

**Petition for Rulemaking to Update  
Department of Energy Regulations at  
10 C.F.R. part 474:  
Electric and Hybrid Vehicle Research,  
Development, and Demonstration  
Program; Petroleum-Equivalent Fuel  
Economy Calculation**

*Date: October 22, 2021*

*Submitted via e-mail*

Natural Resources Defense Council and Sierra Club submit the following petition for rulemaking to update Department of Energy regulations at 10 C.F.R. part 474 that contain procedures for calculating a value for the petroleum-equivalent fuel economy of electric vehicles for use in the Department of Transportation's Corporate Average Fuel Economy program, as required by 49 U.S.C. § 32904(a)(2). The subject regulations have not been updated in more than twenty years and must be revised to account for the best available current data so as to not undermine the effectiveness of federal fuel economy standards.

Natural Resources Defense Council and Sierra Club submit this petition under 5 U.S.C. § 553(e) for the Department of Energy (DOE) to update its regulations at 10 C.F.R. part 474 concerning procedures for calculating a value for the petroleum-equivalent fuel economy of electric vehicles (EVs) for use in the Corporate Average Fuel Economy program administered by the Department of Transportation (DOT).<sup>1</sup> The existing DOE regulations were promulgated via the final rule Electric and Hybrid Vehicle Research, Development, and Demonstration Program; Petroleum-Equivalent Fuel Economy Calculation, 65 Fed. Reg. 36,986 (Jun. 12, 2000). As explained below, DOE is required to review these regulations annually and determine appropriate petroleum-equivalent fuel economy values for EVs based on enumerated statutory factors. DOE has not revised these regulations in more than twenty years and the current values are based on outdated data and circumstances. The regulations are also based on an outdated application of the statutory factors, with the result that existing regulations undermine the CAFE program they are supposed to support. DOE should grant this petition and update the regulations.

## Background

In 1975, Congress passed the Energy Policy and Conservation Act (EPCA), which required the National Highway Traffic Safety Administration (NHTSA) to set corporate average fuel-economy (CAFE) standards for automobiles as part of a suite of measures to reduce energy consumption.<sup>2</sup> Congress also directed the Secretary of Transportation to submit a report with a recommendation on “whether or not electric vehicles” should be included in the CAFE program, including “the manner in which energy requirements of [EVs] may be compared with energy requirements of [internal combustion] vehicles.”<sup>3</sup> That report recommended against making EVs subject to CAFE standards.<sup>4</sup> As to comparing the energy requirements of EVs to internal combustion engine vehicles (ICEVs), the report observed that there were a number of different ways this question could be answered. The agency proposed comparing vehicles “on the basis of overall energy efficiency from primary source to final utilization in the vehicle,” but observed that this approach “will not account for differences in the ‘social value’ of various primary energy sources” and that vehicles could also be compared “on the basis of petroleum consumption,” which, for EVs, might include petroleum used to generate electricity.<sup>5</sup>

Notwithstanding DOT’s recommendations, in 1980 Congress directed DOE “to conduct a seven-year evaluation program of the inclusion of electric vehicles . . . in the calculation of average fuel economy [in the CAFE program] . . . to determine the value and implications of such inclusion

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<sup>1</sup> 5 U.S.C. § 553(e) provides that “each agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule.”

<sup>2</sup> Pub. L. No. 94-163 § 2(5), 89 Stat. 871, 874, 902 (1975). The statute assigns this task to the Secretary of Transportation, who has delegated it to NHTSA. 49 CFR § 1.94(c).

<sup>3</sup> Pub. L. No. 94-163 § 301.

<sup>4</sup> Department of Transportation, Report, *Advisability of Regulating Electric Vehicles for Energy Conservation* at S-1 (August 1976). The recommendation stemmed in significant part from a determination that contemporary EVs would have a similar energy efficiency as internal combustion engine vehicles (ICEVs), but that there was less available potential technology to improve EV efficiency compared to the available potential technology to improve ICEV technology. E.g. *id.* at 3-8. According to the report, regulating EVs under CAFE “would therefore reduce their already marginal competitiveness.” *Id.* at 6-6.

<sup>5</sup> E.g. *id.* at 6-5 to 6-7.

as an incentive for the early initiation of industrial engineering development and initial commercialization of electric vehicles.”<sup>6</sup> DOE was also directed to determine “equivalent petroleum based fuel economy values for various classes of electric vehicles,” taking into account:

- (i) the approximate electrical energy efficiency of the vehicles considering the vehicle type, mission, and weight;
- (ii) the national average electricity generation and transmission efficiencies;
- (iii) the need of the Nation to conserve all forms of energy, and the relative scarcity and value to the Nation of all fuel used to generate electricity; and
- (iv) the specific driving patterns of electric vehicles as compared with those of petroleum fueled vehicles.<sup>7</sup>

DOE promulgated procedures for calculating EV CAFE values in April 1981.<sup>8</sup> To account for factor 1, the agency chose test procedures to measure the electrical efficiency of an EV.<sup>9</sup> The remaining factors were ostensibly captured as subcomponents of a petroleum-equivalency factor (PEF), which varied annually with changes in the subcomponent terms. The PEF included generation and transmission efficiency terms to account for factor 2.<sup>10</sup> To account for “the relative value” of generation fuels required by factor 3, DOE weighted each type of input fuel in the generation efficiency term by the ratio of that fuel’s marginal price to the marginal price of gasoline (per Btu).<sup>11</sup> The 1981 rule did not account specifically for “the need of the Nation to conserve all forms of energy” or for “the relative scarcity” of generation fuels. As to “the specific driving patterns” of EVs in factor 4, DOE determined that there was insufficient data available and assigned the driving pattern factor at a unity value of 1.0.<sup>12</sup> The agency also included an accessory factor (AF) that accounted for petroleum-powered accessories (such as cabin heaters) found in some EVs.<sup>13</sup>

In 1987, DOE completed the mandated seven-year evaluation, concluding that the EV CAFE provision was not effective at incentivizing early industrial development or initial commercialization of EVs.<sup>14</sup> The agency noted, however, that there was little apparent downside in

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<sup>6</sup> Chrysler Corporation Loan Guarantee Act of 1979, Pub. L. 96-185 § 18, 93 Stat. 1324 (Jan 7. 1980). In the late 1970s, one of the leading U.S. automakers, the Chrysler Corporation, was facing huge financial losses due in part to the company’s decision “to become specialists in large, gas-guzzling cars . . . right at the time . . . [of] oil boycotts and crises with the price of gasoline.” Nat’l Public Radio, *Examining Chrysler’s 1979 Rescue*, NPR.ORG (Nov. 12, 2008), available at <https://www.npr.org/templates/story/story.php?storyId=96922222>. In exchange for Chrysler committing to an operating plan that included “an energy efficiency plan setting forth steps to be taken by the Corporation to reduce United States dependence on petroleum,” Congress extended to Chrysler about \$1.5 billion in loan guarantees. See Pub. L. 96-185 §§ 2(8), 4.

<sup>7</sup> *Id.* § 18.

<sup>8</sup> See Electric and Hybrid Vehicle Research, Development, and Demonstration Program; Equivalent Petroleum-Based Fuel Economy Calculation, Final Rule, 46 Fed. Reg. 22,747 (April 21, 1981).

<sup>9</sup> *Id.* at 22,748–22,749.

<sup>10</sup> *Id.* at 22,748.

<sup>11</sup> *Id.* at 22,748–22,749.

<sup>12</sup> *Id.* at 22,750.

<sup>13</sup> *Id.*

<sup>14</sup> DOE, Electric and Hybrid Vehicles Program, 11th Annual Report to Congress at 30 (March 1988).

having Congress provide for inclusion of EVs in the CAFE program in the future.<sup>15</sup> The calculation of the annual petroleum equivalency factors was not extended past 1987.<sup>16</sup>

Over time, Congress amended various aspects of the statutes governing the CAFE program,<sup>17</sup> and in 1994, codified the program as amended within title 49, United States Code.<sup>18</sup> As then codified, NHTSA was directed to set “maximum feasible” average fuel economy standards for each model year.<sup>19</sup> In carrying out that determination, however, NHTSA was prohibited from “consider[ing] the fuel economy of dedicated automobiles,” which, as defined, included EVs.<sup>20</sup> But if an automaker in fact produced any EVs, the agency was directed to include in the CAFE compliance calculation “equivalent petroleum based fuel economy values determined by [DOE]” for those EVs.<sup>21</sup> DOE, in turn, was required to “review those values each year and determine and propose necessary revisions based on” the four statutory factors listed above.<sup>22</sup>

In February 1994, “[d]ue to continued technology development and a strong interest in the corporate average fuel economy of electric vehicles from industry,” DOE proposed to revive and update the method of calculating EV CAFE values.<sup>23</sup> The agency proposed a suite of changes from the 1981 rule, including to “change the way the electricity generation output, input, and relative value terms are calculated,” to “incorporat[e] off-peak electric vehicle charging and the relative scarcity of electricity generation fuel sources,” and to change the test procedure used to determine the electrical efficiency of EVs.<sup>24</sup> DOE noted that “[w]hile the determination of the energy efficiency of an [EV] . . . is a straightforward task based on physical testing,” the remaining required factors were “subject to less precise quantification.”<sup>25</sup> As proposed, the PEF would no longer have included the “relative value” weighting of fuels by marginal price per BTU, and would instead have added a “relative scarcity” factor derived from the U.S. share of the world reserve market and “the rate at which the U.S. [was] depleting each fuel source’s reserves.”<sup>26</sup> These proposed regulations did not meaningfully account specifically for “the need of the Nation to conserve all forms of energy” or for “the relative . . . value” of generation fuels. The 1994 proposal was never finalized.

In 1999, DOE withdrew the 1994 proposal and proposed an alternative PEF methodology.<sup>27</sup> Noting “criticisms related to the scarcity factor,” “DOE elected to perform an additional search of

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<sup>15</sup> *Id.*

<sup>16</sup> See Electric and Hybrid Vehicle Research, Development, and Demonstration Program; Equivalent Petroleum-Based Fuel Economy Calculation, Proposed Rule, 59 Fed. Reg. 5336, 5337 (Feb. 4, 1994).

<sup>17</sup> E.g. Pub. L. 100-494 §6(a), 102 Stat. 2411 (Oct. 14, 1988); Pub. L. 102-486 § 403, 106 Stat. 2776 (Oct. 24, 1992).

<sup>18</sup> Pub. L. 103-272 §§ 1(a); (e), 108 Stat. 745 (July 5, 1994).

<sup>19</sup> *Id.* § 1(e), adding 49 U.S.C. §§ 32902(a), (c), (f), (g).

<sup>20</sup> *Id.* § 1(e), adding 49 U.S.C. §§ 32901(a)(1), (8); 32902 (h)(1).

<sup>21</sup> *Id.* § 1(e), adding 49 U.S.C. §§ 32904(a)(2).

<sup>22</sup> *Id.*

<sup>23</sup> Electric and Hybrid Vehicle Research, Development, and Demonstration Program; Equivalent Petroleum-Based Fuel Economy Calculation, Proposed Rule, 59 Fed. Reg. 5336, 5337 (Feb. 4, 1994).

<sup>24</sup> *Id.*

<sup>25</sup> *Id.*

<sup>26</sup> *Id.* at 5338.

<sup>27</sup> Electric and Hybrid Vehicle Research, Development, and Demonstration Program; Petroleum-Equivalent Fuel Economy Calculation, Proposed Rule, 64 Fed. Reg. 37,905 (July 14, 1999).

the literature” and “determined that the fuels used to produce electricity” “are quite abundant” such that “scarcity [did] not appear to be a concern” and “should not be a guiding factor in the rulemaking at [that] time.”<sup>28</sup> DOE then examined existing law [at 49 U.S.C. § 32905] for determining the petroleum-equivalent fuel economy of other types of alternative fuel vehicles.<sup>29</sup> “Two of the most common liquid alternative fuels,” M85 and E85, contained 85% alternative fuel and “15 percent unleaded gasoline by volume,” so the statute “deemed” “[t]he petroleum equivalent fuel economy of E85 and M85 powered vehicles” to be “the measured fuel economy value” divided by 0.15.<sup>30</sup> DOE then noted that Section 32905(c) “extends this approach to gaseous fueled vehicles,” “divid[ing] by 0.15,” even though the gaseous fuel “contains no gasoline whatsoever.”<sup>31</sup>

Observing that “the methods specified in [Section 32905]” “intentionally and substantially overstated” the “true energy efficiency of” those vehicles, DOE proposed an EV PEF “conceptually based on the [provisions] at 49 U.S.C. 42905(c).”<sup>32</sup> The agency contended that this approach would “help to accelerate the early commercialization of electric vehicles” and be “more consistent with the regulatory treatment of other alternative fuel vehicles.”<sup>33</sup> DOE thus proposed eliminating the relative value and scarcity factors from the 1981 rule and the 1994 proposal and instead including a “fuel content” factor of 1/0.15 in the PEF.<sup>34</sup> In effect, the fuel content factor added “a multiple of 6.67” to every EV’s imputed fuel economy.<sup>35</sup> DOE justified this multiplier, drawn from statutory provisions applicable to gaseous fueled vehicles, as providing “consistency,” “similar treatment to manufacturers of all types of alternative fuel vehicles,” and “simplicity and directness.”<sup>36</sup>

The agency finalized the proposal in 2000 without substantial modification.<sup>37</sup> DOE also committed to review the regulations after five years and “publish the findings of the review.”<sup>38</sup> Petitioners have been unable to locate this publication, and it is not clear if the review occurred.

## **DOE should update regulations for calculating EV CAFE values.**

DOE’s regulations for calculating CAFE program fuel economy values for EVs are long overdue to be updated. Statute requires the agency to “review those values *each year* and determine and propose necessary revisions” based on the enumerated statutory factors.<sup>39</sup> The regulations have not been updated in more than twenty years and the data underlying the extant regulations are materially—and increasingly—inaccurate. Further, the statute requires that the equivalency values be “based on” the statutory factors.<sup>40</sup> The extant EV equivalency values are instead based on other

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<sup>28</sup> *Id.* at 37,907.

<sup>29</sup> *Id.*

<sup>30</sup> *Id.*

<sup>31</sup> *Id.*

<sup>32</sup> *Id.* at 37,907.

<sup>33</sup> *Id.* at 37,906.

<sup>34</sup> *Id.* at 37,907–908.

<sup>35</sup> *Id.* at 37,908.

<sup>36</sup> *Id.*

<sup>37</sup> Electric and Hybrid Vehicle Research, Development, and Demonstration Program; Petroleum-Equivalent Fuel Economy Calculation, Final Rule, 65 Fed. Reg. 36,986 (June 12, 2000).

<sup>38</sup> See 10 C.F.R. § 474.5.

<sup>39</sup> 49 U.S.C. § 32904(a)(2)(B) (emphasis added).

<sup>40</sup> 49 U.S.C. § 32904(a)(2)(B).

statutory provisions applicable to gaseous fueled vehicles, with the consequence that EV CAFE values are driven by the seven-fold multiplier of the “fuel content factor”<sup>41</sup> rather than the statutory factors applicable to EVs. The effect is that EV CAFE values are significantly inflated beyond what the relevant statutory factors contemplate.

The consequences of outdated regulations are not academic. Because NHTSA is prohibited from considering the fuel economy of EVs when determining the maximum feasible CAFE standards for a given model year,<sup>42</sup> but must include EVs when calculating compliance with those standards,<sup>43</sup> excessively high imputed fuel economy values for EVs means that a relatively small number of EVs will mathematically guarantee compliance without meaningful improvements in the real-world average fuel economy of automakers’ overall fleets.

**DOE should update its regulations to include the best available data.**

The values for several component terms in the PEF equation are no longer accurate. For example, the “gasoline-equivalent energy content of electricity factor” ( $E_g$ ) is determined by combining various values for the efficiency of national electricity and petroleum generation and distribution.<sup>44</sup> The efficiency of many of these processes has improved over the last twenty years. When DOE last updated regulations in 2000, the “U.S. average fossil-fuel electricity generation efficiency” ( $T_g$ ) was 0.328, but the actual current efficiency is closer to 0.389.<sup>45</sup>

Further, the generation fuel mix has changed significantly since 2000. In 2000, fossil fuels made up about 71% of the generation mix, while renewables made up only about 9% and nuclear power provided the remaining 20%.<sup>46</sup> In 2020, fossil fuels made up only about 60%, and within that pool natural gas is increasingly supplanting coal and petroleum.<sup>47</sup> Renewables made up 20% and will continue to grow, and nuclear energy made up the remaining 20%.<sup>48</sup> DOE should consider whether, in light of the required statutory factors, using a fossil-fuel only efficiency term is appropriate. DOE should also determine how, in light of the statutory scarcity, value, and conservation considerations, fuel sources such as wind and solar should be treated in terms of generation efficiency.

Other real-world changes since 2000 should also inform the agency’s regulations. For example, data on the harms of fossil-fuel driven climate change, on the scale of petroleum consumption by regulated vehicles, and on the projected fleet share of EVs, have all changed over the past twenty years. DOE should ensure that its regulations are based on the best available data fitted to the required statutory considerations.

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<sup>41</sup> 65 Fed. Reg. at 36,987.

<sup>42</sup> 49 U.S.C. § 32902(h).

<sup>43</sup> 49 U.S.S. § 32904(a)(2)(B).

<sup>44</sup> 65 Fed. Reg. at 36,987.

<sup>45</sup> Compare *id.* with, e.g., U.S. Energy Information Administration (EIA), *Electric Power Annual*, Data Tables, <https://www.eia.gov/electricity/annual/> (last visited October 22, 2021); EPA, *eGRID: Download Data*, <https://www.epa.gov/egrid/download-data> (last visited October 22, 2021).

<sup>46</sup> EIA, *Total Energy*, <https://www.eia.gov/totalenergy/data/annual/showtext.php?t=ptb0802a> (last visited October 8, 2021).

<sup>47</sup> EIA, *Electricity explained*, <https://www.eia.gov/energyexplained/electricity/electricity-in-the-us-generation-capacity-and-sales.php> (last visited October 8, 2021).

<sup>48</sup> *Id.*

**DOE should update its regulations to comport with the required statutory factors and to support the goals of DOT's CAFE program.**

Existing regulations are arguably inconsistent with DOE's statutory mandate. The statute provides that EV CAFE values should be "based on" the statutory factors at 49 U.S.C. § 32904. But current regulations are actually "based on the existing regulatory approach at 49 U.S.C. § 32905 for determining the petroleum-equivalent fuel economy of alternative [gaseous] fueled vehicles."<sup>49</sup> The result is that the magnitude of the PEF is primarily driven by the 1/0.15 multiplier applicable to those vehicles rather than being driven by the considerations mandated for EVs.

To illustrate, the value of the PEF currently attributable to the Section 32904 EV factors is only 12,307 Wh/gal.<sup>50</sup> But with the addition of the Section 32905 multiplier, the PEF becomes 82,049 Wh/gal.<sup>51</sup> In practical terms, the EV fuel economy used for CAFE compliance is seven-fold higher due to the inclusion of the Section 32905 multiplier. So, for example, for the bestselling 2021 Tesla Model Y (Standard Range RWD) measured at 260 Wh/mile,<sup>52</sup> the CAFE value under DOE's current treatment of the Section 32904 factors alone would be 51 mpg,<sup>53</sup> but with the multiplier the same vehicle is imputed a 315 mpg value for CAFE compliance purposes.<sup>54</sup>

The entire delta from 51 mpg to 315 mpg is virtual. It does not reflect any efficiency characteristic of the EV or of the national electricity generation system, nor does it reflect any discretionary adjustment tied to the relevant statutory factors. Because CAFE is a fleet average standard,<sup>55</sup> the virtual increase in EV fuel economy far above the average means that automakers do not need to improve the fleet efficiency of their below-average ICEVs nearly as much to comply with the standard. And NHTSA is constrained from fully compensating for the virtual increase because the statute prohibits NHTSA from "consider[ing] the fuel economy of [EVs]" when determining what average standard is maximum feasible for a model year.<sup>56</sup>

If the 1/0.15 multiplier was accounting for a real-world improvement in fuel conservation or had the effect of causing net improvements in real-world fuel efficiency, then the multiplier might be more defensible. But DOE justified its inclusion primarily on the basis of affording similar treatment to EVs as gaseous fueled vehicles.<sup>57</sup> As a purely legal matter, this justification is questionable, as the statute expressly provides for *different* treatment between these types of vehicles.<sup>58</sup>

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<sup>49</sup> 65 Fed. Reg. at 36987.

<sup>50</sup> *Id.*

<sup>51</sup> *Id.*

<sup>52</sup> DOE, *Compare Side-by-Side for 2021 Tesla Model Y Standard Range RWD*

<https://www.fueleconomy.gov/feg/Find.do?action=sbs&id=43880> (last visited October 6, 2021).

<sup>53</sup> Updating the underlying data from the 2000 rule values and reconsidering the appropriate application of the statutory factors in light of current circumstances and program goals will likely increase this value.

<sup>54</sup> These values come from dividing the PEF (in Wh/gal) by the EPA-measured combined electrical energy consumption value (in Wh/mile). See 10 C.F.R. part 474, App.

<sup>55</sup> 49 U.S.C. § 32902.

<sup>56</sup> See 49 U.S.C. §§ 32901(a)(1), (8), § 32902(h).

<sup>57</sup> 65 Fed. Reg. at 36,987.

<sup>58</sup> Cf., e.g., *Russello v. United States*, 464 U.S. 16, 23 (1983) ("Where Congress includes particular language in one section of a statute but omits it in another section of the same Act, it is generally presumed that Congress acts intentionally and purposely in the disparate inclusion or exclusion.") (cleaned up).

DOE should holistically review its approach to calculating the PEF to ensure its regulations comport with the relevant statutory language. For example, the statute provides that DOE should account for “the need of the United States to conserve all forms of energy.”<sup>59</sup> But current PEF regulations do not appear to meaningfully address the need for national scale energy conservation, with DOE only citing this consideration in passing as a justification for including the “accessory factor” in the PEF equation.<sup>60</sup> It is not plausible that Congress intended the sweeping direction to consider “the need of the United States to conserve all forms of energy” to be satisfied merely by minor PEF adjustments for the “minority of electric vehicles . . . in colder climates” that “may be equipped” with petroleum-powered cabin heaters.<sup>61</sup> Particularly given the ongoing and increasing threat from fossil-fuel-driven climate change, DOE’s regulations should more meaningfully address the need to conserve all forms of energy.<sup>62</sup>

DOE should also work with NHTSA to ensure PEF regulations further the goals of the CAFE program. By way of illustration, DOE historically suggested that EV CAFE values should be high to help with “early commercialization” of EVs.<sup>63</sup> But that idea originates from now obsolete language in the 1979 Chrysler Corporation Loan Guarantee Act that directed DOE to evaluate whether including EVs in CAFE would have such an effect.<sup>64</sup> The agency reported to Congress that the EV CAFE provision was not effective at incentivizing early commercialization,<sup>65</sup> and when Congress consolidated the CAFE program in title 49 in 1994, it did not include that language from the Chrysler Loan Act.<sup>66</sup> In any event, any consideration of extra-textual incentives must not undermine the CAFE program’s “overarching goal of fuel conservation” for *all* light-duty vehicles.<sup>67</sup>

The early commercialization of EVs has already occurred and EVs comprise a significant and increasing share of new motor vehicle sales each model year.<sup>68</sup> DOE should account for these changed circumstances, and work with NHTSA to ensure that the fuel economy imputed to EVs pursuant to 49 U.S.C. § 32904 is not set at a level that undermines the overarching statutory goals of energy and fuel conservation. To be sure, Petitioners believe that producing significant and increasing numbers of EVs should be an available means for automakers to comply with increasingly

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<sup>59</sup> 49 U.S.C. § 32904(a)(2)(B)(iii).

<sup>60</sup> 65 Fed. Reg. at 36,987; *cf.* 59 Fed. Reg. at 5338.

<sup>61</sup> *Compare* 49 U.S.C. § 32904(a)(2)(B)(iii) *with* 65 Fed. Reg. at 36,987.

<sup>62</sup> As another example, the statute contemplates that the procedure for calculating the PEF might be different across “various classes of electric vehicles,” 49 U.S.C. § 32904(a)(2)(B), but DOE has only issued regulations equally applicable to all classes of EVs. DOE should consider whether it is appropriate to differentiate among different classes of EVs for purposes of calculating CAFE values.

<sup>63</sup> 64 Fed. Reg. at 37,906.

<sup>64</sup> *Id.; compare* Pub. L. 96-185 § 18(1) *with* § 18(3).

<sup>65</sup> DOE, Electric and Hybrid Vehicles Program, 11th Annual Report to Congress at 30 (March 1988).

<sup>66</sup> See Pub. L. 103-272 §§ 1(a); (e), 108 Stat. 745 (July 5, 1994).

<sup>67</sup> *Ctr. for Biological Diversity v. NHTSA*, 538 F.3d 1172, 1195 (9th Cir. 2008) (quoting *Ctr. for Auto Safety v. NHTSA*, 793 F.2d 1322, 1340 (D.C. Cir. 1986)).

<sup>68</sup> E.g. The White House, Press Release, *FACT SHEET: President Biden Announces Steps to Drive American Leadership Forward on Clean Cars and Trucks* (Aug. 5, 2021) (“President Biden Outlines Target of 50% Electric Vehicle Sales Share in 2030 . . .”), available at <https://www.whitehouse.gov/briefing-room/statements-releases/2021/08/05/fact-sheet-president-biden-announces-steps-to-drive-american-leadership-forward-on-clean-cars-and-trucks/>.

stringent CAFE standards. But the relative energy efficiency of EVs compared to ICEVs, coupled with the ongoing shift to increasingly efficient electricity generation from renewable sources, should ensure that baseline EV CAFE values will compare favorably to leading ICEVs. The statute further provides DOE additional discretion—through consideration of factors “subject to less precise quantification”<sup>69</sup> such as “the need of the United States to conserve all forms of energy,” and “the relative scarcity and value to the Nation of all fuel used to generate electricity”<sup>70</sup>—to adjust that baseline value to a level that will optimize the overall real-world reduction in fuel consumption and achieve the core purpose of EPCA’s fuel-economy chapter.

## **Conclusion**

For the above reasons, Petitioners ask that DOE grant this petition and initiate a rulemaking process to revise and update the regulations at 10 C.F.R. part 474 for calculating equivalent petroleum-based fuel economy values for EVs. Petitioners thank DOE for its consideration.

Respectfully submitted,

Pete Huffman  
NATURAL RESOURCES DEFENSE COUNCIL

Joshua Berman  
Vera P. Pardee, Law Office of Vera Pardee  
COUNSEL FOR SIERRA CLUB

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<sup>69</sup> 59 Fed. Reg. at 5337.

<sup>70</sup> 49 U.S.C. § 32904(a)(2)(B)(iii).