may need additional time if they have not started a transition, and adequate production and consumption will be needed to ensure we can continue exporting vehicles to markets that are far behind on the transition. The focus of the legislation should remain on the goal for a smart, cost-effective transition that supports the U.S.'s economic goals. Any acceleration of the legislation would likely reduce the economic benefits of this legislation and place unnecessary stress on the economics of a sector-wide transition.

Third, this legislation does not address how S. 2754 would interact with existing state laws regarding refrigerants. Following the D.C. Circuit Court's invalidation of some elements of EPA's SNAP rule that would have banned many high GWP refrigerants, a number of states enacted laws to prohibit them due to concerns with their environmental impact. S. 2754 should clearly define whether it preempts in entirety, will complement (but not replace) existing state laws, and/or would prevent future state legislative or regulatory action in this area. Unless specifically coordinated with national legislation, separate state rules can increase the cost of regulation, require additional resources for implementation, and often result in little to no additional benefits. Auto Innovators strongly urges an amendment to address state refrigerant laws.

Conclusion

Auto Innovators supports a smart and cost-effective approach to alternative refrigerants. The light-duty sector started this transition eight years ago. Overall, our sector has implemented low GWP refrigerants in a manner that aligns with efforts to reduce GHGs, pursuant to each company's product and investment plans, and in alignment with growing supply and repair infrastructure for the new refrigerants. We appreciate the flexibility for all sectors to transition to alternatives over a 15-year period. That said, Auto Innovators also believes several clarifications and amendments should be included to strengthen the bill by providing sufficient lead time, reducing duplication of existing laws and reporting, and providing certainty for implementation. With such amendments, this bill will likely complement our industry's ongoing efforts to transition to lower GWP refrigerants as a way to reduce GHG emissions and can help support our nation's broader goals for economic development and investment in innovative technologies.

Auto Innovators thank Senators Carper and Kennedy for their work on this important issue, and we look forward to continuing to work with the Senate Committee on Environment and Public Works regarding S. 2754.

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