



March 30, 2026

SUBMITTED ELECTRONICALLY

To: The Honorable Kenneth J. Kies
Assistant Secretary for Tax Policy,
Chief Counsel (Acting), Internal Revenue Service
United States Department of the Treasury
1500 Pennsylvania Avenue NW
Washington, D.C. 20220

RE: *Solar Energy Manufacturers for America (SEMA) Coalition Comments on Notice 2026-15*

Dear Assistant Secretary Kies:

Thank you for the opportunity to engage with the Treasury Department and the Internal Revenue Service (collectively, “Treasury”) on critical tax policy. With the passage of the One Big Beautiful Bill Act (OBBBA),¹ Treasury was tasked with the important responsibility of implementing the revised energy tax provisions included in OBBBA, guided by the President’s direction in Executive Order (EO) 14315, *Ending Market Distorting Subsidies for Unreliable, Foreign-Controlled Energy Sources*.² In response, Treasury issued Notice 2026-15, which provided guidance for determining whether electricity-producing qualified facilities, energy storage technologies, or eligible components are receiving material assistance from a prohibited foreign entity (PFE) and would be ineligible for certain energy tax credits.³

The Solar Energy Manufacturers for America (SEMA) Coalition supports President Trump’s objective of ensuring American energy dominance, including by increasing domestic energy production and ushering in a golden age of American manufacturing of energy-related products and components. This is particularly critical for maximizing economic growth and competing with China. At a time of growing domestic energy demand, the United States needs all the energy it can get, and to make as much of it here at home as possible.

The SEMA Coalition is a group of solar manufacturers employing over 15,000 workers united to rebuild the domestic solar supply chain. We represent the interests of the major non-Chinese solar manufacturers who are building or looking to build strategic solar components across the value chain in the U.S. Our coalition advocates for a suite of policies to build a secure and

¹ H.R. 1, Pub. L. No. 119-21, Title VII, Subtitle A, Chapter 5.

² Executive Order 14315, *Ending Market Distorting Subsidies for Unreliable, Foreign-Controlled Energy Sources*, 90 Fed. Reg. 30,821 (July 10, 2025).

³ Notice 2026-15, *Guidance to Apply Interim Safe Harbors for Purposes of Determining a Taxpayer’s Material Assistance from a Prohibited Foreign Entity; Other Prohibited Foreign Entity Guidance* (February 12, 2026).

competitive U.S. solar supply chain to meet our current and future energy demand while creating good-paying manufacturing jobs and protecting our national security.

The SEMA Coalition greatly appreciates Treasury's issuance of Notice 2026-15, which provides interim guidance on the material assistance provisions. Specifically, the SEMA Coalition members appreciate Treasury's efforts:

- To have taxpayers calculate costs at the Manufactured Product Component (MPC) level for the Material Assistance Cost Ratio (MACR). By counting costs at this level, Treasury focused on the strategic costs of manufactured components.
- To not count labor costs associated with assembling a system on site, and not count interconnection costs in the qualified facility MACR. By excluding these costs from the MACR, Treasury focused on strategic component costs.
- To provide flexibility for the MACR calculations for Section 45X taxpayers. By introducing a "specified period of time" concept that allows different periods within a taxable year to calculate MACR for 45X taxpayers, Treasury provided manufacturers with the flexibility needed for compliance as we reshore critical supply chains.
- To warn against the circumvention of PFE rules. This sends an important signal to the market that Treasury is taking the PFE provisions seriously.

While this interim guidance was very helpful, questions remain regarding implementation, scope, and compliance pathways for domestic solar manufacturers and project developers. Greater clarity will be critical to ensure the rules effectively prevent taxpayer funds from going to PFEs while also providing workable and predictable standards that support continued investment in U.S. manufacturing and energy infrastructure.

The SEMA Coalition offers the following recommendations and requests for clarification to help ensure the final guidance strengthens domestic supply chains, supports American manufacturing, and enables the U.S. to meet growing electricity demand with advanced energy technologies built here at home:

- Issue safe harbor tables covering all 45X-eligible solar components to help manufacturers comply with material assistance. The tables should focus on all 45X upstream constituent component costs.
- Prior to issuing new tables:
 - Specify which column to use when utilizing the Identification and Cost Percentage Safe Harbor for 45X MACR compliance for module manufacturers.
 - Clarify the scope of "Direct Material Cost" for cells, wafers, and polysilicon, and adopt a de minimis rule for minor inputs to 45X-eligible components.

- Make the Certification Safe Harbor documentation mandatory in all compliance methods to meet material assistance requirements for 45X/48E/45Y.
 - Provide a standard form for supplier certification to help with MACR compliance and meet the “reason to know” standard.
 - Provide an example of 45X MACR compliance for integrated manufacturers using the Cost Percentage Safe Harbor and Direct Material Cost method.
- Provide additional clarity on the definitions of the “Foreign Influenced Entity” (FIE) provision to focus on actual “effective control” scenarios as soon as possible to unfreeze financing and discourage misleading PFE claims.

I. Treasury should issue new safe harbor tables covering all 45X-eligible solar components and provide workable PFE restriction rules that enable U.S. manufacturers to focus compliance efforts on the most strategic components.

- a. Treasury should issue new Safe Harbor tables that cover all 45X-eligible components to help manufacturers of components upstream of solar modules comply with the material assistance calculations.*

26 U.S.C. § 7701(a)(52)(D)(iii) specifically directs the Treasury Secretary to issue safe harbor tables to identify the percentage of total direct material costs of any eligible component that is attributable to a PFE. Treasury should expeditiously issue additional safe harbor tables that provide percentages, similar to those in IRS Notice 2025-08, to help determine “total direct material costs” for the MACR calculation for all solar 45X-eligible components. In the case of solar, 45X-eligible components include photovoltaic cells, wafers (either silicon or thin-film wafers), and solar-grade polysilicon. This will ensure that all taxpayers use the same approach to comply with the OBBBA’s material assistance provisions and to limit any potential gaming of “total direct material costs.”

Currently, the Notice 2025-08 domestic content tables are not well-suited for determining costs for 45X material assistance compliance because they do not address upstream eligible components. The safe harbor tables for determining material assistance compliance for each of the 45X-eligible solar components should include all of the 45X-eligible components that are upstream of the initial eligible component. For example, the safe harbor table for a solar module should include as MPCs the polysilicon (for silicon supply chains), wafers, and cells — each a 45X-eligible component — that are upstream of the manufacturer and embedded in the solar module. A targeted safe harbor table could help address gaps in MACR calculations arising from the lack of inclusion of upstream parts of the supply chain.

Treasury should establish a clear timeline for creating safe harbor tables so companies can confidently calculate total direct material costs for eligible components across different investment scenarios. Manufacturers are making long-term supply chain and investment decisions today and need to know how to advance plans for 45X material assistance compliance as they assess new investments.

- b. Treasury should provide workable rules that allow U.S. manufacturers to focus on the most significant and strategic components to derisk Chinese and Chinese-linked supply chains as it implements PFE restrictions.*

In enacting the material assistance restrictions for 45X, Congress provided an incentive for the domestic production of 45X-eligible and other strategically important components and conditioned eligibility for this incentive on the taxpayer's ability to reduce its reliance on PFE suppliers over time. However, in the absence of clear guidance, a taxpayer may calculate its MACR in a manner that does not fully capture the value of strategic upstream components (eligible components, as defined in 45X) produced by non-PFEs, including U.S. producers. This could lessen the incentive for U.S. manufacturers to produce strategic components by making downstream buyers indifferent to the U.S.-manufactured content incorporated into a 45X-eligible component. For example, without more specific guidance, a U.S. module manufacturer that integrates a U.S.-made cell may clear all future MACR thresholds even if that cell is made with PFE-supplied wafer and polysilicon, as those components would not count towards the MACR.

To address this concern, Treasury should consider a general rule that requires taxpayers claiming 45X to include direct material costs from immediate suppliers, as well as a cost breakdown of all 45X-eligible components from non-PFE producers upstream of the manufacturer's own 45X-eligible component. Such guidance should clarify that 45X-eligible components incorporated into a downstream eligible component are always treated as Constituent Materials as defined in section 3.02(1)(a) of the Notice, and, as such, their relevant characteristics (including source) must be tracked for purposes of the MACR. If a non-PFE taxpayer reports a PFE-manufactured strategic component, the taxpayer should still be able to identify and assign costs to the non-PFE value of 45X-eligible components incorporated in that component for their MACR calculation. This structure would incentivize the continued buildout of the upstream solar manufacturing supply chain as the MACR thresholds increase. Eventually, MACR thresholds will result in no tolerance for any PFE components, given the relative costs of such components.

Consistent with this, when issuing new safe harbor tables under 26 U.S.C. § 7702(a)(52) to be used by solar projects when applying the PFE material assistance provisions, Treasury should include all eligible solar components defined in 26 U.S.C. § 45X(c)(3) as MPCs.

Given the OBBBA's PFE and material assistance requirements focus on "effective control" of manufacturing of Manufactured Products (MPs) and MPCs, a rule that focuses on the significant and strategic component would be better tailored to that outcome.

II. Prior to issuing new safe harbor tables, Treasury should issue clarifying guidance to support the continued build-out of the domestic solar supply chain.

- a. Prior to issuing new safe harbor tables, Treasury should specify which column to use when utilizing the Identification and Cost Percentage Safe Harbor for 45X MACR compliance for module manufacturers.*

Treasury should specify which column to use when applying the Identification and Cost Percentage Safe Harbor for 45X MACR compliance. Specifically, Treasury should ensure that the columns offering the strongest incentive to use upstream domestic solar components—such as “ground-mount (fixed)” or “ground-mount (fixed) with domestic c-Si PV cells & domestic wafers”—are the required ones for 45X MACR compliance when using the Cost Percentage Safe Harbor. Of the current safe harbor columns, these most accurately reflect domestic manufacturing costs and capital investments in the solar supply chain, and will further incentivize investments.

Manufacturers generally lack control or visibility into how their modules are used at the end. For instance, a solar manufacturer that produces a module will not know whether the final customer will install it in a tracking or fixed system. Typically, this decision is made by the EPC firm or project developer. Therefore, Treasury should consider issuing interim guidance to clarify this process.

Treasury should also explicitly state that taxpayers using any *Domestic c-Si PV Cells & Domestic Wafers* columns should be interpreted as “*non-PFE* cells with *non-PFE* wafers” for the MACR calculation. Any taxpayer indicating that they are using non-PFE wafers should be required to state their wafer supplier in a certification.

- b. Prior to issuing new safe harbor tables, Treasury should clarify the scope of "Direct Material Cost" for cells, wafers, and polysilicon, and adopt a de minimis rule for minor inputs to 45X-eligible components.***

For components like cells, wafers, and polysilicon, which will have to rely on the Certification Safe Harbor if the guidance is not modified as requested above, the definition of “direct material costs” is critical. The solar manufacturing process requires significant “indirect” materials that are essential for production but are not physically present or visible in the final eligible component (e.g., consumable screens used for aluminum paste printing on cells). Treasury should clarify whether “direct material cost” includes consumable/indirect materials that are “directly” involved in the manufacturing process, or if it is limited strictly to the physical Bill of Materials (BOM) present in the final product.

Treasury should also adopt a “de minimis” rule to limit the extent to which taxpayers are required to track certain minor inputs and to improve the administrability of the MACR rules. Treasury has already acknowledged the need for administrative flexibility in similar contexts, such as the de minimis assignment-based tracking rule for compliance with the Clean Electricity MACR calculations. This acknowledges that rigid tracking of low-cost, non-strategic inputs is unnecessary to achieve the OBBBA’s statutory goals. Similar logic should apply to 45X MACR compliance and will provide relief to manufacturers committed to onshoring this critical supply chain without undermining the statute’s primary objectives.

III. Prior to issuing new safe harbor tables, Treasury should make the Certification Safe Harbor documentation mandatory in all compliance methods to meet material

assistance requirements for 45X/48E/45Y, and should provide a standard form for supplier certification, which will also help with the “reason to know” standard.

To “prevent circumvention of the rules,” taxpayers claiming any tax credit subject to material assistance requirements, regardless of their use of different safe harbors, should be required to submit certifications indicating material assistance compliance upon claiming the credits. Allowing compliance without the Certification Safe Harbor will increase the risk of circumventing the statutory restrictions.

The OBBBA specifies that to use any safe harbor table before the issuance of new safe harbor tables, a taxpayer must “rely on a certification by the supplier.” Treasury should clarify that a supplier must use the Certification Safe Harbor for the Cost Percentage Safe Harbor and the Identification Safe Harbor. The guidance is unclear on this point. SEMA Coalition members have witnessed known PFE-owned or linked entities providing attestations of non-PFE status with limited information.

To improve compliance and ensure strict adherence to PFE and MACR implementation, Treasury should create a standard certification form that incorporates OBBBA statutory requirements and other relevant information to facilitate oversight. This form would increase certainty and help reduce taxpayer waste, fraud, and abuse in the solar manufacturing and deployment sectors while ensuring the IRS has all the records necessary to audit for compliance. Signed supplier certifications – especially on a standard form provided by Treasury – clearly reduce the risk of PFE violations.

Given the comprehensive penalty regime in place, with the potential to “claw back” credits improperly claimed in previous tax years, a standard certification form is vital for taxpayers, suppliers, and financiers. It will also provide clarity on the “reason to know” standard. Instead of leaving it to the parties to interpret what “reason to know” means, Treasury should provide clear guidance and specific examples of what a taxpayer needs to know about their suppliers. Not all taxpayers have the resources to hire senior tax professionals to interpret the “reason to know” body of law and the apparent facts and circumstances test.⁴

For example, “reason to know” should extend beyond the common attestations that SEMA Coalition members have seen in the marketplace for non-PFE compliance, which typically include only ownership and basic operations information. A standard form would provide the clarity that parties in the solar market need to source components and finance projects.

While the guidance acknowledges that the definition of PFE should be applied to the entity that mined, produced, or manufactured a Constituent Material for determining direct material costs, Treasury should clarify that the certification must also be obtained and/or provided directly from that entity that mined, produced, or manufactured a Constituent Material, rather than from direct suppliers who may be resellers. It is not an unreasonable burden to make this a requirement, as there are few intermediaries in energy supply chains. The solar sector is burdened by “fly-by-night” resellers whose whole business model is to take liability away from major players (particularly duty liability), go bankrupt when that liability comes due, and then have their assets

⁴ Treas. Reg. Sec. 53.4965-6(b), T.D. 9492, July 6, 2010.

acquired by another similar party. In fact, Treasury has warned consumers about the “fly-by-night” nature of certain solar companies.⁵

Treasury should consider that the standards concerning “reason to know” were crafted in the context of transparent U.S. laws, regulations, and the free flow of information in a market-based economy. In contrast, the OBBBA was drafted with the knowledge that PFEs operate in jurisdictions with non-transparent laws and in non-market economies, where their supply chains, ownership structures, and sparse publicly available information on the internet are increasingly opaque, enabling them to evade U.S. laws. In considering this context, Treasury could ask parties to investigate facts reasonably available concerning Chinese control, including suppliers:

- 1) Backed by Sinosure, China’s Export and Credit Insurance Corporation. This could be included as a “similar identification number issued by a foreign government.”
- 2) With ownership stakes located in known tax havens.
- 3) Listed on any 1260H Chinese Military entity list or UFLPA Entity List entity in sourcing 45X components.

IV. Prior to issuing new Safe Harbor tables, Treasury should provide an example of 45X MACR compliance for integrated manufacturers using the Cost Percentage Safe Harbor and Direct Material Cost method.

Treasury should clarify the calculation of the Eligible Component MACR with respect to solar modules, cells, wafers, and polysilicon where the primary eligible component (the solar module) is entitled to use the Identification Safe Harbor and Cost Percentage Safe Harbor, but this eligible component incorporates another eligible component (the cell) that, in turn, incorporates another upstream eligible component (the wafer), that in turn incorporates another eligible component (polysilicon, if applicable). 26 U.S.C. § 7701(a)(52)(G) authorizes the Secretary to prescribe rules to address facilities that produce more than one eligible component, which would include integrated eligible components described in 45X(d)(4). Specifically, the Guidance should clarify that the Direct Material Costs and PFE Direct Material Costs for each level of eligible components include the costs associated with a subsidiary (or upstream) eligible component – i.e., a lower-level (or upstream) eligible component is not excluded from the Eligible Component MACR. By way of illustration, an example is provided below:

Company A is a manufacturer of solar modules and is not a PFE. Company A’s manufacturing process includes PV cells and wafers. Because Company A manufactures all three eligible components in the United States, Company A is eligible for separate 45X credit amounts for the solar module, cell, and wafer. Company A sells the solar modules and the integrated cells and wafers in 2026, and, therefore, is subject to the material assistance rules. Company A uses the Identification Safe Harbor to identify the Constituent Materials with respect to each solar module, which are a Listed eligible component. Among other Constituent Materials, the solar cell is identified based on the safe harbor table in Notice 2025-08, Section 5.05 – and, specifically, the column for

⁵ U.S. Department of the Treasury. “Consumer Solar Awareness.” Accessed March 30, 2026: <https://home.treasury.gov/policy-issues/consumer-policy/consumer-solar-awareness>

Ground-mount (Tracking). Company A also uses the Cost Percentage Safe Harbor to assign percentages to each of the listed items as the Direct Material Costs and PFE Direct Material Costs of Constituent Materials. This percentage is considered at the solar module level, even though the PV cells are themselves eligible components for which a 45X credit will be claimed by Company A.

With respect to the PV cells, Company A is not entitled to use the Identification Safe Harbor or Cost Percentage Safe Harbor. Rather, Company A is required to identify the Constituent Materials of the cells. Company A identifies the Constituent Materials that are acquired or produced by Company A and directly incorporated into the cells or consumed as part of the manufacturing process for the cells. Among other items, Company A identifies the wafer as a Constituent Material. In calculating the Eligible Component MACR for the PV cells, Company A must track the Direct Material Costs and PFE Direct Material Costs for each Constituent Material, including the wafer. Company A produces the wafer and will include the Direct Material Costs associated with its production of the wafer – as determined under section 461 and the section 263A regulations. Because Company A is not a PFE, Company A would be entitled to treat the Direct Material Costs for the wafers as non-PFE Sourced in calculating the Eligible Component MACR. Company A may rely on the Certification Safe Harbor to determine whether the other identified Constituent Materials of the PV cells are PFE Sourced or not.

With respect to the wafers, Company A is also not entitled to use the Identification Safe Harbor or Cost Percentage Safe Harbor. Rather, Company A is required to identify the Constituent Materials of the wafers. Company A identifies the Constituent Materials that are acquired or produced by Company A and directly incorporated into the wafers or consumed as part of the manufacturing process for the cells. In calculating the Eligible Component MACR for the PV cells, Company A must track the Direct Material Costs and PFE Direct Material Costs for each Constituent Material. Company A may rely on the Certification Safe Harbor to determine whether the identified Constituent Materials of the PV wafers are PFE Sourced or not.

V. Treasury should provide additional clarity on the definitions of the “Foreign Influenced Entity” provision to focus on actual “effective control” scenarios as soon as possible.

Greater clarity is urgently needed to address ongoing market uncertainty. Financing activity has slowed significantly as banks and investors struggle to determine which entities fall within the scope of the FIE definition, including whether their own debt holdings could make them arguably a FIE, a result we believe was not intended by Congress. At the same time, without additional clarifications to help implement the stringent effective control provisions in the OBBBA, many manufacturers have attempted to restructure after the start date of effective control restrictions in a rush to take advantage of the existing tax incentives.⁶ The solar sector is

⁶ See Washington Free Beacon, Solar Companies Scramble To Hide China Ties As Trump Readies Rules Barring Chinese-Owned Green Energy Firms From Receiving Taxpayer Funds (Jan. 26, 2026) *available at*: <https://freebeacon.com/energy/solar-companies-scramble-to-hide-china-ties-as-trump-readies-rules-barring-chinese->

currently awash in misleading and incomplete claims of PFE compliance from these manufacturers, who may be misleading companies in the sector that lack sophisticated tax counsel overseeing deals. Clarity on these definitions is needed to unlock additional manufacturing investments and hiring in the U.S. while ensuring that known PFEs remain ineligible for tax credits.

The SEMA Coalition supports definitions of key ambiguous terms that align with Congressional intent to address the persistent methods of control deployed by Chinese-owned entities, rather than hypothetical control or short-term influence often associated with technology transfer. The U.S. only recently began to fully onshore upstream solar manufacturing, and it will take time to develop a robust manufacturing ecosystem. Treasury's rules should be consistent to incentivize a long-term shift towards a complete U.S. (and allied) supply chain, without relying on China's supply chain for 45X components.

We support the position of major financial institutions that the statute intends to regulate FIEs in the actual supply chain, not to regulate financial intermediaries and their debt holdings. At present, markets remain largely frozen because banks and insurers are unwilling to assume compliance risk amid uncertainty over how FIE provisions will be interpreted and applied, a continuing issue that can restrain the manufacturing onshoring effort.

* * *

Thank you for your consideration. We hope the Treasury will continue to work with U.S. manufacturers to develop guidance and advance the President's goal of reshoring advanced energy manufacturing, which we most certainly share.

Sincerely,

Mike Carr
Executive Director
SEMA Coalition

cc: Kevin Salinger, Deputy Assistant Secretary for Tax Policy
cc: Don Snyder, Senior Policy Advisor

[owned-green-energy-firms-from-receiving-taxpayer-funds/](https://www.pv-tech.org/canadian-solar-shifts-us-solar-energy-storage-manufacturing-assets-to-north-american-ownership/); See, e.g., PV Tech, Canadian Solar Shifts US solar, Energy Storage Manufacturing Assets to North American Ownership (Dec. 1, 2025) *available at*: <https://www.pv-tech.org/canadian-solar-shifts-us-solar-energy-storage-manufacturing-assets-to-north-american-ownership/>