VIA ELECTRONIC TRANSMISSION to IRS-2022-0020-0001 and IRS-2022-0021-0001

November 3, 2022

Department of the Treasury
Internal Revenue Service
1111 Constitution Avenue NW
Washington, DC 20224

Re: Ford Motor Company's Comments on Inflation Reduction Act
Notice 2022-46: Clean Vehicle Credit, Section 30D
Notice 2022-47: Advanced Manufacturing Production Credit, Section 45X

Ford Motor Company (Ford) thanks the staff and leadership at the Treasury Department, the IRS, and throughout the Administration for considering these comments on the Inflation Reduction Act's amendments to section 30D and the addition of section 45X to the tax code, 26 U.S.C. §§ 30D and 45X.

Ford is committed to accelerating the development of breakthrough electric, connected vehicles that are made for Americans and by Americans. As a company, we take great pride in assembling more vehicles and employing more hourly workers in the U.S. than any other automaker. We are also proud to have been the only full-line American automaker to stand in support of California's stronger vehicle emissions standards during the prior administration, and we are now defending the Biden Administration's standards, both in keeping with the Paris Climate Accord and our company commitment to be 100% carbon neutral worldwide by 2050.

Ford appreciates the actions taken by the Biden Administration and Congress to promote zero emissions vehicles and their domestic supply chains, including new measures in the Inflation Reduction Act. We recognize the tremendous potential of this law to help our country meet our shared goals to address climate change and lead the clean energy economy. With careful implementation and partnership between the public and private sectors, this legislation will help us transition to a zero-emissions transportation future while strengthening America's economy, energy independence, and national security.

We have enclosed two attachments to this letter: one regarding the Clean Vehicle Credit under Section 30D, and a second regarding the Advanced Manufacturing Production Credit under Section 45X. Both credits will help strengthen our domestic supply chains and locally source battery components and critical minerals, helping decarbonize transportation while also strengthening American manufacturing. As detailed in these attachments, Ford requests that the government confirm, clarify, and interpret the meaning of various aspects of both provisions.

801 Pennsylvania Avenue NW
Suite 400
Washington, DC 20004

With respect to the Clean Vehicle Credit, Ford strongly encourages the government to take the time necessary to develop comprehensive guidance that clearly establishes for all affected parties—automakers, suppliers, dealers, and customers—what vehicles are eligible and what responsibilities each part of the value chain has to demonstrate compliance with the credit's multiple complex criteria. Doing so will allow more customers to benefit from the incentive now and into the future and push automakers and suppliers to build up the supply chains that are critical to our economic and national security.

While we encourage you to be deliberate in the careful implementation of the Inflation Reduction Act, Ford is not waiting to lead the EV revolution. We are working overtime to localize our supply chains and ramp up the production of our must-have, iconic electric vehicles. Since just last fall, Ford and our partners have announced nearly $14 billion in EV and battery investments in the United States, building out a supply chain that upholds our commitment to care for people and protect the environment. Globally, we are investing $50 billion in electric vehicles and the batteries and supply chains that power them through 2026. By late next year, we're targeting an annual run rate of 600,000 EVs, and we will ramp up to a 2 million global annual run rate by 2026. We plan that half of our global production will be electric vehicles by 2030. Effective implementation of the IRA, consistent with our comments, will help Ford achieve and perhaps exceed these targets.

Our country is at an inflection point: we have the opportunity to make a bold move to combat climate change and ensure the United States remains an economic and technological leader on the world stage going forward. And just as we did when Ford put the world on wheels a century ago, we intend to make sure this next industrial revolution, the EV revolution, is Built for America.

Thank you again for your time and consideration. Please feel free to contact me or Evan Belser, Policy Strategist and Managing Counsel, at 202-997-0217 or ebelser1@ford.com if Ford can provide any additional information or support to implement this historic piece of legislation.

Sincerely,

Christopher A. Smith
Chief Government Affairs Officer
Ford Motor Company

Attachments

Attachment

Ford Motor Company's Comments on
Clean Vehicle Credit, Section 30D
Notice 2022-46, IRS-2022-0020-0001
November 3, 2022

(2) Critical Minerals. Section 30D(e)(1) provides the new critical minerals requirements, including the applicable percentage requirements to be phased in over several years.

(a) What factors and definitions should be considered to determine the place of extracting or processing such critical minerals, and, in particular, to determine whether extracting or processing occurred in the United States or in any country with which the United States has a free trade agreement in effect?

Ford requests that the government clarify the meaning of the term "processing." A clear definition will be fundamental for compliance. The law states that processing should occur in the United States or a country with which there is a Free Trade Agreement in effect. However, given the complex journey that critical minerals take from extraction to incorporation into the battery of an electric vehicle, it is not clear what stage(s) of the journey actually constitute "processing."

Take for instance, lithium, which section 45X(c)(6)(P) defines as an applicable critical mineral only as "Lithium which is (i) converted to lithium carbonate or lithium hydroxide, or (ii) purified to a minimum purity of 99.9 percent lithium by mass." Mined ore and brine containing lithium pass through many stages, only one or a few of which yields "lithium," as defined. There is extraction, crushing, grinding, filtering, and transportation of ore to yield spodumene concentrate. To yield battery-grade lithium carbonate from spodumene concentrate, the steps can include calcination, acid roast, leaching, purification, filtration, removing magnesium and calcium, precipitation, digestion, ion exchange, crystallization, use of centrifuge, drying and micronizing. To yield battery-grade lithium hydroxide from the lithium carbonate, the steps can include conversion, ion exchange, evaporative crystallization, and drying.

Ford urges the government to define "processing" to include any step(s) that is necessary to yield a substance that meets the statutory definition for an applicable critical mineral. If any of these processing steps occur in the United States or a country with which the United States has a Free Trade Agreement, then that applicable critical mineral should be eligible for the critical minerals credit in section 30D. This definition would align with the statutory language, and provide needed clarity for the industry.

(b) What factors and definitions should be considered to determine the place of recycling such critical minerals and, in particular, to determine whether recycling occurred in North America?

Ford requests the government define the place of recycling for critical minerals as having occurred in North America if any step of the process that begins with used batteries or manufacturing byproduct and is necessary to yield a substance that meets the statutory definition for an applicable critical mineral occurs in North America. The place of recycling should not depend on the initial source of the batteries or other material that serve as inputs or feedstocks for recycling. Defining place of recycling in this way will help spur the development of closed-loop battery recycling supply chains.

(c) What factors and definitions should be considered to determine (i) the total value of the critical minerals contained in a vehicle's battery, and (ii) the percentage of that total value attributable to critical minerals (I) extracted or processed in the United States or a country with which the United States has a free trade agreement in effect, or (II) recycled in North America?

The total value of the critical minerals contained in a vehicle's battery should be the sum of the amount paid for, or the fair market value of, all applicable critical minerals (as defined by 26 U.S.C. § 45X) that are installed into (or through additional processing become part of) the vehicle's battery. Consistent with the definitions for "processing" and "recycling" laid out above, the full value of each critical mineral in which some extraction, processing, or recycling took place within the required location(s) will count towards meeting the critical minerals percentage(s).

(3) Battery Components. Section 30D(e)(2) provides the new battery component requirements, including the applicable percentage requirements to be phased in over several years.

(a) What factors should be considered in defining the components of a battery of a clean vehicle?

Ford requests that the government define battery components to include components in the battery bill of materials that are used in the battery manufacturing or assembly process. This should include Tier 1 components and exclude sub-components or critical raw materials provided by Tier 2 suppliers (and beyond). The value of Tier 1 components incorporates the value of components from all previous supplier tiers, so full value is included. To separately include the components of previous supplier tiers as battery components would result in a double count of value.

The definition of battery components should also include indirect materials that are in the battery bill of materials that are used in the battery production process. Similar to the treatment of indirect materials under the US-Mexico-Canada Agreement ("USMCA") as originating materials (regardless of the indirect material's originating or non-originating status), these indirect materials should be counted as being manufactured or assembled in North America. For example, NMP (N-Methyl Pyrrolidone) is a solvent used in the battery electrode manufacturing process to dissolve the PVDF (polyvinylidene fluoride) binder and generate the slurry of ingredients which are then coated onto the current collector. During coating, the NMP is removed and thus does not end up in the final battery, but it is an essential intermediate component. This indirect material, if used in a manufacturing process in North America, should count toward the value of domestically sourced components.

Once a qualified manufacturer can identify the correct battery components, 100% of the value of the battery components that are manufactured or assembled in North America should be counted towards the applicable percentage requirement. The full value of a battery component, regardless of its constituent materials, should be counted because it satisfies both the definition of a battery component and also meets the standard of "manufactured or assembled in North America." This is consistent with the USMCA's standard approach which disregards non-originating content as long as the good satisfies the applicable rule of origin as a USMCA originating good.

(b) What factors and definitions should be considered to determine the place of manufacture or assembly of the components of a battery of a clean vehicle and, in particular, to determine whether manufacture or assembly occurred in North America?

The contemplated standard to meet "manufacture or assembly" should be lower than the U.S. Customs concept of "substantial transformation" because assembly implies a broader scope of operations that should be counted if shown to occur in North America.

(c) What factors and definitions should be considered to determine (i) the total value of the components contained in the battery of a clean vehicle, and (ii) the percentage of that total value attributable to components that were manufactured or assembled in North America?

The total value of battery components should be the amount paid for, or the fair market value of, the components plus any applicable costs such as labor and overhead incurred to produce those components.

(5) Foreign Entity of Concern. Section 30D(d)(7) provides that some vehicles are excluded from the availability of the credit, including when any of the applicable critical minerals contained in the battery were extracted, processed, or recycled by a foreign entity of concern (defined in 42 U.S.C. 18741(a)(5)), or if any of the components contained in the battery of such vehicle were manufactured or assembled by a foreign entity of concern.

(a) Is guidance needed to clarify the definition of "foreign entity of concern"?

Yes. While Ford appreciates and supports the overall objective of the law to bolster the localization of battery production and critical mineral mining and processing in the U.S. and with our trading partners and allies, an overly expansive interpretation of this provision risks undermining that very same objective by making the clean vehicle credit largely unavailable. As our industry works to domesticate our supply chain, clarity and guidance on what would constitute a "foreign entity of concern" is necessary to ensure that joint ventures in critical mineral extraction, processing, or recycling will not cause vehicles to be automatically excluded. Relatedly, clear guidance on the scope of ownership is essential to ensure a joint venture or partnership does not trigger the "foreign entity of concern" provision of the law.

Specifically, Ford recommends the following should not be considered to trigger the "foreign entity of concern" exclusion:

- A US-organized company, regardless of its owners
- A non-US company organized outside of a country of concern (i.e., China, Russia, Iran, North Korea), which is 50% or less owned by an entity that meets the definition of "foreign entity of concern" as defined in 42 U.S.C. § 18741
- A non-US joint venture member that is organized outside of a country of concern, even if it is affiliated with a "foreign entity of concern"

Lastly, industry needs a de minimis standard incorporated in "foreign entity of concern" reporting requirements so that unintended traces of critical minerals do not disqualify consumers from getting a tax credit.

(6) Recordkeeping and Reporting

(a) What existing regulatory or guidance frameworks for recordkeeping requirements or information reporting or existing battery technology supply chain tracking methodologies may be useful for developing guidance for qualified manufacturers under § 30D(e)(3)?

In order to establish a workable and sustainable verification process, the purchaser should be allowed to rely on the supplier's certification for critical minerals and battery components. The suppliers are undoubtedly in the best position to certify that the critical minerals or battery components meet the applicable IRA requirements. One example to consider is the current certification process utilized by U.S. Customs and Border Protection in order to verify originating status under a free trade agreement.

(10) Vehicle Classifications

(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?

For simplicity for consumers and the industry, vehicle classification for the MSRP caps ($80,000 for trucks, vans, and SUVs; $55,000 for all other vehicles) should align with vehicle classification in www.fueleconomy.gov, where EPA and DOE already classify vehicles into categories including those listed in the IRA (i.e., SUV, van, pickup). The IRA specifically requires alignment with classification by EPA and DOE in § 30D(f)(11)(C).

The government should not look to vehicle classification under the Corporate Average Fuel Economy (CAFE), which is administered by EPA and DOT (not DOE). That program includes only "car" or "truck" and, per 40 C.F.R. § 600.315-08, the EPA and DOE have discretion to select any vehicle classification (e.g., a vehicle may be a "car" in the CAFE program but an "SUV" in www.fueleconomy.gov, in which case it would be subject to the $80,000 MSRP cap).

(13) Please provide comments on any other terms that may require definition or additional guidance.

Ford supports a VIN-by-VIN approach to reporting which vehicles are eligible. This provides maximum flexibility for manufacturers to meet critical mineral and component requirements and supports statutory language that the classification be done by vehicle. Ford would also like the option to aggregate vehicles, and clarity from the federal government on reporting requirements. The VIN number

calculation coupled with flexibility for allocating critical minerals within vehicle segments will give consumers greater access to the credit and more optionality when making purchasing decisions.

Guidance is needed to confirm that artificial graphite is not an applicable critical mineral. Artificial graphite does not meet the definition of graphite provided in section 45X(c)(6)(N) as "Graphite which is purified to a minimum purity of 99.9 percent graphitic carbon by mass." Artificial graphite is a feedstock from crude oil that is then processed into petroleum coke. Therefore, artificial graphite should not be subject to the analysis to determine if a battery meets the critical minerals requirement.

Attachment

Ford Motor Company's Comments on
Advanced Manufacturing Production Credit, Section 45X
Notice 2022-47, IRS-2022-0021-0001
November 3, 2022

(2) Section 45X(d)(4) provides that for purposes of § 45X, a person is treated as having sold an eligible component to an unrelated person if such component is integrated, incorporated, or assembled into another eligible component which is sold to an unrelated person. How should "integrated, incorporated, or assembled" be determined?

Ford urges Treasury to clarify that a person is treated as having sold an eligible component if the person produces an eligible component (e.g., electrode active materials, battery cells, battery modules) they later integrate into another component (up to and including an electric vehicle) and sell that to an unrelated person. This clarification will help ensure that the sale of a complete vehicle, battery, component, or assembly will be eligible for the tax credit while allowing automakers, their joint ventures, and their suppliers to optimize the corporate structure of their businesses and the nature and sequence of manufacturing stages and commercial transactions.

(5) Is additional clarification needed regarding the definitions of an "eligible component" in § 45X(c)?

Ford requests Treasury confirm that the definition of "qualifying battery component" include the following components, which each fall under the common understanding of "electrode active materials," "battery cells," or "battery modules": cathode materials, cathode foils, PVDF (polyvinylidene fluoride) binder, anode material, artificial graphite, conductors, binders, deionized water, anode foils, copper foils, electrolyte solvents, additives, electrolyte salts, NMP (N-Methyl Pyrrolidone), CNTs (carbon nano tubes), electrolytes, pouch, maleic acid, tabs, tape, and stacking adhesive.

(a) How should the amount of the § 45X credit be calculated for components that could be used in systems of varying capacities?

In the case of producing batteries for electric vehicles, Ford requests that Treasury confirm that the credit in 45X is based on the installed capacity of the battery (as opposed to the usable capacity). Installed capacity reflects the amount of domestic battery production, and battery cell manufacturers may not necessarily be aware of the usable capacity (because the vehicle manufacturer determines usable capacity). Further, there is precedent in the tax code for using the installed capacity; the prior

version of Section 30D ("New qualified plug-in electric drive motor vehicles") based tax credits on installed capacity (Section 30D(d)(4)).

(7) Section 45X(c)(6) identifies "applicable critical minerals," and includes minimum purity percentages by mass.

(a) How should purity percentages be determined?

Ford urges Treasury to confirm that the provisions of 45X concerning purity percentages exist to ensure that the amount of the tax credit (for example, in 45X(b)(1)(M)) is based off the amount of applicable critical minerals of that purity, regardless of whether the taxpayer produces and sells such minerals as a standalone commodity or whether the taxpayer produces and sells a commodity that includes such minerals as well as other elements or compounds. In the latter case, the tax credit would be based only on the costs to produce the applicable critical minerals, but not costs to produce other elements or compounds.

(b) Should an independent third party be required to verify the results?

No independent third-party verification is needed. Industry parties already ensure purity and quality, which are fundamental requirements to manufacture EV batteries.

(10) Please provide comments on any other topics under § 45X that may require guidance.

Ford requests Treasury confirm the plain language of section 45X(b)(1)(M), which provides for a credit that is, "in the case of any applicable critical mineral, an amount equal to 10 percent of the costs incurred by the taxpayer with respect to production of such mineral." The plain language of this provision encompasses all costs incurred by the taxpayer for all steps in the production of that applicable critical mineral.

Take, for example, lithium, which is an applicable critical mineral defined as "Lithium which is (i) converted to lithium carbonate or lithium hydroxide, or (ii) purified to a minimum purity of 99.9 percent lithium by mass." The production "costs" include all costs to the taxpayer incurred in each stage of production. In the case of lithium, production includes all of the following stages and qualifying costs include all those costs incurred:

- for mining, crushing, grinding, filtering, and transporting ore and any other steps to yield spodumene concentrate;
- for all the steps to yield lithium carbonate from spodumene concentrate including calcination, acid roast, leaching, purification, filtration, removing magnesium and calcium, precipitation, digestion, ion exchange, crystallization, use of centrifuge, drying and micronizing;

- for all the steps to yield lithium hydroxide from lithium carbonate, including conversion, ion exchange, evaporative crystallization, and drying;
- for all the steps to yield lithium hydroxide directly from spodumene concentrate, including calcination, acid roast, water leach, neutralization and impurity removal, filtration, crystallization, causticization, ion exchange, filtration, magnesium and calcium removal, use of centrifuge, dissolution, and drying;
- for all the steps to yield lithium carbonate from brine, including liming, use of ponds, boron removal, calcium and magnesium removal, lithium carbonate precipitation, crushing, repulping, flotation and tails dewatering, use of centrifuge, digestion, crystallization, drying, micronizing and packing;
- for all products and materials used or consumed in all these steps; and
- for proper disposal, recycling, or reuse of byproducts from all these steps.