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Responses to Questions for the Record
Hearing on “Examining Ways to Improve Vehicle and Roadway Safety”
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Response to Question from the Honorable Jan Schakowsky

On July 24, 2015, General Motors announced that Chevrolet, Buick, GMC, and Cadillac will offer 22 different crash avoidance technologies across their 2016 model year U.S. lineups. Under Section 205 of the discussion draft, GM could receive three or more grams per mile in greenhouse gas (GHG) emissions credits for each of those technologies. That would mean that a GM vehicle that carries all 22 active safety technologies would receive at a minimum 66 grams per mile in GHG credits.

Similarly, Section 503 of the draft would grant manufacturers Corporate Average Fuel Economy (CAFE) credits in exchange for installing certain safety technology onto their vehicles. It seems to me that the combined environmental impact of 66 grams per mile in GHG emissions and equivalent credits toward meeting CAFE standards for every one of those vehicles could be significant.

Please put this information in context. What would be the consequences of allowing automakers to obtain 66 grams per mile in GHG credits in exchange for installing crash avoidance technology?

In May 2010, the Environmental Protection Agency (EPA) and National Highway Transportation Safety Administration (NHTSA) issued greenhouse gas emissions standards and corporate average fuel economy standards for model years 2012 through 2016 light-duty vehicles.¹ On October 15, 2012, the EPA and NHTSA issued the second phase of these standards for model years 2017 through 2025.²

These standards are the most important federal action ever taken to reduce greenhouse gas pollution from the transportation sector while making cars more fuel efficient for consumers. In model year 2025, the EPA estimates that the standards will achieve an average fleetwide level of 163 grams of carbon dioxide per mile, which is the equivalent of 54.5 miles per gallon if achieved through fuel economy improvements. Model year 2025 vehicles will emit one half of the greenhouse gas emissions of a model year 2010 vehicle. When combined, the standards for model years 2012-2016 and 2017-2025 will cut 6 billion metric tons of greenhouse gases over the lifetimes of the vehicles, which is more carbon dioxide than the United States released in 2010.³

The EPA greenhouse gas standards for light-duty vehicles are based on carbon emissions footprint curves; meaning, each vehicle must meet a different emissions compliance target

adjusted for the footprint or size of the vehicle. For example, a vehicle with a model footprint of 40 square feet, such as today’s Honda Fit, would have a 2025 emissions target of 131 grams per mile, whereas a vehicle with a model footprint of 67 square feet, such as today’s Chevy Silverado pickup truck, would have a 2025 emissions target of 252 grams per mile.⁴ Copied below is a table prepared by the EPA that details standards through 2025 for different vehicle types.

Table 1 - Projected Fleet-Wide Emissions Compliance Targets under the Footprint-Based CO₂ Standards (g/mi) and Corresponding Fuel Economy (mpg)										
	2016 base	2017	2018	2019	2020	2021	2022	2023	2024	2025
Passenger Cars (g/mi)	225	212	202	191	182	172	164	157	150	143
Light Trucks (g/mi)	298	295	285	277	269	249	237	225	214	203
Combined Cars & Trucks (g/mi)	250	243	232	222	213	199	190	180	171	163
Combined Cars & Trucks (mpg)	35.5	36.6	38.3	40.0	41.7	44.7	46.8	49.4	52.0	54.5

Source: U.S. Environmental Protection Agency, “Fact Sheet: EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks,” August 2012, available at <http://www3.epa.gov/otaq/climate/documents/420f12051.pdf>.

In this context, it is clear that awarding GHG emissions credits—whether it is 6 grams or 66 grams—for technologies that provide no quantifiable or incremental emissions benefit would compromise the integrity of the light-duty vehicle program. As I read the discussion draft, the bill could allow a single vehicle to claim up to 9 grams per mile in credits: 3 grams for a vehicle that is equipped with at least three advanced vehicle technologies and 6 grams to any vehicle that is equipped with a connected vehicle technology. However, Committee staff informed me prior to the hearing that this provision was misdrafted and, in fact, the provision is intended to allow automakers to claim as much as 15 grams per mile per vehicle. If, as in your example, an automaker was allowed to claim 66 grams per mile in credits for a particular passenger car, then that passenger car would be allowed to emit more than 200 grams of carbon dioxide in 2025 instead of 143. A volume of credits this large would erode almost a decade of progress in making passenger cars cleaner and more efficient.

¹ U.S. Environmental Protection Agency and U.S. Department of Transportation, “Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards; Final Rule,” 75 Fed. Reg. 25324-25725 (May 7, 2010).

² U.S. Environmental Protection Agency and U.S. Department of Transportation, “2017 and Later Model Year Light-Duty Vehicle Greenhouse Gas Emissions and Corporate Average Fuel Economy Standards; Final Rule,” 77 Fed. Reg. 62624-63200 (October 15, 2012) (hereinafter “2017 Light-Duty Vehicle GHG Rule”).

³ U.S. Environmental Protection Agency, “Fact Sheet: EPA and NHTSA Set Standards to Reduce Greenhouse Gases and Improve Fuel Economy for Model Years 2017-2025 Cars and Light Trucks,” August 2012, available at <http://www3.epa.gov/otaq/climate/documents/420f12051.pdf>.

⁴ Ibid.