Articles + Publications | October 31, 2024

IRS Issues Final Regulations on Section 45X Credits for Advanced Manufacturing Production Credit

WRITTEN BY

Anne C. Loomis | Adam C. Kobos | Roger S. Reigner, Jr. | Joel M. Post | Mitchell T. Emmert | Tsitsi M. Mangosho | McKenzie L. Bayliss | Camille M. Mennen

On October 24, the Treasury Department (Treasury) and the Internal Revenue Service (IRS) issued final regulations (Final Regulations) on the Advanced Manufacturing Production Credit (Section 45X Credit), pursuant to Section 45X of the Internal Revenue Code of 1986, as amended (Code), which was enacted by the Inflation Reduction Act (IRA). Section 45X allows eligible taxpayers to qualify for the Section 45X Credit for the production within the U.S. and sale to an unrelated person of any "eligible components," which broadly include certain renewable energy project components.

The Final Regulations will become effective December 27 and will apply to eligible components for which production is completed and sales occur after December 31, 2022, and during taxable years ending on or after October 28, 2024. Taxpayers may choose to apply the rules of Treasury Regulation Sections 1.45X-1 through 1.45X-4 to eligible components for which production is completed and sales occur after December 31, 2022, and for taxable years ending before October 28, 2024, provided they apply the rules in their entirety and in a consistent manner.

Analysis

The Final Regulations are substantially similar to the proposed regulations released by Treasury and the IRS on December 14, 2023 (Proposed Regulations, which we addressed in our prior alert), with certain significant changes, clarifications, and other items of interest to taxpayers, including:

- The "produced by the taxpayer" requirement;
- The production within the U.S. requirement;
- The interaction between Section 45X and Section 48C;
- Definitions of eligible components;
- The rules related to calculating the credit, including eligible production costs; and
- The recordkeeping and reporting requirements.

These items are discussed below, together with other noteworthy aspects of the Final Regulations.

- *Produced by the Taxpayer.*

  - *Secondary Production*. While the preamble to the Proposed Regulations stated that primary and secondary production are included in the definition of "produced by the taxpayer," the Proposed Regulations did not include such terms or otherwise address the use of recycled materials to produce eligible components in the text of the Proposed Regulations. The Final Regulations clarify that primary production involves producing an eligible component using non-recycled materials while secondary production involves producing an eligible component using recycled materials. Both are included in the definition of "produced by the taxpayer."

  - *Replacement of "Mere Assembly" With "Minor Assembly".* The Proposed Regulations would have defined "produced by the taxpayer" to mean a process conducted by the taxpayer that substantially transforms constituent elements, materials, or subcomponents into a complete and distinct eligible component that is functionally different from that which would result from mere assembly or superficial modification of the elements, materials, or subcomponents. Recognizing that certain eligible components are produced primarily by assembling other components (*e.*, solar or battery modules), Treasury and the IRS replaced "mere assembly" with "minor assembly," which is intended to clarify that a party that produces and sells an eligible component is not precluded from claiming the credit due to a third party completing the eligible component by performing minor assembly.

    - Treasury and the IRS declined to adopt a suggestion that the definition of "produced by the taxpayer" be defined consistently with Section 263A of the Code to the extent possible, noting that there is no indication in Section 45X that Congress intended the use of any existing statutory definition of "produced by the taxpayer," such as the standard in Section 263A.

  - *Production of Certain Eligible Components – Extraction*. The Proposed Regulations would have provided that for solar grade polysilicon, electrode active materials, and applicable critical minerals, "produced by the taxpayer" means processing, conversion, refinement, or purification of source materials (such as brines, ores, or waste streams) to derive a distinct eligible component. Several commenters requested that in addition to processing, conversion, refinement, and purification, the Final Regulations clarify that the production process includes extraction. Treasury and the IRS declined to amend the Final Regulations to expressly include the term "extraction," reasoning that the action of extraction alone does not produce an eligible component. However, as described below, extraction activities are incorporated into the Final Regulations in other contexts.

  - *Contract Manufacturing Arrangements.* The Final Regulations confirm a special rule from the Proposed Regulations under which the parties to a contract manufacturing arrangement may determine, by agreement, which party may claim the Section 45X Credit.

    - *Extraction Activities*. Treasury and the IRS clarified by way of an example that a taxpayer who performs extracting and initial refining activities for critical minerals may benefit from the contract manufacturing provisions of Section 45X if contracting for additional refining activities.

- *Production Within the U.S*. The Final Regulations confirmed the Proposed Regulations' rule that constituent elements, materials, and subcomponents used in the production of eligible components are not subject to the domestic production requirement in Section 1.45X-1(d)(1). In adopting the proposed rule without change, Treasury and the IRS noted that, while Section 45X specifically requires domestic production of an eligible component for credit eligibility, it is silent regarding the location of production or sourcing of constituent elements, materials, and subcomponents. Accordingly, imposing a domestic production requirement for constituent elements, materials, and subcomponents is not supported by the statutory language of Section 45X.

- *Interaction Between Section 45X and Section 48C*. Treasury and the IRS provided several clarifications regarding the interaction of the Section 45X and Section 48C credit and the potential overlap of Section 45X and Section 48C facilities.

  - Treasury and the IRS revised the Final Regulations to clarify that the only equipment, or other tangible property, that must be included in the Section 45X facility is the equipment used by the taxpayer that is necessary for the taxpayer to be considered the producer of the potential eligible component. If production of a subcomponent is not a requirement to be considered the producer under Section 45X, then the equipment that is part of that Section 48C facility used to produce the subcomponent is not part of the Section 45X facility. Accordingly, it is possible for the same taxpayer to receive a Section 48C credit on equipment used to produce a subcomponent and a Section 45X credit on the production of an eligible component.

  - Treasury and the IRS clarified that physical proximity of a Section 45X facility to a Section 48C facility does not determine whether a product may be an eligible component. Further, Treasury and the IRS drafted the Final Regulations in order to:

    - Clarify that the general rule is that property that would otherwise qualify as an eligible component (otherwise qualified property) is only an eligible component if the property is produced at a Section 45X facility and no part of that Section 45X facility is also a Section 48C facility;

    - Revise the definition of Section 45X facility, clarifying that a Section 45X facility is the independently functioning tangible property used by the taxpayer that is necessary to be considered the producer of the otherwise qualified property;

    - Remove the definition of "production unit", given the overlap between the term production unit as proposed and the definition of a Section 45X facility; and

    - Add a specific rule noting that in the case of a contract manufacturing arrangement where the parties have agreed as to who can claim a Section 45X credit, the Section 45X facility is determined by taking into account the tangible property that substantially transforms the material inputs to complete the production process of an eligible component used to produce the otherwise qualified property, regardless of which party to the arrangement claims the credit.

- *Sale of Integrated Components*. Section 45X(d)(4) provides that, for purposes of Section 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. The Proposed

Regulations would have provided that a taxpayer is treated as having produced and sold an eligible component to an unrelated person if such component is integrated, incorporated, or assembled into another eligible component that is then sold to an unrelated person. Treasury and the IRS clarified that Section 45X(d)(4) provides only for deemed *sale* treatment and not deemed *production*. Specifically, the Final Regulations clarify that a taxpayer is "treated as having sold" an eligible component to an unrelated person if the taxpayer produced such component and the component is integrated, incorporated, or assembled into another eligible component that is then sold to an unrelated person.

- *Anti-Abuse*. The Proposed Regulations included rules to address the Related Party Election, pursuant to which a taxpayer may make an election to treat a sale of an eligible component to a related person as if made to an unrelated person. In connection with the Related Party Election, an anti-abuse rule provided that the election could not be made with respect to defective components. In the preamble to the Final Regulations, Treasury and the IRS agreed with commenters that if an eligible component is not defective at the time of sale, defects arising after the point of sale may occur in the ordinary course of a business and do not generally raise the improper claim concerns. Accordingly, the Final Regulations state that components with respect to which defects arise after the deemed sale are not considered defective components for purposes of the anti-abuse rule.

- *Eligible Components*.

  - *Definition of Eligible Components*. Commenters addressed certain definitions in the Proposed Regulations. The Final Regulations generally adopt the rules as proposed in Section 1.45X-3, with minor notable modifications.

    - *Polymeric Backsheet.* Treasury and the IRS clarified that the term "polymeric backsheet" is limited to backsheets made of polymeric materials that also meet the functional definition provided in Section 45X(c)(3)(B)(iii). This excludes most glass backsheets because they are typically not composed of a polymer, but of soda-lime glass. The Final Regulations add the word "polymeric" into the definition as a clarification. The Final Regulations clarify that the definition is limited to a sheet on the back of solar modules composed, at least in part, of a polymer, that acts as an electric insulator and protects the inner components of such module from the surrounding environment.

    - *Battery Modules Using Battery Cells*. Many commenters raised concerns with the interpretation of the phrase "to a specified end use" in proposed Section 1.45X-3(e)(4)(i)(A). Some commenters asserted that requiring that modules be in an end-use configuration would be overly restrictive for certain product categories. For example, certain types of modules may be transported to the end-use site only partially assembled due to safety considerations, with final assembly performed by the battery manufacturer, the customer, or a third-party contractor. Treasury and the IRS restated that the requirement that battery modules using battery cells that contain battery cells configured to a specified end use, applies irrespective of whether the items are typically called "battery modules" or "battery packs" in industry practice. The Final Regulations clarify that where multiple points in a supply chain may combine cells into a module, the first module produced and sold that is an end-use configuration and meets the kilowatt-hour requirement will be the only module eligible.

- *Production Costs Incurred.*

  - *Direct and Indirect Materials Costs.* Many commenters recommended that, contrary to the Proposed Regulations, all costs with respect to the production of electrode active materials be included in production costs for purpose of determining the credit, including direct material costs as defined in Section 1.263A-1(e)(2)(i)(A), indirect material costs as defined in Section 1.263A-1(e)(3)(ii)(E), and costs related to the extraction of raw materials. The Final Regulations adopt a rule allowing taxpayers that produce applicable critical minerals and electrode active materials to include direct and indirect materials costs (as described in the referenced Section 263A regulations) in production costs if certain conditions are met. However, such costs are only included if they do not relate to the purchase of materials that are an eligible component at the time of acquisition (such as an electrode active material or applicable critical mineral).

  - *Production Costs for Production of Incorporated Eligible Components – Applicable Critical Minerals and Electrode Active Materials*. Under the Final Regulations, the production costs that a taxpayer pays or incurs in the production of an eligible component (whether produced domestically or not) that the taxpayer then incorporates into a further distinct electrode active material or applicable critical mineral are not included in the costs incurred by the taxpayer in producing the further distinct electrode active material or applicable critical mineral, as the case may be. A taxpayer may not include the same production costs in the calculation of the credit amount for more than one eligible component.

    - The Final Regulations illustrate this rule though an example: if a taxpayer pays or incurs production costs of $50X for eligible component 1 and an additional $100X of production costs for eligible component 2 that included integrating eligible component 1, then the production costs for eligible component 1 equal $50X and the production costs for eligible component 2 equal $100X.

    - *Extraction Costs for Applicable Critical Minerals or Electrode Active Materials.* With respect to costs related to extraction, the Proposed Regulations would have excluded extraction costs because extraction could be far removed, particularly in the case of electrode active materials, in the supply chain from the ultimate production of the eligible component. Treasury and the IRS reconsidered the treatment of extraction costs in the Final Regulations for taxpayers that extract raw materials domestically and for taxpayers that acquire either domestically or foreign-sourced extracted raw materials. For both electrode active materials and applicable critical minerals, the Final Regulations allow taxpayers to include extraction costs related to the extraction of raw materials in the U.S. or a U.S. territory, but only if those costs are paid or incurred by the taxpayer that claims the Section 45X credit with respect to the relevant electrode active material or applicable critical mineral. The Final Regulations provide that extraction costs may be included in production costs consistent with the rules provided under Section 263A only if such costs are incurred by the taxpayer that claims the Section 45X credit with respect to the relevant applicable critical mineral or electrode active material.

- *Recordkeeping and Reporting Requirements*. The Final Regulations provide new and modified recordkeeping and reporting requirements for taxpayers to substantiate their qualification for various parts of the Section 45X credit.

  - *New Substantiation Requirement for Costs in Connection With Production and Sale of Either (i) an Electrode*

Active Material or (ii) an Applicable Critical Mineral. The Final Regulations revise the Proposed Regulations' substantiation rules for applicable critical minerals and add substantiation rules for electrode active materials. In order to include direct or indirect materials costs as production costs when calculating a Section 45X credit for the production and sale of an electrode active material or an applicable critical mineral (as the case may be), a taxpayer must include the following as an attachment to their annual tax return: (i) certifications from any supplier from which the taxpayer purchased any constituent elements, materials, or subcomponents of the taxpayer's electrode active material or an applicable critical mineral (as the case may be), stating among other things that the supplier is not claiming the Section 45X credit with respect to any of the material acquired by the taxpayer, nor is the supplier aware that any prior supplier in the chain of production of that material claimed a Section 45X credit for the material; (ii) a document (which may be prepared by the taxpayer or ideally by an independent third-party) that provides an analysis of any constituent elements, materials, or subcomponents concluding that the material did not meet the definition of an eligible component (for example, did not meet the definition of applicable critical mineral or electrode active material) at the time of acquisition by the taxpayer; (iii) a list of all direct and indirect material costs and the amount of such costs included within the taxpayer's total production cost for each electrode active material or an applicable critical mineral (as the case may be); (iv) a document (which may be prepared by the taxpayer or ideally by an independent third-party) related to the taxpayer's production activities with respect to the direct and indirect material costs establishing the materials were used in the production of the electrode active material or an applicable critical mineral (as the case may be); and (v) any other information related to the direct or indirect materials specified in other guidance.

- *New Substantiation of Capacity Measurement for Modules Using Battery Cells and Modules With No Battery Cells.* Taxpayers must maintain the testing standard and methodology with respect to the capacity measurement for modules using battery cells and modules with no battery cells as part of books and records under Section 6001 and Section 1.6001-1. The testing procedure and methodology must consistently be used, subject to any updated standard of the same methodology and testing, for battery modules (with or without cells) sold in the taxpayer's trade or business.

- *Amended Substantiation Rule for Wind Energy Components.* Under the Proposed Regulations, for blades, nacelles, offshore wind foundations, or towers, a taxpayer must document the turbine model for which such component is designed and the total rated capacity of the completed wind turbine in technical documentation associated with the sale of such component. The Final Regulations added that for related offshore wind vessel, such documentation could include the contract to construct or retrofit (along with retrofit plans), sales contract, U.S. Coast Guard bill of sale, U.S. Coast Guard Certificate of Documentation (COD), and U.S. Coast Guard Certificate of Inspection (COI).

- *Applicable Critical Minerals*.

  - *Aluminum and Commodity Grade Aluminum*. Proposed Section 1.45X-4(b)(1) would have defined aluminum to mean aluminum, including commodity-grade aluminum, that is (i) converted from bauxite to a minimum purity of 99% alumina by mass; or (ii) purified to a minimum purity of 99.9% aluminum by mass. In turn, the term commodity-grade aluminum would mean aluminum that has been produced directly from aluminum described in (i) or (ii) in the preceding sentence and is in a form that is sold on international commodity exchanges. Several commenters recommended changes to the aluminum definition, including replacing the

requirement that commodity-grade aluminum be “in a form sold on international commodity exchanges” with the requirement that such aluminum “has the ability to meet the chemical specifications of aluminum sold on international commodity exchanges.” Treasury and the IRS determined that additional consideration is necessary prior to finalizing proposed Section 1.45X-4(b)(1), which Treasury and the IRS intend to do at a later date. For that reason, Section 1.45X-4(b)(1) is reserved, and the definitions of aluminum and commodity grade aluminum are not included, in the Final Regulations.

Conclusion

The Final Regulations provide some helpful clarifications, but generally do not stray from the provisions set forth in the Proposed Regulations. Treasury and the IRS continue a recent pattern of finalizing Proposed Regulations on IRA legislation with few significant changes. The issuance of the Final Regulations at this time is particularly notable given that some had wondered whether further IRA guidance would not be released until after the presidential election. The finalization of this guidance will bring a much-needed degree of certainty to the renewable energy industry and the service providers who are helping taxpayers to implement the Section 45X Credit.

RELATED INDUSTRIES + PRACTICES

- Energy
- Energy Tax
- Inflation Reduction Act of 2022 – Energy Industry Implications
- Renewable Energy
- Tax