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Internal Revenue Service
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Room 5203
P.O. Box 7604
Ben Franklin Station
Washington, DC 20044

RE: “Request for Comments on Certain Energy Generation Incentives,” Notice 2022-49 (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 Certain Energy Generation Incentives,” Notice 2022-49 (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.

Implementation of the tax credit provisions of the Inflation Reduction Act (“IRA”), which will reduce the impacts of the power sector on historically overburdened communities, is a paramount priority for the solar energy industry. Solar energy is clean, abundant, and the United States has some of the richest solar resources in the world. Deploying more solar energy reduces carbon emissions and other harmful pollutants, which have disproportionately impacted low- and moderate-income (“LMI”) neighborhoods and communities of color, in comparison to fossil fuel-based energy sources. It is an energy solution that provides clean, reliable electricity, increases consumer choice, and helps

consumers and business owners save money on their utility bills. Critically, solar energy helps our nation address the threats of climate change, which imposes billions of dollars of additional costs on LMI communities every year.

Climate change poses unique risks to LMI communities, many of which have already borne disproportionate burdens related to the emissions-generating activity that causes climate change. This is because LMI communities suffer disproportionate impacts of the natural disasters and extreme heat caused by climate change. As has been well-documented, this is due to inadequate housing, infrastructure,¹ inability to contend with potential losses of income,² and fewer resources to address health impacts³ due to extreme weather, among other factors. By spurring more investment in localized clean energy deployment, the IRA can create jobs and local business opportunities while reducing the emissions that contribute to extreme weather.

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 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.

¹ See, e.g., Eleanor Kruse and Richard V. Reeves, "Hurricanes Hit the Poor the Hardest," THE BROOKINGS INSTITUTION (Sept. 18, 2017), available at <https://www.brookings.edu/blog/social-mobility-memos/2017/09/18/hurricanes-hit-the-poor-the-hardest/>; U.S. GLOBAL RESEARCH PROGRAM, Fourth National Climate Assessment, Volume II: Impacts, Risks, and Adaptation in the United States, available at <https://nca2018.globalchange.gov/>; Bev Wilson, "Urban Heat Management and the Legacy of Redlining," 86 J. OF THE AMER. PLANNING ASSOC. 443, (2020), available at <https://www.tandfonline.com/doi/full/10.1080/>.

² Patrick Sisson, "In Many Cities, Climate Change Will Flood Affordable Housing," BLOOMBERG (Dec. 1, 2020), available at <https://www.bloomberg.com/news/articles/2020-12-01/how-climate-change-is-targeting-affordable-housing>.

³ See Eleanor Kruse and Richard V. Reeves, *supra* n.1.

II. Executive Summary

Sections 45/45Y

1. Beginning of construction – confirm that current Notice 2018-59 will continue to apply to section 45 and 48 solar and solar-plus-storage projects.
2. Solar PTC/Storage ITC – confirm that for a qualified solar facility that is associated with energy storage technology property, a taxpayer can elect to claim the PTC with respect to the solar energy produced by the qualified facility and the ITC with respect to associated energy storage technology property.

Sections 48/48E

1. Interconnection ITC – define the 5 MW_{AC} threshold as the lesser of: (1) the maximum allowable power at the point of interconnection to AC transmission or distribution lines as defined in the interconnection agreement; or (2) the combined maximum net output of all inverters.
2. Grid-charged battery storage – confirm that grid charging for standalone storage does not disqualify the storage project from the ITC or trigger recapture.

Low-income Community Bonus Credits

1. Treasury and IRS should issue a draft implementation program for public notice and comment prior to the 180-day deadline in the IRA.
2. SEIA recommends a program design and application process that: (1) recognizes low-income customers have different circumstances and different needs; (2) is based on existing, implementable, and successful state solar incentive programs; and (3) recognizes the different business models of qualified solar and wind companies that serve low-income customers.

III. Responses to Requests for Comment

.01 IRA Changes to the Renewable Electricity Production Credit (§ 45)

(1) Section 45(e)(13) provides that electricity produced by a taxpayer will be treated as sold by such taxpayer to an unrelated person during the taxable year if (A) such electricity is used during such taxable year by the taxpayer or a person related to the taxpayer at a qualified clean hydrogen production facility (as defined in § 45V(c)(3)) to produce qualified clean hydrogen (as defined in § 45V(c)(2)), and (B) such use and

production is verified (in such form or manner as the Secretary may prescribe) by an unrelated third party.

(b) The term “unrelated person” is used in section 45 (as well as other provisions discussed in this notice that were added or amended by the IRA). Is guidance needed to clarify the meaning of the term “unrelated person”? If so, how should that term be clarified?

Treasury should clarify how § 52(b) rules apply when a private equity fund “breaks the chain” between the private equity fund owners and its portfolio companies’ generating and selling renewable energy.

(2) Sections 45(b)(3), 48(a)(4), 45Y(g)(8), 48E(d)(2) and several other sections in the IRA include a reduction in the respective credit for tax-exempt bond financing. The reduction is calculated in accordance with § 45(b)(3) (or rules similar to the rule under § 45(b)(3)). What additional guidance would be helpful in determining how to calculate the reduction?

Treasury should clarify that an exception to this reduction for energy property installed in connection with certain other similar tax-exempt bond financing will continue to apply. Specifically, for tax-exempt bonds used to finance qualified low-income housing projects that also has energy property, the rule in § 42(h)(4) will continue to apply. Taxpayers should also be able to demonstrate through normal bond documents that energy property was not so financed.

By way of one example, the energy storage ITC would be reduced if the project is financed through tax exempt bonds, capped at 15%. Additional guidance should be issued on how exact reductions below that cap will be calculated. Specifically, Treasury should confirm that the beginning of construction rules for this purpose follow prior IRS notices and the same definitions that will be applied for grandfathering prevailing wage and domestic content requirements for direct pay.

Will an ITC reduction only be applied against the base amount (6%/0.55 cents), or will it be applied against the full bonus credit amount (30%/2.75 cents), without impacting the full 10% adders when energy communities or domestic content are satisfied? Based on the statutory language, it appears this haircut should be capped at 15% before the 5x multiplier for prevailing wage and apprenticeship is considered. The mechanical application of this reduction would also impact adder credits differently in § 45 versus § 48.

(4) Please provide comments on any other topics relating to the § 45 credit that may require guidance.

The Department of Energy recently stated that the IRS's existing beginning of construction guidance (Notice 2018-59) will continue to apply to §§ 45 and 48 solar projects.⁴ Please confirm that existing IRS beginning of construction guidance will continue to apply to such projects.

As soon as possible, IRS should publish PTC amounts for 2022 in an inflation adjustment factor notice and provide additional guidance on new rounding rules.

Since the Inflation Reduction Act expanded the existing § 45 production tax credit to include solar, Treasury should explicitly add the definitions at § 45(a)(3)(A)(i)-(ii) to the existing list of technologies in the IRS's existing PTC beginning of construction guidance.

Please confirm that for a qualified solar facility that is associated with energy storage technology property, a taxpayer can elect to claim the PTC with respect to the solar energy produced by the qualified facility and the ITC with respect to associated energy storage technology property. The IRA contains no textual prohibition on such an arrangement. Furthermore, U.S. House of Representatives Ways and Means Committee Chairman Richard Neal noted in a floor statement that “relating to the coordination of the credit for energy storage technologies and the section 45 production tax credit, the Committee intends that a credit is allowed for energy storage technology under section 48 regardless of whether it is part of a facility for which a credit under section 45 is or has been allowed.”⁵ Without this clarification, developers may be forced to purchase and install unnecessary additional interconnection equipment to connect two associated assets to two separate points on the grid. Such a result would be at odds with the Administration's goals of rapid deployment of carbon-free electricity.

Similar to the above, current beginning of construction guidance for solar provides how to begin construction of an “energy property” or “multiple energy properties that are operated as part of a single project,” and such guidance includes boundaries of an energy property. We request guidance that confirms the application of the beginning of construction guidance to the solar PTC also includes boundaries of a qualified solar energy facility for purposes of the beginning of construction and otherwise (*e.g.*, retrofitting solar property). Energy storage associated with and charged by solar energy should not be considered property which is part of the qualified facility,⁶ consistent with current beginning of construction guidance.

Treasury and the IRS should confirm that the PTC, if elected, will apply to electricity discharged from storage, meaning that a solar plus storage project

⁴ See “Federal Solar Tax Credits for Businesses,” available at <https://www.energy.gov/eere/solar/federal-solar-tax-credits-businesses> (last accessed October 19, 2022).

⁵ 168 CONG. R. 135, at H7664 (Aug. 12, 2022).

⁶ This comment only applies where a taxpayer is electing the PTC for an array and the ITC for storage, not where the ITC is elected for a solar plus storage project.

should still be able to qualify if, for instance, curtailed solar charges the battery and the battery later exports to the grid. This result would be consistent with other PTC guidance regarding sales of electricity to a related utility that ultimately sells the electricity to an unrelated consumer.

.02 The Energy Investment Credit (§ 48)

(1) IRA Changes to the Energy Investment Credit (§ 48)

(a) The IRA expanded the definition of energy property to include electrochromic glass, energy storage technology, qualified biogas property, and microgrid controllers.

(i) What should the Treasury Department and the IRS consider in determining what types of technologies are included in the definitions of these new types of energy property?

The Act defines a “microgrid controller” as (i) a part of qualified microgrid that is (ii) designed and used to monitor and control the energy resources and loads of that microgrid. The Act further defines “microgrid” as equipment capable of (i) generating between 4 kW and 20 MW of electricity and (ii) operating both (a) in connection with the electrical grid and as a single controllable entity with respect to that grid and (b) independently of the grid.

Treasury should make clear that the broad definition of “microgrid” in the IRA applies to microgrids as they are conventionally known, which could involve many households or businesses, as well as what are commonly known as “nanogrids,” which usually involve a single household. Treasury should also make clear that based on the IRA’s definition of microgrid, a load controller used on a single household’s solar-plus-storage power system is a “microgrid controller” as that term is used in the IRA.

Treasury should also make clear that the critical components of a microgrid controller include hardware, but also software, which is used to monitor load on the system. This software is essential for allowing the microgrid (or nanogrid) to “island” from the bulk power grid.

(b) Section 48(a)(8) provides that for certain energy property amounts paid or incurred for qualified interconnection property may be included in basis.

(i) For interconnection property, what types of additions, modifications, or upgrades to the transmission or distribution system are required for the purpose of accommodating interconnection?

Interconnection property includes all items, studies and improvements necessary to apply for and connect the facility to the utility distribution or transmission system. Such property may include certain gen-tie lines, new or upgraded utility substations, property within a utility substation or the utility distribution system

such as transformers, network upgrades such as new, upgraded, or reconducted service conductors, distribution or transmission lines, grid-enhancing technologies, fiber-optic or other telecommunications-related systems or upgrades necessary to reliably connect the system, software and database costs (*e.g.*, dynamic load management or communications software), and other related equipment. In the context of smaller distributed generation projects, it should also include panelboard upgrades.

The interconnection property required for any individual facility is determined by the utility and described in the interconnection service agreement or attachments (for example, system impact study reports). Such property is typically constructed by the utility but paid for by the developer. Interconnection rules and costs on the distribution system are overseen by state public utility commissions, regional transmission organizations, and the Federal Energy Regulatory Commission (FERC). The costs of interconnection property are billed to the interconnection customer by the utility subject to the oversight of these entities.

Embedded in interconnection property are the application fees, design costs, utility administrative and overhead costs, and interconnection study costs that drive the design criteria.⁷ In addition, some projects are required to furnish federal, state, or local taxes (usually described under the umbrella term “Contributions in aid of Construction”⁸) incurred by the utility constructing the interconnection property. A final consideration is that interconnection customers can also incur costs or damages associated with interconnection delays, including study delays and delays by an electric utility in reviewing and acting on an interconnection application.⁹ All these costs are part of the interconnection price paid by the interconnection customer. Please confirm that the 50(c) basis adjustment applies to the amortizable intangible property in this case.

In addition, SEIA requests Treasury confirm that the amount of the ITC percentage for qualified interconnection property follows the same ITC percentage established for the energy project. For example, 30%, 40%, or 50% (possibly 70% for LIC qualified projects) based on the application of the adders to the energy project itself.

⁷ Some or all of these interconnection study costs may be billed separately and not as part of the interconnection agreement, but should be considered part of the interconnection basis, along with physical upgrade costs. Such costs are necessary predicates for, and have a direct nexus to, the construction of “tangible property” as that term is used in § 48(a)(8)(B).

⁸ *See, e.g.,*

https://www.cmpco.com/wps/portal/cmp/home!/ut/p/z0/fY5PC4JAFMQ_jVCnt6JEHiPKiAw6FLoX2V6bvMq3un-sj59eOnab-TEzDEgoQbIaqFGeDKvX6Cu5qJO42OzStTguizQTpzQ5nPP8lrZZDHuO_wPjAj36Xq5AomGvPx5KbDvV2FohmsA-Ej_BWLdmIG4iYXUftPOs307bgVBHYupbuobpmyNWdDP3kTlvA05shqRwDt1TV19k-Ygm/.

⁹ *See, e.g.,* IRS Notice 2016-36 (costs under interconnection agreements treated as amortizable intangible costs eligible for ITC as qualified energy property).

(ii) For interconnection property, what type of documentation, in addition to interconnection agreements and cost certification reports, is readily available for a taxpayer to demonstrate that they have paid or incurred interconnection costs?

Utility documentation of costs varies widely from utility to utility. Some utilities provide a high level of visibility into costs and a high level of documentation; in other instances, costs may be quoted in invoices, emails or other less official communications.¹⁰ Likewise, utility practice varies considerably with respect to confirmation of payment. In many cases, confirmations are only available, if at all, via email.

For larger projects that commonly require interconnection engineering studies, SEIA recommends that the IRS primarily rely on costs outlined in such studies (*e.g.*, system impact studies, facilities studies) and, in cases where they are required by the upstream transmission provider,¹¹ agreements from the transmission provider outline the costs of network upgrades. These documents are typically attached to and incorporated into interconnection service agreements between the project and the distribution or transmission operator. IRS could rely on executed interconnection agreements to which interconnection engineering studies and cost estimates are attached as evidence the taxpayers incurred those interconnection costs. Note that in cases where both distribution and transmission-level upgrades are required, projects may be required to sign two or more separate interconnection agreements and may incur both distribution-level and transmission-level upgrade costs. For residential systems, the IRS should rely on customer contracts and interconnection agreements.

In some cases, utilities may also issue final accounting reports that reconcile expected costs against actual costs incurred after completing all interconnection work. If such reports are issued, they could require taxpayers to pay an additional amount to reimburse the utility for its added costs. Such final accounting documents, to the extent they are available, could be relied upon by IRS as demonstration of the incurred interconnection costs. However, we stress that the practice of issuing post-construction final accounting reports is far from universal, so this documentation may not be available for many projects. In that event, IRS could rely on the study costs identified in the executed interconnection agreement (or attachments thereto) for the project.

Utility study and design costs are sometimes advertised in tariffs that are publicly available or posted on utility websites. IRS could rely on such documents (or archived versions of these documents) as evidence that these costs were incurred.

¹⁰ This is common for smaller projects connected to a distribution system.

¹¹ Facilities that are 5 MW_{AC} or smaller typically interconnect to the distribution system. At times, small projects or clusters of them will have potential impacts to the larger transmission system, requiring additional study by the transmission operator (utility or RTO) and potentially transmission network upgrades.

(iii) For interconnection property, is guidance needed to define energy property that has a maximum net output of not greater than 5 megawatts (as measured in alternating current)?

The text of the legislation is clear: maximum net output alternating current (AC) is a term referring to the maximum alternating current power delivered to the grid. Treasury and IRS should further define this as the lesser of: (1) the maximum allowable power at the point of interconnection to AC transmission or distribution lines as defined in the interconnection agreement or (2) the combined maximum net output of all inverters. Note that the combined net output of all inverters could be greater than the combined net output of the facility because the inverters are frequently programed to operate in coordination to ensure facility output never exceeds parameters of the interconnection agreement. See below for examples of facility configurations that may have inverters that have greater than 5 MW_{AC} nameplate capacity but never have net output in excess of 5 MW_{AC}.

1. Facility with 5 MW_{AC} interconnection agreement that uses three 2 MW_{AC} (nameplate or nominally rated) inverters that are limited to a combined output of 5 MW_{AC}. These inverters would “clip” power (limit) output to ensure compliance with interconnection and other agreements.
2. An AC-coupled facility with 5 MW_{AC} of solar inverters and 5 MW_{AC} battery inverters. These inverters will work in unison to manage charging and discharging of batteries and combined output to the grid and not exceed a 5 MW_{AC} interconnection agreement.

This understanding is consistent with FERC’s longstanding “send out rule” for purposes of determining qualified facilities’ compliance with megawatt thresholds under the Public Utility Regulatory Policies Act.¹²

Note that 5 megawatts alternating current (MW_{AC}) should be defined as 5 MW of *real* power. This is in contrast to *apparent* power or *reactive* power.

(c) Please provide comments on any other topics relating to the § 48 credit that may require guidance.

1. When the solar PTC and the storage ITC are claimed for qualified solar facilities associated by virtue of the solar facility’s charging the storage energy property, Treasury should clarify that shared equipment such as inverters should be considered part of the eligible basis of the energy property for ITC purposes while still allowing the solar asset to claim the PTC.
2. Treasury and the IRS should confirm that grid charging for standalone storage does not disqualify the storage project from the ITC or trigger

¹² *Occidental Geothermal, Inc.*, 17 FERC ¶ 61,231 (1981).

recapture. The text of the IRA contains no such limitation, and the definition of “energy storage technology” in § 48(c)(6)(A) speaks only to technology that “receives ... energy,” without regard to the source from which it was received.

3. Treasury and the IRS should expressly confirm that utility-scale and distributed battery storage technologies will meet the definition of “energy storage” and provide an example. Will Treasury or the IRS further define “energy storage” based on technology or use cases?
4. Treasury and the IRS should confirm that battery storage retrofits or additions to pre-IRA clean energy projects will qualify for the §§ 48 and 48E ITCs.
5. Treasury and the IRS should clarify that any storage installed pre-2023 need no longer adhere to the 75% rule for purposes of recapture.¹³ If not, battery storage installed on December 31, 2022 will be required to be charged from a renewable energy source for five years to avoid recapture, but battery storage installed the very next day can be charged directly from the grid in any amount. This is contrary to Congressional intent, as evidenced by its expansion of the ITC to cover energy storage.¹⁴
6. Treasury and the IRS should confirm that additional capital expenditures to augment storage assets placed in service before and after December 31, 2022 are eligible for the ITCs, even where an entire unit of property is not added. Alternatively, Treasury and the IRS should confirm that there is no recapture of degraded storage that is being augmented.
7. If a storage system under 5 kWh is installed as part of qualified solar energy property in 2023 or later, that storage system – of any size, including those smaller than 5 kWh – should qualify as part of the basis for the energy property.
8. In light of the passage of the IRA, Treasury should strongly consider revisiting existing guidance regarding including the costs of roof repairs/replacements in the ITC. The equity considerations at the heart of the IRA could not be more compelling on this issue: many older single and multi-family homes (which disproportionately house low-income residents) need roof repairs or replacement before solar can be installed. As long as the sale of the 48 eligible system is dependent upon the repair or

¹³ As SEIA has previously argued to the IRS, the 75% “Cliff” is itself without basis in statute or legislative history. *See* SEIA Comments on IRS Notice 2015-70, available at <https://www.seia.org/sites/default/files/SEIA%20IRS%20Sec%2048%202015-70%20Comment%20Letter%20-%20FINAL%20SIGNED%202016-02-16.pdf> (Feb. 16, 2016).

¹⁴ This same clarification should be made with respect to § 25D residential solar plus storage systems, which adheres to a 100% rule.

replacement of the roof, those repair or replacement of the roof costs should be eligible. We urge Treasury to reconsider its existing rules.

(2) Additional Issues Regarding the Energy Investment Credit (§ 48)

(a) Is guidance needed to determine whether an investment credit facility that elects to claim the § 48 investment tax credit in lieu of the § 45 production tax credit is subject to all of the requirements of § 45, including the requirement that electricity generated by the investment credit facility be sold to an unrelated person? If so, what factors should the Treasury Department and the IRS consider regarding such guidance?

Neither the IRA nor other law requires an energy property to deliver electricity to an unrelated person for purposes of the § 48 credit. Treasury should not impose this obligation without a statutory basis. Under current law, there is no requirement that a taxpayer make an ITC election in lieu of a PTC election for the qualified facility to sell electricity to an unrelated party. Such facility meets the definition of qualified facility, but by not selling electricity to an unrelated party, the credit amount is \$0. The ITC in lieu of PTC election allows that same facility to qualify for the ITC where the measure of the credit is the eligible basis in the qualified facility, not the production of electricity sold to an unrelated person.

(b) Is clarification needed on the applicability of the 80/20 rule used to determine whether retrofitted or repowered projects may qualify as new energy property? If so, how should this be clarified?

To the extent that the 80/20 rule continues to apply to retrofitted or repowered facilities, it should be construed in a manner that does not interfere with additional energy storage capacity being added to existing facilities or expansion of existing energy storage facilities, including claiming the ITC for new or expanded energy storage technologies or new microgrid controllers. If a project is allowed to claim ITC and/or PTC for a repowered project, the basis should be the fair market value of the repowered project.

.04 IRA Addition of the Clean Electricity Production Credit (§ 45Y)

(3) Section 45Y(a)(1) generally provides a credit for electricity produced by the taxpayer at a qualified facility and either (1) sold by the taxpayer to an unrelated person during the taxable year, or (2) in the case of a qualified facility which is “equipped with a metering device which is owned and operated by an unrelated person, sold, consumed, or stored by the taxpayer during the taxable year.” Is guidance needed to clarify when a facility is “equipped with a metering device which is owned and operated by an unrelated person” or when electricity produced at such a facility is “sold, consumed, or stored by the taxpayer during the taxable year”?

Treasury and IRS should confirm that 45Y would apply to solar facilities charging a battery. Section 45Y reads:

“(ii) (I) sold by the taxpayer to an unrelated person during the taxable year, *or*

“(II) in the case of a qualified facility which is equipped with a metering device which is owned and operated by an unrelated person, *sold, consumed, or stored by the taxpayer* during the taxable year ...” (emphasis added)

Thus, § 45Y allows the PTC to be generated without regard to sales to unrelated parties.

(5) Please provide comments on any other topics relating to the § 45Y credit that may require guidance.

IRS should publish a list of qualifying technologies known to emit zero carbon emissions to provide investors with certainty that credits for known technologies, like solar and wind, qualify.

Will the Treasury Department issue guidance on beginning of construction substantively similar to Notice 2018-59 with respect to § 45Y? For example, Treasury should confirm that new rounding rules apply such that 2.6 cents/kWh in 2022 is the correct result, even though you get 2.75 cents/kWh under current IRC § 45.

SEIA also requests confirmation of “allowed” versus “allowable”; that is, which credit claimed by a taxpayer is optional for projects placed in service after 2024.

.05 IRA Addition of the Clean Electricity Investment Credit (§ 48E)

(2) Please provide comments on any other topics relating to the § 48E credit that may require guidance.

Will the Treasury Department issue guidance on beginning of construction substantively similar to Notice 2018-59 with respect to § 48E?

The § 48 credit for microgrid controllers is available in 2023 and 2024 only. (*see* § 48(c)(8)(C)). In 2025, the tech-neutral ITC under § 48E takes over. Section 48E broadly applies to any property that is an “integral part” of a “qualified facility,” which is in turn defined as any facility that generates carbon-free electricity and that is placed in service after 2024. Treasury should adopt regulations under § 48E(i) that make clear that microgrid controllers are an “integral part” of a solar system, because they allow the system to most efficiently direct its energy output and thus permit the system to operate as an independent microgrid.

.06 IRA Addition of Special Programs for Certain Facilities Placed in Service in Connection with Low-income Communities (§§ 48(e) and 48E(h))

SEIA recommends a program design and application process that: (1) recognizes low-income customers have different circumstances and different needs; (2) is based on existing, implementable, and successful state solar incentive programs; and (3) recognizes the different business models of qualified solar and wind companies that serve low-income customers.

While the IRA caps the capacity for this bonus credit at 1.8 gigawatts (GW), SEIA notes that the existing number of low-income customers across the country far exceeds the total capacity allocated for this tax credit, and the capacity threshold should be expanded at some point through further legislative action.

Principles

SEIA's recommended program design structure is informed by the following principles. The program should be:

- **Open to All**: The program should be designed to allow the full range of low-income customers and solar companies serving these customers to participate.
- **Transparent**: The program should have a clear structure that allows low-income customers, solar companies serving those customers, and the public and policymakers a clear understanding of how ITC bonus credit capacity is allocated.
- **Available**: The program should be consistently available using a first-come, first-served, rolling application structure that provides uninterrupted access to all identified market segments until the capacity is completely allocated.
- **Effective**: The program should provide “an efficient application and allocation process to meet the needs of low-income residents,”¹⁵ and should be “designed to bring benefits directly to the low-income customer.”¹⁶
- **Based on Successful Models**: The program should build on the best practices from state program designs that have a proven track record for achieving solar deployment goals.¹⁷

¹⁵ U.S. House of Representatives Ways and Means Committee Chairman Richard Neal floor statement, 168 CONG. R. 135, at H7664 (Aug. 12, 2022).

¹⁶ *Low-Moderate Income Solar Principles*, SEIA, available at <https://www.seia.org/research-resources/low-moderate-income-solar-principles>.

¹⁷ See, for example, the New York Sun program, an incentive program for projects less than 5 MW, which is on track to support more than 10 GW of statewide distributed solar capacity, and the Solar Massachusetts Renewable Target (SMART) program, which may support more than 6 GW of distributed capacity.

- Easy to Use: The program should reduce administrative burdens for customers, solar companies, and the Treasury Department to the furthest extent possible.

Recommended Design

SEIA recommends establishing a first-come, first-served, rolling application process where qualified solar and wind projects that meet predetermined eligibility requirements would be able to reserve a capacity allocation and then claim a tax credit.¹⁸ After program launch, the capacity would be available until reservations consume total annual program capacity, then projects would be placed on a waitlist. In the event that the program is oversubscribed, any capacity surrendered by a project that did not reach completion would then be made available to projects on that waitlist.

Section 13103 of the IRA recognizes the significant diversity of low-income customers across the country. Some low-income customers may own their own homes, some may rent single family homes, and some may live in subsidized housing of which there are many different types. Furthermore, these customers are located across the country, in rural and urban settings, and may live on Tribal lands as well.

Therefore, consistent with the law, our proposed program design is intended to ensure that *all* low-income customers can benefit from qualified solar and wind projects regardless of where they live geographically, or their dwelling situation.

a. Program definitions

To help provide clarity to the overall program design, SEIA recommends Treasury create the following four definitions. The first definition applies to all qualified facilities.

1. Qualified solar and wind facilities. Any facility that generates electricity solely from property described in § 45(d)(1) or in clause (i) or (vi) of § 48(a)(3)(A), has a maximum net output of 5 megawatts or less (as measured in alternating current) and that:
 - a. is located in a low-income community (as defined in section 45D(e)); or
 - b. is located on Indian land (as defined in section 2601(2) of the Energy Policy Act of 1992 (25 U.S.C. § 3501(2))); or
 - c. is part of a qualified low-income residential building project or a qualified low-income economic benefit project (as defined by IRA §§ 13103(a)(2)(b) and 13103(a)(2)(c)).
2. Single-family residential facility. A qualified solar or wind facility installed behind-the-meter of a single-family residential property defined as serving up to four units.

¹⁸ SEIA has coordinated its recommendations on this topic with the Coalition for Community Solar Access, a trade association for community solar companies, that is also filing comments in response to this notice.

3. Multi-family residential facility. A qualified wind or solar that is eligible as a qualified low-income residential building project as defined in § 48(e)(2)(B).
4. Community facility. A qualified wind or solar facility for which subscribers either receive a financial benefit for the electricity generated by the facility in proportion to the size of their subscription, or directly own a portion of the capacity of the facility, and that:
 - a. is connected to the distribution grid;
 - b. has at least three subscribers; and
 - c. has at least 50 percent of its capacity subscribed or owned by residential customers.

b. Establishment of minimum set asides

Based on these definitions, and in order to more equitably serve customers with different circumstances, SEIA proposes establishing **minimum capacity set asides** to distinguish between types of qualified solar and wind facilities. We also recommend creating an open pool of capacity available to all projects once the minimum set aside amounts have been completely reserved. Although the IRA is silent on setting aside capacity for certain facility types, it was the intent of Congress for Treasury to have “maximum flexibility” in designing a program that efficiently serves low-income populations regardless of their dwelling situation.¹⁹ These set asides would ensure that all low-income residents – no matter their dwelling situation – and all eligible facility types would have access to the program.²⁰

Table 1 – Recommended Minimum Set Aside Amounts	
Qualified Solar & Wind Facilities	Minimum Set Aside
Single-Family Residential Facilities	30% (540 MW)
Multi-Family Residential Facilities	10% (180 MW)
Community Facilities	30% (540 MW)
Open Pool – For all qualified projects once the minimum set asides have been reserved	30% (540 MW)

¹⁹ U.S. House of Representatives Ways and Means Committee Chairman Richard Neal floor statement, 168 CONG. R. 135, at H7664 (Aug. 12, 2022).

²⁰ Treasury should consider whether qualified commercial and industrial projects located in low-income communities should be required to demonstrate some financial, resiliency, or environmental benefits from the project to the communities in which they are located.

c. Advantages of establishing minimum set asides

SEIA's recommended design would preserve market opportunity for all facility types serving customers by preventing any one facility type from "crowding out" opportunities for the others. Allocating the capacity this way also recognizes that community facilities are larger with respect to capacity and have significantly longer development cycles and permitting timelines than single-family residential projects. Conversely, smaller single family residential projects are executed on a much faster cycle. Multi-family projects fall somewhere in the middle, depending on the circumstances. Furthermore, by establishing minimum set asides and a large open pool, all facility types would have the ability to access capacity in the event they reach their minimum threshold. Any facility type that excels at serving at low-income customers would be able to take advantage of the open pool.

d. Capacity allocation process

SEIA recommends creating an open, transparent allocation process, which involves two steps. First, projects would reserve a capacity allocation, provided the project meets the eligibility requirements discussed in the next section of these comments. Reservations for capacity would be made on a first-come, first-served basis, and would be made continuously as applications are received until the capacity is completely reserved. Any applications received beyond the year one 1.8 GW capacity cap would be placed on a waiting list, where projects could potentially receive a reservation in the event of other projects not reaching completion. Treasury should also identify a mechanism by which it breaks ties between projects that are submitted on the same day, such as using time-stamped applications.

This proposed reservation process would allow projects to lock in their financing but recognizes that sometimes even late-stage projects are abandoned for a variety of reasons during the development process. In other words, this two-step process ensures that capacity would not be stranded and that the entire 1.8 GW per year would be allocated to support low-income projects.

Second, upon being placed in service (for larger distributed projects defined as completing construction and receiving approval to operate by the utility or other interconnecting entity), a project would then be eligible to claim the credit. Treasury should also note that for all projects the final capacity of the project may be somewhat different than the amount of capacity applied for during the reservation period. This may be the result of using different equipment than what was originally proposed, or new requirements from the utility or interconnecting entity. Treasury will need to account for these modest differences in its final program design.

To best execute this application process, Treasury should establish a public, web-based interface, with real-time, or nearly real-time data on dashboards to track capacity allocations and the remaining capacity in each set aside. Once the set asides are

consumed, Treasury should similarly track capacity remaining in the open pool that is eligible to all qualified facilities.

To administer the program, Treasury can use software, such as PowerClerk, which has been used successfully in jurisdictions to administer incentive programs. Treasury should also publicly notify the market when 80% of the annual capacity for each year has been reserved in each set aside as well as the open pool.²¹ In the event that a reservation is cancelled, the capacity associated with that reservation should be reallocated to the set-aside from which the reservations were made. In the event that a set aside's capacity is not fully reserved in a given year, the unreserved capacity should be allocated to the following year's block of capacity available to all qualified facilities.

e. Advantages of the SEIA industry program design

A first-come, first-served, open program with predefined eligibility requirements is easy to administer, and most importantly eliminates potentially complicated project evaluation decisions for Treasury. Treasury should avoid creating an application process that puts the federal government in the position of picking winners and losers from a set of equally eligible projects. Treasury should also avoid a qualitative, subjective selection criteria and process. Introducing subjectivity on the part of Treasury could erode investor confidence in the program, likely slow the program down (ultimately undermining the goal of building 1.8 GW of projects per year to serve low-income customers) and subject Treasury to significant scrutiny over its decisions. Criteria for approval of applications should be transparent and automatic, requiring no need for independent ranking or selection among eligible projects by Treasury officials. The policy intent to serve low-income communities can be accomplished via the program design and rules and should not be done by Treasury officials exercising discretion based on qualitative or subjective criteria.

A once-per-year solicitation process for bonus credits, which we do not recommend, would add a significant amount of work for the Treasury by requiring a solicitation design process for different facility types and would likely result in major delays. Annual solicitations have been used by states to select a relatively small number of similarly sized large projects, but the sheer volume of applications for bonus credits for projects of different sizes – there could be tens of thousands of rooftop project applications, for example – would make a once-per-year process extremely burdensome to implement and difficult to administer. It would also be particularly incompatible with the way rooftop solar companies operate, which is on a continuous basis. Furthermore, qualified solar and wind facilities would time their interconnection applications to coincide with the application and award dates of the program, and any delay in making award

²¹ The New York Sun dashboards and the SMART application are useful examples of successful interfaces, available at: <https://www.nyserda.ny.gov/All-Programs/NY-Sun/Contractors/Dashboards-and-incentives> and <https://masmartsolar.com/>

decisions would create cascading problems in the utility interconnection queues and delay project deployment.

Furthermore, establishing a first-come, first-served approach recognizes that the state landscape for encouraging distributed solar projects is complex and varied. States such as Massachusetts, New York and New Jersey are much further along in developing policies, incentives, and utility tariffs that encourage the deployment of distributed solar. If Treasury adopted a geographic allocation for bonus credits, or even tried to distribute credits based on states with the most low-income census tracts, there is a strong likelihood that many projects would never be built because these critical supportive state policies are not in place. In other words, the first-come, first-served approach meets the market where it is today. It further serves as a catalyst for states to develop policies that support the development of distributed energy resources, so they too may take advantage of the new incentives in the IRA.

In brief, a rolling, open application process, such as we propose, is vastly superior to other program models and mirrors the program designs of state incentive programs that have a demonstrated record of success deploying distributed energy resources.

f. Contractor participation requirements and project eligibility requirements

SEIA recommends Treasury establish contractor participation requirements, as well as project by project eligibility thresholds for facilities to reserve a capacity allocation. First, establishing contractor requirements ensures that only, competent, licensed firms are serving low-income customers and helps eliminate opportunities for fraud and abuse.

Further, establishing strict maturity requirements ensures that only late-stage, “ready-to-go” projects would be eligible to submit applications to reserve capacity. Although projects may always be scuttled for one reason or another during the development cycle, establishing higher project maturity requirements would ensure fewer projects surrender their reservation, help more projects reach completion, and serve more customers. Strict project maturity requirements also prevent companies from receiving capacity reservations for projects that may not be viable.

Under our proposed design, different facility types would have different eligibility thresholds. As a general rule, behind-the-meter projects serving single family residences are executed on a faster development cycle than larger community solar or multifamily projects, which tend to be more complex, require additional levels of local permitting, and utility analyses. Therefore, our maturity requirements reflect these differences.

1. Participating Contractor Requirements. All companies applying to reserve a capacity allocation in the program should provide the following:
 - a. A business license;
 - b. Proof of or certificates of appropriate insurance;²² and

²² This should include (i) worker’s compensation and employer’s liability insurance, (ii) commercial general liability insurance, (iii) business auto insurance, (iv) excess umbrella liability insurance, and (v) all-risk property insurance

- c. Other applicable state registrations (for example, registration at the appropriate state public utility regulator where required).
2. Maturity Requirements - Single Family Residential Facilities. On a project-by-project basis, companies should provide the following documentation as part of the project eligibility requirements.
 - a. Identifying information for the customer, installer, and the facility owner;
 - b. A copy of the signed contract between the installer/facility owner and the customer.
 3. Maturity Requirements - Multi-family Residential Facilities. On a project-by-project basis, companies should provide the following documentation.
 - a. Identifying information for the customer, installer, and the facility owner;
 - b. A copy of the signed contract between the installer/developer and customer.²³
 4. Maturity Requirements - Community Facilities. To be eligible, on a project-by-project basis, companies should provide the following documentation.
 - a. Identifying information for the community facility developer, property owner and facility owner;
 - b. Demonstration of site control;
 - c. Demonstration that facility has obtained all applicable federal, state and local non-ministerial permits²⁴; and
 - d. Copy of the final executed interconnection agreement.
- g. Maintaining the capacity allocation

Another key consideration for Treasury for all qualifying facilities involves ensuring the projects are serving low-income subscribers. There are two related issues: first, collecting the appropriate documentation that a customer is indeed a low-income customer, which applies to single family residential facilities, multi-family residential facilities, and community facilities; second, verifying the aggregate number of low-income project subscribers per project is maintained over time, which applies to community facilities.

covering loss or damage to eligible systems in the program equal to the replacement cost for such systems. But it should not necessarily include builder's risk insurance, given that some of the largest solar service providers in the country rely on independent dealers (who carry their own builder's risk policies) for the actual installation of the providers' systems.

²³ For projects larger than 1 MW we encourage Treasury to consider adding an executed interconnection service agreement to these requirements.

²⁴ For clarity, a non-ministerial permit is any permit that is a prerequisite for beginning on-site construction of the project. Such permits are typically granted following an evaluation by a local official in which some discretion is exercised as to whether to grant, modify, or deny the permit. Examples of non-ministerial permits include zoning variances and certificates of compliance with local zoning rules, wetlands permits, endangered species permits, and other such pre-construction requirements. Non-ministerial permits do not include permits such as building and electrical permits that are not subject to a discretionary decision by the issuer and which typically must be granted as long as the construction complies with established standards for issuing the permit.

Treasury should require income verification methods that strike a balance between accuracy, fraud prevention, ease of implementation, and protection of individuals' private information. Furthermore, state programs have shown that requiring low-income customers to fill out multiple forms, or submit detailed financial information and taxpayer forms, significantly deters LMI customer participation.

For community facilities, and low-income economic benefit projects (i.e., projects seeking a 20% credit), projects should demonstrate low-income customer participation on forms or web-based tools developed by the Treasury (with industry and stakeholder feedback) to be submitted when projects notify the Treasury that they are claiming the capacity allocation. Furthermore, we strongly recommend Treasury publishes a list of all acceptable low-income qualifying federal programs (for example, SNAP, Medicaid, SSI, TANF, Housing Choice Voucher Program, etc.) to be used as acceptable evidence of low-income status. For additional discussion on verifying low-income status, we recommend Treasury review comments submitted by CCSA.

h. Establish a comprehensive program review

Treasury should build in a comprehensive program review with public input after the second year of program operations as part of the program design. During this review, policymakers should assess whether the program is achieving its goals, make adjustments to certain requirements if necessary, and potentially adjust the minimum set asides to ensure program capacity is being used efficiently, while maintaining access to the program for all types of qualified facilities. This strategy has been used successfully in state programs and builds important flexibility into the program.

* * *

(1) Sections 48(e)(4)(A) and 48E(h)(4)(A) require the Secretary to establish a program to allocate amounts of environmental justice capacity limitation to applicable facilities. In establishing such program, the Secretary must provide procedures to allow for an efficient allocation process.

(a) What should the Treasury Department and the IRS consider in providing guidance regarding the application process for taxpayers seeking an allocation of the environmental justice capacity limitation?

See *Principles*, above.

(b) How can the application procedures and application process be made accessible to taxpayers?

SEIA recommends establishing a first come, first served, rolling application process where qualified solar and wind projects that meet predetermined eligibility requirements would be able to reserve and then receive a capacity allocation.

(c) How can the process incorporate community input, engagement, and benefit for projects seeking an allocation of the environmental justice capacity limitation?

Community groups and qualified solar and wind project developers must work together to ensure these projects are a success and provide benefits to low-income customers. Companies serving single-family homes have a physical presence in the communities they serve and have direct relationships with their customers. Affordable multi-family building owners engage with their residents on a regular basis and, under the residential building project credit program, would be required to provide benefits to those residents, whether via electric bill credits (if permissible under state and local law and regulations) or via other amenities and services. For community projects, solar and wind developers should work with trusted community group partners to encourage subscriptions. We also recommend that during the formal program review process held every two years that Treasury should strongly encourage community group engagement.

(2) What stage of completion, if any, should be required of the taxpayer at the time of application for or allocation of amounts of environmental justice capacity limitation (since the taxpayer will have four years to place the facility in service)?

SEIA recommends ensuring the application process encourages mature projects to apply for and receive capacity allocations. Establishing strong project maturity requirements prevents project attrition and helps more low-income customers take advantage of these benefits more quickly. The law places an outer limit of four years to place projects in service, but also provides for Treasury to create an "efficient allocation process." To encourage shovel-ready projects and facilitate faster uptake of the credits, Treasury should consider a requirement for companies to place facilities in service on a timeline shorter than four years. (In the market today, all types of qualified facilities are typically completed in a shorter amount of time.) Specifically, Treasury should generally require a two-year timeline, provided however that projects needing more time and that meeting certain project development milestones could apply for an additional two years (if necessary) to place their facilities in service.

(3) What methods currently exist or need to be designed for a taxpayer to certify that a project is being built in a low-income community, on Indian land, or as part of a low-income residential building project or a qualified low-income economic benefit project?

See subsection (g), above.

(4) What mechanisms exist for a taxpayer to demonstrate that the financial benefits of the electricity produced by an applicable facility are allocated equitably among the occupants of a low-income residential building project and do not impact the occupants' eligibility for their housing? Similarly, what mechanisms exist for a taxpayer to demonstrate that at least 50 percent of the financial benefits of electricity produced by an applicable facility which is part of a low-income economic benefit project are provided to households within certain income thresholds?

For the occupants of multi-family residential projects, the applicant can either (1) where the tenant units are individually metered and state and local interconnection rules so allow, allocate bill credits among all the customers living in the building based on a standardized share (generally based on unit square footage or similar basis not related to energy usage) of the project's annual output levelized monthly, or (2) where such crediting is not possible, such as in master-metered buildings or in areas not permitting such credits, the property owner can commit to new incremental amenities or services available equitably to all tenants.

For subscribers of community facilities, on a form developed by Treasury, the project should report its annual output, the offtake associated with that capacity that is non-low income and demonstrate that at least 50 percent of the output is flowing to low-income customers.

(5) Is guidance needed to clarify the meaning of the term "financial benefit"?

Treasury should clarify that in this context, financial benefit includes, but is not limited to, the discount to the customer's utility bill, which is lower than the approved low-income utility rate, based on qualified solar and wind project's output.

(7) What should the Treasury Department and the IRS consider in providing guidance regarding the recapture of the benefits of the credit increase allowed under §§ 48(e) and 48E(h) when property ceases to be property eligible for such credit increase? How should the one-time restoration of eligibility be documented before recapture?

If a community qualifies as a "low-income community" at the time construction of an energy project is commenced, then the taxpayer should not be subject to a recapture if the community thereafter ceases to be a low-income community, because of rising median incomes, etc. The purpose of the low-income community

credit is to encourage development in low-income communities. A sign that the credit is working is that those communities will see improved economic circumstances and cease to be low-income communities as energy projects in those communities proceed. That signal of success should not result in a recapture event for the taxpayers who have invested in those communities.

IV. Conclusion

SEIA appreciates the Department of the Treasury's efforts to implement the IRA. As described above, this effort represents an incredible opportunity to minimize the harmful effects of fossil fuel combustion, climate change, and extreme weather on LMI communities, including rural communities, communities of color, and Native communities, while boosting local economies and the national economy. 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 Ben Norris at (202) 556-2909 or bnorris@seia.org.

Sincerely,

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