

Comment from PA Department of Transportation

Posted by the **National Highway Traffic Safety Administration** on Sep 16, 2022

In general, the Department looks forward to opportunities to provide input into this process as efforts move forward and offers the following initial comments for consideration:

- An increase in the number of zero emission vehicles, along with a corresponding overall reduction in emissions is likely to have a beneficial effect on air quality. This effort should consider what effect these changes in air quality will have on Metropolitan Planning Organizations' air quality goals and air quality conformity determinations for transportation improvement programs based on Federal Highway Administration and Environmental Protection Agency regulations.

- On a larger scale, NHTSA's review may wish to consider the latest Intergovernmental Panel on Climate Change's 6th report (https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_SummaryForPolicymakers.pdf) as it warns of 'Complex, Compound, and Cascading Risks' to ecosystems, human health, as well as local, regional, and national economies. The standards should weight the negative impacts the lower end of the proposed CAFÉ and FE standards very heavily. The risk of feedback loops in the ecosystem that release even more Green House Gas's and warming could move beyond our ability to control.

- The proposed fuel economy standards should also be evaluated relative to the effect it would have on vehicle prices. If the vehicle prices are higher, there is a potential environmental justice impact where regions with low-income populations would have fewer vehicles with low emissions and therefore a correspondingly worse air quality. This same concern may also have a potential equity issue regarding small or disadvantaged businesses if fleet vehicles become more expensive.

- One possible way for manufacturers to meet additional fuel economy standards would be to build more electric vehicles or hybrid vehicles. Those vehicles are typically heavier than similarly sized vehicles using internal combustion engines. Heavier vehicles would experience increased crash severity. Our roadside safety hardware (guide rail, end treatments) is not designed/tested for the additional weight of a typical electric car or truck. Additionally, heavier vehicles would potentially cause increased wear on roadways and bridges that would have to be accounted for in our designs and maintenance efforts.

- The Department currently has challenges understanding the financial, operational, and environmental impacts to these newer types of vehicles as it relates to crashes and failures that may occur. There have already been electric and autonomous vehicle impacts which has resulted in responders learning new processes and procedures for when these failures occur, but these could have potential impacts on the environment.

- These vehicles will not operate as a standalone solution. Additional complimentary technology (beyond the motor and mechanical aspects of a vehicle) may be worth considering in this

evaluation. Items such as intelligent signal networks and semi-autonomous connected vehicles may be supportive of the enhanced standards. However, additional consideration for electric vehicles, especially in urban areas, is the ability to charge these vehicles. Charging station infrastructure will need to be increased significantly which also increases the potential impact to the environment both through the actual electrical components and major infrastructure upgrades necessary to accommodate the electrical systems. This would mean additional damage to highways as buried electrical networks are upgraded and charging stations greatly expanded.

- From both an agency and industry perspective, one of the issues that will need considered is while trying to improve the impact on the environment there will be an increased cost to purchase equipment in the upcoming years. This would also lead to increased maintenance costs for this equipment. We would support CAFÉ and FE standards only applying to newer models and that this approach isn't looking to put additional requires on already established fleets. Fleet upgrade availability to these newer standards is a concern given the current manufacturing and logistics issues to obtain current fleet model vehicles.

- While the Department understands the focus on improving CAFÉ and FE standards, we suggest this environmental evaluation should also evaluate and understand what impacts this may have to the MAP-21 Performance Measures 3 through 6 (congestion reduction, system reliability, freight movement, and environmental sustainability) as well as the Congestion Management Process (CMP).

- The results of this may also lead to less fuel usage which would cause the amount of fuel tax to decrease and will impact transportation funding moving forward. Alternate transportation funding scenarios also need considered as these efforts move forward.