MEMORANDUM

TO: US Internal Revenue Service (IRS), US Department of Treasury (Treasury)
FROM: The Battery Materials & Technology Coalition (BMTC)
RE: Notice of Proposed Rulemaking on the Section 45X Advanced Manufacturing Production Credit

Introduction

The Battery Materials and Technology Coalition (BMTC) appreciates the opportunity to comment on the US Internal Revenue Service (IRS) Proposed Rulemaking on the 45X Advanced Manufacturing Production Credit.[1] This credit is essential in incentivizing domestic production across the battery supply chain. It is especially important for the critical minerals and electrode active materials credits, as these up- and mid-stream segments are primarily where the US lags the most in our domestic capabilities, and where we are the most reliant on foreign adversaries. Given this dependence, Congress made clear its commitment to invest in the critical mineral sector over the long term in giving the critical mineral production credit no sunset. However, **without clarity as to what constitutes production costs, which must include direct and indirect material costs for both credits, domestic investments are being delayed and put in jeopardy, placing the US at further risk of continued dependence on adversaries in this critical sector**.

BMTC is a coalition of companies that mine, extract, process, manufacture, and recycle battery materials, as well as develop cathode, anode, cell, pack, and battery technologies in North America. The coalition is comprised of 18 member companies across Canada and the US, including facilities and operations in 28 states and current employment numbers of over 8,700 individuals, with projections for over 23,500 individuals to be employed by 2030. Our coalition is united behind a shared interest in growing a resilient and sustainable North American battery industry that ensures private sector and governments work together to seize the opportunity to secure the supply chains that power our way of life.

Background Information

The US and our allies are currently beholden to Chinese dominance across the battery supply chain. This stranglehold on battery supply chains is exacerbated by the policies implemented by the government of China and other adversarial nations that allow for bad-faith business practices in and outside their countries, including restricting market access, implementing trade barriers, utilizing discriminatory procurement policies, and undercutting competitors on pricing. China has outpaced the US in battery supply chain investments at an alarming rate both at home and abroad. In 2022, Chinese companies nearly doubled their investments in securing global mineral resources while western mining groups had an average investment increase of

[1] Federal Register :: Section 45X Advanced Manufacturing Production Credit

only 25%.[2] It is reported that Chinese investments in minerals around the world topped $10B in the first half of 2023, which is a 131% growth from the previous year.[3] In addition, as of 2023, China has invested nearly $300B in battery gigafactory capacity over the last four years alone. Conversely, according to Bloomberg, the US will have to invest a total of $87B across the battery supply chain to meet expected domestic demand in 2030.[4] On top of China's rapidly growing investments, North American gigafactories cost on average 46% more per gigawatt-hour to build when compared to those in China.[5] Similar trends can be seen further upstream, as project costs can reach upwards of 100% higher than those in China for certain material projects in the US.

Chinese dominance in the battery supply chain poses a slew of national and economic security risks to the US and our allies. The 45X credit is an important step in the right direction towards bolstering domestic capacity and reducing this dependence on adversaries, but it must be administered as was intended by Congress to have an impact on domestic production. Below we detail why material costs must be included in the total production costs calculation, as was intended by Congress, to incentive domestic production.

Direct and Indirect Material Costs Should be Included in Production Cost Calculations

The exclusion of direct and indirect material costs from the production cost calculation goes against precedent set in the US tax code and drastically decreases the value of the credit for producers of applicable critical minerals and electrode active materials.

In the proposed guidance, Treasury writes, "Proposed § 1.45X–4€(3) would clarify that the costs incurred for purposes of determining the credit amount includes costs as defined in § 1.263€(e) that are paid or incurred within the meaning of section 461 of the Code by the taxpayer for the production of an applicable critical mineral [or an electrode active material] only." However, it goes on to say that "Direct material costs as defined in § 1.263A-1(e)(2)(i)(A), or indirect material costs § 1.263A-1(e)(3)(ii)(E), and any costs related to the extraction or acquisition of raw materials would not be taken into account as production costs." This is an explicit decision made by Treasury that is in direct contradiction with the precedent set by US code. § 1.263A–1(e) of the tax code, which Treasury uses to determine what classifies as a production cost, *includes both* direct and indirect material costs in the "types of costs subject to capitalization."[6] Thus, in this draft guidance, Treasury is intentionally removing direct and indirect material costs from production costs.

Further, the costs that *are* included in the production calculation only account for a small portion of the total cost of production for most minerals and materials. According to industry

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[2] Higher investment in critical minerals boosts chances of meeting climate targets (ft.com)
[3] China's metals and mining investment overseas to hit record in 2023 – report - MINING.COM
[4] The battle to break China's battery-making supremacy, in five charts | Insights | Bloomberg Professional Services
[5] Investment in battery gigafactories nears $300 billion since 2019 as China extends battery dominance | Benchmark Source (benchmarkminerals.com)
[6] 26 CFR § 1.263A-1 - Uniform capitalization of costs. | Electronic Code of Federal Regulations (e-CFR) | US Law | LII / Legal Information Institute (cornell.edu)

participants, direct and indirect material costs make up as high as 60-80% of production costs for critical mineral and electrode active materials. For example, raw materials, reagents, and consumables are often upwards of 80% of the total production costs for lithium production to the purification level defined in the Inflation Reduction Act (IRA). In this case for lithium, if material costs are omitted, then the 10% credit only applies to one-fifth of the total cost of production. The same is true for anode materials such as natural graphite and silicon, as input material costs can make up roughly 75% of total production costs. This is a huge discrepancy and is misaligned with the Congressional intent of the law, which is to provide a 10% credit over the **total** cost of production. The same is true for other battery materials such as nickel and manganese.

Treasury's Arguments: Double-Counting and Value-Add Activities

The guidance makes clear that the omission of material costs is meant to avoid the potential for materials to be counted twice towards the tax credit. This scenario is rare and should not be viewed as a point for concern. An example of a double counting scenario would only occur if, say, a nickel sulphate producer in the US receives the 45X credit (as an applicable critical mineral producer), and that nickel sulphate is then purchased by an electrode producer in the US, and that producer also receives the 45X credit (as an electrode active material producer). As depicted in this example, double counting would only occur if electrode active material producers source their input materials from producers *inside* the US. Not only is this a rare occurrence, as there are only a few up- and mid-stream battery supply chain producers operating in the US, but this kind of the interconnection between domestic producers is good for spurring additional project development in the US and should be viewed favorably.

In addition, the law clearly implements a separate production credit for critical materials, electrode active materials, cells, and battery modules. In specifically identifying these activities, Congress demonstrated its intent for *each* of these material stages in the battery supply chain to benefit from an appropriate and comprehensive production credit, demonstrating no concern for double counting in this context. In addition, this is common in other industry tax credits that seek to support production across a critical supply chain, such as those for the solar industry. BMTC argues that the concern for double counting is not reflected in the law and that it was not the intent of Congress to have this concern inhibit or reduce the scope of the production tax credits for critical minerals and electrode active materials.

Treasury also notes in the guidance that, "Merely purchasing raw materials may enable a taxpayer to produce an applicable critical mineral [or an electrode active material] but it is not by itself an activity that adds value." However, there is no scenario in which a company would purchase raw materials and not use them to produce their product. This is, by definition, adding value. In referencing again § 1.263A–1(e) of the tax code, direct material costs are defined to "include the cost of those materials that become an integral part of specific property produced and those materials that are consumed in the ordinary course of production." Each time an eligible producer purchases input materials, the purchase of those materials will no doubt be an "integral part" in producing their product, and, hence, inherently adds value.

Battery Recycling Inclusion Clarification

BMTC also asks for clarification regarding recycling as a covered production cost for applicable critical minerals and electrode active materials. For both credits, recycling is referenced in the proposed guidance as a covered cost incurred in producing the applicable critical mineral or electrode active material, "including, but not limited to, labor, electricity used in the production of the applicable critical mineral [or electrode active material], storage costs, depreciation or amortization, recycling, and overhead." However, the guidance then quickly states that "the cost of acquiring the raw material used to produce the applicable critical mineral [or electrode active material], the cost of materials used for conversion, purification, or recycling of the raw material, and other material costs related to the production of the applicable critical mineral [or electrode active material] would not be taken into account."

The language is unclear regarding when recycling can and cannot be a covered production cost. BMTC supports that when recycling is the primary manufacturing process used to produce an applicable critical mineral or electrode active material, then the cost of recycling is to be included as a qualifying production cost.

Conclusion

The battery materials industry is currently at an inflection point as demand is on the rise and companies are choosing where to invest. Industry has spoken in expressing concern about the lack of material costs in the production cost calculation.[7] The inclusion of material input costs in the production costs calculation is truly essential.

It is significantly more expensive to produce in the US than elsewhere in the world. If this credit does not make up for this cost differential, or at least get close to making up for it, then companies will choose to invest elsewhere. Further, should the IRS move forward with the justifications provided in the guidance, the US will no doubt lose momentum and investments in building a domestic battery supply chain. BMTC appreciates the opportunity to provide comments to the IRS to ensure that the 45X tax credit is administered properly and achieves its desired impact.

Please feel free to contact Ben Steinberg at bsteinberg@vennstrategies.com with any questions about this response.

[7] 45X Industry Letter to Treasury-IRS Feb. 2024 (politicopro.com)