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Internal Revenue Service
CC:PA:LPD:PR (Notice 2022-47)
Room 5203
P.O. Box 7604
Ben Franklin Station
Washington, DC 20044

RE: “Request for Comments on Energy Security Tax Credits for Manufacturing Under Sections 48C and 45X,” Notice 2022-47 (Oct. 5, 2022)

The Solar Energy Industries Association (“SEIA”) is the national trade association of the U.S. solar energy industry. Our members promote the environmentally responsible development of distributed and utility-scale solar energy and storage. We are committed to working with federal agencies, environmental and conservation organizations, Tribal governments, state agencies, and other stakeholders to achieve this goal. On behalf of our member companies, SEIA appreciates the opportunity to provide these comments on the Internal Revenue Service’s (“IRS”) “Request for Comments on Energy Security Tax Credits for Manufacturing Under Sections 48C and 45X,” Notice 2022-47 (Oct. 5, 2022).

I. Introduction

SEIA is committed to building a strong solar industry to speed the country’s energy transition and address the climate crisis. As the national trade association for the U.S. solar energy industry, which employs more than 230,000 Americans, we represent over 1,000 organizations that manufacture, install, and support the development of solar energy. We firmly believe that the clean energy transition must be based on principles of equity and opportunity. These values are infused throughout our organization and ones we are actively working to advance within our industry.

The solar industry is deeply committed to helping our nation meet the renewable energy targets set forth by President Biden in a just and equitable manner. In order to modernize the grid and address the climate crisis, solar energy must account for at least 30% of U.S. generation by the end of this decade and 40-50% by 2035. That means roughly quadrupling our current pace of installations by 2030. We are in a race against time, and the Inflation Reduction Act (“IRA”) can supercharge the nation’s capacity to combat climate change in the very communities suffering the most from it.

Given the significant role in power sector decarbonization that solar energy will have, we believe that every tool in the toolbox – including the IRA – should be used to spur its development. Promoting clean energy investment activities that will abate the GHG emissions that cause climate change represents a rare opportunity to simultaneously advance three top Administration priorities: advancing environmental justice, combatting the climate crisis, and creating jobs.

Achieving the Administration’s clean energy goals will require a strong U.S. solar manufacturing base, which is also critical to preserving economic and national security. The Energy Security Tax Credits for Manufacturing under §§ 48C and 45X are critical steps forward to promote investments in new manufacturing facilities and equipment and ongoing domestic production support as new facilities come online and scale operations. Properly implemented, these policies can enable domestic manufacturers to offer in-demand products, sell at a competitive price and deliver consistently high-quality goods in sufficient quantities on time, which will lead to a renaissance in American solar and storage manufacturing.¹

II. Executive Summary

1. Produce – Treasury should use existing guidance to determine what constitutes “produce.”
2. Contract Manufacturing – Treasury should allow manufacturers who hire contract manufacturers to qualify for the Section 45X credits if they meet the benefits & burdens test and the contract manufacturer agrees to the allocation.
3. Records/Registration – Ordinary business records sufficiently address duplication, fraud, and excess credits. Any registration requirements should be limited to related party transactions and must be streamlined.
4. Inverter Definition – Confirm that certain inverter systems using DC Optimizers may qualify for the microinverter credit.

¹ SEIA has published a roadmap to achieving 50 GW of domestic manufacturing capacity by 2030, “[Catalyzing American Solar Manufacturing](#).”

III. Responses to Requests for Comment

.01 Section 45X Advanced Manufacturing Production Credit

(1) Section 45X(a)(3)(B)(i) allows a taxpayer to make an election to treat a sale of components by such taxpayer to a related person as made to an unrelated person. Is guidance needed to clarify the meaning of the terms “unrelated person” and “related person”? If so, how should these terms be clarified?

Treasury and the IRS should issue guidance on this topic. Some manufacturers have joint ventures which produce subcomponents eligible for § 45X credits. In these instances, the subcomponent can be incorporated into a component made by the manufacturer and then sold to an unrelated party. Some manufacturers of § 45X-eligible components (e.g., solar modules) have subsidiaries or affiliates which develop renewable energy projects. As a result, guidance will assist these entities.

Treasury and IRS should look to existing rules as a starting point. IRC Section 52(b) and accompanying regulations² supply guidance on how to determine related and unrelated persons.

(2) Section 45X(d)(4) provides that for purposes of § 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. How should “integrated, incorporated, or assembled” be determined?

The § 45X manufacturing credits are designed to incentivize production of certain clean energy components, subcomponents, and materials as quickly as possible. SEIA recommends that Treasury and the IRS use existing guidance on “produce.”

Under IRC § 263A and implementing regulations, “produce” includes activities to “construct, build, install, manufacture, develop, improve, create, raise, or grow” tangible personal property.³ A producer must demonstrate that they have the “benefits and burdens” of ownership of the item. Case law over the years have identified a non-exhaustive list of factors in meeting the “benefits and burdens” test. Some of the factors include:⁴

1. whether legal title passes to the transferee;
2. how the parties treat the transaction;
3. whether the transferee acquires an equity interest in the property;
4. whether the transfer agreement imposes an obligation on the transferor to execute and deliver a deed and an obligation on the transferee to make payments;
5. whether the transferee is vested with the right of possession;

² See, e.g., 26 C.F.R. § 1.52-1

³ 26 C.F.R. § 1.263A-2.

⁴ See, e.g., *The Grodt & McKay Realty, Inc. v. Comm’r of Internal Revenue*, 77 T.C. 1221, 1237-1238 (1981).

6. whether the transferee pays income and property taxes with respect to the property after the transaction;
7. whether the transferee bears the risk of economic loss of physical damage to the property; and
8. whether the transferee receives the profits from the operation, retention, and sale of the property.

(3) What factors should the Treasury Department and the IRS consider in determining what information or registration is necessary for purposes of preventing duplication, fraud, or any improper or excessive credit amount, as referenced in § 45X(a)(3)(B)?

SEIA agrees that § 45X credits should only go to manufacturers who actually produce and sell qualifying components. Ordinary business records will help identify duplication, fraud, or any improper or excessive credit amounts. Examples of such records include invoices that list products sold, customers, product capabilities, and quantities of the products sold. As discussed below, industry standards have been established over the years to determine the rated capacities of products, and there will typically be commissioned reports to verify the veracity of a manufacturer's claims. These documents together sufficiently demonstrate the veracity of claimed credits during an audit.

If Treasury and the IRS move forward with a registration program, SEIA recommends that such a program be limited to firms engaged in related party transactions. There are many valid business models involving related party transactions. For example, some manufacturers have subsidiaries or affiliates that develop renewable energy projects. Other manufacturers are vertically integrated and make multiple components and subcomponents that qualify for § 45X credits. Treasury and the IRS should not develop rules that discourage these business models. In such instances, the registration should be streamlined and ask for the name of the entity, names of related parties, products produced and sold, and production capacities.

Moreover, Treasury should not set up barriers that would prevent manufacturers from making full use of the credits. Section 45X and Congressional intent are clear that all qualifying components sold after December 31, 2022 would generate § 45X credits. Any registration program should have a retroactive component, meaning that a manufacturer should be able to claim credits for qualifying components made and sold before Treasury and the IRS develop its registration process. To put a finer point, qualifying products sold on or after January 1, 2023 should qualify for § 45X credits even if Treasury and the IRS establish a registration program after that date.⁵

⁵ See 168 CONG. R. 133, at S4166 (Aug. 6, 2022) (“The credit is intended for any eligible components produced and sold after December 31, 2022, regardless of the portion of the component that was produced before January 1, 2023.”).

(4) Is guidance needed regarding the capacity-to-power ratio in § 45X(b)(4)? If so, what guidance?

SEIA believes that Treasury and the IRS should specify that capacity-to-power ratios should be denoted in specific units, using kilowatt-hours for capacity, and kilowatts for power. Specifically, the power rating used in such calculation should be the continuous power rating of the system.

(5) Is additional clarification needed regarding the definitions of an “eligible component” in § 45X(c)?

(a) How should the amount of the § 45X credit be calculated for components that could be used in systems of varying capacities?

(b) In such cases, how should verification of the applicable credit amount be demonstrated?

For products whose output can vary (e.g., a solar module or cell), Treasury and the IRS should rely on the rated output of the product. Over the years, standard testing conditions and tests have been developed for products like solar modules, solar cells, and inverters.⁶ These tests have been accepted by industry professionals, investors, and government agencies as the way to rate products. In such instances, manufacturers typically have test reports from accredited laboratories and other independent third-parties to validate their claims. From there, a business can verify credit amounts based on reports coupled with ordinary business records.⁷

Inverters

Treasury should provide additional guidance regarding microinverters, including clarifying that functionally equivalent inverter systems that include DC optimizers are eligible for the credit. Section 45X(c)(2) defines inverter as “an end product which is suitable to convert direct current electricity from 1 or more solar modules or certified distributed wind energy systems into alternating current electricity.” Inverters come in various configurations, and all the power electronics may not be housed in a single box. An inverter system could comprise of two or more components. For instance, certain inverters coupled with DC optimizers, a device that enhances the output of individual solar modules, can function the same way as microinverters and provide certain efficiency advantages when installed with batteries which are charged by DC electricity.

The IRA was designed to incentivize domestic production of a broad swath of critical components and subcomponents for renewable energy projects. Treasury and the IRS should not narrowly construe § 45X to disqualify or disadvantage proven technologies from accessing the § 45X credits. Treasury and the IRS should

⁶ For example, solar modules are based on “Standard Test Conditions” which involves 1000 W/m² of sunlight hitting the module, the cell being at 25 degrees Celsius, and a sea level air mass of 1.5.

⁷ Examples of the ordinary business records include invoices with model numbers and quantities.

clarify that certain inverter systems may be considered end products qualifying for the microinverter incentive.

Solar Trackers

Solar trackers are an “eligible component” and are defined under section 45X(c)(3)(B)(vi) as a “mechanical system that moves solar modules according to the position of the sun and to increase energy output.” Section 45X(c)(3)(B)(vii) further defines solar tracker components to include both torque tubes and structural fasteners.

A solar tracker includes several fasteners, but the key fastener is the clamp which secures the torque tube to the solar module. The clamp is a structural fastener that ensures the resilience and reliability of the system. Clamps are engineered to ensure the solar module is not damaged under high wind and other extreme weather events.

Treasury and the IRS should clarify that a clamp is a structural fastener that qualifies as an eligible component under section 45X(c)(1).

(10) Please provide comments on any other topics under § 45X that may require guidance.

SEIA believes that Treasury and the IRS should provide guidance or clarification on the following topics:

- Joint Ventures and allocating credits;
- Allocating credits when contract manufacturing is used; and
- Date(s) for when one may claim direct pay

Joint Ventures

Some manufacturers partner with other companies to establish Joint Ventures to produce qualifying products. For example, a group of module manufacturers may invest in a cell manufacturing facility in part to ensure consistent supply. As a result, Treasury should provide guidance on allocating § 45X credits between parties in a Joint Venture.

Contract manufacturing

Some manufacturers use contractor manufacturers for some or all their production needs. Because the § 45X credits for a qualifying product may only go to one taxpayer, both parties need concrete guidance on apportioning the credits.

SEIA believes past guidance in other contexts offer a useful roadmap. In Directive LB&I-04-1013-008,⁸ the IRS presented guidance on claiming tax benefits under IRC Section 199 when a taxpayer uses contract manufacturers. A manufacturer could claim the credit if they can provide three items:

⁸ See <https://www.irs.gov/businesses/updated-guidance-for-examiners-on-i-r-c-199-benefits-and-burdens-of-ownership-analysis-in-contract-manufacturing-arrangements>.

1. Explanation of how the manufacturer meets the benefits and burdens test in the relevant years
2. Certification signed by the manufacturer; and
3. Certification signed by the contract manufacturer.

SEIA believes this approach offers an appropriate balance. A hiring taxpayer who claims the credit must demonstrate that they are engaged in manufacturing. And both parties must agree that the hiring party can claim the credit. This ensures the credits flow to parties engaged in manufacturing while giving parties flexibility to assign the credits as they see fit.

Date(s) for when one may claim direct pay

Eligible manufacturers may elect to receive § 45X credits in the form of direct pay during any five (5) year period. Treasury and the IRS should issue guidance on when the five-year clock for direct pay begins. SEIA believes it is most equitable for the clock to begin on the date that the election is made. For example, a manufacturer who makes an election on May 1, 2023 should receive direct pay for components produced from May 1, 2023 to April 30, 2028.

This approach will allow manufacturers to make full use of direct pay for five years. Manufacturers need time to ramp up production and the date that a factory reaches full capacity can be any date. This is important in the years leading up to the ramp down of the § 45X tax credits. If the start date for receiving direct pay was set to January 1, manufacturers would be forced to choose between foregoing direct pay for several months or accepting direct pay at a discount. As a result, the date that direct pay begins should be the date of election.

.02 Qualifying Advanced Energy Project Credit (§ 48C)

(5) Section 48C(e) directs the Secretary to establish a program to consider and award certifications of qualified investments eligible for the § 48C credit.

(a) What should the Treasury Department and the IRS consider in determining the selection criteria for awarding the § 48C credit and to what extent should the Treasury Department and the IRS rely on precedent from previous experience administering the § 48C credit during previous allocation rounds provided in Notice 2009-72, 2009-37 I.R.B. 325 and Notice 2013-12, 2013-10 I.R.B. 543?

(b) What aspects of the previous allocation rounds of the § 48C credit should the Treasury Department and IRS consider revising in establishing a new § 48C program and administering it?

Applications for § 48C credits are lengthy affairs that require a lot of time and money to prepare and time to review. SEIA recommends that DOE follow the two-step process used in the 2013 award process. In the first step, interested parties filed a concept paper with DOE. In the second step, selected parties were invited to file an application for the § 48C credits. This process helps both the DOE and industry. DOE spends less time reviewing full applications. And applicants know

early on where their proposal stands and only have to commit the significant time and resources preparing a full application if they receive positive signals from DOE.

IV. Conclusion

SEIA appreciates the Department of the Treasury's efforts to implement the IRA. Time is of the essence to fight the climate crisis, and we are encouraged by your quick efforts to clarify the IRA's clean energy rules of the road. We look forward to continuing to work with you on implementation.

Thank you for the opportunity to provide these responses. If you have any questions, please contact Amir Yazdi at (202) 469-3740 or ayazdi@seia.org.

Sincerely,

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