November 4, 2022

Honorable Janet L. Yellen
Secretary
U.S. Department of Treasury
Room 5203, P.O. Box 7604
Washington DC 20044
Via Electronic Transmission: Federal eRulemaking Portal

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

Dear Secretary Yellen:

The Alliance to Save Energy (Alliance) is a bipartisan nonprofit coalition of business, government, environmental, and consumer leaders advocating to advance energy efficiency adoption, and we are a leading voice in informing federal and state energy efficiency policies and standards. The Alliance is a longstanding advocate for energy efficiency tax policy, and we have consistently engaged Congress and the Administration to help ensure inclusion of robust energy efficiency tax incentives in the Inflation Reduction Act (IRA). We appreciate the opportunity to provide comment in support of sections 25C, the Energy Efficient Home Improvement Credit; 45L, the Energy Efficient Home Credit; and 179D, the Energy Efficient Commercial Buildings Deduction. These incentives equal the near whole of tax policy specifically dedicated to the combined impact of emission reductions and reduced demand on the nation's energy systems.

According to the International Energy Agency (IEA), energy efficiency alone can achieve 40% of the emission reductions required under the Paris Agreement, and the same agency recently published that reaching net zero by 2050 hinges on a global push to increase energy efficiency.[1] Moreover, the U.S. residential and commercial built environment accounts for nearly 40 percent of total U.S. energy use, and when segmenting specifically for electricity, buildings

[1] See, https://iea.blob.core.windows.net/assets/9c30109f-38a7-4a0b-b159-47f00d65e5be/EnergyEfficiency2021.pdf; and https://www.iea.org/articles/net-zero-by-2050-hinges-on-a-global-push-to-increase-energy-efficiency.

account for 75% of electricity consumption, and up to 80% of peak demand.[2] Furthermore, based on analysis from the Information Technology & Innovation Foundation, the building sector is responsible for 34% of U.S GHG emissions.[3]

Successful implementation of the energy efficiency tax incentives, 25C, 45L, and 179D will be essential to reducing climate impact and energy demand in the built environment. As such, the Alliance proposes that Treasury provide the broadest interpretation of the relevant provisions, while providing simplicity for taxpayers, and the necessary guardrails to prevent fraud and abuse. A broad interpretation will help ensure the widest uptake of the relevant incentives and places the U.S. in a position to achieve larger reductions in emissions and energy demand where it is needed most.

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?*

Auditor Certification

The Infrastructure Investment Jobs Act, section 40503 establishes or defines covered certifications under the Energy Auditor Training Grant Program. To ensure definitional consistency with federally funded programs specific to auditor training, and to ensure that those trained under the IIJA program would be considered certified under 25C, the Alliance proposes inclusion of the IIJA definitions at a minimum:

Certifications Covered Under Section 40503 of IIJA:

A. The American Society of Heating, Refrigerating and Air-Conditioning Engineers Building Energy Assessment Professional certification.
B. The Association of Energy Engineers Certified Energy Auditor certification.
C. The Building Performance Institute Home Energy Professional Energy Auditor certification.
D. The Residential Energy Services Network Home Energy Rater certification.
E. Any other third-party certification recognized by the Department of Energy.
F. Any third-party certification that the Secretary determines is equivalent to the certifications described in subparagraphs (A) through (E).

[2] https://www.eia.gov/tools/faqs/faq.php?id=86&t=1; and https://www.energy.gov/sites/prod/files/2020/04/f74/bto-see-action-GEBs-valuation-20200410.pdf.
[3] https://www2.itif.org/2022-doe-building-rdd-portfolio.pdf (includes electricity).

(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?

Qualified Energy Property

A definition for the term "Qualified Energy Property" is provided in the statute, wherein specific property types are designated as qualifying for a tax credit under 25C, including electric or natural gas heat pump water heaters; electric or natural gas heat pumps; central air conditioners; natural gas, propane or oil water heaters; natural gas, propane, or oil furnace or hot water boilers; identified biomass stoves; and certain panelboard, sub-panelboard, branch circuits or feeders.[4] According to the statute, these property types must meet or exceed the highest efficiency tier established by the Consortium for Energy Efficiency in effect at the beginning of the year in which the property was placed in service.[5]

As a general rule, the Alliance proposes that Treasury in coordination with the U.S. Department of Energy (DOE) rely on industry definitions for terms such as "panelboard" and "feeders." The NFPA 70, National Electrical Code (NEC) is typically the prevailing authority for definitions and safety as it relates to electrical. Ensuring standardized compliance in this area is obviously necessary, in that 25C and other IRA provisions incentivize home upgrades to support identified electrification efforts which can impact electrical service capacity and its infrastructure.

Thermal Efficiency Rating

As to the term "Thermal Efficiency Rating" as related to biomass stoves, the Alliance proposes that Treasury rely on the Environmental Protection Agency (EPA) Certified Wood Heater Database.[6] The EPA has significant history in testing and rating this product type, and should be a reliable source for determining when the product type has a thermal efficiency rating of at least 75%.

Capture of Other Related Product Types

Treasury should ensure to clarify that various subproduct types are also covered under the definition of "Qualified Energy Property," such as in the heat pump category. The statue clearly

[4] 25C(d).
[5] *Id.*
[6] https://www.epa.gov/compliance/epa-certified-wood-heater-database.

identifies “an electric or natural gas heat pump” that meets or exceeds the highest efficiency tier, excluding any advanced tier, as meeting the definition, but does not limit that definition to an exclusive type of heat pump product, such as only those products used to heat and cool the whole home. The Alliance recommends that Treasury make clear that the inclusion of any heat pump product meeting the requisite definition, including but not limited to portable heat pump appliances, swimming pool heat pump products, and others.

Portable heat pump products are often more energy efficient than their non-heat pump counterparts, and in many cases can result in lower carbon emissions. However, these technologies can also cost more for consumers to purchase, making the tax incentive all that more essential. Portable heat pumps can also be an affordable alternative to space heating and cooling, and can replace less efficient electric space heating and cooling options. Moreover, because these units are often limited to single-room temperature control, it should be anticipated that the consumer would purchase more than one portable unit for a home or residence, allowing the taxpayer up to $2,000 in annual credit availability under the heat pump category.

(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?

Product Identification

The Alliance appreciates the rationale for unique product identification numbers as provided in the new 25C through passage of the Inflation Reduction Act, particularly as Treasury and the IRS seek to prevent and discourage fraud and abuse. However, we are concerned that the provision does not work well as a one-size-fits-all solution for all product types for which the energy efficiency tax credit is available under 25C. This is particularly the case for high efficiency windows, skylights, and also doors. For windows, skylights, and doors the Alliance proposes that Treasury consider mechanisms already in place through the National Fenestration Rating Council (NFRC) as a possible pathway to fulfil the product identification requirements under 25C. NFRC currently provides identification for these envelope component products using the NFRC Certified Product Directory Number, which could potentially serve as a proxy for meeting the statutory requirements. In as much as the NFRC numbering system can be applied to meet the objective of avoiding fraud and abuse, the Alliance would support its use.

As to other product types where the product identification requirements would also apply, we are aware of industry efforts to discover best pathways for compliance to avoid fraud and

abuse. To better ensure that the objectives of the statute are met, the Alliance recommends that Treasury consider leading additional discussions and possibly a separate docket on product identification prior to issuing final guidance. According to the statute, compliance would apply "to any item of specified property placed in service after December 31, 2024," which should provide adequate time for additional guidance development while also providing opportunity for any needed manufacturing compliance adjustments.[7]

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

Annual Credit Limits

The new 25C permits an annual credit allotment of at least $1,200, and further provides a $2,000 annual credit allotment when purchasing identified equipment types, specifically heat pumps, heat pump water heaters, and biomass stoves and boilers.[8] Some have questioned whether the $2,000 credit amount is in addition to the $1,200 ($3,200) or whether Congress simply intended that heat pump and biomass products be afforded an additional $800 annually ($1,200 + $800). The Alliance proposes that the former interpretation should govern, and that a careful reading of the statutory language confirms this view.

Generally, 25C (b)(1) identifies an annual credit maximum for any taxable year ($1,200), and 25C(b)(2) identifies the annual credit limit specific to energy property for any taxable year ($600). 25C(b)(5) provides an exception to both, allowing an energy property maximum up to $2,000. According to 25C(b)(5), "Notwithstanding paragraphs (1) and (2), the credit allowed under this section by reason of subsection (a)(2) with respect to any taxpayer for any taxable year shall not in the aggregate, exceed $2,000 with respect to amounts paid or incurred for property described in clauses (i) and (ii) of subsection (d)(2)(A) and in subsection (d)(2)(B)." The referenced energy properties are limited to "An electric or natural gas heat pump water heater;" "An electric or natural gas heat pump;" and "A biomass stove or boiler…"

The Alliance reads 25C(b)(5) to be an exception to the $600 energy property limit, which also requires an exception to the annual limit, as applied. That is, $2,000 for the energy property, which would then result in a maximum annual credit for a given taxable year of $3,200. This appears to be a permissible reading of the statue and would confirm that Congress did not intend the $2,000-class energy property to consume the whole or part of the full annual limit of $1,200.

This interpretation is supported by the operability of the new 25C. In passing the energy efficiency tax incentives, Congress was clear that it was using tax policy to further congressional and administration climate objectives to reduce carbon emissions. According to Senator Ron Wyden, Chairman of the Senate Finance Committee:

[7] 25C(h).
[8] 25C(b).

> "There is bicameral agreement on the linchpin of our efforts to combat the climate crisis, including the critical reforms proposed in the *Clean Energy for America Act.* This landmark legislation ties incentives directly to carbon emissions reduction—the bigger the reductions, the bigger the credits. It also ensures these vital incentives remain in place until we meet our climate goals—no more crafting energy policy a year or two at a time. The agreement also includes robust incentives for clean transportation and energy efficiency.[9]

The proposed interpretation functionally allows the taxpayer to purchase the special-class product type, and then make additional energy efficiency investments in the same year, including building envelope improvements such as insulation and window replacements— or more importantly electric panel replacements, which may be necessary when installing electric heat pump products.

25C and Other /Federal/State Programs and Provisions

Absent a clear directive from Congress, and consistent with relevant 25C guidance,[10] the Alliance proposes that Treasury not limit the use of 25C with other energy efficiency incentive programs, including but not limited to other energy efficiency tax incentives, rebate programs, grants, or publicly supported financing. The more Congress can incentivize the purchase and installment of energy efficiency products and technologies in the residential built environment, the greater the impact on emission reductions and energy savings.

Investments in Residence Other Than Principal Residence

The Alliance urges that Treasury consider providing guidance that amendments to 25C permit an expanded use of the credit for homes other than the primary residence, and that the credit may also be available to renters, and would include landlords.

In amending 25C Congress also amended certain provisions restricting the credit to qualified energy property expenditures installed by the taxpayer in a home that is owned and used by the taxpayer as her principal residence. Congress eliminated this requirement in the new 25C, as provided in 25C(d)(1)(A) where the statutory language reads:

> (1) In general. The term "residential energy property expenditures" means expenditures made by the taxpayer for qualified property which is—
> (A) Installed on or in connection with a dwelling unit located in the United States ***and used as a residence by the taxpayer***, and
> (B) Originally placed in service by the taxpayer. (Emphasis added).

The corresponding provision in the old 25C just prior to passage of the IRA reads:

[9] https://www.finance.senate.gov/chairmans-news/wyden-statement-on-inclusion-of-clean-energy-for-america-act-in-the-build-back-better-framework.
[10] https://www.irs.gov/pub/irs-drop/n-13-70.pdf.

(1) The term “residential energy property expenditures” means expenditures made by the taxpayer for qualified energy property which is—
(A)installed on or in connection with a dwelling unit located in the United States and ***owned and used by the taxpayer as the taxpayer’s principal residence*** (within the meaning of section 121) and
(B) originally placed in service by the taxpayer. (Emphasis added).

This change is significant and is indicative of congressional intent to widen the application of 25C as a more expansive tool to incentivize adoption and use of qualified energy efficient property types (heat pumps, furnaces, etc.) to reduce emissions and energy demand. In practice, when purchasing and installing qualified energy property pursuant to the new 25C, the Alliance proposes that the credit is now available for any and all residences “used as a residence by the taxpayer,” which could include renters, and possibly also include a residence *used* as a rental property by a landlord taxpayer. Congress was certain to extend this expansion to all qualified energy property types, ensuring to include biomass stoves as well, where the amended language is also provided in 25C(d)(2)(B).

That said, Congress retained the language “owned and used by the taxpayer as the taxpayer’s principal residence” when the taxpayer makes qualifying energy efficiency improvements, which is defined by the law as “any energy efficient building envelope component, if— such component is installed in or on a dwelling unit located in the United States ***and owned and used by the taxpayer as the taxpayer’s principal residence***. (within the meaning of section 121)” (Emphasis added). Also note that the “principal residence” language also applies to the Home Energy Audits provisions, 25C(e).

A reading of the relevant provisions demonstrates that Congress intended to treat energy property types such as heat pumps, furnaces, and central air conditioners differently than building envelope components in terms of an expansive use of the credit beyond the principal residence, restricting the latter investments to the taxpayer’s owner-occupied principal residence. While the Alliance would argue that building envelope investments are foundational to energy savings and emissions reductions when installing qualified energy property types, Congress apparently did not intend such an expansion for building envelope components under 25C.

With the above in mind, the Alliance urges Treasury to consider whether the expansion of 25C and the phrase “used as a residence by the taxpayer” can also be read to include landlords of rental property. That is, that the landlord is using the real property *as a residence* for someone else. Some have argued that the phrase only applies to a residence used by the taxpayer as a primary, secondary, or other home, and could also include the tenant renter. However, a similar phrase is used in 45L, the energy efficiency tax incentive for single-family and multi-family developers, and could provide some direction. In 45L(a)(1)(b), the statute identifies as qualifying for the credit, those eligible contractors who construct a qualified new energy efficient home that is “acquired by a person from such eligible contractor for ***use as a residence*** during the taxable year.” (Emphasis added). While the 45L provision is not dispositive to the

proposed interpretation, the phrase as used is illustrative of other possible meanings within statutory construction and within energy efficiency tax incentives more specifically. An expansive reading would be consistent with congressional intent to achieve large emissions reductions with large tax incentives,[11] and as such, we respectfully request that Treasury consider whether this is a permissible reading of the statute, and if so, to provide the relevant guidance.

Insulation and Labor Costs

Congress also appears to distinguish or treats differently, building envelope investments from qualified energy property when allowing inclusion of labor costs. The Alliance requests that Treasury consider revisiting guidance in this area and confirm that building envelope labor costs are allowable.[12] A conservative interpretation of current law excluding envelope labor costs would likely be based on 25C(d)(1) which explicitly permits inclusion of labor cost for energy property expenditures, as compared to 25C(c), related to building envelope components, where similar language does not exist. The Alliance requests that Treasury consider an interpretation that the exclusion of labor cost language in 25C(c) is not dispositive to disallowing labor costs in future guidance. Treasury should read 25C as the tool Congress intended when expanding the credits value and coverage to address energy and climate concerns. Such a reading makes axiomatic the conclusion that labor costs for insulation installation or window replacements would be necessary to further incentivize or motivate energy efficiency investments in the building envelope. As indicated earlier, the building envelope is foundational to all other energy efficiency improvements, and when properly sealed, results in greater energy savings and emission reductions. According to the Biden Administration, approximately 50% of U.S. homes have outdated or inadequate insulation, and through retrofits, homes in cold climates could reduce their energy use by more than 50%.[13]

Industry Comments

The Alliance anticipates that a number of interested industry participants will provide responses to the subject Request for Comment, and we request that Treasury provide these views significant weight and consideration as industry seeks to identify additional appliance/equipment types to optimize 25C as a tool to reduce carbon emissions and energy use in the residential built environment. For example, some manufacturers support the inclusion of variable refrigerant flow (VRF) heat pumps, package terminal heat pumps, and similar technologies under the definition of a heat pump as an energy property. These technologies have the ability to achieve significant energy savings, but some, such as VRF products have not matured in U.S. markets due to the high upfront cost. According to reports, VRF systems can achieve 40-50% more efficiency than standard ASHRAE 90.1 standard roof top

[11] https://www.finance.senate.gov/chairmans-news/wyden-statement-on-inclusion-of-clean-energy-for-america-act-in-the-build-back-better-framework.
[12] https://www.irs.gov/pub/irs-drop/n-13-70.pdf.
[13] Defense Production Act Request for Information, https://www.energy.gov/mesc/defense-production-act-request-information.

units.[14] In as much as this technology can be applied in a residential setting pursuant to 25C, the Alliance would urge their inclusion.

As Treasury considers recommendations related to the building envelope, the Alliance concurs with concerns raised by the insulation industry, to ensure that new home IECC requirements are not applied in the existing home retrofit context. More specifically, it is important that the 25C credit is available for a simple insulation retrofit meeting the R-value required "by the most recent International Energy Conservation Code standard in effect as of the beginning of the calendar year which is 2 years prior to the calendar year in which such component is placed in service."[15] There may exists confusion that International Energy Conservation Code (IECC) air tightness requirements for new homes would also apply to insulation retrofits, when they do not. This confusion may have resulted from inclusion of the phrase "including air sealing material or system" in 25C(c)(3)(A). However for clarification, although we welcome the new language this provision was added as a statutory affirmation of existing IRS policy and current practice, and not as an additional requirement to the insulation R-value.[16]

Finally, the issue of taxpayer simplicity is paramount to the success of 25C implementation. The Alliance would request that future 25C guidance avoid attempting to distinguish between installations and retrofits that may require professional services and those that do not, as part of 25C compliance. Taxpayers have different levels of experience and education, with many who are DIYers. As a general rule, decisions about whether a professional is needed for a particular project is determined by manufacturing instructions, accompanying warranties, and personal concerns of the taxpayer, including cost. Avoiding specific guidance in this area when not required by statute will be helpful in avoiding confusion— and should also result in greater ease in use of the credit.

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?

Substantial Reconstruction and Rehabilitation

The Alliance to Save Energy (Alliance) proposes that no additional guidance is necessary to define the term "substantial reconstruction and rehabilitation." 45L requires certification under the ENERGY STAR Single-Family New Homes and the ENERGY STAR Multi-Family New

[14] https://www.facilitiesnet.com/hvac/article/How-Variable-Refrigerant-Flow-VRF-Improve-HVAC-Energy-Efficiency--18425.
[15] 25C(c)(2)(C).
[16] See IRS Notice 2013-70, Q-18 and A-18.

Construction programs, and meeting of that certification in the rehabilitation context should constitute "substantial reconstruction and rehabilitation" under the statute. As provided in ENERGY STAR program guidance, "[w]hile primarily intended for new construction, existing homes and buildings (e.g., those undergoing a gut rehabilitation) are also eligible to participate in the ENERGY STAR Single-Family New Homes (SNFH) and ENERGY STAR Multifamily New Construction (MFNC) program.[17]

The same should also apply to those reconstruction and rehabilitation projects meeting the latest U.S. Department of Energy (DOE) Zero Energy Ready Home national program certification requirements. When an existing residential structure is converted to zero energy and would otherwise meet certification requirements, Treasury should deem the project as having met the definition of "substantial reconstruction and rehabilitation" for purposes of 45L.

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

45L and Other /Federal/State Programs and Provisions

To the greatest extent possible, Treasury should allow the use of the 45L tax credit in combination with other federal and state tax incentives and programs, including various rebate, financing, and grant programs. Stacking of the credit is particularly important in the context of low-income and affordable for-sale and rental housing development. It is essential that 45L developers are not solely incentivized to build or rehab market-rate projects, but that 45L is also used as a tool to build ENERGY STAR and zero energy ready low-income and affordable housing as well. For example, a developer building low-income for-sale housing should be encouraged to also use low-interest developer financing that could be provided through a qualified lender under the Greenhouse Gas Reduction Fund, as passed in the Inflation Reduction Act.[18] In the context of low-income and affordable housing development, stacking or combining 45L with other incentives could also be part of an effective policy strategy to positively impact equity. Allowing the developer to access additional resources to lower the cost of developing low-income housing will translate to lower purchase costs for low-income buyers, and in the case of renters, should also help off-set higher rental costs.

Assignment of Credit by Non-Profit Owners

As a general rule, 45L is part of the general business credit, which means that 501(c)(3) tax exempt entities seeking to build low-income and affordable housing may not be able to use the credit, absent the utilization of some other third-party process. Admittedly, 45L does not explicitly provide the ability for a non-profit or tax-exempt entity to allocate the credit to a developer, contractor or designer, similar to the authority granted in the new 179D.[19] However, the Alliance urges Treasury to consider whether guidance allowing allocation would be

[17] https://www.energystar.gov/sites/default/files/asset/document/Guidance%20for%20Homes%20and%20Buildings%20Undergoing%20Gut%20Rehabilitation.pdf.
[18] Inflation Reduction Act, Section 60103
[19] 179D(d)(3).

permissible under law, and if so, establish the necessary parameters to facilitate use of the tax credit by tax-exempt entities.

Energy Efficient Commercial Buildings Deduction (§ 179D):

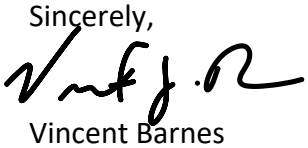
Concurrence with the Energy Efficiency Strategy Group

The Alliance to Save Energy has also joined the comments of the U.S. Green Building Council (USGBC) and the Energy Efficiency Strategy Group (EESG), and as such concur with recommendations provided in the joint 179D response.

Conclusion

The Alliance to Save Energy thanks Treasury for the opportunity to provide comments on the energy efficiency tax incentives, 25C, 45L, and 179D, and look forward to working with you and the Internal Revenue Service to help ensure implementation that achieves the broadest permissible applications, resulting in reduced emissions, less demand on the nation's energy systems, energy savings, and greater energy affordability. If you have questions or need additional information, please do not hesitate to contact Vincent Barnes (vbarnes@ase.org), Alliance to Save Energy Senior Vice President of Policy, Research, and Analysis.

Sincerely,



Vincent Barnes