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**Motor & Equipment Manufacturers Association**  
**Comments to the**  
**U.S. Environmental Protection Agency on**  
**Reconsideration of the Final Determination of the Mid-Term Evaluation of**  
**Greenhouse Gas Emissions Standards for Model Year 2022–2025 Light-Duty Vehicles;**  
**Request for Comment on Model Year 2021 Greenhouse Gas Emissions Standards**  
**Docket No. EPA-HQ-OAR-2015-0827**  
**October 5, 2017**

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The Motor & Equipment Manufacturers Association (MEMA)<sup>1</sup> submits these comments to the U.S. Environmental Protection Agency (EPA) on the “Reconsideration of the Final Determination of the Mid-Term Evaluation (MTE) of Greenhouse Gas Emissions (GHG) Standards for Model Years (MYs) 2022–2025 Light-Duty Vehicles and Request for Comment on Model Year (MY) 2021 GHG Emissions Standards.” This notice initiates EPA’s reconsideration of whether the previously established GHG standards are appropriate under section 202(a) of the Clean Air Act.

MEMA represents more than 1,000 companies that manufacture new original equipment (OE) and aftermarket components, systems and materials for use in passenger cars and heavy trucks. The motor vehicle components manufacturing industry is the nation’s largest direct employer of manufacturing jobs – employing over 871,000 workers in all 50 states – and contributes nearly \$435 billion in U.S. GDP. Our members support a cleaner, safer world and are committed to developing and manufacturing a multitude of technologies and a wide-range of products, components and systems that reduce emissions, and make vehicles safer and more efficient.

Motor vehicle suppliers support environmental policies that enable the introduction of new technologies necessary to facilitate sustainable mobility. For the reasons explained below, MEMA urges EPA to remain on course for the current MY2021 standards the agency set in 2012. As a result of the final rule, suppliers committed to develop new technologies and improve existing technologies to enable their customers – vehicle manufacturers – to meet the regulatory standards. Because of these significant supplier investments, availability of the necessary technology, and the need to preserve U.S. global leadership, MEMA supports pragmatic progress for the MYs 2022–2025 standards. Further, EPA should continue improving the current off-cycle technology credit program that allows vehicle manufacturers important flexibilities.

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<sup>1</sup> MEMA represents its members through four divisions: Automotive Aftermarket Suppliers Association (AASA); Heavy Duty Manufacturers Association (HDMA); Motor & Equipment Remanufacturers Association (MERA); and, Original Equipment Suppliers Association (OESA).

## **Suppliers Role in and Support of the One National Program**

Motor vehicle suppliers drive the technology advancements needed to improve vehicle fuel efficiency and reduce emissions by developing an array of innovative materials and technologies. Suppliers anticipate the needs of vehicle manufacturers (also known as original equipment manufacturers, or OEMs) by investing, developing, and deploying multiple technology solutions. These solutions are critical to OEMs' strategies in meeting the GHG emissions targets. As EPA reconsiders its Final Determination,<sup>2</sup> MEMA provides input on issues important to suppliers' role in helping our OEM customers to meet the GHG emissions standards.

MEMA strongly supports the One National Program with the U.S. EPA, the National Highway Traffic Safety Administration (NHTSA), and the California Air Resources Board (ARB). MEMA urges EPA to coordinate with NHTSA and ARB on an aligned set of GHG and CAFE standards that all three agencies can agree on to keep the National Program intact and as originally intended.<sup>3</sup>

MEMA supports the stability and certainty of a One National Program. A National Program of unified targets and timelines is critical to allow motor vehicle suppliers to continually innovate and advance research into commercially viable products and technologies. The One National Program provides industry stakeholders with economies of scale and increases domestic investment in emissions-reducing and fuel-efficiency technologies and jobs. Anything that falls short of a National Program will fail to provide the long-term planning certainty the industry needs to make the long-term business and technology investment decisions to meet the MYs 2022–2025 standards and beyond.

Consequently, MEMA supports EPA coordinating with NHTSA on the MTE and the standards established for MYs 2022–2025 in conjunction with ARB. Since motor vehicle suppliers are responsible for a significant proportion of the technologies needed to meet the standards, any effort to ensure the targets and timelines stay aligned is paramount to suppliers.

### **EPA Should Not Change Course on the Current Fuel Efficiency Target for MY2021**

The EPA request for comment states that the agency is also requesting input on “whether the light-duty vehicle greenhouse gas standards established for model year 2021 remain appropriate, regardless of the agency’s decision on the MTE.”<sup>4</sup> MEMA opposes any change to the MY2021 standards. EPA must remain on course for the MY2021 standard, as this was the target committed to by the agencies and the industry in 2012. Suppliers have completed and have ongoing extensive investments in research and development to bring needed emissions-reducing technologies to fruition that enable OEMs to meet the 2021 standards. MEMA urges EPA to instead focus its MTE

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<sup>2</sup> EPA-HQ-OAR-2015-0827-6280, March 22, 2017

<sup>3</sup> Presidential Memorandum on Announces National Fuel Efficiency Policy (May 19, 2009) available at <https://obamawhitehouse.archives.gov/the-press-office/president-obama-announces-national-fuel-efficiency-policy> and Presidential Memorandum Regarding Fuel Efficiency Standards (May 21, 2010), available at <https://obamawhitehouse.archives.gov/the-press-office/presidential-memorandum-regarding-fuel-efficiency-standards>

<sup>4</sup> 82 Fed Reg 39552

efforts on the GHG standards for MYs 2022–2025, as the agency indicated it would do in the 2012 final rule and the March 2017 reconsideration notice.<sup>5</sup>

Typically, suppliers take on the initial investments and the associated risks to develop technologies for their OEM customers, who are concurrently planning for their own future vehicle design cycles. The roll-out of these technologies require major economic resources and significant lead-time. Suppliers' product planning and investment costs include: product concept research; engineering development for the part or system; design of the manufacturing process; customer validation of part or system prior to production; production facility updates; and, finally, product production. Each of these stages can range anywhere from six to 18 months, depending on many variables. These costs must be amortized over several years, so delaying a product deployment or shortening a product's anticipated lifespan will jeopardize these carefully planned technology investments put in place several years in advance.

Therefore, suppliers are at the greatest risk if there is any shift to the 2021 standards (or major changes to the program through 2025). Since the 2012 final rule, suppliers have invested extensively to satisfy GHG emissions regulatory requirements including extensive research and development, human capital, and manufacturing equipment and facilities to satisfy customer fuel efficiency regulatory requirements. Reducing the stringency of the MY2021 standard would result in significant adverse economic impacts – including loss of jobs – to the substantial long-term investment levels suppliers made following the 2012 rule. Changes to the MY2021 standard would significantly impact the supplier industry with stranded costs and investments and impact the product cycle, which in turn will impact revenue needed for future technological innovation. A failure to consider these adverse economic ramifications on vehicle suppliers, and the motor vehicle industry as a whole, would be arbitrary and capricious. EPA must weigh the economic effect on motor vehicles suppliers when determining whether changes should be made to the 2021 standard. *See Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 43 (1983).

Further, if EPA does evaluate the GHG emission standards for MY2021, the agency must address the potential employment impact on vehicle suppliers, which is the largest sector of manufacturing jobs in the United States. Suppliers have seen an employment growth rate that is three times that of any other major manufacturing sector in the U.S – an overall 19 percent increase in employment since 2012.<sup>6</sup> The growth rate of employment for original equipment automotive suppliers since 2012 was even higher at 23 percent.<sup>7</sup> Industry's jump in employment can partly be attributed to these long-term investment decisions, which have led to advanced technology development because of the GHG and CAFE program standards set in 2012, including supporting technology research with universities.<sup>8</sup> Supplier direct employment in the U.S. is

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<sup>5</sup> 40 CFR 86.1818-12(h); and 77 Fed Reg 62624

<sup>6</sup> "Driving the Future: The Employment and Economic Impact of the Vehicle Supplier Industry in the U.S." MEMA and The Boston Consulting Group, January 2016, pg. 2. [https://www.mema.org/sites/default/files/MEMA\\_ImpactBook.pdf](https://www.mema.org/sites/default/files/MEMA_ImpactBook.pdf)

<sup>7</sup> *Id.* at 9

<sup>8</sup> 2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards (Docket Numbers EPA-OAR-201-0799; FRL-9495-2; NHTSA-2010-0131)

highest in Michigan, Ohio, and Indiana. But importantly, the Southeast region has seen the highest growth over the past few years and now accounts for one-third of all supplier employees.<sup>9</sup> Thus, the economic impacts to the motor vehicle supplier industry affect all corners of the U.S., not just the Midwest.

If EPA changes course from its prior GHG standard-setting final rule, it must consider the potential detrimental impact on automotive suppliers and provide a reasoned, fact-based explanation for the change. The 2012 final rule set policy on which suppliers have based long-term investment decisions. If the agency alters the standard for MY2021, the agency will effectively rescind a final rule, potentially imposing undue hardship by abruptly changing policy direction. As a result, the agency is required to provide a more substantial reasoned explanation for the policy change than if the agency was simply setting policy for the first time. *See Motor Vehicle Mfrs. Ass'n of U.S., Inc. v. State Farm Mut. Auto. Ins. Co.*, 463 U.S. 29, 42 (1983). *See also Anaheim v. F.E.R.C.*, 723 F.2d 656, 659 (9th Cir. 1984).

Suppliers have made long-term business decisions based on the MYs 2017–2021 standards. Relaxing the stringency of the MY2021 standards would disrupt large-scale investment and planning and impose significant regulatory uncertainty. It would require EPA to consider the potential economic impact on vehicle suppliers and, if it moves forward, a substantial reasoned explanation justifying the reversal in policy. Further, reducing the MY2021 standards could result in legal challenges that would further threaten any regulatory stability for the industry. MEMA urges EPA to not reopen the MY2021 standards and instead focus on evaluating whether the standards for MYs 2022–2025 are appropriate.

### **EPA Should Maintain Progress on the Standards for MYs 2022–2025**

MEMA supports continued progress in the MYs 2022–2025 standards. Major changes to the stringency of these standards would result in significant ramifications on supplier jobs as well as long-term business and technology investments. Suppliers have brought, and will continue to develop, the needed emissions-reducing and fuel efficiency technologies to fruition. Pragmatic forward progress in the MYs 2022–2025 will ensure that the U.S. continues to be a technological leader in the global motor vehicle industry.

#### **Impact to the Motor Vehicle Supplier Industry**

Per the regulations, EPA must weigh “the impacts of the standards on the auto industry”<sup>10</sup> and specifically “[i]mpacts on employment”<sup>11</sup> when determining whether changes should be made to the MYs 2022–2025 standards. It is imperative that the agency set standards that allow the vehicle industry as a whole to grow, innovate, and create jobs. EPA must consider potential economic implications to all sectors within the vehicle industry ecosystem beyond just the vehicle manufacturers.

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<sup>9</sup> “Driving the Future: The Employment and Economic Impact of the Vehicle Supplier Industry in the U.S.” MEMA and The Boston Consulting Group, January 2016, pg. 8.

<sup>10</sup> CFR 86.1818-12 (h)(v)

<sup>11</sup> 77 Fed Reg 62784

Motor vehicle suppliers are a critical factor that allows the U.S. vehicle industry to meet emissions and fuel efficiency standards. In fact, suppliers provide the technologies and components that make up more than 77 percent of the value of a new vehicle. Out of the vehicle manufacturing sector's 7.25 million direct and indirect jobs, suppliers make up 44 percent of those jobs compared to OEMs' 33 percent and auto dealers' 23 percent.<sup>12</sup> Suppliers, which account for 2.9 percent of the total U.S. employment market directly employing 871,000 workers with a total employment impact of 4.26 million jobs, are the largest sector of manufacturing jobs in the nation.<sup>13</sup> Many of these supplier sector jobs have been contingent on technology advancement for compliance with the vehicle GHG standards. EPA must weigh the economic and employment effect to motor vehicles suppliers when determining the impact to industry if standards are changed. A failure to consider these adverse implications for the supplier industry would be contrary to the spirit of a robust MTE.

#### *Risk of Putting U.S. Companies at a Competitive Disadvantage*

Significantly relaxing the stringency of the MYs 2022–2025 standards would put U.S. companies at a competitive disadvantage. U.S. companies are leading the way in providing the innovative emissions reducing technology necessary for OEMs to meet the U.S. and other forward-moving global standards. This is because the U.S. has been a leader in progressive vehicle GHG emissions reduction targets. Reducing the stringency of the standards in the U.S. increases the likelihood that work on these emissions-reducing technologies would shift to other markets. In an increasingly competitive global marketplace, a shift in the GHG standards would tilt the balance away from American innovation, where U.S. companies currently have a competitive edge. If Europe and China progress ahead of the U.S. in the targets, it would result in a scenario where investments that would have been made in the U.S. will instead go to China or the EU. This will result in a loss of U.S. jobs and innovative technology development.

The National Program's long-term targets have provided the domestic supplier industry with significant economic and technology development opportunities and have been key to U.S. companies' global leadership in these technologies. MEMA urges EPA to ensure that the U.S. continues to be a global leader in these emissions-reducing technologies and further enhance U.S. competitiveness in the motor vehicle industry worldwide.

#### *A Range of Technologies Exists Today*

As EPA and NHTSA concluded in the 2016 draft Technical Assessment Report (TAR), the supplier industry is currently providing a range of technologies that could be used to achieve the MYs 2022–2025 standards.<sup>14</sup> Further, since data was gathered for the TAR, there are, and will continue to be, emerging technologies that are being pursued by suppliers that will be available in

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<sup>12</sup> Alliance of Automobile Manufacturers' *Cars Move America: State of the Auto Industry* available here: [https://autoalliance.org/wp-content/uploads/2017/01/2016\\_Cars\\_Move\\_America\\_Report.pdf](https://autoalliance.org/wp-content/uploads/2017/01/2016_Cars_Move_America_Report.pdf)

<sup>13</sup> "Driving the Future: The Employment and Economic Impact of the Vehicle Supplier Industry in the U.S." Based on 2015 employment numbers.

<sup>14</sup> 2016 Draft Technical Assessment Report: Midterm Evaluation of Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards for Model Years 2022 – 2025, ES-6 – ES-7.

the 2022-2025 timeframe that could provide further options for vehicle manufacturers.<sup>15</sup> Moreover, suppliers continue to improve a myriad of technologies as industry pushes innovation – specifically, more capable 48 volt systems, higher efficiency turbo engines, various advances in thermal management and control technologies, and new composites and materials for improved light weighting. MEMA agrees with ARB’s statement that manufactures and suppliers have historically outpaced projections of developing innovative technology to meet regulation requirements and will continue to do so.<sup>16</sup>

### Support for Standards Post-2025

Because long-term stringent targets have spurred American technological innovation, motor vehicle suppliers would support setting GHG and fuel efficiency standards beyond 2025. Given suppliers need for long-term, forward-looking investments in research and development, standards set post-2025 would retain continued long-term certainty and stability. Setting standards post-2025 could also help the agencies stay true to the spirit of the National Program, particularly since ARB has started its work on MY2026 and subsequent model years.

### **Opportunity to Enhance Off-Cycle Technology Credit Program and Other Incentives**

While MEMA supports forward progress in the MYs 2022–2025 standards, we recognize that the vehicle industry is currently facing an environment that is different from 2012, including record low fuel prices. Consequently, MEMA continues to support improving the current regulatory structure that allows vehicle manufacturers the flexibility to pursue the most effective avenues to achieve stringent targets.

MEMA strongly supports the off-cycle technology credit program. This program offers OEMs important flexibilities in meeting the standards and will be critical to compliance in MYs 2022–2025. We concur with EPA that the credit program has offered OEMs important credit flexibilities while allowing OEMs “to maintain consumer choice, spur technology development ... while achieving significant GHG and oil reductions.”<sup>17</sup>

In EPA’s November 2016 Proposed Determination, EPA states that for MYs 2022–2025 no changes are needed for “the credit and incentive provisions currently in place.”<sup>18</sup> MEMA urges EPA to use its pending reconsideration as an opportunity to enhance the off-cycle credit program and make improvements. EPA can do that by expanding the current pre-defined off-cycle credit menu, eliminating the credit cap on the pre-defined list of off-cycle technologies, and allowing suppliers an independent process for allowing their technologies to be eligible for credits.

The off-cycle technology credits are not loopholes. Rather, this program recognizes these important technologies increase fuel efficiency and reduce GHG emissions, but are not adequately measured on the Federal Test Procedure. In fact, they offer measurable, demonstrable, and

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<sup>15</sup> *Ibid.*

<sup>16</sup> California’s Advanced Clean Cars Midterm Review: Summary Report for the Technical Analysis of the Light Duty Vehicle Standards, ES-22, Jan. 18, 2017.

<sup>17</sup> Draft Technical Assessment Report (TAR) on the Midterm Evaluation (MTE) of Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy (CAFE) for Model Years 2022 – 2025, 11-1.

<sup>18</sup> EPA Proposed Determination, pg. 32.

verifiable real-world benefits that improve efficiencies and reduce GHG emissions. Historical data clearly demonstrates real-world fuel economy obtained by consumers is appreciably lower than the published drive cycle test fuel economy. That gap has steadily increased each year. Off-cycle technology credits need to be recognized as incentivizing the development and adoption of critically needed fuel-saving and emission-reducing technologies.

MEMA appreciates EPA's commitment to the integrity of the off-cycle technology credit program, and we understand EPA is limited in how much streamlining it can allow for the off-cycle petition process. Nonetheless, MEMA urges EPA to continue to examine options for improving the off-cycle program so that it can remain a viable option for OEMs to use off-cycle credits more effectively in meeting the goals of the National Program. One way to lessen the burden on OEMs from submitting petitions for off-cycle technology credits is expanding the current off-cycle credit menu. Due to technology advances since the current menu was established (in 2012), the menu could be supplemented with a host of viable technology categories and corresponding credit values. Expanding the pre-defined menu would decrease the workload on the agency's already limited resources and would allow a timelier approval of these credits. Expanding the menu would help these GHG-decreasing technologies gain market penetration faster and would provide certainty for long-term investments and product development planning and strategies for OEMs and suppliers.<sup>19</sup>

The current off-cycle technology credit application process allows only OEMs to submit petitions for off-cycle credits. Suppliers should be allowed to directly apply for a specific technology they make to be eligible for a provisional or minimum credit. Since suppliers produce technologies that could be implemented by multiple OEMs, it makes sense for suppliers to provide the agency with an initial application for a technology to be eligible for credits. Suppliers are in the best position to explain how these technologies could work in a motor vehicle. Allowing a supplier to apply for their technologies to be eligible for credits would greatly expedite industry adoption of certain technologies and enable faster and more efficient market penetration, as opposed to each OEM applying separately for the same technology via petition. A supplier process would lower investment risks for both OEMs and suppliers, while also reducing the workload for the agency and OEMs.<sup>20</sup>

#### *Eliminate the Credit Cap on Credits from Menu*

The agency should consider eliminating the cap on the accrual of off-cycle credits for MYs 2022–2025. The 2012 Final Rule stated that the off-cycle credit cap will “be a topic for further consideration ... and to be one of the issues the agencies examine during the mid-term review.”<sup>21</sup> Available data on OEM off-cycle technology credit utilization within the past few years demonstrates that the use of off-cycle technologies is expected to grow – particularly technologies

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<sup>19</sup> For more details on MEMA's suggestions on expanding the off-cycle pre-defined menu in our comments on the draft Technical Assessment Report (TAR) please see Docket No. EPA-HQ-OAR-2015-0827-4314

<sup>20</sup> Please see MEMA's previous comments on a supplier role at EPA-HQ-2015-0827-4314, EPA-HQ-OAR-2015-0827-6167, EPA-HQ-OA-2017-0190-46722 and EPA-HQ-2015-0827-4314

<sup>21</sup> 77 Fed Reg 62835

on the credit menu.<sup>22</sup> Because these off-cycle technologies offer real-world benefits and important compliance flexibilities, it is critical that the off-cycle credit program continues to encourage these innovative technologies.

### A/C Efficiency Credit Cap

MEMA urges the agency to discontinue counting air conditioning (A/C) efficiency credits toward the cap on A/C efficiency credits if earned through the off-cycle petition process. MEMA agrees with EPA that A/C efficiency technologies have the *potential* to “continue to expand and play an increasingly important role in overall vehicle GHG reductions.”<sup>23</sup> However, counting A/C efficiency technology credits obtained through the off-cycle petition process toward the A/C efficiency credit cap will stifle development and innovation of these important technologies. Credits earned through the defined list of A/C efficiency technologies from which the 5.7 grams per CO<sub>2</sub> mile cap (now 5.0 grams per CO<sub>2</sub> mile for cars) was created in 2010 may be based on different testing procedures than those credits earned through the off-cycle petition process. Further, no credit cap is applied to credits earned through the off-cycle petition process.<sup>24</sup> Therefore, any credits for A/C efficiency technology obtained through the off-cycle petition process should not be counted toward the A/C efficiency credit cap.

### Truck Credits

EPA offers credits for mild-hybrids in full-size light pickup trucks in MYs 2017–2021. MEMA urges EPA to consider extending these credits to beyond MY2021. The agency offers incentives to full-size pickup trucks with incorporated mild-hybrid technology. These credits are contingent the technology is incorporated in a certain proportion of the vehicle manufacturers’ total full-size pickup truck production.<sup>25</sup> In MY2017, to be eligible for a credit, the proportion of the total production is required to be a minimum of 20 percent increasing to 80 percent in MY2021.

Since mild-hybridization is just now emerging as a technology solution in the marketplace, the elimination of these credits in MY2022 will inhibit the proliferation of this technology in full-size pickups. Further, the proportion of the vehicle manufactures’ total production requirements in MY2021 of 80 percent may discourage vehicle manufacturers from implementing this technology due to concerns that the sales volumes may not be met. Therefore, MEMA requests that EPA evaluate the need to extend these credits beyond MY2021 and consider adjusting down the minimum proportion requirement to be eligible for the credit.

MEMA also supports the credits for full-size light pickup trucks that significantly outperform the emissions targets for that year.<sup>26</sup> These credits for pickup trucks with exceptional emission reduction performance incentivize game changing technologies and MEMA supports the credits being available through 2025.

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<sup>22</sup> Draft TAR pg. 5-223 and EPA 2015 Manufacturer Performance Report

<sup>23</sup> Draft TAR pg. 5-208

<sup>24</sup> 40 CFR 86.1869-12

<sup>25</sup> 40 CFR 86.1870-12(a)(1)

<sup>26</sup> 40 CFR 86.1870-12(b)



## **Conclusion**

MEMA urges EPA to not make changes to the MY2021 standards and requests that EPA focus on maintaining forward progress for the MYs 2022–2025 standards. Major shifts in these standards would impact the supplier industry by causing major investment disruption including stranded costs and investments; result in adverse economic effect including loss of jobs; and threaten the U.S. global leadership position in the motor vehicle industry. Any Final Determination reconsideration must take into account implications to the supplier industry. MEMA urges EPA to continue making improvements to the current off-cycle technology program and other credit programs that allow flexibilities for the vehicle manufacturers to meet the MYs 2022–2025 standards.

Thank you for consideration of these comments. For more information, please do not hesitate to contact Laurie Holmes, senior director of environmental policy at [lholfmes@mema.org](mailto:lholfmes@mema.org) or 202-312-9247.