

June 6, 2023

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(Passthroughs and Special Industries)
Internal Revenue Service
1111 Constitution Ave., NW
Washington, DC 20224

Re: Request for Comments on REG-120080-22, the Proposed Clean Vehicle Credit Regulations
RIN 1545-BQ52
Submitted via www.regulations.gov

Dear Ms. Porter,

I appreciate this opportunity to provide comments on REG-120080-22, the proposed section 30D clean vehicle credit regulations (“The Proposed Rules”). The Proposed Rules lay out how the Treasury Department intends to implement tax subsidies for electric vehicles, a highly consequential part of Public Law 117-169 (commonly known as “The Inflation Reduction Act”). It is imperative that the executive branch implement the law as written according to the intent of the people’s elected representatives in Congress.

The Proposed Rules unfortunately deviate in numerous ways from the clear meaning of the legislative text of the “Inflation Reduction Act.” Unless resolved, these deviations would lead to a dramatic expansion of the clean vehicle credit, far beyond what was originally envisioned. Largely because of the liberal interpretations of the subsidies in the legislation, it is becoming increasingly certain that the “Inflation Reduction Act” will *add* significantly to the 10-year deficit and increase inflation. This is precisely the opposite of the stated purpose of the legislation – namely to reduce inflation through deficit reduction.

Before describing specific issues with the Proposed Rules, it is helpful to describe the unique context in which the legislation came to exist and some of the fallout related to how the bill is being implemented.

Legislative Background

Upon announcing he had reached an agreement with Senate Majority Leader Chuck Schumer, D-N.Y., on the Inflation Reduction Act, Senator Joe Manchin, D-W.Va., the bill’s cosponsor and key architect, gave the following statement:

“Over the last year, leaders in Washington have ignored repeated warnings about the severe threat of inflation and the consequences of unprecedented domestic spending. Despite these concerns and my calls to give the country time to fully realize the impacts of such historic levels of spending and our inflation crisis, many Democrats have continued to push for trillions more in spending to meet a political deadline. As difficult as it is for some to hear, political calls to action that ignore the severity of the crises we face and will continue to face are a recipe for national disaster.

“We must be honest about the economic reality America now faces if we want to avoid fanning the flames of inflation. At its core, the purpose of reconciliation is to get our economic and financial house in order. Contrary to foolish talk otherwise, America cannot spend its way out of debt or out of inflation. With respect to my position, I have never and will never walk away from

solving the problems facing the nation we all love. I strongly support the passage of commonsense policies that reduce inflation and focus on the major challenges confronting America today and in the future.

“I have worked diligently to get input from all sides on the legislation my Democratic colleagues have proposed and listened to the views of my Republican friends to find a path forward that removes inflationary policies so that Congress can respond to Americans’ suffering from high prices. Based on that work, I now propose and will vote for the Inflation Reduction Act of 2022. Rather than risking more inflation with trillions in new spending, this bill will cut the inflation taxes Americans are paying, lower the cost of health insurance and prescription drugs, and ensure our country invests in the energy security and climate change solutions we need to remain a global superpower through innovation rather than elimination. Whether it is the threats to our energy security, high inflation, exploding national debt, persistent income inequality, supply chain chaos or the emergence of a new Cold War, it is time to put away the partisan swords and advance legislation that is in the best interests of the future of this nation and the American people we all represent – not just one party.

“It is past time for America to begin paying down our \$30 trillion national debt and get serious about the record inflation that is crushing the wages of American workers...”¹

In those first 412 words of Manchin’s statement, there were 11 references to inflation, five references to spending (that it is excessive or needs to be reduced), and three references to reducing the debt, not to mention a call to get our financial house in order. There was only one mention of the climate. This gives a sense of the relative priorities of the bill’s most pivotal architect. If the bill had not received a Congressional Budget Office score showing that the bill would achieve a 10-year deficit reduction, it is almost certain that Congress would not have passed the bill as it is.² The bill’s predecessor, the “Build Back Better Act” failed to win Manchin’s support and failed to pass the senate precisely because it was widely perceived that the deficit spending in the bill would have added inflationary fuel to the fire.³

Given the stated importance attached to the bill’s supposed deficit- and inflation-reduction, it is incumbent upon the executive branch generally, and the Treasury Department specifically, to ensure that provisions that were designed to keep the costs of the clean vehicle subsidies down are faithfully implemented and are not relaxed for expedience.

Manchin’s Critique

In a recent op-ed in the Wall Street Journal, titled “Biden’s Inflation Reduction Act Betrayal,” Senator Manchin expressed his frustration that the \$238 billion of his bill’s intended deficit reduction (based on the CBO’s scoring of the Inflation Reduction Act) is being subverted to instead “increase clean-energy spending to potentially deficit-breaking levels.” Clearly, in Manchin’s view, his legislation is not being implemented as intended.

¹ Senator Joe Manchin press release, “Manchin Supports Inflation Reduction Act of 2022,” July 27, 2022. <https://www.manchin.senate.gov/newsroom/press-releases/manchin-supports-inflation-reduction-act-of-2022> (accessed May 3, 2023).

² Congressional Budget Office, “Estimated Budgetary Effects of H.R. 5376, the Inflation Reduction Act of 2022 as Amended in the Nature of a Substitute (ERN22335) and Posted on the Website of the Senate Majority Leader on July 27, 2022, https://www.cbo.gov/system/files/2022-08/hr5376_IR_Act_8-3-22.pdf (accessed May 8, 2023).

³ Amara Omeokwe, “Manchin Rejected Biden Bill Over Inflation, Debt Concerns. How Founded Are Those Worries?” *The Wall Street Journal*, December 20, 2021, <https://www.wsj.com/articles/manchin-rejected-biden-bill-over-inflation-debt-concerns-how-founded-are-those-worries-11639958265> (accessed May 8, 2023).

Here is a sampling of what Mr. Manchin wrote in that op-ed:⁴

“Despite explicit direction from Congress to pay down our debt in the Inflation Reduction Act, the administration seems more determined than ever to pervert that law and abuse existing authorities to increase spending.”

“Yet instead of implementing the law as intended, unelected ideologues, bureaucrats and appointees seem determined to violate and subvert the law to advance a partisan agenda that ignores both energy and fiscal security. Specifically, they are ignoring the law’s intent to support and expand fossil energy and are redefining “domestic energy” to increase clean-energy spending to potentially deficit-breaking levels. The administration is attempting at every turn to implement the bill it wanted, not the bill Congress actually passed. Ignoring the debt and deficit implications of these actions as the time nears to raise the debt ceiling isn’t only wrong, it’s policy and political malpractice.”

“The second step is for Mr. Biden to instruct his administration to implement the Inflation Reduction Act as written and stop redefining its credits and other subsidies. That alone would save the American taxpayer hundreds of billions of dollars in needless spending.”

The several comments I provide below identify numerous ways in which the Proposed Rules as written make the clean vehicle tax credits more expansive and more expensive than is warranted by the bill’s text. I hope that my comments help to clarify some of the more problematic issues with how the Proposed Rules are written and that my recommendations prove to be helpful in resolving these deep concerns.

Comment #1: The preamble to the Proposed Rules partially misstates the purpose of the amendments to section 30D.

The Treasury Department must prescribe rules that faithfully execute the law as written, and where there is ambiguity in the legislative text Treasury should adhere to the intent of lawmakers. Therefore, it is important that there is some common understanding of the purpose of the legislation or specific provisions.

Section II of the *Background* to the Proposed Rules, describes the purpose of the amendments to Section 30D as follows:

“In general, the purpose of these amendments is to promote the purchase and use of new clean vehicles by lower and middle-income Americans, to promote resilient supply chains and domestic manufacturing, to strengthen supply chains with trusted trading partners, to protect against improper credit claims, and to achieve significant carbon emissions reductions.”

There are a few issues with this statement of purpose that should be clarified.

First, it isn’t accurate to claim that a goal of these provisions was “to strengthen supply chains with trusted trading partners.” While that is a laudable goal, there is nothing in the bill that promotes trade based on the level of trust between our countries. Nothing like the term “trusted trading partner” appears in the bill text at all. The bill did, however, add a restriction in Section 30D(e)(1)(A)(i) that to qualify for

⁴ Joe Manchin, “Biden’s Inflation Reduction Act Betrayal,” *The Wall Street Journal*, March 29, 2023, <https://www.wsj.com/articles/biden-inflation-reduction-act-betrayal-joe-manchin-debt-ceiling-budget-fossil-fuels-green-energy-dc37738e> (accessed May 3, 2023).

the clean vehicle credit, a certain percentage of the critical minerals in the vehicle battery must have been extracted or processed within the United States or a country with which the U.S. has a free trade agreement in effect. The U.S. has strong trade relationships with many trusted partners, but not all of these countries have free trade agreements in effect. (See Comment #2 for more on how “free trade agreement” should be correctly interpreted.) However, it also would be inaccurate to say that the purpose of the amendments to Section 30D were designed to strengthen supply chains with countries with which the U.S. has a free trade agreement in effect. Section 30D(e)(1)(A)(i) restricts the clean vehicle tax credit based on where extraction and processing activities occur, restrictions that were imposed in the credit’s precursor, the Plug-In Electric Drive Vehicle Credit. The purpose of the new protectionist restrictions in the “Inflation Reduction Act” was not to strengthen trading relationships at all. They were intended to lower the costs of the clean vehicle tax credit (a point I will discuss further in the next paragraph) and to limit how much of the tax credit was captured by companies and individuals outside the United States, especially hostile governments. The reality that legislators were concerned about violating the terms of free trade agreements with such new restrictions hardly means that the purpose of the amendments to Section 30D was to *strengthen* trade relationships. There was, however, particular concern about how the credits would affect China’s large electric vehicle industry as decoupling supply chains from China was, and remains, a major priority for many lawmakers.

Second, the stated purpose of the amendments as described in Section II of the *Background* to the Proposed Rules omits the central purpose of the bill. As explained in the *Legislative Background* section and the *Manchin’s Critique* section, the central purpose of the bill, according to the bill’s cosponsor and chief architect, was to reduce inflation by cutting the deficit. Indeed, that is why the bill was originally titled “The Inflation Reduction Act.” Since the passage of the bill was premised on it reducing deficits and inflation, interpretation of the bill’s provisions should consistently factor in these constraints.

Third, it is superfluous to state that the Section 30D amendments are intended: 1) to promote the purchase and use of new clean vehicles by lower- and middle-income Americans and 2) to achieve carbon emissions reductions. The only way in which the amendments to Section 30D may reduce carbon emissions is by promoting the purchase and use of new clean vehicles (specifically the extension of the credit added to Section 30D(b)(2) and (3) and the elimination of the manufacturer limitation on the number of vehicles sold that qualify for the credit (in Section 13401(d) of Public Law 117-169). Most of the other provisions amending Section 30D would *limit* the credit in one way or another and would likely limit the amount of carbon emissions reductions that will be achieved. This includes requiring North American assembly, imposing stricter reporting requirements, critical minerals domestic (or free-trade) content requirements, battery component requirements, excluded entities, one credit per vehicle limitations, income limitations, and MSRP limitations.

Therefore, the stated purpose of the amendments to Section 30D should be revised as follows:

“In general, the purpose of these amendments is to promote the purchase and use of new clean vehicles by lower and middle-income Americans, to decouple critical supply chains from countries with adversarial governments, to protect against improper credit claims, and to achieve significant deficit reduction.”

The new regulations related to Section 30D amendments should also be made to reflect the prioritization of deficit reduction.

Comment #2: The interpretation of “free-trade agreement” is overly broad and inconsistent with both the bill’s intent and common usage of the term.

In Section II of the *Background* in the preamble to the Proposed Rules, where it describes proposed 30D(c)(7), it states that “The IRA’s amendments to section 30D expand the incentives for taxpayers to purchase new clean vehicles and for vehicle manufacturers to increase their reliance on supply chains in the United States and *in countries with which the United States has reliable and trusted economic relationships.*” However, the text of Public Law 117-169 includes no such language about trusted economic relationships.

There is an important semantic difference between an economic relationship and an economic agreement, just as there is a difference between two individuals having a friendly working relationship vs. two individuals entering a legal contract. When the IRA speaks of a free trade agreement, it clearly implies more than a strong economic relationship, and “countries with which the United States has a free trade agreement” should in no way be construed as including those with which the United States merely has a warm economic relationship.

Moreover, *free trade* agreement (FTA) must be differentiated from a trade agreement more generally speaking. According to a Congressional Research Service (CRS) report last updated on December 28, 2021, the United States is “party to 12 bilateral free trade agreements (with Australia, Bahrain, Chile, Colombia, Israel, Jordan, South Korea, Morocco, Oman, Panama, Peru, and Singapore), and two regional FTAs (United States-Mexico-Canada Agreement and Dominican Republic-Central America-United States Free Trade Agreement (CAFTA-DR)).”⁵ The report equates free trade agreements with “comprehensive trade agreements covering ‘substantially all trade’ between partners”

The CRS report goes on to note that “the United States has also negotiated more limited agreements that have focused on select bilateral trade and tariff issues; recent examples include the “phase one” agreements with China and Japan and a limited tariff agreement with the European Union.” It refers to these agreements as “limited scope agreements”, not FTAs.⁶

A clear distinction must be drawn between FTAs (what REG-120080-22 labels as “comprehensive free trade agreements”) and other trade agreements. Clearly, it would go against the intent of the legislation to argue that the “phase one” trade agreement with China qualifies as a free trade agreement and that the clean vehicle tax credits should be extended accordingly. Although there is an agreement in place between the U.S. and China that somewhat liberalizes certain trade between the countries, nobody would contend that the U.S. and China have a free trade agreement. Indeed, more than any other country, China is an important reason that the international restrictions on the credit exist in the first place.

Likewise, until the writing of the Inflation Reduction Act, the idea that the U.S. had a free trade agreement in place with Japan or the European Union would have been broadly dismissed. The trade agreement between the U.S. and Japan, for example, only covers about 5% of the goods and services traded between the countries.⁷ Notably, the U.S.-Japan and U.S.-European Union trade agreements do not even ensure that vehicle sales between the countries are free from tariffs. The United States imposes a 2.5% tariff on Japanese and European Union automobiles and a 25% tariff on their light trucks.^{8,9} There is

⁵ Keigh E. Hammond, Congressional Research Service, “Major Votes on Free Trade Agreements and Trade Promotion Authority,” December 28, 2021, <https://crsreports.congress.gov/product/pdf/R/R45846> (accessed May 3, 2023).

⁶ *Ibid.*

⁷ Cathleen D. Cimino-Isaacs, Congressional Research Service, “U.S.-Japan Trade Agreement Negotiations,” November 9, 2022, <https://crsreports.congress.gov/product/pdf/IF/IF11120> (accessed May 5, 2023).

⁸ *Ibid.*

⁹ United States International Trade Commission. Harmonized Tariff Schedule of the United States (2023 HTSA Revision 4). HTS, May 5, 2023, <https://hts.usitc.gov/current>.

an inherent inconsistency in allowing “free-trade” subsidies for Japanese-made electric vehicle batteries at the same time as tariffs are imposed on the vehicles themselves.

The interpretation of “free trade agreements” in the Proposed Rules violates both the common understanding of the term and the intent of the statute (which was to achieve deficit reduction). It leads to inherent contradictions in terms and objectives. By expanding the credits in unintended cases, it works against the stated objective of the legislation: deficit and inflation reduction. Therefore, the following changes should be made:

- The list of countries with free trade agreements in effect in Section 30D(c)(7)(ii) should be limited to: Australia, Bahrain, Canada, Chile, Colombia, Costa Rica, the Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Jordan, South Korea, Mexico, Morocco, Nicaragua, Oman, Panama, Peru, and Singapore.
- The regulations should be amended to make it clear that to be considered a free trade agreement, trade agreements must cover “substantially all trade between the U.S. and the trading partner.”

Comment #3: The manner of classifying vehicles for purposes of the MSRP limitation rules is arbitrary and fails to provide taxpayer certainty.

In Notice 2023-16 (February 3, 2023), the Treasury revised previous guidance (December 29, 2022) on the vehicle classifications standards that the IRS expected to promulgate. Instead of using the definitions of sport utility vehicle, pickup truck, and van as given in 40 CFR 600.002 (the “Emission Regulations for Cars and Trucks”), the IRS is instead relying on the vehicle labeling done by the Environmental Protection Agency (“EPA”) administrator, as described in 40 CFR 600.315-08.

The vehicle labeling system would, in general, classify vehicles that are “non-passenger automobiles” as either vans, pickup trucks, or sport utility vehicles. However, by using the vehicle labelling rules in 40 CFR 600.315-08, the EPA administrator would be able to use its discretion to apply vehicle classification labels differently on a case-by-case basis.¹⁰

This is explained in Section IID of the *Explanation of Provisions* section to the Proposed Rules, “Although [the vehicle classification standards in 40 CFR 600.002] and [the fuel economy labeling regime in 40 CFR 600.315-08] are similar, the fuel economy labeling regime provides for EPA discretion to assign so-called ‘crossover’ vehicles to a class on a case-by-case basis, taking into account consumer perspective and the marketing segment targeted by the manufacturer.”

Handing the discretion to the EPA administrator is inconsistent with the statutory directive for the Secretary of Treasury to prescribe regulations “as the *Secretary* determines [are] necessary to determine vehicle classifications... to determine size and class of vehicles.”¹¹ It is worth noting that the EPA administrator recently proposed dramatic changes to emissions standards that would effectively mandate a shift toward electric vehicles. The EPA administrator may change labelling standards to achieve its own agency objectives, but the Secretary of Treasury must be constrained by the text of Public Law 117-169. Further, the approach taken in the Proposed Rules is arbitrary, fails to provide taxpayers with certainty, and lacks sufficient justification. Some of the problems include the following:

¹⁰ 40 CFR 600.315-08(a)(3)(ii) states, “All automobiles which possess features that could apply to two classes will be classified by the Administrator based on the Administrator's judgment on which class of vehicles consumers are more likely to make comparisons.”

¹¹ Section 30D(f)(11)(C).

- The proposed definitions of the terms sport utility vehicle, van, and pickup truck in §1.30D-2(g)(2)-(4) would shift the determination of which vehicles qualify for the tax credits to the judgement of the current and future EPA administrators. The EPA administrator is not mentioned anywhere in Title I of the “Inflation Reduction Act” and is therefore unlikely to follow the text or intent of that title when determining any future changes in vehicle classifications. Indeed, the discussion in the proposed rule highlights the arbitrariness and indeterminacy of the fuel labeling regime approach, noting that the EPA labeling regime would take into account consumer perspective and the marketing segment being targeted.
- Since the vehicle classifications would be indeterminant and subject to change at any time by the EPA administrator, it would create needless regulatory uncertainty. This uncertainty could be avoided by using objective vehicle classification standards, such as those given in 40 CFR 600.002 or the proposed vehicle classification standards suggested in the appendix to this document.
- One of the factors that would indirectly factor into the vehicle classifications of clean vehicles for purposes of the clean vehicle tax credits is the gross vehicle weight ratings (GVWRs) and loaded vehicle weights. However, all else being equal, an electric vehicle is capable of carrying less cargo and passenger weight than a gas-powered vehicle with the same GVWR. That is because GVWR includes the weight of the vehicle and its components, and electric vehicles must carry battery packs that typically weigh considerably more than internal combustion engines. Electric SUVs’ battery packs may weigh 2,000 pounds or more, whereas a gas-powered SUV’s engine will typically weigh about 500 pounds. The EPA subjects vehicles of different classes and sizes to different emissions regulations and standards. Since clean vehicles have zero emissions, the difference between the weight of electric vehicles and gas-powered vehicles has not arisen as a major issue for EPA rules (an electric vehicle would satisfy emissions standards regardless of class and size.) The Secretary of the Treasury, however, should not ignore that there are differences in weights of electric vehicles versus gas-powered vehicles when determining which clean vehicles should qualify for the higher MSRP limitation of SUVs, vans, and pickup trucks.^{12, 13}

The manner of classifying vehicles for purposes of the MSRP threshold is arbitrary, unreliable (may change at any time), and based on the subjective judgement of the head of another agency. The standards under the December 29, 2022 guidance were somewhat less subjective because they did not rely on the discretion of the EPA administrator. When Treasury requested comments on the Section 30D credit last fall, I recommended an alternative approach to vehicle classifications, along with a detailed rationale. I would like to resubmit that recommendation, which is provided in the appendix of this document for your reference. Alternatively, I recommend returning to rules based on the December 29, 2022 guidance.

Comment #4A: The application of the “50% of value added test” as part of the critical minerals requirement substantially weakens the standard and runs counter to the bill’s purpose of reducing the deficit and inflation.

Related Comment #4B: The IRS does not have statutory authority to write “transition rules” for the critical minerals requirement that are less stringent than what is called for in the legislative text.

¹² For gas-powered vehicles, having a GVWR of more than 6,000 pounds is a reasonable measure indicating that a gas-powered vehicle is a family or work-capable automobile. For clean vehicles, a GVWR of 6,000 pounds is less meaningful. Failing to account for the added weight inherent in electric vehicles when classifying vehicles could extend the tax credit to the purchase of luxury cars.

¹³ For more information, see the appendix to this document.

Section III.A.ii of the *Background* to the Proposed Rules describes “the need for transition rules that would provide manufacturers time to develop the necessary capability to certify compliance with the Critical Minerals Requirement throughout their supply chains... while moving towards more secure and resilient critical mineral supply chains.” This rationale is used to justify the application of the 50% of value added test in step 2 of the process of identifying the qualifying critical minerals.

There are several concerns with the Treasury’s approach.

First, nowhere in Public Law 117-169 was the Secretary given authority to create such a transition rule that would clearly extend the credit in the case of vehicles that fall well short of the applicable percentage thresholds provided in the critical minerals requirement laid out in section 30D(e)(1). Indeed, the law’s ramp-up in the applicable percentage in the law from 40% to 50% to 60% to 70% to 80% in 2024, 2025, 2026, and 2027, respectively, acts as a transition rule that allows taxpayers to gradually move toward increasing domestic and free-trade critical minerals over time. The proposed 50% of value added test would effectively water down those applicable percentage requirements.

Consider a car with a battery using 4 critical minerals (A, B, C, and D) derived from a single procurement chain each, where each of the critical minerals adds the same amount of value to the battery. Furthermore, suppose that:

- Critical Mineral A’s procurement chain uses critical minerals that are 50% extracted in the U.S./free-trade countries (but processed outside the U.S./free-trade area),
- Critical Mineral B’s procurement chain involves 50% U.S. or free-trade-based processing (but minerals extracted outside the U.S./free-trade area), and
- Critical Minerals C and D are extracted and processed entirely outside of the U.S. and free-trade countries.

The 2024 50% applicable percentage would be met even though 87.5% of the value added of the critical mineral extraction and processing takes place outside the U.S./free-trade countries.¹⁴ While this is just a stylized example, the Proposed Rules would clearly provide ample opportunity for companies to benefit from the credit even if minimal extraction or processing occurs in the United States.

Second, the Treasury Department failed to establish whether the benefit of applying the value added test would outweigh the costs compared to a methodology that required companies to more accurately estimate the applicable critical minerals percentage. On the one hand, under the value added test, it would be somewhat easier (but not dramatically so) for individual companies to certify compliance with the critical minerals requirements. The basic steps to calculate would be almost the same either way, but the value added test would allow companies to simply verify that more than 50% of an applicable critical mineral was domestic or from a free-trade country (at which point it could stop and round up to 100%). Whatever benefit there might be to this reduction in compliance burden, though, is likely outweighed by the many costs to this approach, including:

¹⁴ The percentage of the value from extraction derived from the U.S. or free-trade countries would be $\frac{0.5 A}{A+B+C+D}$ where $A = B = C = D$. Simplified, that equals $\frac{0.5 A}{4A} = 12.5\%$. The percentage of the value from processing in the U.S. or free-trade countries would be $\frac{0.5 B}{A+B+C+D}$ where $A = B = C = D$. Simplified, that equals $\frac{0.5 B}{4B} = 12.5\%$.

- Dramatically reducing the precision of estimates,
- Failing to protect against improper credit claims (one of the purposes of the Section 30D amendments as noted in Section II of the Background to the Proposed Rules),
- Incentivizing companies to rearrange their procurement chains without actually increasing the overall domestic content, simply to take advantage of the ability to compound the very favorable rounding calculations,
- Increasing the share of the credit that is captured by non-U.S./free-trade countries.
- Adding to the total cost of complying with the rules by expanding the number who claim the credit,
- Adding to the cost of the credit above and beyond what was envisioned by lawmakers and leading to more deficits and more inflation.

Treasury should not prioritize reducing the compliance costs of taxpayers benefitting from this credit at the expense of faithful interpretation of the statute, especially when there are many costs on the other side of the ledger. While it is incumbent upon Treasury to minimize the compliance burden of unavoidable taxes and regulations (where compliance burden is a cost upon a cost), Treasury does not have the same obligation nor the right to unilaterally lower the hurdles for companies or individuals to qualify for subsidies on the taxpayer dime. If compliance with the critical minerals requirement is too burdensome, companies can always choose not to claim the credit, in which case they are no worse for the wear.

Therefore, given the issues described above, I recommend that the Treasury Department make the following changes to the Section 30D amendments:

The old 30D(b)(3)(i)(A) should be changed to:

*The total value of qualifying critical mineral **content**, by*

The old 30D(b)(3)(ii) should be changed to:

*Separate determinations required for each procurement chain. The portion of an applicable critical mineral **that is considered qualifying critical mineral content** must be determined separately for each procurement chain.*

The old 30D(c)(17) should be removed (thereby eliminating the 50% of value added test).

The old 30D(c)(23) should be changed to:

*Total value of qualifying critical mineral **content** means the sum of the values of all the qualifying critical mineral **content** contained in a battery described in paragraph (a)(1) of this section.*

Comment #5: Manufacturers should be required to use the final assembly point reported on the label affixed to the vehicle as described in 49 CFR 583.5(a)(3) for all multi-stage vehicles.

In 1.30D-2 of the Proposed Rules, Treasury provides two options for taxpayers to establish where the final assembly of a vehicle took place: The vehicle's plant of manufacture as reported in the vehicle

identification number or the final assembly point listed on the label affixed on passenger cars near the driver side door hinge.

As explained in Section IIA of the *Explanation of Provisions* section, “Labeling requirements in 49 CFR 583.5 require the final assembly point to be reported on the label affixed to a passenger motor vehicle... For multi-stage vehicles, the final assembly point is the location where the first stage vehicle is assembled.” For clean vehicles that are not multi-stage vehicles and hence for which the labeling requirements in 49 CFR 583.5 do not apply, manufacturers should be allowed to use the vehicle's plant of manufacture as reported in the VIN. This is true and reasonable. However, the Proposed Rules, as written, would allow taxpayers to use the vehicle's plant of manufacture reported on the VIN even for multi-stage vehicles where a final assembly point is available. No justification was provided as to why the final assembly point would not be used in cases where it is available.

Therefore, Treasury should revise the Proposed Rules to require taxpayers to use the final assembly point reported on the label affixed to the vehicle as described in 49 CFR 583.5(a)(3) if it is available (i.e., for multi-stage vehicles).

Comment #6: The Treasury Department violated the law by missing the deadline for issuing the proposed guidance the clean vehicle credit.

The Secretary of Treasury or her delegate was required by law under Section 30D(e)(3)(B) to issue the proposed guidance with respect to Section 30D by December 31, 2022. The Treasury Department, however, didn't issue guidance until March 31, 2023, and the Proposed Rules did not appear in the Federal Register until April 17, 2023.¹⁵

In the intervening period for the first quarter of 2023, the Treasury Department allowed vehicles to be eligible for the credit even if they did not satisfy the EV battery sourcing requirements. As long as the vehicles were bought and placed in service before April of 2023, drivers received the tax credits for makes and models of clean vehicles that should not have been eligible. Treasury's failure to issue timely guidance violated several of the purposes of the legislation. It added to the bill's deficit spending, it extended the credit to companies that are not decoupling their supply chains from adversarial governments, and it failed to protect against (and even encouraged) improper credit claims.

31 US Code Section 3512(c)(1) states that:

*“To ensure compliance with subsection (b)(3) of this section and consistent with standards the Comptroller General prescribes, the head of each executive agency shall establish internal accounting and administrative controls that reasonably ensure that—
Obligations and costs comply with applicable law.”*

Failing to comply with the law and expanding the pool of taxpayers that can claim these subsidies is especially problematic in light of the ongoing debt ceiling negotiations. In January 2023, the Treasury Secretary told Congress that the U.S. government hit the debt limit of approximately \$31.4 trillion and that the Treasury Department was taking “extraordinary measures” to pay its bills.¹⁶ Each instance where

¹⁵ As noted in Section III.D of the Prior Guidance, Request for Comments, and Other Documents Relating to the New Clean Vehicle Credit Section of the Proposed Rules, the publication of the Proposed Rules in the Federal Register is the issuance of the proposed guidance under Section 30D(e)(3)(B).

¹⁶ U.S. Department of the Treasury, “Secretary of the Treasury Janet L. Yellen Sends Letter to Congressional Leadership on the Debt Limit,” January 19, 2023, <https://home.treasury.gov/news/press-releases/jy1196> (accessed May 8, 2023).

the Treasury Department fails to keep obligations and costs down in compliance with the law only accelerates the approach of the “X date” at which point the U.S. government may be unable to fully make all its payments on time. If the Treasury Department misses payments as a result of a failure to fully comply with laws like Section 30D(e)(3)(B), Treasury officials could be liable.

The Treasury Department should explain its failure to meet this deadline (and other measures that substantially increased the cost of “Inflation Reduction Act” above CBO estimates) under the reporting requirements described in 31 US Code Section 3512(c). Treasury should explain what steps it is taking to ensure that it does not miss future deadlines or if it does, that it minimizes the additional cost borne by taxpayers as a result. Treasury should ensure that it produces all other required guidance and rules required under the “Inflation Reduction Act” in a timely manner.

Comment #7: The Treasury Department should not allow leased vehicles to bypass the restrictions of the Section 30D Clean Vehicle Credit.

In addition to the Section 30D Clean Vehicle Credit, the “Inflation Reduction Act” also added the Commercial Clean Vehicle (Section 45W) Tax Credit. This credit, as its name suggests, was intended for buses, dump trucks, construction equipment, etc. that are for business use. Other work vehicles like pickup trucks and cabs would also qualify. A Treasury fact sheet suggests that Treasury intends to allow businesses to claim the credit on vehicles that they lease to consumers, effectively bypassing the numerous restrictions on the Section 30D Clean Vehicle Credit, including North American assembly, the MSRP limitations, income limitations, critical mineral requirements, battery component requirements, and “foreign entity of concern” restrictions.^{17, 18} The Section 45W credit amount is \$7,500 for vehicles with a GVWR of less than 14,000 pounds.

The ability of individual taxpayers to subvert the Section 30D requirements by leasing instead of buying is based on a dubious reading of the law. Section 45W(c) defines qualified commercial clean vehicle as “any vehicle which meets the requirements of Section 30D(d)(1)(C) and is acquired for use or lease by the taxpayer and not for resale...” That is being interpreted to mean that companies that lease vehicles to individuals can claim the \$7,500 commercial clean vehicle tax credit. That is one possible reading of that phrase, but the problem is that Section 30D(d) defines “new clean vehicle” for purposes of the *individual* tax credit using the same language. According to the statute, a new clean vehicle under Section 30D is one “which is acquired for use or lease by the taxpayer and not for resale.” Here, in the context of the individual tax code, it clearly implies that the taxpayer may acquire the vehicle *through* a lease (not to buy it and then lease it out). Given that the language is the same for both credits, it is unlikely that the Section 45W credit referred to the lessor but the Section 30D credit referred to the lessee. Given that Section 30D already made provision for individuals who lease clean vehicles, it is almost certain that Section 45W was not intended to allow taxpayers to subvert the requirements in Section 30D by leasing clean vehicles instead of buying them.

Official guidance and rules for the Section 45W credit have not been released. When they are released, it is imperative that the Treasury Department not allow businesses that lease out vehicles to individuals to claim the Section 45W credit unless the circumstances would have allowed individuals to qualify for the

¹⁷ Internal Revenue Service, “IRS Updates Frequently Asked Questions Related to New, Previously Owned and Qualified Commercial Clean Vehicle Credits,” March 31, 2023, <https://www.irs.gov/pub/taxpros/fs-2023-08.pdf> (accessed May 8, 2023).

¹⁸ Chad P. Brown, “Industrial Policy for Electric Vehicle Supply Chains and the US-EU Fight Over the Inflation Reduction Act, Peterson Institute for International Economics Working Papers 23-1, May 2023, <https://www.piie.com/publications/working-papers/industrial-policy-electric-vehicle-supply-chains-and-us-eu-fight-over> (accessed May 8, 2023).

Section 30D credit had they purchased the vehicle instead. If not, it will contradict each of the stated purposes of the Proposed Rules:

“In general, the purpose of these amendments is to promote the purchase and use of new clean vehicles by lower and middle-income Americans, to decouple critical supply chains from countries with adversarial governments, to protect against improper credit claims, and to achieve significant deficit reduction.”

Instead, it would effectively extend the Section 30D Clean Vehicle Credits to high-income Americans, it would weaken the measures to decouple supply chains from China and other adversarial governments, it would codify improper credit claims, and it would increase the deficit and inflation.

Concluding Comment

As written, the Proposed Rules fail to contain the costs of the clean vehicle subsidies as prescribed by Congress. Unfortunately, similar cost overruns are happening with the “Inflation Reduction Act” implementation more broadly and are not just limited to the Section 30D clean vehicle credits covered in the Proposed Rule. According to a Goldman Sachs Research study, the green energy incentives in the “Inflation Reduction Act” are now expected to cost \$1.2 trillion over 10 years, more than three times their original estimated cost of \$391 billion according to the Congressional Budget Office.^{19, 20}

Many of the measures that have been taken to expand incentives for green energy do not act in a vacuum but reinforce other energy incentives, leading to compounding costs. For example, the purpose of federal government subsidies for clean energy investments and production and for the manufacturing of solar panel components is to (temporarily) expand the supply of electricity produced from “clean” sources. This, in turn, is intended to lower the cost of electricity relative to conventional fuels (temporarily), which may further incentivize consumers to purchase clean vehicles instead of internal combustion engine vehicles (meaning the cost of the clean vehicle credits would also rise). Similarly, electric vehicles and electric vehicle charging stations are complementary, so if one of the subsidies is made more generous, it drives up the demand for the other and ultimately drives up the cost of both tax credits.

Perhaps the most egregious interaction effect involves another agency. The EPA recently announced a plan to effectively mandate that by 2032 67 percent of new cars sold in the United States by 2032 will be all-electric (up from 5.8 percent in 2022).²¹ Instead of the “carrots” offered under the “Inflation Reduction Act”, the EPA would use regulatory “sticks” by setting per-car emissions limits so low that manufacturers would have little choice but to transition most of their fleets to electric vehicles.²² These rules would have the potential to dramatically increase the cost of the Section 30D credits. Assuming there was not a dramatic drop off in new vehicles sold, this could mean that electric vehicle sales would

¹⁹ Goldman Sachs, “The US is Poised for an Energy Revolution,” April 17, 2023, <https://www.goldmansachs.com/intelligence/pages/the-us-is-poised-for-an-energy-revolution.html> (Accessed May 7, 2023).

²⁰ Congressional Budget Office, “Estimated Budgetary Effects of Public Law 117-169, to Provide for Reconciliation Pursuant to Title II of S. Con. Res. 14,” September 7, 2022, https://www.cbo.gov/system/files/2022-09/PL117-169_9-7-22.pdf (Accessed May 7, 2023).

²¹ Coral Davenport, “E.P.A. Lays Out Rules to Turbocharge Sales of Electric Cars and Trucks,” *The New York Times*, April 12, 2023, <https://www.nytimes.com/2023/04/12/climate/biden-electric-cars-epa.html#:~:text=Biden%20announced%20an%20executive%20order,further%2C%20some%20automakers%20pushed%20back> (accessed May 7, 2023).

²² *Ibid.*

rise from about 763,000 last year to nearly 10 million per year within a decade.^{23, 24} Even if just *half* of 10 million electric vehicles qualified for a \$7,500 clean vehicle tax credit, the *annual* cost of the clean vehicle credit would soar to as high as \$38 billion, about 25-times the annual cost estimated by the CBO when the bill passed! (The Goldman Sachs estimate of a \$1.2 trillion 10-year price tag and other costs of the ballooning cost of the “Inflation Reduction Act’s” provisions do not even factor in this latest move by the EPA to tighten emissions standards.)

The EPA’s proposed changes will certainly draw their own public comments and legal challenges. However, in the meantime, it is imperative that the Section 30D credits and other provisions of the “Inflation Reduction Act” be implemented according to the statute to avoid putting taxpayers on the hook for significant tax increases (or deficit-fueled inflation) that their representatives in Congress never approved.

Regards,

Preston Brashers

Appendix – Suggested Vehicle Classification Standards

This comment was submitted in response to a previous Treasury request for comments. I am including it here as an appendix for your reference:

November 3, 2022

Holly Porter
Office of Associate Chief Counsel
(Passthroughs and Special Industries)
Internal Revenue Service
1111 Constitution Ave., NW
Washington, DC 20224

Re: Request for Comments on Credits for Clean Vehicles [CC:PA:LPD:PR (Notice 2022-46)]

Submitted via www.regulations.gov

Dear Ms. Porter,

²³ Zachary Shahan, “US Electric Car Sales Increased 65% in 2022,” February 25, 2023, <https://cleantechnica.com/2023/02/25/us-electric-car-sales-increased-65-in-2022/> (accessed May 8, 2023).

²⁴ There were nearly 14 million new vehicle sales in 2022. Michael Wayland, “Automakers Are Cautiously Optimistic for a 2023 Rebound After Worst New Vehicle Sales in More Than a Decade,” CNBC, January 6, 2023, <https://www.cnbc.com/2023/01/06/2022-us-auto-sales-are-worst-in-more-than-a-decade-.html> (accessed May 7, 2023).

I appreciate this opportunity to provide comments that I hope will help inform the rulemaking for the implementation of § 30D.²⁵ Specifically, my comments relate to the applicable limitations in price of vehicles qualifying for the expanded Clean Vehicle Credit, as provided in the Inflation Reduction Act (IRA) of 2022.

The IRA provides a maximum credit of up to \$7,500 for the purchase of a qualifying “clean” vehicle that satisfies eight requirements provided in § 30D(d)(1)(A) - (H). The IRA disallows the Clean Vehicle Credit for the purchase of vehicles that have a manufacturer’s suggested retail price (MSRP) in excess of the applicable limitation.²⁶ For vans, sport utility vehicles (SUVs), and pickup trucks, the applicable limitation is \$80,000, for other vehicles it is \$55,000. The IRA gives the Secretary of the Treasury discretion to prescribe regulations and guidance to determine vehicle classifications “using criteria similar to that employed by the Environmental Protection Agency (EPA) and the Department of Energy to determine size and class of vehicles.”²⁷

Since vans, SUVs, and pickup trucks qualify for the credit at \$25,000 higher MSRP than other vehicles, it is important that taxpayers have clarity about when the higher MSRP applies and when it does not. The Department of Treasury should seek to provide clear, objective standards for differentiating between SUVs, vans, and pickup trucks vs. other vehicles that align with the direction provided in the IRA.

IRS Request for Comments on Vehicle Classification

Question 10 in the IRS’s request for comments asks the following:

(10) Vehicle Classifications.

(a) What, if any, guidance is needed to define how vehicles are classified as vans, sport utility vehicles, pickup trucks, or other designations of vehicles for purposes of the manufacturer’s suggested retail price limitation in § 30D(f)(11)?

(b) What criteria employed by the Environmental Protection Agency and Department of Energy or other factors (for example Department of Transportation motor vehicle type classification) should be considered in determining the designation of such vehicles?

Response to IRS Request for Comments on Vehicle Classification

Table 1 (and the paragraph following Table 1) provides my recommended vehicle classification criteria to use in determining whether a vehicle should be classified as a SUV, van, or pickup truck and therefore qualify for the higher applicable MSRP limitation. I will explain the rationale for these recommended criteria in the remainder of this document.

Table 1: Recommended vehicle classification criteria for determining applicable MSRP limitation for the clean vehicle credit

Recommended Criteria for Van or SUV	Recommended Criteria for Pickup Truck
Must satisfy one of:	Must satisfy:

²⁵ Public Law 117-169, 136 Stat. 1818 (August 16, 2022), commonly known as the “Inflation Reduction Act.”

²⁶ § 30D(f)(11).

²⁷ The EPA calculates average fuel economy levels for vehicle manufacturers and sets greenhouse gas standards, while the Department of Transportation’s National Highway Traffic and Safety Administration (NHTSA) sets and enforces fleet average fuel economy standards and is largely responsible for determining vehicle classifications. NHTSA and EPA have issued joint rules related to corporate average fuel economy (CAFE) standards. It is unclear what Department of Energy criteria Congress was referring to

Recommended Criteria for Van or SUV	Recommended Criteria for Pickup Truck
Has interior volume of not less than 130 cubic feet -OR- Seats at least 6 passengers	Designed to transport property on an open bed of at least 54-60 inches in length and 48-54 inches in width.
-AND- must meet criteria A or B A: Has 4-wheel drive/All-wheel drive and satisfies 4 out of 5 of the following at curb weight on a level surface with front wheels parallel to centerline, and tires inflated to manufacturer's recommended pressure: ²⁸ <ul style="list-style-type: none"> • Approach angle of not less than 28° • Breakover angle of not less than 14° • Departure angle of not less than 20° • Running clearance of not less than 20 cm • Front & rear axle clearance of not less than 18 cm each -OR – B: Satisfies both: ²⁹ <ul style="list-style-type: none"> • Is equipped with at least 3 rows of designated seating as standard equipment and • Allows expanded cargo-carrying or non-passenger capacity through the removal or stowing of foldable or pivoting seats to create a level surface extending from the front of the seats to the back of the vehicle's interior. 	-OR- must meet criteria A AND B A: Has 4-wheel drive or All-wheel drive ³⁰ or satisfies 4 out of 5 of the following at curb weight on a level surface with front wheels parallel to centerline, and tires inflated to manufacturer's recommended pressure: ³¹ <ul style="list-style-type: none"> • Approach angle of not less than 28° • Breakover angle of not less than 14° • Departure angle of not less than 20° • Running clearance of not less than 20 cm • Front & rear axle clearance of not less than 18 cm each -AND – B: Designed to transport property on an open bed (of any length/width)

In addition to the criteria provided in Table 1, any vehicle that satisfies any of the following criteria should also be considered to have met the criteria to qualify as a van or SUV, regardless of whether it has or lacks other features described in Table 1:³²

- Seats at least 7 passengers and has interior volume greater than 140 cubic feet;

²⁸ To qualify for the higher applicable MSRP limitation a vehicle should be considered a light truck under Department of Transportation rules in 49 CFR 523.5 under the standards in effect at the time that the IRA was enacted. (The EPA defines sport utility vehicles as “light trucks with an extended roof line to increase cargo or passenger capacity, cargo compartment open to the passenger compartment, and one or more rear seats readily removed or folded to facilitate cargo carrying. Refer to 40 CFR 600.002.)

²⁹ Refer to 49 CFR 523.5(a)(5)(ii).

³⁰ Refer to 49 CFR 523.5(b)(1).

³¹ Refer to 49 CFR 523.5(b)(2).

³² Refer to 49 CFR 523.5(a)(1) and 49 CFR 523.5(a)(4). The Department of Transportation's definition of a non-passenger automobile also includes vehicles that provide temporary living quarters (such as recreational vehicles) in 49 CFR 523.5(a)(2). It is unlikely that manufacturers will make such vehicles that are capable of qualifying for the Clean Vehicles Credit in the near term, though there would be little harm in including that as a criteria that could qualify a vehicle as a van or SUV (alongside an interior volume requirement).

- Provides greater cargo-carrying volume than passenger-carrying volume (as in a cargo van) and has a total interior volume of greater than 140 cubic feet.

Vehicle Size Classes Currently Employed by the EPA

The IRA instructs the Secretary of Treasury to use criteria similar to that employed by the EPA and the Department of Energy to determine vehicles’ size and class. The EPA currently relies on an array of criteria to classify vehicles’ size and class in different circumstances rather than a single criterion.³³

To differentiate between car sizes and station wagon sizes, the EPA relies on interior volume.³⁴ In ascending order of size, cars are classified as minicompact, subcompact, compact, mid-size, or large. Cars with two or fewer seats are classified as two-seaters regardless of interior volume.

On the other hand, to determine the vehicle classifications of “non-passenger automobiles” (also known as light trucks), the EPA relies on gross vehicle weight ratings (GVWRs) and loaded vehicle weights, as well as the presence of various design features and off-road capabilities.³⁵ The EPA defines heavy-duty vehicles as motor vehicles with a gross vehicle weight rating (GVWR) above 8,500 pounds. Medium duty passenger vehicles are heavy-duty vehicles with a GVWR of less than 10,000 pounds that are designed primarily to transport persons. “Heavy light-duty” trucks have a GVWR greater than 6,000 pounds.³⁶ The EPA uses loaded vehicle weight to distinguish between classifications of light-duty trucks.

Size classifications for passenger cars excluding station wagons are shown in Table 2. Size classes for station wagons are shown in Table 3. Various criteria used by the EPA to determine vehicle classifications for vehicles other than cars are summarized in Table 4. The vehicle classifications in Table 4 are not all mutually exclusive.

Table 2: EPA car size classifications³⁷

Car Size Classifications	Interior Volume (in Cubic Feet)
Two-seater	N/A ³⁸
Minicompact	< 85
Subcompact	85 to 99
Compact	100 to 109
Mid-size	110 to 119
Large	120 or more

³³ Note the classification terms used in EPA reports often do not align with the terms and definitions provided in the agency’s regulations. See, for example, U.S. Environmental Protection Agency, “The 2021 EPA Automotive Trends Report: Greenhouse Gas Emissions, Fuel Economy, and Technology Since 1975,” November 2021, <https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1013L10.pdf> (accessed October 21, 2022).

³⁴ The Administrator will classify passenger automobiles by car line into one of the following classes based on interior volume index or seating capacity except for those passenger automobiles which the Administrator determines are most appropriately placed in a different classification or classed as special purpose vehicles as provided in paragraph (a)(3) of this section.

³⁵ “Non-passenger automobile” is a vehicle classification defined by the Department of Transportation and consist mostly of pickup trucks, vans, and large SUVs. The EPA defines light truck as “an automobile that is not a passenger automobile, as defined by the Secretary of Transportation at 49 CFR 523.5. This term is interchangeable with ‘non-passenger automobile.’” Refer to 40 CFR 600.002.

³⁶ 49 CFR 523.5.

³⁷ 40 CFR 600.315-08.

³⁸ Cars with two or fewer seats are classified as two-seaters regardless of interior volume.

Table 3: EPA station wagon size classes³⁹

Station Wagon Size Class	Interior Volume (in Cubic Feet)
Small	< 130
Mid-size	130 to 159
Large	160 or more

Table 4: EPA vehicle classifications⁴⁰

Vehicle Classification	Vehicle type	Gross Vehicle Weight Rating	Loaded Vehicle Weight	Other Criteria
Light-duty truck 1	Light light-duty trucks -or- Small pickup trucks	< 6,000 pounds	< 3,750 pounds	i) Designed primarily for transportation of property; ii) Transports more than 12 passengers; or iii) Has features allowing off-road capabilities
Light-duty truck 2			3,751 + pounds	
Light-duty truck 3	Heavy light-duty trucks -or- Standard pickup trucks	6,001 – 8,500 pounds	< 5,750 pounds	i) Designed primarily for transportation of property; ii) Transports more than 12 passengers; or iii) Has features allowing off-road capabilities
Light-duty truck 4			5,751 + pounds	
Minivans	Light-duty truck	< 8,500 pounds		i) Vans/minivans have an integral enclosure fully enclosing the driver and load-carrying device; and ii) Vans/minivans have no body sections protruding more than 30 inches ahead of the windshield. Minivans typically carry no more than eight passengers and include one or more sliding doors and a rear liftgate. ⁴¹
Vans	Light-duty truck	< 8,500 pounds		
Small SUV		< 6,000 pounds		Has an extended roof line, cargo compartment open to the passenger compartment and one or more rear seats that can be removed or folded. Must be considered a non-passenger automobile based on Department of Transportation definition.
Standard SUV		6,001 – 10,000 pounds		
Special-purpose vehicles		< 8,500 or 10,000 pounds		Based on determination of EPA administrator. “For example, the Administrator may determine that advanced technology vehicles [such as EVs]... should be appropriately classified as a type of “special purpose vehicle.”

³⁹ *Ibid.*

⁴⁰ See 40 CFR 1803 and 40 CFR 600.315-08.

⁴¹ 40 CFR 600.002.

Vehicle Classification	Vehicle type	Gross Vehicle Weight Rating	Loaded Vehicle Weight	Other Criteria
Medium-duty passenger vehicles	Heavy-duty vehicles	8,501 – 10,000 pounds		Is designed primarily for transportation of persons AND does NOT satisfy any of the following: i) Is an “incomplete truck”, does not have seating capacity for more than 12 persons, ii) Is designed to allow nine persons in seating behind the driver’s seat, iii) Has an open cargo area (truck bed) of 6 feet or more.
Heavy-duty vehicles		8,501+ pounds		

The vehicle classifications in the EPA regulations as summarized in Tables 2 - 4 are not clear-cut or fully defined. The phrase “Has features allowing off-highway capabilities” is not clarified by the EPA, and ultimately the determination for whether it is satisfied is based on criteria provided by the NHTSA.⁴² To qualify as a non-passenger automobile (and potentially a SUV based on the definition of sport utility vehicle in 40 CFR 600.002) based on being capable of off-highway operation, the NHTSA currently states that a vehicle must satisfy (1) or (2):

- (1) Have 4-wheel drive; -OR-
- (2) Be rated at more than 6,000 pounds GVWR

AND satisfy four out of five of (I) – (V) at curb weight on a level surface with front wheels parallel to centerline, and tires inflated to manufacturer’s recommended pressure:

- (I) Approach angle of not less than 28°;
- (II) Breakover angle of not less than 14°;
- (III) Departure angle of not less than 20°;
- (IV) Running clearance of not less than 20 cm;
- (V) Front & rear axle clearance of not less than 18 cm each.

The Department of Transportation relies on auto manufacturers to test these off-road capable criteria. The current Department of Transportation criteria may be short-lived. The Department of Transportation appears determined to impose stricter requirements to determine whether vehicles are off-road capable as it stated in the Federal Register in May 2022:

“The purpose for our previous flexibility was to afford maximum leniency for vehicles necessary for off-road work purposes. However, given the vast proliferation of SUVs and crossovers—the majority of which will never be used for off-road purposes—we believe that we will need to reevaluate what features are indicative of off-road purposes in the near future.”⁴³

Such ambiguity explains why the EPA regulations state, “All automobiles which possess features that could apply to two classes will be classified by the Administrator based on the Administrator’s judgment on which class of vehicles consumers are more likely to make comparisons.”⁴⁴

⁴² Federal Register, Vol. 87, No. 84 (May 2, 2022), pp. 26053-26054.

⁴³ Ibid.

⁴⁴ 40 CFR 600.315-08(a)(3)(ii).

The current Department of Transportation regulations on which the EPA relies state that vehicles may also qualify as non-passenger automobiles (and potentially SUVs or vans) if they are designed to do at least one of the following:⁴⁵

- (1) Transport more than 10 persons;
- (2) Provide temporary living quarters;
- (3) Transport property on an open bed,
- (4) Provide greater cargo-carrying volume than passenger-carrying volume; -OR-
- (5) Permit expanded use of the automobile for cargo-carrying purposes (e.g., by allowing stowing of foldable or pivoting seats).

The Problem with Relying on GVWR to classify clean SUVs, vans, and pickup trucks

A vehicle's GVWR is the maximum loaded weight that a vehicle is designed to carry consistent with sound engineering judgment (as specified by the manufacturer). Trucks, vans, and SUVs typically must bear more cargo and passenger weight than cars must bear. In most cases, GVWR serves as a reasonable measure of a gas-powered vehicle's ability to withstand greater external weights and burdens.

However, all else being equal, an electric vehicle is capable of carrying less cargo and passenger weight than a gas-powered vehicle with the same GVWR.⁴⁶ That is because GVWR includes the weight of the vehicle and its components, and electric vehicles must carry battery packs that typically weigh considerably more than gas-powered engines. Electric SUVs' battery packs may weigh 2,000 pounds or more, whereas a gas-powered SUV's engine will typically weigh about 500 pounds. If the Department of Treasury decides to use GVWR as a criterion to classify clean vehicles as SUVs, vans, or pickup trucks, that measure should be adjusted to account for the excess weight of the vehicle's battery pack, fuel cells, motor/engine, and transmission (as applicable) above the weight of a comparable gas-powered engine and transmission.⁴⁷

The EPA subjects vehicles of different classes and sizes to different emissions regulations and standards.⁴⁸ Since clean vehicles have zero emissions, the difference between the weight of electric vehicles and gas-powered vehicles has not arisen as a major issue for EPA rules (an electric vehicle would satisfy emissions standards regardless of class and size.) The Secretary of the Treasury, however, should not ignore that there are differences in weights of electric vehicles versus gas-powered vehicles when determining which clean vehicles should qualify for the higher MSRP limitation of SUVs, vans, and pickup trucks.⁴⁹ For gas-powered vehicles, having a GVWR of more than 6,000 pounds is a reasonable measure indicating that a gas-powered vehicle is a family or work-capable automobile. For clean vehicles, a GVWR of 6,000 pounds is far less meaningful. Failing to account for the added weight inherent in electric vehicles when classifying vehicles could extend the tax credit to the purchase of luxury cars.

⁴⁵ In practice most vehicles that qualify as SUVs do so based on (5).)

⁴⁶ Stated differently, all else being equal, an electric vehicle will suffer more strain and have more risk of damage than a gas-powered vehicle with the GVWR carrying the same passenger and cargo load.

⁴⁷ For example, a GVWR of 7,000 pounds for an electric vehicle with a 1,500 lb. battery and motor would be considered equivalent to a GVWR of 6,000 for a gas-powered vehicle with an engine and transmission that weigh 500 lb.

⁴⁸ See, for example, 40 CFR 86.1811-04.

⁴⁹ The apparent reason that the IRA allows SUVs, vans, and pickup trucks to sell at a higher MSRP and still qualify for the clean vehicles credits is to disallow the credit for luxury vehicles but to allow the credit for family vehicles or work-capable vehicles that offer more space for passengers, more cargo or towing capacity, and/or the ability to be used off-road or under more arduous conditions. For example, in House of Representatives floor debate, Rep. Dan Kildee (D-Mich.) said, "I mentioned earlier in the conversation there was a suggestion a person making \$750,000 could buy an \$80,000 vehicle and get the credit. Simply not true. A sedan is capped at \$55,000."

In addition, using GVWR to classify electric vehicles could be counterproductive toward achieving emissions reductions, which was ostensibly why lawmakers created the clean vehicles credit.⁵⁰ If clean SUVs, vans, and pickup trucks are to become commercially competitive with gas-powered vehicles, electric vehicle manufacturers will need to innovate and find ways to develop smaller, more efficient and more energy-dense batteries and fuel cells. Credits should not be more readily available for vehicles simply because they are designed to carry heavier batteries.

Interior Volume

Given the shortcomings of using GVWR to classify clean vehicles and given the potentially evolving standards of the Department of Transportation, the Secretary of Treasury should instead rely on interior volume as a factor to identify vehicles reasonably classified as SUVs and vans, as the EPA currently does in determining the size classes of cars and station wagons. Among the 25 bestselling cars, trucks, and SUVs of 2021 according to Car and Driver magazine and the 15 best-selling U.S. cars in 2021 according to Newsweek,⁵¹ all non-pickups with an interior volume of less than 130 cubic feet are in the car regulatory class (and therefore should not qualify as SUVs, vans, or pickup trucks).

Table 5: Features of top-selling cars, pickups, and SUVs in 2021⁵²

Make and Model	Interior Volume (Cubic Ft.)	Truck Bed	Marketed as	Regulatory Class
Ford F-Series	-	X	Pickup Truck	Truck
RAM	-	X	Pickup Truck	Truck
Chevrolet Silverado	-	X	Pickup Truck	Truck
Toyota RAV4	-	X	Pickup Truck	Truck
Ford Explorer	170.9		SUV	Truck
Honda Pilot	168.2		SUV	Car

⁵⁰ Legislators who voted for the IRA and the media frequently refer to the IRA as a “climate bill” because of its emphasis on “decarbonizing the economy.” Francesca Paris, Alicia Parlapiano, Margot Sanger-Katz, and Eve Washington, “A Detailed Picture of What’s in the Democrats’ Climate and Health Bill,” *The New York Times*, August 16, 2022, <https://www.nytimes.com/interactive/2022/08/13/upshot/whats-in-the-democrats-climate-health-bill.html> (accessed October 18, 2022). Amy B. Wang, “Biden Signs Sweeping Bill to Tackle Climate Change, Lower Health-Care Costs,” *The Washington Post*, August 16, 2022, <https://www.washingtonpost.com/politics/2022/08/16/biden-inflation-reduction-act-signing/> (accessed October 18, 2022). Senate Democrats, “Summary of the Energy Security and Climate Change Investments in the Inflation Reduction Act of 2022,” https://www.democrats.senate.gov/imo/media/doc/summary_of_the_energy_security_and_climate_change_investments_in_the_inflation_reduction_act_of_2022.pdf (accessed October 18, 2022).

⁵¹ “Top 25 Bestselling Cars, Trucks, and SUVs of 2021,” Car and Driver, <https://www.caranddriver.com/news/g36005989/best-selling-cars-2021/> (accessed October 21, 2022). “15 Best-Selling Cars in the US in 2021,” Newsweek, July 26, 2021, <https://www.newsweek.com/15-best-selling-cars-us-2021-1606971> (accessed October 21, 2022).

⁵² Based on vehicle specifications as provided by edmunds.com, <https://www.beachford.net/2022-ford-explorer-interior/>, <https://www.lexusofhenderson.com/lexus-rx-v-tesla/>, <https://www.billbrownford.net/2022-ford-escape-dimensions/#:~:text=Ford%20Escape%20Interior%20Dimensions,-The%20new%20Ford&text=Passenger%20Volume%3A%20104%20cubic%20feet,Front%20Leg%20Room%3A%2042.4%20inches>, https://www.tesla.com/ownersmanual/modely/en_us/GUID-E47C4A6D-528E-419C-8C57-FD3864644C34.html, <https://www.laethemcdjr.com/2022-jeep-wrangler-interior/>, and <https://media.chevrolet.com/media/us/en/chevrolet/vehicles/Equinox/2022.tab1.html>.

Make and Model	Interior Volume (Cubic Ft.)	Truck Bed	Marketed as	Regulatory Class
Toyota Highlander	157.3		SUV	Truck
Hyundai Tucson	146.9		Compact SUV	Truck
Honda CR-V	145.1		Compact SUV	Truck
Toyota 4Runner	144.5		SUV	Truck
Subaru Outback	141.5		Station wagon	Both
Jeep Grand Cherokee	140.5		SUV	Truck
Subaru Forester	140.5		Compact SUV	Both
Ford Escape	137.5		Compact SUV	Truck
Nissan Rogue	137		Compact SUV	Truck*
Toyota RAV4	136.4		Compact SUV	Truck
Tesla Model Y	136.2		Crossover	Car
Jeep Wrangler	135.7		SUV	Truck
Mazda CX-5	134.5		Compact SUV	Truck
Chevrolet Equinox	133.4		Compact SUV	Truck
Honda Civic	123.5		Sedan	Car
Honda Accord	122.3		Sedan	Car
Kia K5	121.3		Sedan	Car
Kia Soul	120.9		Subcompact SUV	Car
Dodge Charger	120.8		Sedan	Car
Toyota Prius	120.5		Hatchback	Car
Hyundai Sonata	120.4		Sedan	Car
Chevrolet Malibu	118.7		Sedan	Car
Nissan Altima	116		Sedan	Car
Toyota Camry	115.5		Sedan	Car
Hyundai Elantra	113.6		Sedan	Car
Kia Forte	111.3		Sedan	Car
Nissan Sentra	110.3		Sedan	Car
Nissan Versa	103.6		Sedan	Car
Toyota Corolla	101.7		Sedan	Car

Since the EPA distinguishes between car size classifications using interior volume, using interior volume to distinguish between vans and SUVs vs. other vehicles is consistent with the IRA's instruction to use criteria similar to that employed by the EPA to determine size and class of vehicles.

As was noted above, the apparent reason the IRA allows vans, SUVs and pickup trucks to sell at a higher price than cars while still qualifying for the Clean Vehicles Credit is because the higher price of vans, SUVs, and pickups is not necessarily an indication of luxury but of function. While larger vehicles cost more, they may be a necessity for larger families or for drivers using vehicles for work. Requiring that vehicles have an interior volume of at least 130 cubic feet to be considered a van or SUV would discourage manufacturers from designing luxury cars that are not large enough to serve as a family or work vehicle yet receive the credit by narrowly meeting the off-road or other criteria ultimately chosen by the Department of Treasury.

While a minimum interior volume threshold of 130 cubic feet would discourage luxury vehicle makers from trying to take advantage of the credit, such a standard would not unduly restrict the credit from

vehicles that are reasonably classified as vans or SUVs. Among the most popular cars, SUVs, vans, and pickup trucks selling today, only the Kia Soul is marketed as a (subcompact) SUV despite having an interior volume of less than 130 cubic feet, and the Soul would not qualify as a light truck or SUV based on NHTSA's existing standards. Also, notably, the MSRP of the Kia Soul is approximately \$20,000 to \$25,000, meaning a comparable electric car would easily qualify for the applicable price limitation whether it was classified as an SUV or other vehicle.⁵³

Bed Length

The distinguishing feature of pickup trucks is not interior volume, but the presence of a truck bed. It would not be appropriate to include an interior volume requirement for pickup trucks, but in lieu of meeting an interior volume threshold, the Department of Treasury should require pickup trucks to meet a specified minimum truck bed length (perhaps 54 to 60 inches) to qualify for the clean vehicle credit at the higher price limitation.

Off-Road Capable

Under the existing NHTSA rules, to be considered as having features that allow off-highway capabilities, a vehicle currently must have 4-wheel or have a GVWR rating of over 6,000 pounds and meet four out of five criteria related to turn angles and clearance. The Department of Transportation is likely to issue new regulations to tighten the definition of features that allow off-road capabilities. If NHTSA revises its definition of what qualifies as off-road capable, the Department of Treasury should likewise adjust Criteria A in Table 1 if it is feasible to do so. For the time being, NHTSA's existing four-out-of-five criteria, coupled with 4-wheel drive or all-wheel drive should be used to determine whether a vehicle has off-road capable features. Since electric vehicles with heavy battery packs need a higher GVWR just to offer the same level of off-road utility, GVWR should not be considered as a factor in determining the off-road capability of clean vehicles.

Stowable Third-row Seating

Under 49 CFR 523.5(5), a vehicle that does not have off-road capabilities may qualify as a non-passenger vehicle (and potentially a SUV) if it is equipped with at least 3 rows of designated seating as standard equipment and allows expanded cargo-carrying or non-passenger capacity through the removal or stowing of foldable or pivoting seats to create a level surface extending from the front of the seats to the back of the vehicle's interior. Assuming an interior volume of at least 130 cubic feet and/or the capability of seating at least six, a vehicle with stowable third-row seating should qualify a vehicle as a van/SUV for purposes of the Clean Vehicle Credit. This existing standard used by the EPA to qualify vehicles as light trucks/SUVs is reasonable; vehicles that meet these criteria are functional family vehicles that are broadly perceived as SUVs. The stowable third-row seating criteria works equally well for distinguishing SUVs and vans whether gas-powered, electric-powered, or otherwise.

⁵³ <https://www.kbb.com/kia/soul/2022/>.