

### **House Oversight Subcommittee on Environment**

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Trump's Wrong Turn on Clean Cars: The Effects of Fuel Efficiency Rollbacks on the Climate, Car Companies and California

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Chairman Rouda, Ranking Member Comer, and Members of the House Government Oversight Subcommittee on Environment, thank you for inviting me to speak today at this hearing on the Safer Affordable Fuel-Efficient (SAFE) Vehicles rule. My name is Marlo Lewis. I am a senior fellow of the Center for Energy and Environment at the Competitive Enterprise Institute (CEI), a non-profit, non-partisan public policy institute focusing on regulatory issues from a free-market and limited-government perspective. CEI accepts no government funding.

The SAFE vehicle rule's proposed freeze of fuel economy standards at the 2020 levels through 2026 will have significant consumer benefits. The rule should make new cars more affordable to millions of low- and middle-income households. New cars are safer, cleaner, and more fuel-efficient than older vehicles. Consequently, the SAFE rule should lead to fewer fatalities and serious injuries, less pain at the pump, and improved air quality.

The SAFE rule should also help ensure that in future deliberations on greenhouse gas and fuel economy standards, the Environmental Protection Agency (EPA) and the National Highway Traffic Safety Administration (NHTSA) will give due consideration to the potentially adverse impacts of such standards on vehicle affordability, consumer choice, and occupant safety. That is because the SAFE rule returns the California Air Resources Board (CARB), the most aggressive advocate of regulatory stringency, to its lawful pre-2009 role as a stakeholder, not decision maker, in national fuel economy policy.

My written testimony develops the following points.

<sup>&</sup>lt;sup>1</sup> National Highway Traffic Safety Administration and Environmental Protection Agency, The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021-2026 Passenger Cars and Light Trucks, 83 FR 42986, August 24, 2018, <a href="https://www.govinfo.gov/content/pkg/FR-2018-08-24/pdf/2018-16820.pdf">https://www.govinfo.gov/content/pkg/FR-2018-08-24/pdf/2018-16820.pdf</a>

<sup>&</sup>lt;sup>2</sup> My biography and writings are available at <a href="https://cei.org/expert/marlo-lewis-jr">https://cei.org/expert/marlo-lewis-jr</a>

- Consumers need a break from regulatory-driven increases in the cost of new motor vehicles. The SAFE's rule proposed freeze at model year 2020 standards would deliver much-needed relief. In August 2018, NHTSA estimated that the 2020 freeze would avoid \$2,340 in overall average vehicle cost in 2025 and avert 12,000 fatalities through 2029. Using NHTSA's software, CEI found that freezing the standards at the 2018 levels would save more lives and increase net benefits, and rollback to the 2017 standards would produce even larger net benefits. The SAFE rule should have considered and invited comment on more lenient alternatives than its preferred alternative.
- 2) CARB's motor vehicle greenhouse gas emission standards directly and substantially regulate fuel economy. The Energy Policy and Conservation Act (EPCA) preempts states from adopting or enforcing laws or regulations "related to" fuel economy standards. By terminating CARB's role as fuel economy decision maker, the recently finalized One National Program rule<sup>3</sup> goes a long way towards reinstating the statutory scheme Congress created, safeguards the Constitution's supremacy clause, and restores the equal sovereignty of states in our federal system by ending California's anomalous power to constrain vehicle sales in other states.
- 3) Replacing the Obama administration/California standards with the SAFE rule standards will have insignificant impacts on climate change. Specifically, under the SAFE rule, atmospheric carbon dioxide concentration would reach 789.76 parts per million in the year 2100 instead of 789.11 ppm—an 8/100th of a percent increase. That extra 0.65 part per million of carbon dioxide would increase global average annual temperature by 0.001°C-0.003°C and sea levels by 6 millimeters in 2100. That vanishingly small change in global temperature—about 27 times smaller than the current margin of error—would make no practical difference to weather patterns, coastal flooding, polar bear populations, or any other environmental condition people care about.
- I. Fuel Economy/Greenhouse Gas Emission Mandates Are Pricing Low- and Middle-Income Households Out of the Safety and Fuel Efficiency Benefits of New Motor Vehicles.

The basic logic here is Econ 101. When regulation makes something more costly, people consume less of it, and reap fewer benefits from it. The SAFE rule elaborates: "As [new vehicle] prices increase, the market-wide incentive to extract additional travel from used vehicles increases. The average age of the in-service fleet has been increasing, and when fleet turnover slows, not only does it take longer for fleet-wide fuel economy and CO2 emissions to improve, but also safety improvements, criteria pollutant emissions improvements, many other vehicle

<sup>&</sup>lt;sup>3</sup> National Highway Traffic Safety Administration and Environmental Protection Agency, Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule Part One: One National Program, 84 FR 42993, September 27, 2019, <a href="https://www.govinfo.gov/content/pkg/FR-2019-09-27/pdf/2019-20672.pdf">https://www.govinfo.gov/content/pkg/FR-2019-09-27/pdf/2019-20672.pdf</a>

attributes that also provide societal benefits take longer to be reflected in the overall U.S. fleet as well because of reduced turnover." <sup>4</sup>

Along with the mandated gains in average fuel economy, "there have also been tremendous increases in vehicle prices, as new vehicles become increasingly unaffordable—with the average new vehicle transaction price recently exceeding \$36,000—up by more than \$3,000 since 2014 alone. In fact, a recent independent study indicated that the average new car price is unaffordable to median-income families in every metropolitan region in the United States except one: Washington, DC."<sup>5</sup>

NHTSA in August 2018 estimated the previously-issued standards would increase the overall costs of vehicle ownership by \$2,700 compared to leaving vehicle technology at model year 2016 levels.<sup>6</sup> A study commissioned by the National Auto Dealers Association estimated that federal fuel economy standards would add \$2,937 to the cost of new vehicles during model years 2011-2025, which would "remove 3.1-4.2 million households or 5.8-6.8 million licensed drivers from the new motor vehicle market by 2025." The study notes that lower-income households typically cannot purchase a new vehicle without a loan. To qualify for a loan, borrowers must meet minimal lending standards. The most important consideration is the household's debt service to income (DTI) ratio. By increasing the cost of new vehicles, fuel economy standards can "increase DTI ratios and cause some consumers to no longer qualify for a loan on the least expensive new vehicle, thus removing them from the new car market."

A Heritage Foundation study found that "Vehicle prices, which had been falling, began rising in 2009 [when the Obama administration began implementing stricter fuel economy standards], and have not stopped." The study estimates that the "average vehicle now [2016] costs \$6,200 more than if prices had followed their previous trend," and will continue to rise, "by at least \$3,400 per car through 2025" under current policy.<sup>8</sup>

The SAFE rule estimates that its "preferred option"—freezing greenhouse gas and fuel economy standards at model year 2020 levels—will save 12,700 lives by 2029. Running the same software, CEI found that freezing the standards at model year 2018 levels would save 15,600 lives, and rolling them back to model year 2017 levels would save 17,000 lives.

<sup>4 83</sup> FR 42993

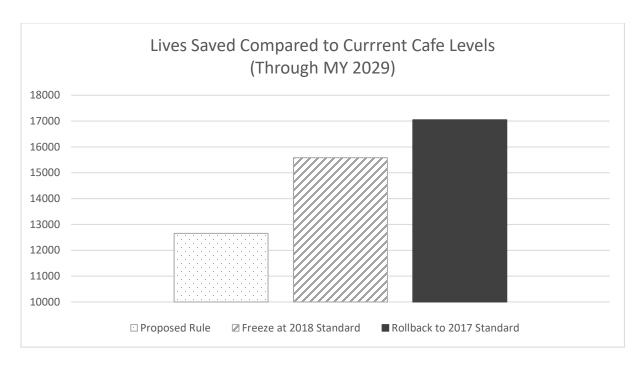
<sup>5 83</sup> FR 42994

<sup>6 83</sup> FR 42994

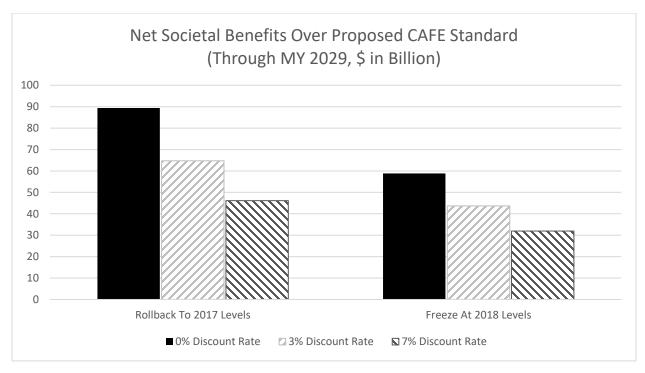
<sup>&</sup>lt;sup>7</sup> David Wagner, Paulina Nusinovich, Esteban Plaza-Jennings, The Effect of Proposed MY 2017-2025 Corporate Average Fuel Economy (CAFE) Standards on the New Vehicle Market Population, National Automobile Dealers Association, 2/13/2012,

 $<sup>\</sup>frac{http://www.nadafrontpage.com/upload/wysiwyg/The\%\,20Effect\%\,20of\%\,20Proposed\%\,20MY\%\,202017-2025\%\,20CAFE\%\,20Standards\%\,20on\%\,20New-Vehicle\%\,20Market.pdf}$ 

<sup>&</sup>lt;sup>8</sup> Salim Furth, PhD, and David W. Kreutzer, PhD, Backgrounder No. 3096, March 4, 2016, https://www.heritage.org/government-regulation/report/fuel-economy-standards-are-costly-mistake



NHTSA also calculated the proposal's net benefits. The primary costs of the freeze are the increase in fuel expenditures by consumers. The primary benefits are lives saved, valued at \$9.9 million each, serious injuries avoided, and reduced compliance expenditures for manufacturers. Again, running DOT's software, CEI found that compared to the agencies' preferred option, a freeze at the 2018 standards would increase net benefits by \$44 billion and rollback to the 2017 standards would increase net benefits by \$65 billion (assuming a 3 percent discount rate).



According to reports, the final SAFE rule will reduce NHTSA's estimates of lives saved and net benefits. CEI will be watching to see if NHTSA corrects two assumptions that unjustifiably undervalue lower standards. One is that all technological safety improvements end in 2035—an assumption NHTSA itself acknowledges is "not the most likely case." Another is NHTSA's decision not to credit the freeze for lives saved due to the lower "rebound effect" associated with lower fuel economy standards. 10

## II. The Nation's Fuel Economy Statute Preempts California's Greenhouse Gas and Zero Emission Vehicle Standards

#### a. Quick Background

Under the Environmental Policy and Conservation Act (EPCA), the statutory scheme Congress enacted in 1975 and amended in 2007, one agency—NHTSA—prescribes fuel economy standards under one statute, through one set of regulations. In *Massachusetts v. EPA* (2007), the Supreme Court found in the Clean Air Act's definition of "air pollutant" a hitherto unrecognized separate authority for EPA to set motor vehicle greenhouse gas emission standards. <sup>11</sup> Under revisions adopted by the Obama administration, three agencies—NHTSA, EPA, and CARB—co-determine fuel economy standards under three statutes, through three sets of regulations. <sup>12</sup>

Although EPCA authorizes NHTSA to prescribe and enforce fuel economy standards, directs EPA to measure compliance with (not prescribe) fuel economy standards, <sup>13</sup> and prohibits states from adopting or enforcing laws or regulations "related to" fuel economy standards, the Obama administration positioned CARB to become the vanguard agency in fuel economy regulation (as explained below).

The SAFE Rule proposes to re-limit CARB in two main ways. NHTSA will determine that California's greenhouse gas (GHG) tailpipe standards and zero emission vehicle (ZEV) mandates are preempted by EPCA. EPA, for its part, will withdraw the January 9, 2013 Clean Air Act waiver authorizing California's Advanced Clean Car (ACC) program, ZEV mandate, and GHG standards for model year 2021-2025 motor vehicles.

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<sup>9 83</sup> FR 43139

<sup>&</sup>lt;sup>10</sup> 83 FR 43148. The rebound effect refers to the phenomenon that when fuel economy standards decrease fuel costs, people tend to drive more. Accidents tend to increase with increased vehicle miles traveled.

<sup>&</sup>lt;sup>11</sup> Massachusetts v. EPA, 549 U.S. 497 (2007). For a critique of the Court's reasoning, see Marlo Lewis, "The Unbearable Lightness of UARG v. EPA," GlobalWarming.Org, July 4, 2014, <a href="http://www.globalwarming.org/2014/07/04/the-unbearable-lightness-of-uarg-v-epa/">http://www.globalwarming.org/2014/07/04/the-unbearable-lightness-of-uarg-v-epa/</a>

<sup>&</sup>lt;sup>12</sup> The White House, Remarks by the President on National Fuel Economy Standards, May 19, 2009, <a href="https://obamawhitehouse.archives.gov/the-press-office/remarks-president-national-fuel-efficiency-standards">https://obamawhitehouse.archives.gov/the-press-office/remarks-president-national-fuel-efficiency-standards</a>; EPA, California State Motor Vehicle Pollution Control Standards; Notice of Decision Granting a Waiver of Clean Air Act Preemption for California's 2009 and Subsequent Model Year Greenhouse Gas Emission Standards for New Motor Vehicles; Notice, 74 FR 32744-32784, July 8, 2009, <a href="https://www.gpo.gov/fdsys/pkg/FR-2009-07-08/pdf/E9-15943.pdf">https://www.gpo.gov/fdsys/pkg/FR-2009-07-08/pdf/E9-15943.pdf</a>

<sup>&</sup>lt;sup>13</sup> 83 FR 43210

#### 1. EPCA Preempts California's GHG and ZEV Standards

a. EPCA Preemption Is Broad and Clear

As the SAFE Rule explains, federal statutory preemption provisions derive their authority from the U.S. Constitution's Supremacy Clause. Laws made pursuant to the Constitution "shall be the supreme law of the land, and the judges in every state shall be bound thereby, anything in the laws or constitution of any state to the contrary notwithstanding" (Article VI).

Congress in 1975 enacted EPCA, which created the national fuel economy program. EPCA's express preemption of state laws or regulations related to fuel economy is, as the SAFE Rule says, <sup>14</sup> "broad and clear":

When an average fuel economy standard prescribed under this chapter is in effect, a State or a political subdivision of a State may not adopt or enforce a law or regulation related to fuel economy standards or average fuel economy standards for automobiles covered by an average fuel economy standard under this chapter [49 U.S.C. 32919].

It is hard to imagine a broader and clearer preemption provision. As the SAFE Rule points out:

- Unlike Clean Air Act (CAA) section 209(b), which allows EPA to waive federal preemption of state automobile emission standards, "EPCA does not allow for a waiver of preemption."
- Also unlike CAA section 209(b), EPCA does not allow states to establish or enforce identical or equivalent regulations.
- Most importantly, "In a further indication of Congress' intent to ensure that state regulatory schemes do not impinge upon EPCA's goals, the statute preempts state laws merely *related to* fuel economy standards or average fuel economy standards." <sup>15</sup>

Supreme Court cases cited by the SAFE Rule establish that the phrase "related to" in preemption statutes expresses a broad preemptive purpose. <sup>16</sup> As in common speech, in preemption provisions "related to" signifies that one thing stands in some relation to another thing, has some bearing on it, refers or pertains to it, and the like.

b. Fuel Economy Standards and GHG Standards Are Inherently Related

As it happens, the functional relationship between greenhouse gas tailpipe standards and fuel economy standards is so close that "greenhouse gas emissions, and particularly carbon dioxide emissions, are mathematically linked to fuel economy and therefore regulations limiting

15 83 FR 43233

<sup>&</sup>lt;sup>14</sup> 83 FR 43233

Shaw v. Delta Airlines, Inc., 463 U.S. 85, 97 (1983) (ERISA case); Morales v. Trans World Airlines, Inc., 504 U.S. 374, 374, 383–84 (1992)

tailpipe carbon dioxide emissions are directly related to fuel economy."<sup>17</sup> There is no real dispute on that point.

Although Obama administration officials testifying before this committee would later deny under oath that fuel economy standards and greenhouse gas tailpipe standards are "related," the Obama EPA and NHTSA's first joint rulemaking in 2010 described the relationship as "very direct and close." That is because carbon dioxide constitutes about 95 percent of all motor vehicle greenhouse gas emissions, and "there is a single pool of technologies ... that reduce fuel consumption and thereby reduce CO2 emissions as well."<sup>20</sup>

### The SAFE Rule spells out the legal implication:

Since there is but one pool of technologies for reducing tailpipe CO2 emissions and increasing fuel economy available now and for the foreseeable future, regulation of CO2 emissions and fuel consumption are inextricably linked. Such state regulations [as California's greenhouse gas motor vehicle standards] are therefore unquestionably "related" and expressly preempted under 49 U.S.C. 32919.<sup>21</sup>

The close and inherent relationship is also evident in the October 2011 Interim Joint Technical Assessment Report co-authored by EPA, NHTSA, and CARB to "coordinate" and "harmonize" their efforts to prescribe fuel economy and GHG standards for model year 2017-2025 passenger cars. The report considers four fuel economy standards, ranging from 47 mpg to 62 mpg; each derives from an associated CO2 emission reduction scenario. The 54.5 mpg standard selected in the 2012 rulemaking for model year 2025 is a negotiated compromise between the 4 percent (51 mpg) and 5 percent (56 mpg) CO2 reduction scenarios.<sup>22</sup>

The 2004 Staff Report presenting CARB's plan to implement AB 1493, California's greenhouse gas motor vehicle emissions law, is another smoking gun. All of CARB's

<sup>&</sup>lt;sup>18</sup> During an October 12, 2011 House Government Reform and Oversight Committee hearing on "The Obama Administration's Efforts to Raise Fuel Economy Standards," NHTSA Administrator David Strickland, EPA Assistant Air Administrator Gina McCarthy, and EPA Transportation and Air Quality Director Margo Oge each denied that motor vehicle greenhouse gas emission standards are "related to" fuel economy standards. See, Chairman Daryl Issa, Letter to the Honorable Gina McCarthy, October 18, 2011, http://www.globalwarming.org/wp-content/uploads/2011/10/2011-10-18-DEI-to-Gina-McCarthy-re-EPCA.pdf

<sup>&</sup>lt;sup>19</sup> EPA, NHTSA, Light-Duty Vehicle Greenhouse Gas Emission Standards and Corporate Average Fuel Economy Standards; Final Rule, 75 FR 25327, May 7, 2010, https://www.gpo.gov/fdsys/pkg/FR-2010-05-07/pdf/2010-8159.pdf

<sup>&</sup>lt;sup>20</sup> 75 FR 25326-25327

<sup>&</sup>lt;sup>21</sup> 83 FR 43234

<sup>&</sup>lt;sup>22</sup> U.S. Environmental Protection Agency, National Highway Traffic Safety Administration, California Air Resources Board, Joint Interim Technical Assessment Report: Light-Duty Vehicle Greenhouse Gas Emission Standards and Fuel Economy Standards for Model Years 2017-2025, September 2010, pp. viii-ix, https://www.epa.gov/sites/production/files/2016-10/documents/ldv-ghg-tar.pdf

recommended technologies for meeting the agency's CO2 tailpipe standards are fuel-saving technologies; none is an emission-control technology.<sup>23</sup>

Even the text of AB 1493 implicitly requires CARB to regulate fuel economy. <sup>24</sup> CARB's greenhouse gas standards are to be "cost-effective," defined as "economical to an owner or operator of a vehicle, taking into account the full life-cycle costs of the vehicle." CARB reasonably interprets that to mean the reduction in "operating expenses" over the average life of the vehicle must exceed the expected increase in vehicle cost. <sup>25</sup> Virtually all such "operating expenses" are expenditures for fuel. AB 1493 cannot be implemented cost-effectively unless CARB regulates fuel economy.

Congress, too, has long understood the strong relationship between fuel economy standards and carbon dioxide emissions. Indeed, that understanding is reflected in the very statute that preempts state laws and regulations "related to" fuel economy.

As the SAFE rule explains, EPCA, both as originally enacted and as amended by the 2007 Energy Independence and Security Act, requires EPA to measure and calculate fuel economy through the "same procedures" EPA used for model year 1975 vehicles, or procedures yielding comparable results. Under those procedures, "compliance with the CAFE standards is and has always been based on the rates of emission of CO2, CO, and hydrocarbons from covered vehicles, but primarily on the emission rates of CO2." Because the amount of those gases emitted "relates directly to the amount of fuel" a vehicle consumes, "EPA can reliably and accurately convert" those emissions into the "miles per gallon achieved by that vehicle." 27

The SAFE Rule continues: "In recognizing that 1975 test procedures were sufficient to measure fuel economy performance, Congress recognized the direct relationship between CO2 emissions and fuel economy standards, while in the same piece of legislation expressly preempting state standards that are related to fuel economy standards, when Federal fuel economy standards are in place." <sup>28</sup>

EPCA preempts more than just tailpipe GHG standards. All state standards that "have the effect of regulating CO2 emissions or fuel economy are likewise related to fuel economy standards, and likewise preempted." Consequently, EPCA also preempts California's ZEV mandates. The SAFE Rule explains:

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<sup>&</sup>lt;sup>23</sup> California Air Resources Board, Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Public Hearing to Consider Adoption of Regulations to Control Greenhouse Gas Emissions from Motor Vehicles, August 6, 2004, pp. 49-69, <a href="https://www.arb.ca.gov/regact/grnhsgas/isor.pdf">https://www.arb.ca.gov/regact/grnhsgas/isor.pdf</a>

<sup>&</sup>lt;sup>24</sup> Available at https://en.wikisource.org/wiki/California AB 1493

<sup>&</sup>lt;sup>25</sup> CARB, Staff Report, p. 148

<sup>&</sup>lt;sup>26</sup> 49 U.S.C. 32904(c)

<sup>&</sup>lt;sup>27</sup> 83 FR 43234

<sup>28 83</sup> FR 43234

Likewise, a state law prohibiting all tailpipe emissions, carbon or otherwise, from some or all vehicles sold in the state, would relate to fuel economy standards and be preempted by EPCA, since the majority of tailpipe emissions consist of CO2. We recognize that this preempts state programs, such as California's ZEV mandate, that establish requirements that a portion of a vehicle's fleet sold or purchased consist of vehicles that produce no tailpipe emissions.<sup>29</sup>

c. Flaws in Central Valley Chrysler-Jeep v. Goldstene

California's defenders are likely to recycle two cases, *Green Mountain Chrysler v*. *Crombie* (2007)<sup>30</sup> and *Central Valley Chrysler-Jeep, Inc. v*. *Goldstene* (2008),<sup>31</sup> in which federal district courts in Vermont and California ruled that EPCA does not preempt state motor vehicle GHG emission standards. For brevity's sake, I summarize and develop a few key points in the SAFE Rule's rebuttal of those decisions, focusing on *Central Valley*, which purports to be the more definitive ruling.

The California Eastern District Court's decision in *Central Valley* rests on three main claims:

- (1) EPCA's preemption of state policies "related to" fuel economy standards should be construed narrowly;
- (2) A waiver granted by EPA under Clean Air Act section 209(b) would make California's greenhouse gas motor vehicle standards "other motor vehicle standards of the [Federal] Government," hence not subject to EPCA preemption, which applies solely to state and local policies; and,
- (3) EPCA requires NHTSA to "harmonize" its fuel economy standards with "other" federal standards, including any California standards for which EPA issues a CAA section 209(b) waiver.

I proceed now to examine those claims.

Claim 1: The EPCA preemption should be construed narrowly. The court's argument goes like this. Congress wants federal agencies to respect states' "historic police powers," which include regulating air pollutants to protect "public health and welfare." Consequently, express preemption statutory provisions "should be given a narrow interpretation." The "narrowest interpretation consistent with the plain language of EPCA's preemptive provision is that it encompasses only those state regulations that are explicitly aimed at the establishment of fuel economy standards, or that are the de facto equivalent of mileage regulation." AB 1493 explicitly aims to control greenhouse gases, not fuel economy. The AB 1493 standards are not the de facto

<sup>&</sup>lt;sup>29</sup> 83 FR 43234

<sup>30</sup> https://www.courtlistener.com/opinion/1483620/green-mountain-chrysler-plymouth-dodge-v-crombie/

<sup>31</sup> https://www.courtlistener.com/opinion/2355006/central-valley-chrysler-jeep-inc-v-goldstene/

equivalent of mileage standards because they also regulate motor vehicle refrigerants. Hence, EPCA does not preempt AB 1493.

That argument fails for several reasons. First, labels do not determine the nature of things. The direct functional relationship between fuel economy and greenhouse gas motor vehicle standards is not affected by the explicit language AB 1493 uses to describe its purposes.

Second, as it happens, precisely because the functional relationship between the two types of standards is close and inherent, proponents routinely tout greenhouse gas standards as a means to reduce oil consumption and CAFE standards as a means to reduce greenhouse gas emissions. For example, in a March 22, 2011 letter to House Energy and Commerce Chairman Fred Upton, California Air Resources Board executive director James Goldstene boasted that combining EPA's greenhouse gas emission standards with NHTSA's fuel economy standards would yield 33 percent more fuel savings than NHTSA's standards alone.<sup>32</sup>

Such circularity of ends and means is a commonplace in climate policy. Should the government invest in clean tech to reduce emissions, or should it cap or tax emissions to drive investment into clean tech? Most climate campaigners would say "yes."

Third, the ZEV program explicitly aimed to boost fuel economy until, anticipating EPCA-based litigation, CARB removed "all references to fuel economy or efficiency" in the calculation of advanced technology partial zero-emission vehicle standards.<sup>33</sup>

Fourth, while California's motor vehicle greenhouse gas standards also apply to air conditioner refrigerants based on their global warming potential, such refrigerant emissions represent a small fraction of total motor vehicle greenhouse gas emissions—5.1 percent according to EPA and NHTSA's 2010 joint rule.<sup>34</sup> Nearly all the rest, as noted above, is carbon dioxide from motor fuel combustion, and regulating CO2 emissions inextricably regulates fuel economy. Thus AB 1493 cannot escape preemption by commingling tailpipe CO2 standards with refrigerant standards.

The SAFE Rule is 'fair and balanced' on this point. Because greenhouse gas emissions from air conditioner refrigerants "have no relation to fuel economy," state-level policies targeting such chemicals are "outside the scope of EPCA preemption." Accordingly, "states can pass laws specifically regulating or even prohibiting such vehicular refrigerant leakage" based on global warming potential, and "EPCA would not preempt such laws, if narrowly drafted so as not to include tailpipe CO2 emissions."35

<sup>&</sup>lt;sup>32</sup> The text of Goldstene's letter is available at http://www.globalwarming.org/wp-content/uploads/2011/06/CARB-OFR-Goldstene-EC-2011-02-09.pdf

<sup>&</sup>lt;sup>33</sup> 83 FR 43238, citing California Air Resources Board, Fact Sheet, 2003 Zero Emissions Vehicle Program, https://www.arb.ca.gov/msprog/zevprog/factsheets/2003zevchanges.pdf

<sup>&</sup>lt;sup>34</sup> 75 FR 25424

<sup>35 83</sup> FR 43235

Fifth, the court's claim that EPCA's preemption language must be interpreted narrowly ignores the plain fact that the EPCA preemption, covering anything "related to" fuel economy standards, is very broad. It is not possible to interpret a *broad* preemption *narrowly* without interpreting it *loosely*, i.e. incorrectly and unlawfully.

Claim 2: California's GHG standards are federal standards. The court argued as follows. Once EPA grants California a Clean Air Act waiver to adopt its own motor vehicle emission standards, those standards become "other standards of the Government." The EPCA preemption applies solely to state and local laws or regulations, not federal motor vehicle standards. Hence, the EPCA preemption does not bar California from adopting emission standards related to fuel economy standards once EPA "federalizes" the standards by granting a CAA section 209(b) waiver.

That argument has several flaws. First, it would turn the EPCA preemption into a nullity. No part of the EPCA preemption would survive, not even the weak version contemplated by the court's "narrow" reading.

To recap, under the court's narrow interpretation, states may not adopt standards that "are explicitly aimed at the establishment of fuel economy standards, or that are the de facto equivalent of mileage regulation." But if a 209(b) waiver "federalizes" and thereby automatically exempts California's standards from EPCA preemption, those standards would still be lawful even if they explicitly aim to boost fuel economy and, lacking air conditioner refrigerant requirements, are just mileage standards by another name.

In short, by the court's logic, even if AB 1493 were titled the "Boost Fuel Economy Law" and contained only tailpipe CO2 standards, EPA could still negate EPCA preemption just by pronouncing the magic words: "Waiver granted!" As the SAFE Rule observes, "the district court misread EPCA to the point of turning it on its head." 36

Second, the court's argument conflicts with the very nature of preemption. Before California could request a waiver to establish motor vehicle GHG emission standards, the legislature had to enact AB 1493 and CARB had to develop the implementing regulations. EPA can grant a waiver only for legally valid standards—standards not already voided by other federal laws. The EPCA preemption automatically voided AB 1493 and the associated rules. As the SAFE Rule puts it, "When a state establishes a standard related to fuel economy, it does so in violation of EPCA's preemption statute and the standard is therefore void *ab initio* [from the beginning]."<sup>37</sup>

The SAFE Rule elaborates:

<sup>30</sup> 83 FR 42336 <sup>37</sup> 83 FR 43235

<sup>&</sup>lt;sup>36</sup> 83 FR 42336

Federal preemption is rooted in the Supremacy Clause of the U.S. Constitution. Courts have long recognized that the Supremacy Clause of the Constitution gives Congress the power to specifically preempt State law. Broadly speaking, the United States Supreme Court has long held that "an act done in violation of a statutory prohibition is void," and has specifically noted that such acts are not merely "voidable at the instance of the government," but void from the outset. The Ninth Circuit stated it more plainly: "Under federal law, an act occurring in violation of a statutory mandate is void *ab initio*." Discussing the Supremacy Clause, the Supreme Court explicitly explained that, "[i]t is basic to this constitutional command that all conflicting state provisions be without effect."<sup>38</sup>

In sum, EPA could not authorize California to implement tailpipe GHG standards, because such standards were already "void" and "without effect" before California could apply for a waiver.

# Claim 3: EPCA obligates NHTSA to "harmonize" its fuel economy standards with California's GHG standards. The court's argument has five main steps:

- 1. EPCA section 32902(f) states that "When deciding maximum feasible average fuel economy under this section, the Secretary of Transportation shall consider technological feasibility, economic practicability, the effect of other motor vehicle standards of the Government on fuel economy, and the need of the United States to conserve energy."
- 2. "Other" standards include EPA tailpipe standards but also (per Claim 2, above) California standards for which EPA grants a waiver.
- 3. Although EPCA requires NHTSA to consider other federal standards when setting CAFE standards, the CAA imposes "no corresponding statutory duty" on EPA or CARB to consider CAFE standards when setting motor vehicle emission standards.
- 4. Consequently, when California's and NHTSA's standards conflict, the latter must yield to the former.
- 5. That is reasonable because EPCA's "overarching goal" is "energy conservation," whereas tailpipe emission standards serve "the more important purpose of safeguarding the public's health and welfare."

The foregoing argument fails for three reasons. First, nothing in the language of either EPCA or the CAA suggests that NHTSA is subordinate to EPA or CARB. Rather, the EPCA language directing NHTSA to "consider" the "effect" of "other" standards "on fuel economy" is chiefly intended to temper CAFE requirements when "other" standards impair vehicle fuel efficiency. The SAFE Rule explains:

There is no hint in the histories of either EPCA or EISA [the Energy Independence and Security Act of 2007] of an intent to give other standards special, much less superior, status under EPCA. The limited concerns and purpose were to ensure that any adverse

<sup>&</sup>lt;sup>38</sup> 83 FR 43235

effects of other standards on fuel economy [are] considered in connection with the fuel economy standards. Those concerns are evident in a 1974 report, entitled "Potential for Motor Vehicle Fuel Economy Improvement," submitted to Congress by the Department of Transportation and EPA. That report noted that the weight added by safety standards *would* and one set of emission standards *might* temporarily reduce the level of fuel economy achievable. These concerns can also be found in the congressional reports on EPCA.<sup>39</sup>

Congress enacted EPCA in 1975, not long after the federal government began to regulate motor vehicle emissions (1968). There was considerable discussion in those years about the potential effects of emission controls on fuel economy, and EPA addressed the topic in several reports. In addition to the 1974 report cited above, EPA in 1972 published *Fuel Economy and Emission Control*. The report states that emission controls required to meet federal pollution standards "can have an effect on engine efficiency and, in turn, fuel economy." Based on various empirical tests, EPA estimated that fuel economy losses due to emission controls ranged from 5.3 percent to 9.8 percent for model years 1968 to 1973 motor vehicles, imposing an average loss of 7.75 percent. In the property of the property o

Subsequent EPA studies gave a more nuanced assessment. The agency's 1975 report, *Factors Affecting Automotive Fuel Economy*, stated: "While much has been said about the effect of emission controls on automobile fuel economy, a review of the available control techniques shows that some can improve economy, some can degrade it, and some have no effect."<sup>42</sup>

The "effect of other standards" language should be read in the context of the two preceding factors EPCA section 32902(f) directs NHTSA to consider. "Technological feasibility" and "economic practicability" may either constrain or facilitate fuel efficiency improvements, and so may "other" federal standards. NHTSA is to be mindful of such potential constraints or synergies. Period. EPCA section 32902(f) does not direct NHTSA to defer to EPA (much less CARB) when prescribing maximum feasible fuel economy standards.

Second, the court set up a rigged contest when it juxtaposed "energy conservation" (EPCA's goal) with "public health and welfare" (the CAA's goal). Energy conservation is an instrumental goal, a means, whereas public health and welfare are final goals or ends. An apples-

<sup>39 83</sup> FR 43237

<sup>&</sup>lt;sup>40</sup> "The previous EPA reports [in November 1972 and October 1973] have been studied and commented upon by other government agencies, the Congress, state and local governments, private citizens, fleet operators, motor vehicle manufacturers, and fuel producers. This report is intended for the same broad audience." EPA, Factors Affecting Automotive Fuel economy (hereafter Factors), September 1975, p. 1, <a href="https://nepis.epa.gov/Exe/ZvPDF.cgi/9100S2LD.PDF?Dockev=9100S2LD.PDF">https://nepis.epa.gov/Exe/ZvPDF.cgi/9100S2LD.PDF?Dockev=9100S2LD.PDF</a>

<sup>&</sup>lt;sup>41</sup> EPA, Fuel Economy and Emission Control, November 1972, pp. 4, 10, https://nepis.epa.gov/Exe/ZyPDF.cgi/9100WW2F.PDF?Dockey=9100WW2F.PDF

<sup>&</sup>lt;sup>42</sup> EPA, Factors Affective Automotive Fuel Economy, EPA-420-R-75-100, September 1975, p. 16, https://nepis.epa.gov/Exe/ZyPDF.cgi/9100S2LD.PDF?Dockey=9100S2LD.PDF

to-apples comparison would compare either energy conservation to emission reduction (the statutes' respective instrumental goals) or energy security and consumer welfare to public health and welfare (the statutes' respective final ends). If the court had botched the juxtaposition in reverse, comparing emission reduction to energy security and consumer welfare, EPCA would seem to serve the "more important purpose."

The Congresses that enacted and amended EPCA deemed energy conservation vital to the nation's economic health, political independence, and geopolitical security.<sup>43</sup>

Moreover, as NHTSA's name implies, the agency has a statutory obligation to promote automotive safety. <sup>44</sup> CAA section 202 repeatedly directs EPA to consider safety when regulating motor vehicle emissions. However, EPA is responsible for ensuring the safety of emission control technologies, not automotive safety in general. Unlike NHTSA, EPA has no statutory responsibility to consider the size-safety tradeoffs inherent in the regulation of automotive fuel economy and tailpipe CO2 emissions.

In brief, Congress intended fuel economy standards to advance important national interests, and entrusted fuel economy regulation to an agency established to promote vehicle safety. The court incorrectly asserted rather than demonstrated that CARB's standards serve a "more important purpose" than NHTSA's.

Third, and most critically, the court's claim that NHTSA must defer to CARB conflicts with congressional intent. The district courts acknowledged that the "ultimate touchstone" in preemption cases is "what Congress intended." Congress clearly intended to preempt state regulation of fuel economy. That intention is thwarted by a waiver that makes CARB a co-equal partner with NHTSA in determining fuel economy standards.

The actual situation is worse than that. In practice, the waiver makes CARB the vanguard agency in fuel economy regulation—a complete inversion of what Congress intended.

#### d. Patchwork Threat

Under the Obama administration's version of the One National Program, California has the whip hand in negotiations with EPA and NHTSA. That is because the waiver empowers California and its allies to endanger the auto industry unless federal policymakers submit to CARB's demands.

<sup>&</sup>lt;sup>43</sup> Whether or not Congress erred in that judgment is another matter. For a critique of the energy angst underpinning CAFE regulation, see Jerry Taylor and Peter Van Doren, "The Energy Security Obsession," *The Georgetown Journal of Law and Public Policy*, Summer 2008, Vol. 6, No. 2,

https://object.cato.org/sites/cato.org/files/articles/taylor\_vandoren\_energy\_security\_obsession.pdf

44 The agency, alas, has not always lived up to its name. See Sam Kazman, "Coffee Won't Kill You, but CAFE Might," *The Wall Street Journal*, April 4, 2018, https://cei.org/content/coffee-wont-kill-you-cafe-might

Here's how this coercive strategy works.<sup>45</sup> Under CAA section 177, once EPA grants California a section 209(b) waiver to adopt separate vehicle emission standards, other states may opt into the California program. That is a manageable inconvenience when California sets conventional air pollutant standards, which apply to each vehicle sold. At most there are just two national fleets for automakers to manage—federal and "California."

However, when the standards are for greenhouse gases, automakers face a potential administrative nightmare. Like the CAFE standards they mimic, tailpipe GHG standards apply to *fleets or segments of fleets on average*. Each automaker typically sells a different mix of vehicles in each state because consumer preferences differ from one state to the next. To achieve the same *average* GHG/fuel economy in two different states, automakers would have to reshuffle the mix of vehicles delivered for sale in those states.

If all states were to opt into the California program, each automaker would have to continually adjust its production and sales to achieve the same fleet average CO2/mileage standards in 50 separate markets—exactly the sort of chaos Congress enacted the EPCA preemption to prevent.

The prospect of market fragmentation terrified the auto industry when EPA Administrator Lisa Jackson decided to reconsider<sup>46</sup> her predecessor Stephen Johnson's denial<sup>47</sup> of California's AB 1493 waiver request. Having thus imperiled the auto industry, the Obama administration made automakers an offer they could not refuse.

In closed-door, "put nothing in writing, ever" negotiations run by Obama climate czar Carol Browner, <sup>48</sup> California and its allied states agreed to deem compliance with EPA's greenhouse gas standards as compliance with their own. As in the traditional CAFE program, compliance would be based on national sales rather than state-by-state sales. However, in return for averting a fuel economy "patchwork," automakers had to surrender basic legal rights.

Specifically, auto companies and their trade associations pledged "not to contest forthcoming CAFE and GHG standards for MYs 2012-2016; not to challenge any grant of a CAA preemption waiver for California's GHG standards for certain model years, and to stay and

<sup>46</sup> EPA, California State Motor Vehicle Pollution Control Standards; Greenhouse Gas Regulations; Reconsideration of Previous Denial of a Waiver of Preemption, 74 FR 7040-42, February 12, 2009, <a href="https://www.gpo.gov/fdsys/pkg/FR-2009-02-12/pdf/E9-2913.pdf">https://www.gpo.gov/fdsys/pkg/FR-2009-02-12/pdf/E9-2913.pdf</a>

<sup>&</sup>lt;sup>45</sup> National Automobile Dealers Association, *Patchwork Proven: Why a Single National Fuel Economy Standard Is Better for America than a Patchwork of State Regulations*, January 2009, <a href="https://www.nada.org/WorkArea/DownloadAsset.aspx?id=21474838588">https://www.nada.org/WorkArea/DownloadAsset.aspx?id=21474838588</a>

<sup>&</sup>lt;sup>47</sup> EPA, California State Motor Vehicle Pollution Control Standards; Notice of Decision Denying a Waiver of Clean Air Act Preemption for California's 2009 and Subsequent Model Year Greenhouse Gas Emission Standards for New Motor Vehicles; 73 FR 12156-69, March 6, 2008, <a href="https://www.gpo.gov/fdsys/pkg/FR-2008-03-06/pdf/E8-4350.pdf">https://www.gpo.gov/fdsys/pkg/FR-2008-03-06/pdf/E8-4350.pdf</a>
<sup>48</sup> Colin Sullivan, "Vow of silence key to White House-Calif. fuel economy talks," New York Times, May 20, 2009, <a href="https://archive.nytimes.com/www.nytimes.com/gwire/2009/05/20/20greenwire-vow-of-silence-key-to-white-house-calif-fuel-e-12208.html">https://archive.nytimes.com/www.nytimes.com/gwire/2009/05/20/20greenwire-vow-of-silence-key-to-white-house-calif-fuel-e-12208.html</a>

then dismiss all pending litigation challenging California's regulation of GHG emissions, including litigation concerning EPCA preemption of state GHG standards."<sup>49</sup>

Circumstantial evidence also suggests that Ms. Browner conditioned the availability of bailout money on automakers' support for the new "National Program" jointly administered by EPA, NHTSA, and CARB.<sup>50</sup>

Dubbed the "Historic Agreement" by President Obama,<sup>51</sup> the deal suspended the threat of market balkanization—but did not abolish it. California and its allies can reactivate the patchwork peril whenever they decide the One National Program no longer serves their interests. It continues to hang like a regulatory Sword of Damocles over the auto industry. The so-called historic agreement was actually an uneasy truce wired to fall apart whenever CARB does not get its way.

Indeed, as early as July 2011, CARB Chairman Mary Nichols, in a letter to EPA Administrator Lisa Jackson and Transportation Secretary Ray LaHood,<sup>52</sup> asserted CARB would participate in the National Program only if EPA and NHTSA "adopt standards [for model years 2017-2025] substantially as proposed," and "California reserves all rights to contest final actions taken or not taken by EPA or NHTSA as part of or in response to the mid-term evaluation," i.e., the agencies' review of whether model year 2017-2025 standards remain appropriate in light of updated economic, technological, or energy security assumptions.

The specter of market fragmentation has haunted all subsequent fuel economy deliberations, including the current proceeding. CARB has taken, or threatened to take, legal action against the Trump administration throughout the midterm evaluation and SAFE rule proceeding. CARB filed a preemptive lawsuit in May 2018, months before EPA and NHTSA proposed any specific revisions to the Obama rules, <sup>53</sup> and as early as March 2018 threatened to enforce its own separate standards. CARB warned that vehicles sold in California would no longer be "deemed to comply" with the state's greenhouse gas/fuel economy standards unless those vehicles also meet the Obama administration standards. <sup>54</sup>

<sup>&</sup>lt;sup>49</sup> 83 FR 43233, citing 75 FR 35328

<sup>&</sup>lt;sup>50</sup> House Committee on Government Oversight and Reform, Staff Report, *A Dismissal of Safety, Choice, and Cost: The Obama Administration's New Auto Regulations*, August 10, 2012, <a href="http://oversight.house.gov/wp-content/uploads/2012/08/CAFE-Report-8-10-12-FINAL.pdf">http://oversight.house.gov/wp-content/uploads/2012/08/CAFE-Report-8-10-12-FINAL.pdf</a>

<sup>&</sup>lt;sup>51</sup> The White House, Remarks by the President on national fuel efficiency standards, May 19, 2009, https://obamawhitehouse.archives.gov/the-press-office/remarks-president-national-fuel-efficiency-standards

<sup>52</sup> Honorable Mary D. Nichols, Chairman, California Air Resources Board, Letter to Honorable Lisa Jackson, Administrator, EPA, and Honorable Ray LaHood, Secretary, Department of Transportation, July 28, 2011, https://www.epa.gov/sites/production/files/2016-10/documents/carb-commitment-ltr.pdf

Marlo Lewis, "California's Empty Suit," The Hill, May 6, 2018, <a href="https://cei.org/content/fuel-economy-californias-empty-suit">https://cei.org/content/fuel-economy-californias-empty-suit</a>
 Bloomberg, "As Trump begins dismantling auto efficiency rules, California is doubling down on its own, sources

<sup>&</sup>lt;sup>54</sup> Bloomberg, "As Trump begins dismantling auto efficiency rules, California is doubling down on its own, sources say," Los Angeles Times, March 27, 2018, <a href="http://www.latimes.com/business/la-fi-hy-epa-california-fuel-economy-20180327-story.html">http://www.latimes.com/business/la-fi-hy-epa-california-fuel-economy-20180327-story.html</a>

In September 2018, CARB voted to retract the deemed-to-comply policy memorialized in EPA and NHTSA's joint 2010 rulemaking,<sup>55</sup> and invited its 13 state allies to follow suit.<sup>56</sup> In December, CARB officially amended its "deemed to comply" option such that it applies only if EPA and NHTSA retain the 2017-2025 standards set forth in their joint 2012 rulemaking.<sup>57</sup>

Note, too, that California's progressive political culture rewards CARB for pushing the fuel economy envelope. At the same time, the state's comparative lack of gasoline engine automobile manufacturing and auto workers ensures that Sacramento politicians face no blowback at the polls for indulging in fuel economy zealotry.<sup>58</sup>

Consequently, in negotiations over the future of the One National Program, California is the proverbial 500 pound gorilla. CARB can imperil businesses and jobs beyond its borders just by threatening to "de-couple" from EPA and NHTSA should any future administration dare to relax the Obama administration standards. That, of course, is the situation we have today. "Harmony" exists in the One National Program only as long as the feds dance to CARB's tune.

The solution is to enforce the EPCA preemption and revoke the CAA waivers granted to California in 2013. That will end California's de facto reign over fuel economy policy, which upends the statutory scheme Congress created.

#### e. Related Issues

The September 2019 One National Program rule also revokes the Clean Air Act waiver EPA granted to California in 2013 to implement its greenhouse gas regulations and zero-emission vehicle mandate. Under CAA Section 209(b), EPA may not grant a waiver if it determines that California "does not need such standards to meet compelling and extraordinary conditions." That is EPA's statutory basis for revoking the 2013 waiver. The argument is complex and for reasons of space, I will not review it here.

Two quick comments must suffice. First, as discussed above, EPCA automatically voided AB 1493, turning the associated GHG standards into legal phantoms before California could request, or EPA grant, a CAA section 209(b) waiver of federal preemption. Second, leaving the waiver in effect would empower California to waive EPCA preemption of state laws or regulations "related to" fuel economy. As the One National Program rule points out, NHTSA has

<sup>55 75</sup> FR 35328

<sup>&</sup>lt;sup>56</sup> California Air Resources Board, "Statement of CARB Chair on action to preserve California vehicle standards," September 28, 2018, <a href="https://ww2.arb.ca.gov/index.php/news/statement-carb-chair-action-preserve-california-vehicle-standards">https://ww2.arb.ca.gov/index.php/news/statement-carb-chair-action-preserve-california-vehicle-standards</a>

<sup>&</sup>lt;sup>57</sup> State of California Office of Administrative Law, In re: Air Resources Board, Title 13, Code of California Regulations, December 12, 2018,

https://ww3.arb.ca.gov/regact/2018/leviii2018/form400dtc.pdf? ga=2.183723951.866759811.1568583699%E2%80 %931441462912.1552677736

<sup>&</sup>lt;sup>58</sup> California is not among the nation's top ten auto manufacturing states: https://www.mlive.com/auto/index.ssf/2015/03/these\_are\_the\_top\_10\_states\_fo.html

no authority under EPCA to waive the EPCA preemption. All the more reason that EPA has no authority under the Clean Air Act to waive the EPCA preemption.<sup>59</sup>

## III. The SAFE Rule's Modification of Motor Vehicle Standards Is Climatologically Inconsequential.

Shortly after EPA and NHTSA published the proposed SAFE rule, the *Washington Post* ran an article claiming, or rather insinuating through the mouths of experts, that the rule is a plan to doom humanity to a future of planetary ruin. <sup>60</sup> "Last month, deep in a 500-page draft environmental impact statement, <sup>61</sup> the Trump administration made a startling assumption: On its current course, the planet will warm a disastrous 7 degrees by the end of this century," the article reported.

Actually, there is nothing startling about the 7-degree Fahrenheit (4-degree Celsius) projection. It's what you get when you run EPA's climate policy impact model (MAGICC)<sup>62</sup> with an assumed climate sensitivity of 3°C and a forcing trajectory about midway between the IPCC's two highest forcing trajectories, RCP6 and RCP8.5.<sup>63</sup> It's all standard practice and consistent with Obama administration climate modeling.

The EIS finds that replacing the Obama mileage standards with the SAFE rule's preferred option would have vanishingly small impacts on greenhouse gas emissions, global temperatures, and sea levels. Specifically, under the SAFE rule, atmospheric carbon dioxide concentration would reach 789.76 parts per million in the year 2100 instead of 789.11 ppm—an 8/100<sup>th</sup> of a percent increase. That extra 0.65 part per million of carbon dioxide would increase global average annual temperature by 0.003°C and sea levels by 6 millimeters in 2100 (see table below).

<sup>60</sup> Juliet Eilperin, Brady Dennis, and Chris Mooney, "Trump administration sees a 7-degree rise in global temperature by 2100," *Washington Post*, September 28, 2018, <a href="https://www.washingtonpost.com/national/health-science/trump-administration-sees-a-7-degree-rise-in-global-temperatures-by-2100/2018/09/27/b9c6fada-bb45-11e8-bdc0-90f81cc58c5d\_story.html">https://www.washingtonpost.com/national/health-science/trump-administration-sees-a-7-degree-rise-in-global-temperatures-by-2100/2018/09/27/b9c6fada-bb45-11e8-bdc0-90f81cc58c5d\_story.html</a>

<sup>&</sup>lt;sup>59</sup> 84 FR 51324

<sup>&</sup>lt;sup>61</sup> NHTSA, Draft Environmental Impact Statement, The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Year 2021–2026 Passenger Cars and Light Trucks, July 2018, Docket No. NHTSA-2017-0069, <a href="https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/ld\_cafe\_my2021-26\_deis\_0.pdf">https://www.nhtsa.gov/sites/nhtsa.dot.gov/files/documents/ld\_cafe\_my2021-26\_deis\_0.pdf</a>

<sup>&</sup>lt;sup>62</sup> MAGICC, The climate system in a nutshell, http://www.magicc.org/

<sup>&</sup>lt;sup>63</sup> Climate sensitivity is the amount of warming that occurs after the climate system has fully adjusted to a doubling of carbon dioxide-equivalent greenhouse concentration. RCPs are "representative concentration pathways"—projections of how carbon dioxide-equivalent emissions, concentrations, and the associated radiative forcing increase over time.

Table 5.4.2-2. Carbon Dioxide Concentrations, Global Mean Surface Temperature Increase, Sea-Level Rise, and Ocean pH (GCAM Reference) by Alternative<sup>a</sup>

	CO <sub>2</sub> Concentration (ppm)			Global Mean Surface Temperature Increase (°C) <sup>b, c</sup>			Sea-Level Rise (cm) <sup>b, d</sup>			Ocean pH <sup>e</sup>		
	2040	2060	2100	2040	2060	2100	2040	2060	2100	2040	2060	2100
Totals by Al	ternative											
Alt. 0—No Action	479.04	565.44	789.11	1.287	2.008	3.484	22.87	36.56	76.28	8.4099	8.3476	8.2176
Alt. 1	479.15	565.73	789.76	1.288	2.010	3.487	22.87	36.58	76.34	8.4098	8.3474	8.2173
Alt. 2	479.14	565.71	789.72	1.288	2.010	3.487	22.87	36.57	76.33	8.4098	8.3474	8.2173
Alt. 3	479.14	565.70	789.68	1.288	2.009	3.486	22.87	36.57	76.33	8.4098	8.3474	8.2173
Alt. 4	479.12	565.66	789.60	1.287	2.009	3.486	22.87	36.57	76.32	8.4098	8.3474	8.2173
Alt. 5	479.10	565.61	789.48	1.287	2.009	3.486	22.87	36.57	76.31	8.4099	8.3475	8.2174
Alt. 6	479.09	565.57	789.40	1.287	2.009	3.485	22.87	36.57	76.31	8.4099	8.3475	8.2174
Alt. 7	479.07	565.52	789.27	1.287	2.009	3.485	22.87	36.57	76.30	8.4099	8.3475	8.2175
Alt. 8	479.08	565.54	789.32	1.287	2.009	3.485	22.87	36.57	76.30	8.4099	8.3475	8.2175

<sup>&</sup>lt;sup>29</sup> NHTSA used the MAGICC default climate sensitivity of 3.0 °C (5.4 °F).

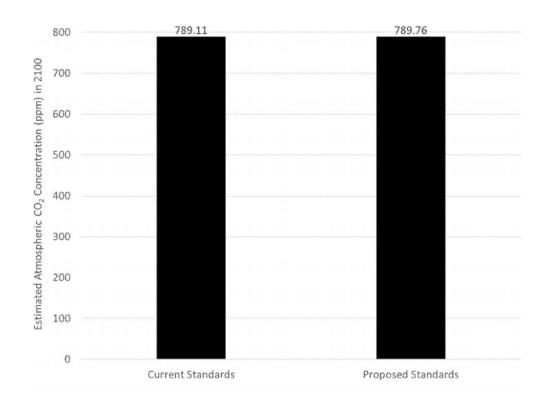
Three one-thousands of a degree Celsius is 27 times smaller than the margin of error (0.08°C) for measuring changes in global average temperature. <sup>64</sup> So, the climate impact of the SAFE rule would be undetectable under current scientific methods.

An unverifiable bump of 0.003°C in global average temperature and six millimeters in sea levels 81 years from now would make no practical difference to weather patterns, coastal flooding, polar bear populations, or any other environmental condition people actually care about. The switch from the Obama standards to the SAFE rule's fuel economy freeze is climatologically irrelevant.

One expert cited by the *Washington Post* excoriated the SAFE rule because its standards "don't do anything" about climate change. However, neither do the Obama standards, as the chart below from SAFE rule makes clear.

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<sup>&</sup>lt;sup>64</sup> NOAA, Global Temperature Uncertainty, <a href="https://www.ncdc.noaa.gov/monitoring-references/faq/global-precision.php">https://www.ncdc.noaa.gov/monitoring-references/faq/global-precision.php</a>



Thank you for your patience in wading through this material. I am happy to try and answer your questions.