



## **Motor & Equipment Manufacturers Association (MEMA)**

### **Response to the**

### **California Air Resources Board**

## **California Greenhouse Gas Emissions Standards for Medium- and Heavy-Duty Engines and Vehicles and Proposed Amendments to the Tractor-Trailer Greenhouse Gas Regulation; Proposed Rule**

**February 5, 2018**

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### **Introduction**

The Motor & Equipment Manufacturers Association (MEMA) submits these comments to the California Environmental Protection Agency Air Resources Board (CARB) on the “California Greenhouse Gas (GHG) Emissions Standards for Medium- and Heavy-Duty Engines and Vehicles and Proposed Amendments to the Tractor-Trailer Greenhouse Gas (GHG) Regulation Proposed Rule (Phase 2).”<sup>1</sup> MEMA supports the CARB’s staff proposal for the California Phase 2 GHG emission standards that largely harmonizes with the federal Phase 2 standards finalized by the U.S. Environmental Protection Agency (US EPA) in October 2016<sup>2</sup> with the exception of CARB requiring additional qualification requirements for the plug-in hybrid electric vehicles (PHEV) advanced technology credit (ATC) multiplier.

MEMA represents more than 1,000 motor vehicle suppliers that manufacture and remanufacture components and systems for use in passenger cars and heavy trucks.<sup>3</sup> The motor vehicle components manufacturing industry is the nation’s largest sector of manufacturing jobs – employing over 871,000 workers in all 50 states – 31,190 of those jobs are in the State of California.<sup>4</sup> The motor vehicle supplier industry contributes nearly \$435 billion in U.S. GDP. Our members 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.

MEMA represents heavy-duty vehicle suppliers through the Heavy-Duty Manufacturers Association (HDMA), whose members make up about 60 percent of the U.S. market for heavy-duty commercial vehicle components. Heavy-duty suppliers provide original equipment parts, systems and materials used to manufacture new commercial vehicles and related equipment as well as aftermarket replacement parts

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<sup>1</sup> Released on December 19, 2017

<sup>2</sup> 81 Fed Reg at 73478

<sup>3</sup> MEMA represents the full spectrum of vehicle suppliers through the following four divisions: Automotive Aftermarket Suppliers Association (AASA), Heavy Duty Manufacturers Association (HDMA), Motor & Equipment Remanufacturers Association (MERA) and Original Equipment Suppliers Association (OESA).

<sup>4</sup> “Driving the Future: The Employment and Economic Impact of the Vehicle Supplier Industry in the U.S.” Available here: [https://www.mema.org/sites/default/files/MEMA\\_ImpactBook.pdf](https://www.mema.org/sites/default/files/MEMA_ImpactBook.pdf), MEMA, January 2017.

needed to repair and maintain in-service vehicles. Heavy-duty suppliers directly employ approximately 171,000 jobs in the U.S.

While the state's proposal is largely harmonized, there are minor distinctions between the California Phase 2 proposed regulations and the federal Phase 2 regulations. Below we outline MEMA's position on a few of these distinctions. MEMA opposes the additional requirements to qualify for the PHEV ATC multiplier, supports credits for use of low global warming potential (GWP) refrigerants, supports CARB's amendments to California's existing tractor-trailer GHG regulation and supports CARB's alignment with the requirements for glider vehicles, glider engines, and glider kits included in the final federal Phase 2 rule.

### **Support Alignment of California Phase 2 with Federal Standards**

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 by investing, developing, and deploying multiple technology solutions. With the promulgation of the U.S. EPA's Phase 1 rule in 2011, the industry invested a significant amount of resources including extensive research and development, human capital, and manufacturing equipment and facilities to develop and supply technologies that would assure that the standards were attainable and cost-effective for vehicle manufacturers. As a result, MEMA supports the federal Phase 2 final rule titled "GHG Emissions and Fuel Efficiency Standards for Medium- and Heavy-Duty Engines and Vehicles, Phase 2."<sup>5</sup> The Phase 2 emission standards – built on the Phase 1 foundation – enabled suppliers to continue their investments in innovation, research and development, and to manufacture and offer a range of technologies the vehicle manufacturers (a.k.a. OEMs) can utilize to address the standards' longer-term targets.

As such, MEMA supports the CARB proposal to adopt new, more stringent California Phase 2 GHG emissions standards that align California's GHG emission standards and test procedures with the federal Phase 2 GHG regulations in structure, timing, and stringency. More importantly, this harmonization allows manufactures to continue to build a single fleet of vehicles and engines for the U.S. market. Alignment of these frameworks also provides the regulatory certainty and clarity OEMs and suppliers need to make appropriate technology investment decisions as well as creates economies of scale and improves market availability for the technologies. MEMA appreciates the collaboration between CARB, U.S. EPA, and the U.S. Department of Transportation's National Highway Traffic Safety Administration (NHTSA) on their respective Phase 2 programs.

### **Oppose Additional Qualification Requirements for PHEV ATC Multiplier**

Since motor vehicle suppliers drive the many advanced technologies OEMs may need to comply with Phase 2 emission standards, MEMA supports policies and incentives that encourage manufacturers to bring new and improved emission and efficiency technologies to market. However, in this case, MEMA opposes the CARB staff's proposal for additional requirements to receive the plug-in hybrid electric vehicle (PHEV) advanced technology credit (ATC) multiplier. Under the proposed requirements for the PHEV ATC multiplier additional testing would be needed to demonstrate that NOx emissions do not increase as compared to a similar conventional vehicle and to determine a certain minimum all-electric range (AER). MEMA disagrees with CARB's assertion that the additional requirements to obtain the ATC multiplier of PHEVs will incentivize technology improvements and, more generally, "spur the development of better hybrids."<sup>6</sup>

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<sup>5</sup> 81 Fed Reg at 73478

<sup>6</sup> Staff Report: Initial Statement of Reasons for Proposed Rulemaking; Proposed California Greenhouse Gas Emissions Standards for Medium- and Heavy-Duty Engines and Vehicles and Proposed Amendments to the Tractor-Trailer GHG Regulation at ES-6.

Although the proposal to eliminate the ATC multiplier would be only for vehicles produced in response to already established mandatory requirements by California such as the Advanced Clean Local Trucks rule and not for advanced technologies that are above and beyond such requirements, these additional requirements for the ATC would deter manufacturers from bringing PHEV technologies to market due to an increased testing burden.<sup>7</sup> As explained in the CARB report, the reasons U.S. EPA reinstated the extra credit to manufacturers that incorporate qualifying advanced technologies were because manufacturers needed additional incentives for advanced technology vehicles in the heavy-duty sector particularly since EPA believes the heavy-duty sector tends to lag behind the light-duty sector in deployment of these technologies.<sup>8</sup> Therefore, California should provide the medium- and heavy-duty sector more incentives – not more hurdles – to adopt these technologies regardless of the state’s mandates.

Since achieving California’s long-term air quality goals will require transition from the conventional combustion technologies to zero emission vehicle (ZEV) technology and no mandatory requirements for manufactures to make heavy-duty ZEVs are yet in place, these PHEVs are a critical transition to ZEV technology particularly since they appeal to a broader market. These additional requirements for the ATC multiplier could serve as a disincentive to bring these advanced technologies to market and increases the testing burden on vehicle manufacturers with no real benefit. Therefore, MEMA urges CARB to eliminate the proposal that vehicle manufactures would be required to report California-certified PHEV families/subfamilies that do not qualify for the ATC multiplier due to an increase in NOx emissions or insufficient AER.

### **Support Credits for Utilization of Low GWP Refrigerants**

Low global warming potential (GWP) refrigerants are an important aspect of some GHG emission reducing technologies for motor vehicles. As a result, MEMA strongly supports the CARB proposal to provide incentives for vehicle manufactures to use motor vehicle air conditioning (A/C) refrigerants with low GWP; for heavy-duty these are HFC-152 and HFO-1234yf. Given the poor adoption rate of these low-GWP refrigerants in the medium- and heavy-duty sector which are in part due to lack of any federal Phase 2 requirement or credit incentive, MEMA agrees that incentives are needed to push heavy-duty vehicle manufacturer movement toward broader adoption.

### **Support Proposal on Trailers Standards**

CARB proposes to align California’s Phase 2 standards for trailers with the U.S. EPA federal Phase 2 final regulations finalized in October 2016. The federal Phase 2 begins with trailers manufactured on or after January 2018 and progresses to more stringent standards in 2021, 2024, and 2027 and later model year (MY) trailers. CARB’s proposal to amend CARB’s existing Heavy-Duty Vehicle GHG Emission Reduction Regulation (Tractor-Trailer GHG regulation) allows trailer owners to either purchase Phase 2 certified trailers or install Phase 2-approved aerodynamic technologies. These amendments provide more options for compliance with the Tractor-Trailer GHG regulation.<sup>9</sup>

Motor vehicle suppliers have continued to invest in and offer an array of innovative composite materials that provide various options for light weighting and technologies that improve aerodynamic performance which encompass a wide range of passive and active technologies that reduce vehicle drag. MEMA supports policies that promote these technologies, and, as a result, supports CARB staff’s proposal to align California’s Phase 2 standards for trailers with the federal Phase 2 final regulations.

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<sup>7</sup>*Id.* at III-20.

<sup>8</sup>*Id.* at III-19.

<sup>9</sup> *Id.* at ES-4 – ES-5.

## **Support Proposal on Heavy Duty Glider Vehicles and Annual Production Compromise**

MEMA supports the CARB staff's proposal to align CARB's Phase 2 requirements with the federal Phase 2 regulations adopted by U.S. EPA in October 2016 that require heavy-duty glider vehicles, glider engines, and glider kits to meet GHG emissions and criteria pollutant requirements.<sup>10</sup> In January, MEMA submitted comments opposing EPA's November Notice of a Proposed Rulemaking (NPRM) repealing GHG emissions and criteria pollutant requirements for all glider vehicles,<sup>11</sup> glider engines and glider kits under the Phase 2 final rule.<sup>12</sup> MEMA supports the reduction of potential objectionable uses of glider vehicles to circumvent the emissions standards. An elimination of emissions requirements on an unlimited number of glider vehicles would place many businesses, including large fleet owners, emissions technology suppliers and truck manufacturers, at a competitive disadvantage because they have made investments in technologies to meet the standards.

MEMA represents motor vehicle equipment remanufacturers and their suppliers. The MERA member network of remanufacturers, suppliers, and professional services firms operates in the automotive, heavy-duty and off-road sectors and promotes the environmental, economic and product performance benefits of remanufactured goods. Remanufacturers support at least 180,000 full time jobs in the U.S.<sup>13</sup>

Remanufacturing is a standardized industrial process by which previously sold, worn or nonfunctional products are returned to same-as-new, or better, condition and performance. The process is in line with specific technical specifications, including engineering, quality and testing standards to yield fully warranted products. Remanufactured parts are given an extended life, cost less to produce and purchase, and minimize the impact on the environment by not ending up in the waste stream. Remanufacturing preserves some of the value of the original manufacturing that recycling alone cannot do – including energy costs, investment in capital, and labor inputs.

As a result, MEMA supports policies that promote remanufacturing and the remanufacturing industry, and, therefore, supports the compromise provisions for glider vehicles in the Phase 2 final rule. The compromise provisions outlined in the Phase 2 final rule allows small businesses to produce a limited amount of glider vehicles without meeting either the engine or vehicle standards. However, the limit on these glider vehicles that do not have to meet the standards is no more than 300 per year per company. MEMA supports this compromise provision on glider vehicles in Phase 2 because it recognizes the value, purpose and legitimate uses of remanufactured engines in glider vehicles. The compromise provisions carefully balance the need of small businesses while allowing a level playing field for an industry and provides regulatory certainty for suppliers of original equipment, aftermarket, and remanufactured components.

Therefore, MEMA supports CARB's proposal to align California's Phase 2 requirements with the federal Phase 2 regulations adopted by U.S. EPA in October 2016 which requires heavy-duty glider vehicles, glider engines, and glider kits to meet GHG emissions and criteria pollutant requirements but includes a compromise provision on glider vehicles.

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<sup>10</sup>*Id.* at ES-10.

<sup>11</sup> EPA NPRM Repeal of Emission Requirements for Glider Vehicles, Glider Engines, and Glider Kits, EPA-HQ-OAR-2014-0827

<sup>12</sup> EPA-HQ-OAR-2014-00827-4832

<sup>13</sup> "Remanufactured Goods: An Overview of the U.S. and Global Industries, Markets, and Trade" Report, U.S. International Trade Commission (ITC), Investigation No. 332-525, USITC Publication 4356, Oct. 2012.

## **Conclusion**

MEMA supports the state's largely harmonized proposal with the federal Phase 2 regulations. Suppliers support CARB's proposal for additional credits for low GWP refrigerants, amendments to California's existing tractor-trailer GHG regulation and its commitment to emission requirements for glider vehicles, glider engines, and glider kits. MEMA urges CARB to eliminate the additional requirements for PHEVs to qualify for the ATC multiplier. We look forward to working with the CARB and other stakeholders as the second phase of the standards proceeds. Please contact Laurie Holmes, senior director of environmental policy, with any questions at [lholmes@mema.org](mailto:lholmes@mema.org).

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