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Watt's Up, Manufacturers? How to Maximize Tax Savings with Critical Minerals and Battery Component Requirements for Clean Energy Vehicles

The Inflation Reduction Act (Pub. L. No. 117-169 (the “IRA” or the “Act”)) has brought significant changes to amend and extend the §30D clean vehicle credit. The Act now provides a credit of up to \$7,500 for each new clean energy vehicle placed in service after April 17, 2023^[1] if it meets the “critical minerals” and/or the “battery components” requirements (\$3,750, respectively) and introduces a new requirement for final assembly in North America.^[2] The Department of Energy has published a list of eligible vehicles, including fuel cell vehicles, purchased in 2023 or later, which can be found [here](#).

To help taxpayers navigate the new requirements, the Treasury and the IRS issued Revenue Procedure 2022-42, which outlines the submission procedures for qualified manufacturers of clean vehicles, and proposed regulations on sourcing requirements for critical minerals and battery components.^[3] The credit is unavailable for vehicles containing applicable critical minerals extracted, processed, or recycled in, or battery components manufactured or assembled by, a foreign entity of concern.^[4] This article provides a brief summary of these critical minerals and battery components requirements under the IRA.

Key Takeaways

The revenue procedure and proposed regulations on the §30D credit provide some clarity to auto manufacturers when it comes to the “critical minerals” and “battery components” requirements. While it is possible that fewer vehicle models will initially qualify for the tax credit due to the more stringent critical minerals

requirements and the lack of available resources, as more manufacturers develop supply chains and manufacturing infrastructures to meet the new requirements, more vehicles will qualify. For auto manufacturers, careful analysis of supply chain and procurement procedures will be necessary to support its calculations, as manufacturers are responsible for certifying this information and including it on a seller's report furnished to the buyer.

Critical Minerals Requirement

The IRA requires the calculation of the percentage of the value of applicable critical minerals that count towards meeting the critical minerals requirement. The calculation of this percentage involves a three-step process.

- **Procurement Chains Determination:** The first step requires the determination of the procurement chains for *each* applicable critical mineral.^[5] A procurement chain is a sequence of extraction, processing, or recycling activities that lead to the production of constituent materials, occurring in a common set of locations. A single source of an applicable critical mineral may have multiple procurement chains, which is particularly relevant if that source undergoes the same extraction, processing, or recycling process in different locations.
- **Critical Minerals Qualification:** Critical minerals qualify for the credit if they have either been (a) extracted or processed in the United States or in any country with which the United States has a comprehensive free trade agreement that has been incorporated into a statute^[6] or (b) recycled in North America, using a 50%-of-value-added test to determine whether these requirements are satisfied.^[7] It is important to note that the 50%-of-value-added test must be applied separately to each procurement chain of an applicable critical mineral. For vehicles placed in service after 2024, it is anticipated that the 50%-of-value-added test will be replaced by a more stringent test.

- **Applicable Percentage Calculation:** Manufacturers seeking to claim the credit must adhere to a minimum percentage of qualifying critical minerals, as stipulated in the IRA. Specifically, for 2023, the Act requires that at least 40% of the value of the critical minerals present in a battery be qualifying critical minerals, as determined in Step 2.^[8] To determine the values of the critical minerals contained in the battery, manufacturers must select a date after the final processing or recycling step for the applicable critical minerals relevant to vehicle certification and uniformly apply it across all vehicles. The qualifying critical mineral content can be determined based on either: (a) the value of applicable critical minerals contained in a specific vehicle's battery or (b) the average of the qualifying critical mineral content calculation over a limited period of time for vehicles from the same model line, plant, class, or combination thereof, with final assembly in North America. These values must be determined separately for each procurement chain.

Battery Component Requirement

- **Battery Components Identification:** Manufacturers must examine each battery component in a battery to determine whether it was manufactured or assembled in North America. A battery is defined as one or more battery modules, each of which has two or more electrically configured battery cells in series or parallel, to create voltage or current.
- **Incremental Value Determination:** The next step involves determining the incremental value of each battery component, including those manufactured or assembled in North America. Incremental value refers to the net value of a battery component, which is determined by subtracting the value of the manufactured or assembled battery components that are contained in a battery component from the value of that battery component. The total incremental value of North American battery components is then calculated by summing the incremental values of each North American battery component contained in a battery.

- **Incremental Value Aggregation:** Step 3 requires aggregating the incremental values of each battery component contained in a battery to determine the total incremental value of battery components. This total value can also be calculated by totaling the value of each battery module in the battery.
- **Battery Component Calculation:** The qualifying battery component content is determined by dividing the total incremental value of North American battery components with the total incremental value of battery components, resulting in a percentage. To determine these incremental values, manufacturers must select and uniformly apply a date that is after the last manufacturing or assembly step for the battery components relevant to the battery certification. Manufacturers may determine qualifying battery component content based on either: (a) the incremental values of the battery components contained in a specific vehicle's battery or (b) the average qualifying battery component content over a limited period of time (e.g., a year, quarter, or month) for vehicles from the same model line, plant, class, or combination thereof, with final assembly in North America. The percentage of qualifying battery component content calculated in step 4 is then compared with the relevant applicable battery component percentage value requirement (e.g., 50% through the end of 2023). [\[9\]](#)

At Frost Brown Todd, our Manufacturing and Tax teams offer a full array of transactional, regulatory, litigation and advisory services to clients spanning every segment of the renewable energy space. For more information about how the Inflation Reduction Act could impact your business, please contact the authors of this article or any member of Frost Brown Todd's [Tax](#) practice group or [Manufacturing](#) industry team.

[\[1\]](#) A new clean vehicle is considered to be "placed in service" on the date the taxpayer takes possession of the vehicle.

[\[2\]](#) "Final assembly" means the process by which a manufacturer produces a new clean vehicle at, or through the use of, a plant, factory, or other place from which the vehicle is delivered to a

dealer or importer with all component parts necessary for the mechanical operation of the vehicle included with the vehicle, whether or not the component parts are permanently installed in or on the vehicle. To establish where final assembly of a new clean vehicle occurred, the taxpayer may rely on the following information: (1) the vehicle's plant of manufacture as reported in the vehicle identification number pursuant to 49 CFR 565; or (2) the final assembly point reported on the label affixed to the vehicle as described in 49 CFR 583.5(a)(3).

[\[3\]](#) Notice of Proposed Rulemaking, 2023-06822. Comments on the proposed regulations are due by June 16, 2023.

[\[4\]](#) Guidance on the meaning of the term foreign entity of concern has yet to be issued as of the date of this Client Alert.

[\[5\]](#) A list of applicable critical minerals is included under I.R.C. §45X(c)(6).

[\[6\]](#) The list of countries with which the U.S. has a comprehensive free trade agreement currently includes Australia, Bahrain, Canada, Chile, Colombia, Costa Rica, Dominican Republic, El Salvador, Guatemala, Honduras, Israel, Jordan, Korea, Mexico, Morocco, Nicaragua, Oman, Panama, Peru, and Singapore. Treasury is proposing to include additional countries such as Japan.

[\[7\]](#) Value of the property for purposes of the credit must be determined based on the arm's length price that was paid or would be paid for the property by an unrelated purchaser, as determined under I.R.C §482 principles.[\[8\]](#) In the case of a vehicle placed in service during calendar year 2024, 2025, and 2026, the applicable critical mineral percentage is 50%, 60%, and 70%, respectively. In the case of a vehicle placed in service after December 31, 2026, the applicable percentage is 80%.

[\[9\]](#) In the case of a vehicle placed in service during calendar year 2024 or 2025 the applicable battery component requirement is 60%, for 2026, 2027, 2028 the battery component requirement is 70%, 80% and 90%, respectively. In the case of a vehicle placed in service after December 31, 2028, the applicable percentage is 100%.

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