



December 2024

Inflation Reduction Act Incentives for Clean Energy Manufacturers

Ground Rules: Disclaimers

- This deck provides an overview of certain Inflation Reduction Act tax provisions for general informational purposes only and **is not itself tax guidance**.
- The content in this presentation is based on final regulations and other tax information on IRS.gov.
- This deck relies on simplifications and generalizations to convey high-level points about Inflation Reduction Act tax provisions. Please **refer to guidance** issued by the IRS for detailed information on the rules associated with Inflation Reduction Act tax provisions.
- Treasury and the IRS will **carefully consider feedback submitted** during the public comment periods for proposed regulations before issuing final rules.



The Inflation Reduction Act

- The Inflation Reduction Act (IRA) makes the **largest investment in clean energy** in United States history. The bulk of the IRA investments flow through the tax code instead of direct government spending.
- Under the Biden-Harris Administration, private companies have announced commitments to invest \$173 billion in electric vehicle and battery manufacturing, \$77 billion in clean energy manufacturing and \$155 billion in clean power projects.
- The IRA is creating jobs, saving consumers money and accelerating the nation's transition to clean energy. It will reduce volatility in the cost of energy and increase the nation's energy independence.

The Significance of IRA Manufacturing Credits

“These new investments across industries and throughout clean energy supply chains are creating good-paying jobs and driving down the cost of clean energy for Americans... New manufacturing investments are disproportionately going to communities that have lacked opportunity and are key to increasing long-run growth and the productivity of our economy.”

– Janet L. Yellen, Secretary of the Treasury



Introduction: Advanced Manufacturing Production Credit (§ 45X)

- Taxpayers are eligible for two federal tax credits that support clean energy manufacturing in the United States:
 - The Qualifying Advanced Energy Project Investment Tax Credit (§ 48C) program, as updated by the IRA, provides an allocated investment tax credit for investments in advanced energy projects that expand clean energy manufacturing and recycling and critical materials refining, processing and recycling, and for projects that reduce greenhouse gas emissions at industrial facilities.
 - The Advanced Manufacturing Production Tax Credit (§ 45X) provides tax credits for production and sale of certain eligible components, including solar and wind energy components, inverters, qualifying battery components and applicable critical minerals.
- Property that would otherwise qualify as an eligible component is only an eligible component if the property is produced at a section 45X facility and not part of that section 45X facility is also a section 48C facility.

Overview of the Advanced Energy Project Investment Tax Credit (§ 48C)

- The updated program provides \$10 billion of allocated investment tax credits for investments in three main project categories, as defined in 26 USC § 48C(c)(1):
 - 1) Projects that re-equip, expand, or establish industrial or manufacturing facilities for production or recycling of a range of clean energy equipment and vehicles;
 - 2) Projects that reduce greenhouse gas emissions at industrial or manufacturing facilities;
 - 3) Projects that re-equip, expand, or establish industrial facilities for processing, refining, or recycling of critical materials.
- The program sets aside 40 percent of the \$10 billion for projects in designated energy communities, including those with closed coal mines or retired coal-fired power plants.
- Treasury and DOE are in the process of completing the application process for the remaining \$10 billion.

About the Advanced Manufacturing Production Credit (§ 45X)

- The Advanced Manufacturing Production Credit (§ 45X) provides a production tax credit for domestic manufacturing of components for solar and wind energy, inverters, battery components, and critical minerals.
 - Credit for critical minerals is permanent starting in 2023. For other items, the full credit is available between 2023-2029 and phases down over 2030-2032.
- It is a per-unit tax credit for each clean energy component domestically produced and sold by a manufacturer. It is a general business credit claimed against federal income tax and is also available for elective pay and transferability.
- In many cases, the credit varies by eligible component and is multiplied by the number of units produced by the taxpayer that were sold that year.

About the Advanced Manufacturing Production Credit (§ 45X)

- The § 45X credit has been a major driver of the boom in clean energy manufacturing investment.
- The § 45X credit and Treasury's final regulations are already supporting the build-out of America's clean energy manufacturing base, creating American jobs and promoting energy security as we reduce carbon emissions.
- For a company to receive a § 45X credit, the credited component must be substantially transformed in the United States or a U.S. territory.
- The § 45X credit is leveling the playing field for companies to onshore production of critical clean energy technologies to the U.S. that are currently predominately located in foreign countries like China.

What is in Treasury's Advanced Manufacturing Production Credit (§ 45X) Final Rule

➤ Treasury's final rule:

- Provides clarifying definitions and confirms credit amounts for eligible components, including solar energy components, wind energy components, inverters, qualifying battery components, and applicable critical minerals.
 - Clarifies that the credit may be claimed by the party that performs the actual production activities that bring about a substantial transformation resulting in the eligible component
- Defines key terms to incentivize production in the United States and clarifies the circumstances under which taxpayers can claim the credit.
- Includes important safeguards to prevent potential fraud, waste or abuse, including safeguards against duplicative crediting of the same component, crediting of activities that are not value-added, or extraordinary circumstances in which components are produced but not put to productive use.
- Provides a special rule allowing parties to a contract manufacturing arrangement to agree on which party to the contract will claim the credit.

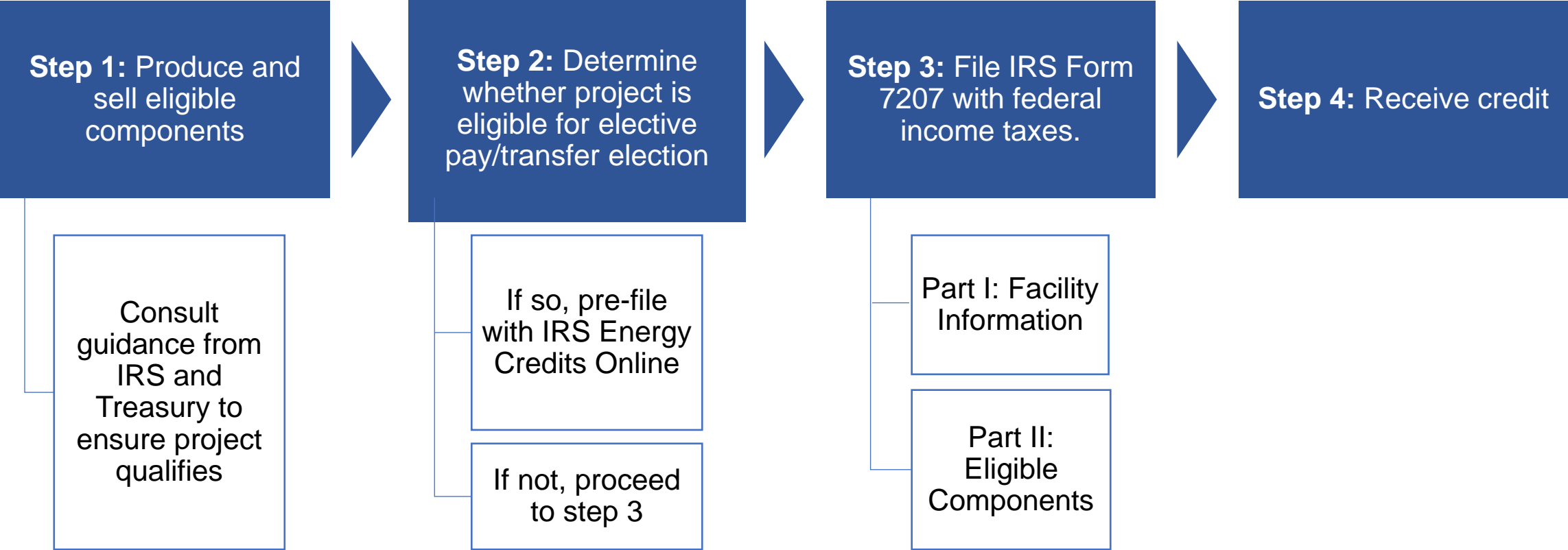
Notable changes in Final Rule

- Treasury has largely finalized the 45X rules as proposed.
- The final rules will allow taxpayers to include materials costs and extraction costs in production costs for applicable critical minerals and electrode active materials, provided certain conditions are met.
- The final rules also clarify that “repowering,” as is commonly the case with wind turbine nacelles, can qualify for a § 45X credit if there is substantial transformation to create a new and distinct eligible component.

Who and What Qualifies for the Advanced Manufacturing Production Credit (§ 45X)

- Manufacturers producing clean energy components that qualify for the § 45X credit include the solar photovoltaic (PV) module and some of its subcomponents, inverters, tracking system components, battery components, and certain critical minerals. They must be produced in the United States for the taxpayer to receive credit. Components that are produced at a facility that received a § 48C credit after August 2022 are not eligible.
- The credit is eligible for elective pay for businesses that do not have tax liability. It can also be used by other entities eligible for elective pay under the IRA.
- The credit is also eligible for transferability. Transferability allows taxpayers that qualify for an eligible tax credit to transfer all or a portion of the credit to a third-party buyer in exchange for cash. The buyer and seller would negotiate and agree to the terms and pricing.

How to Calculate and Claim the Advanced Manufacturing Production Credit (§ 45X)



Eligible Manufactured Components

Photovoltaic (PV) Modules and Subcomponents

- Solar-grade polysilicon
 - Silicon that is suitable for PV manufacturing and is purified to a minimum purity of 99.999999% silicon by mass.
- PV wafers
 - A thin slice, sheet, or layer of semiconductor material of at least 240 square centimeters that comprises the substrate or absorber layer of one or more PV cells.
- PV cells (crystalline or thin-film)
- Polymeric backsheets
- PV Modules

PV Tracking Systems

- Torque tubes
- Structural fasteners

Inverters

- Central inverters
 - Suitable for large utility-scale systems
- Utility inverters
 - Suitable for commercial or utility-scale systems
- Commercial inverters
- Residential inverters
- Microinverters
- Distributed wind inverters

Eligible Manufactured Components

Wind Energy Components

- Blades
- Nacelles
- Towers
- Offshore wind foundations with fixed platforms
- Offshore wind foundations with floating platforms

Batteries

- Electrode active materials
- Battery cells
 - An electrochemical cell comprised of 1 or more positive electrodes and 1 or more negative electrodes, with an energy density of not less than 100 watt-hours per liter, and capable of storing at least 12 watt-hours of energy. The capacity of the cell to the maximum discharge amount of the cell or module (capacity-to-power ratio) cannot exceed 100:1.
- Battery module

Applicable Critical Minerals

- [Statute](#)
- [Notice of Proposed Rulemaking](#)
- [Final Rule](#)

(6) Applicable critical minerals

The term "applicable critical mineral" means any of the following:

(A) Aluminum

- Aluminum which is-
- (i) converted from bauxite to a minimum purity of 99 percent alumina by mass, or
 - (ii) purified to a minimum purity of 99.9 percent aluminum by mass.

(B) Antimony

- Antimony which is-
- (i) converted to antimony trisulfide concentrate with a minimum purity of 90 percent antimony by mass, or
 - (ii) purified to a minimum purity of 99.65 percent antimony by mass.

(C) Barite

- Barite which is barium sulfate purified to a minimum purity of 99 percent.

(D) Beryllium

- Beryllium which is-
- (i) converted to copper-beryllium alloy with a minimum purity of 99.9 percent beryllium by mass, or
 - (ii) purified to a minimum purity of 99.9 percent beryllium by mass.

(E) Cerium

- Cerium which is-
- (i) converted to cerium oxide with a minimum purity of 99.9 percent cerium by mass, or
 - (ii) purified to a minimum purity of 99.9 percent cerium by mass.

(F) Cesium

- Cesium which is-
- (i) converted to cesium formate with a minimum purity of 99.9 percent cesium by mass, or
 - (ii) purified to a minimum purity of 99.9 percent cesium by mass.

(G) Chromium

- Chromium which is-
- (i) converted to ferrocromium or chromium with a minimum purity of 99.9 percent chromium by mass, or
 - (ii) purified to a minimum purity of 99.9 percent chromium by mass.

(H) Cobalt

- Cobalt which is-
- (i) converted to cobalt sulfate, or
 - (ii) purified to a minimum purity of 99.9 percent cobalt by mass.

(I) Dysprosium

- Dysprosium which is-
- (i) converted to not less than 99 percent dysprosium oxide, or
 - (ii) purified to a minimum purity of 99 percent dysprosium oxide.

(J) Europium

- Europium which is-
- (i) converted to europium oxide, or
 - (ii) purified to a minimum purity of 99 percent europium oxide.

(K) Fluorspar

- Fluorspar which is-

(L) Gadolinium

- Gadolinium which is-
- (i) converted to gadolinium oxide which is purified to a minimum purity of 99 percent gadolinium by mass, or
 - (ii) purified to a minimum purity of 99 percent gadolinium by mass.

(M) Germanium

- Germanium which is-
- (i) converted to germanium tetrachloride, or
 - (ii) purified to a minimum purity of 99.99 percent germanium by mass.

(N) Graphite

- Graphite which is purified to a minimum purity of 99.9 percent carbon by mass.

(O) Indium

- Indium which is-
- (i) converted to indium metal, or
 - (ii) indium oxide which is purified to a minimum purity of 99.9 percent indium by mass, or
 - (iii) indium oxide which is purified to a minimum purity of 99 percent indium by mass.

(P) Lithium

- Lithium which is-
- (i) converted to lithium carbonate or lithium hydroxide with a minimum purity of 99.9 percent lithium by mass, or
 - (ii) purified to a minimum purity of 99.9 percent lithium by mass.

(Q) Manganese

- Manganese which is-
- (i) converted to manganese sulphate, or
 - (ii) purified to a minimum purity of 99.7 percent manganese by mass.

(R) Neodymium

- Neodymium which is-
- (i) converted to neodymium-praseodymium oxide with a minimum purity of 99.9 percent neodymium by mass, or
 - (ii) purified to a minimum purity of 99.9 percent neodymium by mass.

(S) Nickel

- Nickel which is-
- (i) converted to nickel sulphate, or
 - (ii) purified to a minimum purity of 99 percent nickel by mass.

(T) Niobium

- Niobium which is-
- (i) converted to ferroniobium, or
 - (ii) purified to a minimum purity of 99 percent niobium by mass.

(U) Tellurium

- Tellurium which is-
- (i) converted to cadmium telluride, or
 - (ii) purified to a minimum purity of 99 percent tellurium by mass.

(V) Tin

- Tin which is purified to low alpha emitting tin which-
- (i) has a purity of greater than 99.99 percent by mass, and
 - (ii) possesses an alpha emission rate of not greater than 0.01 counts per hour per centimeter square.

(W) Tungsten

- Tungsten which is converted to ammonium paratungstate or ferrotungsten.

(X) Vanadium

- Vanadium which is converted to ferrovandium or vanadium pentoxide.

(Y) Yttrium

- Yttrium which is-
- (i) converted to yttrium oxide which is purified to a minimum purity of 99.999 percent yttrium oxide by mass, or
 - (ii) purified to a minimum purity of 99.9 percent yttrium by mass.

(Z) Other minerals

- Any of the following minerals, provided that such mineral is purified to a minimum purity of 99 percent by mass:

- (i) Arsenic.
- (ii) Bismuth.
- (iii) Erbium.
- (iv) Gallium.
- (v) Hafnium.
- (vi) Holmium.
- (vii) Iridium.
- (viii) Lanthanum.
- (ix) Lutetium.
- (x) Magnesium.
- (xi) Palladium.
- (xii) Plutonium.
- (xiii) Praseodymium.
- (xiv) Rhodium.
- (xv) Rubidium.
- (xvi) Ruthenium.
- (xvii) Samarium.
- (xviii) Scandium.
- (xix) Tantalum.
- (xx) Terbium.
- (xxi) Thulium.
- (xxii) Titanium.
- (xxiii) Ytterbium.
- (xxiv) Zinc.
- (xxv) Zirconium.

whether further guidance may be required.

H. Phase Out

Proposed § 1.45X-3(f) would provide the rules for the phase out of the section 45X credit. In the case of any eligible component that is not an applicable critical mineral and is sold after December 31, 2029, the amount of the section 45X credit determined with respect to such eligible component would be equal to the product of the amount determined under proposed § 1.45X-3 with respect to such eligible component, multiplied by the phase out percentage. Proposed § 1.45X-3(f)(2) would provide the phase out percentages. The phase out percentage would be equal to 75 percent for eligible components sold during calendar year 2030; 50 percent for eligible components sold during calendar year 2031; 25 percent for eligible components sold during calendar year 2032, and zero percent for eligible components sold after calendar year 2032. The phase out percentages would be determined based on the year the eligible component is sold rather than the year in which the eligible component is produced by the taxpayer. Proposed § 1.45X-3(f)(3) would clarify that the phase out rules described in proposed § 1.45X-3(f) do not apply to applicable critical minerals as defined in proposed § 1.45X-4(b).

V. Applicable Critical Minerals

A. In General

Section 45X(c)(6) defines applicable critical minerals that are eligible components for purposes of the section 45X credit. Congress enacted section 45X to incentivize the domestic production of eligible components, including certain applicable critical minerals, that are vital to strengthening the country's renewable energy and energy storage supply chains. In addition, Congress amended section 30D in the IRA to provide that section 30D credit eligibility and credit amount is based in part on the sourcing of applicable critical minerals contained in the battery of new clean vehicles from secure and resilient supply chains, with applicable critical minerals defined by cross-reference to section 45X(c)(6). See section 30D(d)(7)(A) and (e)(1). The Treasury Department and the IRS interpret the applicable critical minerals described in section 45X(c)(6) through this lens.

Proposed § 1.45X-4(b) defines, with some clarifications, the definitions of applicable critical minerals provided in section 45X(c)(6). In particular, section

45X(c)(6)(N) provides that the term "graphite" means graphite (both natural and synthetic) that is purified to a minimum purity of 99.9 percent graphitic carbon by mass. Some stakeholders have questioned whether this definition could be interpreted to refer to a particular crystalline structure of carbon, that is, 99.9 percent carbon in a graphitic form. After consulting with experts at the Department of Energy, U.S. Geological Survey, and Department of the Interior, the Treasury Department and the IRS are unaware of a current application in the energy sector for graphite that is at least 99.9 percent carbon in the graphitic form. However, graphite that is at least 99.9 percent carbon by mass is used in electric vehicle batteries to facilitate the electrochemical processes necessary for energy storage, as well as in other energy sector applications. Consistent with the general intent of section 45X, proposed § 1.45X-4(b)(14) would clarify that the term "99.9 percent graphitic carbon by mass" means graphite that is 99.9 percent carbon by mass. This interpretation reflects that various forms of matter are 99.9 percent carbon, such as carbon black, so the word "graphitic" is providing additional clarification regarding the particular application of the carbon. This interpretation provides an incentive for the domestic production of the type of graphite that is used in the renewable energy and energy storage industry, including both synthetic and natural graphite for use in electric vehicle batteries. This interpretation also supports the secure supply chain objectives expressed by Congress in amendments to section 30D that cross-reference the section 45X definition of applicable critical minerals.

B. Credit Amount

Section 45X(b)(1) generally provides the credit amount determined with respect to any eligible component, including any eligible component it incorporates, subject to the credit phase out provided at section 45X(b)(3). Section 45X(b)(3)(C) provides that the credit phase out does not apply with respect to any applicable critical mineral. Section 45X(b)(1)(M) provides that in the case of any applicable critical mineral, the credit amount is an amount equal to 10 percent of the costs incurred by the taxpayer with respect to production of such mineral.

Proposed § 1.45X-4(c)(1) would provide that for an applicable critical mineral the credit amount is equal to 10 percent of the costs incurred by the taxpayer with respect to production of such materials. Proposed § 1.45X-4(c)(2) would provide definitions of production processes for applicable critical minerals. Proposed § 1.45X-1(c)(2)(i)

45X(c)(6)(A) to mean aluminum, including commodity-grade aluminum, described in section 45X(c)(6)(A)(i) and (ii). Proposed § 1.45X-4(b)(1) would define "commodity-grade aluminum" as aluminum that has been produced directly from aluminum that is described in proposed § 1.45X-4(b)(1)(i) or (ii) and is in a form that is sold on international commodity exchanges, which would include commercial grade aluminum that is 99.7 percent aluminum by mass.

Proposed § 1.45X-4(b)(1) clarifies that the term "commodity-grade aluminum" is limited to primary production of unwrought forms by specifying that commodity-grade aluminum must be "produced directly" from certain forms of aluminum. The Treasury Department and the IRS currently understand that the ability to ascertain and substantiate the process or processes used in an earlier point in the lifecycle of feedstock aluminum for secondary production is limited. Such limitations would pose significant substantiation and administrability issues if secondary production were permitted for commodity-grade aluminum under proposed § 1.45X-4(b)(1). Excluding secondary production would also avoid significant administrability challenges that would arise if the process or processes used at previous points in the lifecycle of feedstock aluminum used in secondary production had to be verified to determine eligibility for the section 45X credit.

The Treasury Department and the IRS request comments on this interpretation of section 45X(c)(6)(A).

B. Credit Amount

Section 45X(b)(1) generally provides the credit amount determined with respect to any eligible component, including any eligible component it incorporates, subject to the credit phase out provided at section 45X(b)(3). Section 45X(b)(3)(C) provides that the credit phase out does not apply with respect to any applicable critical mineral.

Section 45X(b)(1)(M) provides that in the case of any applicable critical mineral, the credit amount is an amount equal to 10 percent of the costs incurred by the taxpayer with respect to production of such mineral.

Proposed § 1.45X-4(c)(1) would provide that for an applicable critical mineral the credit amount is equal to 10 percent of the costs incurred by the taxpayer with respect to production of such materials. Proposed § 1.45X-4(c)(2) would provide definitions of production processes for applicable critical minerals. Proposed § 1.45X-1(c)(2)(i)



Summary of Eligible Components for Advanced Manufacturing Production Tax Credit: Batteries

Eligible Components	Definition	Credit Amount
Electrode active materials	Cathode materials, anode materials, anode foils, and electrochemically active materials, including solvents, additives, and electrolyte salts that contribute to the electrochemical processes necessary for energy storage.	10% of the costs incurred by the taxpayer due to production of such materials
Battery cells	An electrochemical cell comprised of 1 or more positive electrodes and 1 or more negative electrodes, with an energy density of not less than 100 watt-hours per liter, and capable of storing at least 12 watt-hours of energy. The capacity of the cell to the maximum discharge amount of the cell or module (capacity-to-power ratio) cannot exceed 100:1.	\$35 per kilowatt-hour (kWh)
Battery module	A module, in the case of a module using battery cells, with 2 or more battery cells that are configured electrically, in series or parallel, to create voltage or current, as appropriate, to a specified end use, or with no battery cells, and with an aggregate capacity of not less than 7 kilowatt-hours (or, in the case of a module for a hydrogen fuel cell vehicle, not less than 1 kilowatt-hour). The capacity of the module to the maximum discharge amount of the cell or module (capacity-to-power ratio) cannot exceed 100:1.	\$10 (or, in the case of a battery module that does not use battery cells, \$45) per kWh



Summary of Eligible Components for Advanced Manufacturing Production Tax Credit: PV Module and Subcomponents

Eligible Components	Definition	Credit Amount
Solar-grade polysilicon	Silicon that is suitable for photovoltaic manufacturing and is purified to a minimum purity of 99.999999 percent silicon by mass.	\$3 per kilogram (kg)
PV wafer	A thin slice, sheet, or layer of semiconductor material of at least 240 square centimeters that comprises the substrate or absorber layer of one or more photovoltaic cells. Produced by a single manufacturer either i) directly from molten or evaporated solar grade polysilicon or deposition of solar grade thin film semiconductor photon absorber layer, or ii) through formation of an ingot from molten polysilicon and subsequent slicing.	\$12 per square meter (m ²)
PV cell (crystalline or thin-film)	The smallest semiconductor element of a solar module that performs the immediate conversion of light into electricity.	4¢ per watt-direct current (Wdc)
Polymeric backsheet	A sheet on the back of a solar module that acts as an electric insulator and protects the inner components of such module from the surrounding environment.	40¢ per m ²
PV Module	The connection and lamination of photovoltaic cells into an environmentally protected final assembly that is suitable to generate electricity when exposed to sunlight, and ready for installation without an additional manufacturing process.	7¢ per Wdc

Summary of Eligible Components for Advanced Manufacturing Production Tax Credit: PV Tracking Systems

Eligible Components	Definition	Credit Amount
Torque tube	A structural steel support element (including longitudinal purlins) that is part of a solar tracker, is of any cross-sectional shape, may be assembled from individually manufactured segments, spans longitudinally between foundation posts, supports solar panels and is connected to a mounting attachment for solar panels (with or without separate module interface rails), and is rotated by means of a drive system.	87¢ per kg
Structural fasteners	A component that is used to connect the mechanical and drive system components of a solar tracker to the foundation of such solar tracker, to connect torque tubes to drive assemblies, or to connect segments of torque tubes to one another.	\$2.28 per kg

Summary of Eligible Components for Advanced Manufacturing Production Tax Credit: Inverters

Eligible Components	Definition	Credit Amount
Central inverter	Suitable for large utility-scale systems. >1 megawatt-alternating current (MWac).	0.25¢ per watt-alternating current (Wac)
Utility inverter	Suitable for commercial or utility-scale systems. ≥ 125 kWac, ≤ 1 MWac, with a rated output ≥ 600 volt three-phase power.	1.5¢ per Wac
Commercial inverter	Suitable for commercial or utility-scale applications. ≥ 20 kWac, ≤ 125 kWac with a rated output of 208, 480, 600, or 800 volt three-phase power >600 volt three-phase power.	2¢ per Wac
Residential inverter	Suitable for a residence. ≤ 20 kWac, with a rated output of 120 or 240 volt single-phase power.	6.5¢ per Wac
Microinverter	Suitable to connect with one solar module. ≤ 650 Wac with a rated output of i) 120 or 240 volt single-phase power, or ii) 208 or 480 volt three-phase power.	11¢ per Wac
Distributed wind inverter	an inverter which is used in a residential or non-residential system which utilizes 1 or more certified distributed wind energy systems, and has a rated output of not greater than 150 kilowatts. The term "certified distributed wind energy system" means a wind energy system which is certified by an accredited certification agency to meet Standard 9.1-2009 of the American Wind Energy Association (including any subsequent revisions to or modifications of such Standard which have been approved by the American National Standards Institute).	11¢ per Wac

Summary of Eligible Components for Advanced Manufacturing Production Tax Credit: Wind

Eligible Components	Definition	Credit Amount
Blades	an airfoil-shaped blade which is responsible for converting wind energy to low-speed rotational energy	2¢ per watt
Nacelles	the assembly of the drivetrain and other tower-top components of a wind turbine (with the exception of the blades and the hub) within their cover housing	5¢ per watt
Towers	a tubular or lattice structure which supports the nacelle and rotor of a wind turbine	3¢ per watt
Offshore wind foundations using fixed platforms	the component (including transition piece) which secures an offshore wind tower and any above-water turbine components to the seafloor using fixed platforms, such as offshore wind monopiles, jackets, or gravity-based foundations, or	2¢ per watt
Offshore wind foundations using floating platforms	the component (including transition piece) which secures an offshore wind tower and any above-water turbine components to the seafloor using floating platforms and associated mooring systems.	4¢ per watt

Summary of Eligible Components for Advanced Manufacturing Production Tax Credit: Critical Minerals

Eligible Components	Definition	Credit Amount
Critical minerals	<p>In addition to products and components, the mining and processing of certain critical minerals are included. Those most likely to pertain to the solar PV supply chain include: Aluminum that is purified to 99.9% or converted from bauxite to at least 99% purity; graphite that is purified to a minimum purity of 99.9%; tellurium that is purified to at least 99% purity or converted to cadmium telluride; indium that is purified to at least 99 percent, converted to indium tin oxide, or converted to indium oxide of at least 99.9% purity; gallium that is purified to 99% purity; arsenic that is purified to 99% purity; titanium that is purified to 99% purity.</p>	<p>10% of the costs incurred by the taxpayer due to production of such minerals</p>



Closing

➤ For more information on the IRA, visit:

- [IRS.gov/CleanEnergy](https://www.irs.gov/CleanEnergy)
- [Treasury.gov/IRA](https://www.treasury.gov/IRA)
- [White House IRA Guidebook](#)
- § 48C
 - [Qualifying Advanced Energy Project Credit \(48C\) Program | Department of Energy](#)
 - Initial Guidance ([Notice 2023-18](#)) and Additional Guidance ([Notice 2023-44](#))
 - Round 2 Guidance ([Notice 2024-36](#))
 - [48C Portal](#)
- § 45X
 - [Advanced Manufacturing Production Credit - Notice of Proposed Rulemaking](#)
 - [Advanced Manufacturing Production Credit – Final Rule](#)
 - [Instructions for Form 7207 \(01/2024\) | Internal Revenue Service \(irs.gov\)](#)



Thank You



Appendix



Funding Opportunities to Consider outside Treasury: DOE's Adv. Energy Manufacturing & Recycling Grant Program (IIJA § 40209)

- Under Section 40209 of the Infrastructure Investment and Jobs Act, DOE has established an Advanced Energy Manufacturing and Recycling Grant Program that provides technical assistance and grants to small- and medium-sized manufacturers located only in designated coal communities.
- Note: DOE's Advanced Energy Manufacturing and Recycling Grant Program cannot be used in conjunction with § 48C tax credits administered by Treasury, the IRS, and DOE.
- For more information, visit [Office of Manufacturing and Energy Supply Chains | Department of Energy](#)

