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Internal Revenue Service
CC:PA:LPD:PR (Notice 2022-48)
Room 5203
P.O. Box 7604
Ben Franklin Station
Washington, DC 20044

RE: “Request for Comments on Incentive Provisions for Improving the Energy Efficiency of Residential and Commercial Buildings,” Notice 2022-48 (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 Incentive Provisions for Improving the Energy Efficiency of Residential and Commercial Buildings,” Notice 2022-48 (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.

II. Executive Summary

Section 25C

1. Panelboards and feeders – these terms should be clearly defined with reference to Article 100 of the National Electrical Code, and upgrades or replacements should qualify even where they facilitate the use of already installed qualified energy property.

Section 25D

2. Panelboard upgrades – confirm that panelboard upgrades associated with new rooftop solar installations qualify for the credit under § 25D as part of a qualified solar electric property expenditure as defined in § 25D(d)(2) or as part of a qualified battery storage technology expenditure as defined in § 25D(d)(6).
3. Residential storage – confirm that qualified expenditures can be installed in multiple kinds of configurations, including retrofits of hybrid systems, and need not be intended to serve only the load of the residence in which the storage device is installed. Preserving maximum flexibility for grid export increases grid reliability.

Section 45L

4. Zero energy ready home program – in the event the Department of Energy intends to update its zero energy ready home program or install a successor program after January 1, 2023, Treasury should make efforts to toll this deadline or otherwise accommodate new Department of Energy guidelines.

Section 179D

5. Stacking with § 45L – Treasury should confirm that both §§ 45L and 179D credits can be claimed with respect to the same multifamily residential building taller than four stories.

III. Responses to Requests for Comment

.01 Energy Efficient Home Improvement Credit (§ 25C)

(1) Section 25C(e)(2) directs the Secretary to prescribe “certification or other requirements” for home energy auditors for credit eligibility. What criteria should the Treasury Department and the IRS consider requiring for certification or other requirements for home energy auditors?

Home energy auditors who do work associated with the Energy Efficiency Home Improvement Credit should meet the same standards set forth for auditors under the Department of Energy’s Home Energy Score program, as described here: <https://betterbuildingsolutioncenter.energy.gov/home-energy-score/become-assessor>.

(2) Is guidance needed regarding the definition of “qualified energy property” in § 25C(d)(2) as amended by the IRA, such as definitions for the terms “panelboard” or “feeders”? Specifically, § 25C(d)(2)(B) defines “qualified energy property” to include biomass stoves or boilers, but only those that have “a thermal efficiency rating of at least 75 percent (measured by the higher heating value of the fuel).” Is guidance needed to define the term “thermal efficiency rating”? If so, what testing procedures should the Treasury Department and the IRS consider requiring or permitting to be used by manufacturers to measure thermal efficiency and demonstrate ratings that are valid for purposes of the § 25C credit?

Treasury and IRS should clarify that the term “panelboard” includes Panelboards utilized as Service Equipment (with both “Panelboards” and “Service Equipment” defined in accordance with Article 100 of the National Electrical Code¹), understood generally to mean the central distribution point(s) where the external power

¹ “Service Equipment.” The necessary equipment, usually consisting of a circuit breaker(s) or switch(es) and fuse(s) and their accessories, connected to the load end of service conductors to a building or other structure, or an otherwise designated area, and intended to constitute the main control and cutoff of the supply.

“Panelboard.” A single panel or group of panels units designed for assembly in the form of a single panel, including buses and automatic overcurrent devices, and equipped with or without switches for the control of light, heat, or power circuits; designed to be placed in a cabinet or cutout box placed in or against a wall, partition, or other support; and accessible only from the front.

service connection enters a dwelling and branches off into individual circuits, and that “sub-panelboard” includes Panelboards utilized as the central distribution point of circuits fed from a main panelboard.

Treasury and IRS should also clarify that the terms “Feeder” and “Branch Circuit” are also defined in accordance with Article 100 of the National Electrical Code.²

Additionally, Treasury and IRS should clarify the requirement that such equipment and circuits “(ii) has a load capacity of not less than 200 amps” applies only to Panelboards utilized as Service Equipment, not to a “sub-panelboard, branch circuits or feeders.” This is necessary because residential sub-panelboards, branch circuits and feeders do not have capacities of 200 amps or greater, but Congress clearly intended for this equipment to be eligible.

The structuring of the language in this section creates ambiguity that Treasury should clarify. For example, Branch Circuits sized to serve qualified energy property typically range from 15 to 90 amps, and many such branch circuits are supplied by a 200-amp service. Similarly, Panelboards (other than those utilized as Service Equipment) typically serve a subset of the total load supplied by the Service Equipment.

The term “enables the installation and use of” qualified energy property in § 25C(d)(2)(D)(iv) should also be clarified. For example, Treasury should confirm that a panelboard upgrade or replacement meets the definition even if it already facilitates the use of already installed qualified energy property.

Relatedly, Treasury should also confirm that panelboard upgrades associated with new rooftop solar installations qualify for the credit under § 25D as part of a qualified solar electric property expenditure as defined in § 25D(d)(2) or as part of a qualified battery storage technology expenditure as defined in § 25D(d)(6). In the case of new or larger system capacity upgrades, panelboard upgrades will also be necessary in order to “enable[] the installation and use of” such a system, and guidance that such expenses can be included in basis would be helpful to both consumers and installers.

Last, we request that Treasury specifically include in guidance a definition of the term “thermal efficiency rating.” Considered equivalent to an energy efficiency rating, a clear definition could allow for inclusion of thermal devices whose energy factor demonstrates qualification for certification. We recommend that Treasury collaborate with the Department of Energy to assess the applicable calculations as relevant under 10 CFR Subchapter D as reference material, and other nationally published standards, or to request a new test standard be created.

² “Feeder.” All circuit conductors between the service equipment, the source of a separately derived system, or other power supply source and the final branch-circuit overcurrent device.

“Branch Circuit.” The circuit conductors between the final overcurrent protection device protecting the circuit and the outlet(s).

(3) Section 25C(h) requires qualified manufacturers to provide unique product identification numbers to each item of specified property and make periodic written reports to the Secretary of the product identification numbers assigned. What should the Treasury Department and the IRS consider (1) in determining the manner of agreements between the IRS and the qualified manufacturer; (2) in developing a methodology to ensure that each product identification number is unique to each item of specified property; (3) in prescribing the manner by which such specified property must be labeled with unique product identification numbers; and (4) in developing the requirements for the qualified manufacturers' periodic written reports?

1. Agreements should be pro forma and electronically accessible to encourage the greatest level of manufacturer participation possible.
4. Reports should be electronic and required no more frequently than on an annual basis covering the previous annual period.

(4) Please provide comments on any other topics relating to the § 25C credit that may require guidance.

Treasury should issue guidance regarding whether §§ 25C and 25D are available for newly constructed homes, existing homes, rental units, and vacation homes. IRS Notice 2013-70 addressed these issues, but we recommend that it be revisited in light of the passage of the IRA.

.02 Residential Clean Energy Credit (§ 25D):

(1) Is guidance needed regarding the definition of “qualified battery storage technology expenditure” in § 25D(d)(6)?

Yes. Guidance should clarify whether the term includes batteries installed in passenger vehicles or other electric vehicles or equipment that meet the 3 kWh threshold; whether any battery or other storage technology qualifies; and whether the stored energy must primarily serve or intend to serve the load of the residence in which it is installed (*i.e.*, must the energy ordinarily be limited to use in the residence, or can it be exported to the grid or for another use). In particular, Treasury should clarify that such qualified expenditures need not be intended to serve the load of the residence in which the storage device is installed. Preserving maximum flexibility for grid export increases grid reliability and clearly furthers the policy goals of the IRA.

Guidance should also address the phrase “installed in connection with a dwelling unit.” A plain reading of that phrase should include, for example: a single battery serving multiple dwelling units (*e.g.*, in a duplex); units in which the battery is not physically located; and loads primarily outside the dwelling in which it is installed.

Guidance should also define “installed” with reference to minimal interconnection, racking, or other physical connection to load. This is because some batteries may require installation work to connect to a dwelling unit while the batteries themselves may be portable, including capable of being portable in configurations under the 3 kWh threshold.

It may also be helpful if guidance provided examples of what a residential taxpayer will need to provide to confirm the capacity of qualified battery storage.³ Guidance should also confirm that multiple small units that total at least 3 kWh of capacity will qualify. For example, a qualified expenditure could consist of two 2.5 kWh units which total 5 kWh. In addition, guidance should clarify that storage under 3 kWh but that is part of a solar-plus-storage system will count as part of the basis. Last, Treasury should issue guidance similar to IRS Notice 2009-41 that provides procedures that manufacturers may follow to certify property as qualified under § 25D and allows individual taxpayers to rely on such manufacturer's certification.

Guidance should affirm that qualified expenditures include the cost of installing a battery storage system in compliance with local codes, consistent with IRS Notice 2013-70. This can include the installation of heat alarms, gypsum board (drywall), panelboards, and other building code requirements.

Treasury should confirm that retrofits to accommodate storage and storage otherwise installed at a different time than residential solar will qualify for the credit, including storage retrofits to solar-plus-storage systems installed prior to the IRA.

(2) Section 25D(b)(2) provides that no credit is allowed under § 25D for an item of property described in § 25D(d)(1) unless such property is certified for performance by the non-profit Solar Rating Certification Corporation, or a comparable entity endorsed by the government of the State in which such property is installed. What information should the Treasury Department and the IRS consider in determining what constitutes a “comparable entity”?

Any entity designated by a state energy office (including the state energy office itself) to determine eligibility of products for solar heating equipment should be deemed a “comparable entity.”

³ While IRS may not usually issue guidance in this area, consumers may benefit from some concrete examples, such as photographs of serial numbers or labels indicating capacity, combined with an address and receipt for installation services.

(3) Please provide comments on any other topics relating to the § 25D credit that may require guidance.

1. The Department of Energy recently released guidance indicating that certain roof repairs and replacements will remain ineligible for § 25D credits.⁴ In light of the passage of the IRA, Treasury should strongly consider revisiting existing guidance regarding including the costs of roof repairs/replacements under § 25D. 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 eligible system is dependent upon the repair or replacement of the roof, those repair or replacement of the roof costs should be eligible. We urge Treasury to reconsider its existing rules.
2. Reaffirm that building-integrated PV fully qualifies since the technology can also serve as an integral component of the roof system necessary to support system installation. This clarification will be especially important to provide clarity and certainty to low-income homeowners whose homes may require more extensive work to safely accommodate a solar energy system.
3. Treasury should confirm that the replacement or upgrading of panelboards to accommodate new solar electric systems or battery storage systems qualify for the credit.
4. Treasury should confirm that § 25D will apply to other types of residences, such as boats or RVs, or to multiple residences owned by a single taxpayer. For example, IRC § 280A defines the term “dwelling unit” as “includ[ing] a house, apartment, condominium, mobile home, boat, or similar property.”

.03 New Energy Efficient Home Credit (§ 45L):

(1) Section 45L(b)(3) provides that for purposes of § 45L, the term “construction” includes “substantial reconstruction and rehabilitation.” Is guidance defining the term “substantial reconstruction and rehabilitation” needed? If so, how should the term be defined? If needed, should the definition align with requirements or standards used in the qualified Energy Star and Zero Energy Ready Home Programs?

Yes, Treasury should provide guidance on the meaning of “substantial reconstruction and rehabilitation,” which is used by several Federal agencies for different purposes, such as Housing and Urban Development, the Federal Emergency Management Agency, as well as the IRS.⁵ A single definition – for

⁴ See “Homeowner’s Guide to the Federal Tax Credit for Solar Photovoltaics,” available at <https://www.energy.gov/eere/solar/homeowners-guide-federal-tax-credit-solar-photovoltaics> (last visited Oct. 27, 2022).

⁵ See IRC § 47(C)(1)(B) (defining “substantially rehabilitated”).

example, one that applies a standard of either doubling the basis of the property, or additions exceeding 50% or more of the value of the post rehabilitated structure – would be important clarity to provide to homeowners. Alignment with the qualified Energy Star and Zero Ready Home Programs, or any update or successor to such programs, should also be clarified so that taxpayers can easily understand how the credit operates.

Similarly, clarity in the relevant codes and standards that allow compliance to the qualified applicable programs would provide designers and builders with clarity and assist taxpayers with assurance of qualification of the credit. We acknowledge that some collaboration between agencies, standards developers, industry, and code officials should be pursued so that tax qualification requirements are clear.

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

Treasury and IRS should clarify whether, given the January 1, 2023 deadline in § 45L(c)(1)(B), there is any ability to toll the effective date in the event the Department of Energy intends to update its zero energy ready home program or install a successor program after January 1, 2023, and/or clarify that if and when the DOE revises or updates its zero energy ready home program, a dwelling unit that is certified under such revised or updated program meets the requirements of this section. In addition, Treasury should clarify that in the event a successor program is enacted after January 1, 2023, that it will be the new standard for § 45L credits.

Relatedly, Treasury and IRS should offer a safe harbor for taxpayers to claim this credit following any program changes by the Department of Energy. For example, homes that have started construction, substantial reconstruction, or rehabilitation before the standards are updated should be grandfathered for eligibility under the prior standard at the election of the taxpayer.

Treasury should also confirm that if a multifamily building meets the prevailing wage requirements in § 45L(a)(2), the credit per “qualifying residence” has the same definition as “qualified dwelling unit.”

.04 Energy Efficient Commercial Buildings Deduction (§ 179D):

(1) Section 179D(d)(3)(A) provides that in the case of EECBP installed on or in property owned by a specified tax-exempt entity, the Secretary is to promulgate regulations or guidance to allow the allocation of the deduction “to the person primarily responsible for designing the property in lieu of the owner of such property.” What criteria should the Treasury Department and the IRS consider in providing rules to determine the person that is “primarily responsible for designing the property” under § 179D(3)(A)?

Considering the current Section 179D Tax Deduction allows for a similar credit for what are typically new buildings allowing the credit to be claimed by the engineering firm, architect, or contractor (depending on their participation in the design), there is likely to be confusion with similar parties for renovation, reconstruction and/or rehabilitation of a tax-exempt entities' property. Therefore, guidance from Treasury is needed and potentially a qualifying test or threshold in design contribution (or multiple partial allocation of the deduction).

(2) Section 179D(f)(7)(A) provides that for purposes of § 179D(f), the term “energy use intensity” means the annualized, measured site energy use intensity determined in accordance with such regulations or other guidance as the Secretary provides and measured in British thermal units.

(a) What criteria should the Treasury Department and the IRS consider in developing regulations or other guidance addressing this determination?

(b) How should the instruction in § 179D(h)(1) requiring that new technologies regarding renewable energy be taken into account in determining energy efficiency and savings be taken into account in determining energy use intensity?

IRC § 179D(h)(1) regulations allow the Secretary to promulgate new regulations as necessary to “take into account new technologies regarding energy efficiency and renewable energy for purposes of determining energy efficiency and savings under this section[.]” Considering the innovation taking place in the building and renewable industries, the inclusion of innovative technologies that may qualify for the new credit/deduction under IRA is not clear.

(3) Section 179D(f)(2) provides detail on a “qualified retrofit plan.” Is guidance providing additional definitions or other guidance regarding qualified retrofit plans needed?

Yes, considering retrofit construction could affect multiple systems within a building, additional definitions should be explored and added or clarified.

(4) Section 179D(f)(7)(B) provides that the term “qualified professional” means an individual who is a licensed architect or a licensed engineer and meets such other requirements as the Secretary provides. Is any guidance providing other requirements that licensed architects or licensed engineers must satisfy needed?

Depending upon the type of retrofits required, additional, clearer requirements as to the content of the professional license type might need to be more specifically described to ensure the proper construction is undertaken.

(5) Please provide comments on any other topics relating to the § 179D deduction that may require guidance.

Treasury should issue guidance on multifamily apartments taller than four stories. Under the new § 45L energy star provisions, those dwelling units can qualify for that credit. Likewise, these residential buildings can qualify under § 179D. Treasury should confirm that both can be claimed with respect to the same residential building with one or more dwelling units.

The energy efficient commercial building deduction under § 179D is an expensing provision, and § 45L has a basis adjustment rule to the extent of the credit so determined. Moreover, this basis adjustment rule does not apply for purposes of IRC § 42. In addition, § 45L has special investment credit rules addressing coordination with the investment credit under IRC §§ 47 and 48(a). Under these rules, expenditures taken into account for ITC purposes are not taken into account under § 45L.

Given the interest in the new low-income community allocation of environmental justice solar and wind capacity limitations under IRC § 48(e), clear guidance regarding how §§ 179D, 45L, 42, and 48(a) apply with respect to a single residential building with multiple dwelling units is needed. Examples illustrating how these incentives can be “stacked” would be especially useful to taxpayers and solar developers.

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 Ben Norris at (202) 556-2909 or bnorris@seia.org.

Sincerely,

/s/ Sean Gallagher

Sean Gallagher

Vice President, State and Regulatory Affairs

Solar Energy Industries Association

Evelyn Butler

Vice President, Technical Services

Solar Energy Industries Association

Justin Baca
Vice President, Research
Solar Energy Industries Association

Ben Norris
Senior Director of Regulatory Affairs and Counsel
Solar Energy Industries Association