



November 4, 2022

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

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

Dear Secretary Yellen and Commissioner Rettig:

On behalf of the members of the Low-Income Housing Tax Credit (LIHTC) Working Group, we appreciate the opportunity to comment on Incentive Provisions for Improving the Energy Efficiency of Residential and Commercial Buildings, Notice 2022-48. The members of the LIHTC Working Group are participants in the affordable housing community who work together to help resolve technical LIHTC policy issues and provide recommendations to make the LIHTC even more efficient in delivering benefits to help build and preserve affordable housing and serve low-income residents. Our group includes nonprofit and for-profit developers, syndicators, investors, lenders, lawyers and other affordable housing professionals. Additionally, input was sought from experts that work in the building efficiency and electrification space.

Attached please find the LIHTC Working Group's answers to the Request for Information on buildings. This submission also includes several recommendations that are key to ensuring that the Inflation Reduction Act (IRA) tax credits can be utilized by affordable housing and low-and-moderate-income households, as intended by statute. Those specific recommendations were developed by a working group composed of leading affordable housing and environmental justice organizations. Guidance is mostly urgently needed on stackability of tax credits with other tax credits and/or with rebate programs and. Recommendations are designed to support beneficial electrification, affordable and LMI household accessibility, efficiency in leased spaces, ease of tax credit access, and deeper levels of efficiency.

If you have questions or want to discuss anything in this document further, please reach out to Dirk Wallace ([Dirk.Wallace@novoco.com](mailto:Dirk.Wallace@novoco.com)).

Very truly yours,

Novogradac & Company LLP

By

Dirk Wallace, Partner

Attachment: LIHTC Working Group Comments on Notice 2022-48



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the Energy Efficiency of Residential and Commercial Buildings  
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.01 Energy Efficient Home Improvement Credit (§ 25C)

*(2) Is guidance needed regarding the definition of “qualified energy property” in 16 § 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?*

*Comment*

Portable and window unit heat pumps should be explicitly added to the list of qualified energy properties. Additionally, expand the definition of electrical panel upgrades to include technologies that avoid the need for main panel upgrades such as solaredge and other inverters or smart panel devices that manage load actively.

*(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?*

*Comment*

We recommend Treasury fast-track guidance regarding section 25C(g) requiring product identification numbers (PINs). Although such numbers will only be required for property placed into service after 12/31/24, manufacturers will likely need over a year of lead-time for new equipment. There should also be considerations for back-stock that are installed after 12/31/24.

The Treasury Department and IRS should use existing AHRI numbers or model numbers as the PIN and should not create a new labeling requirement. Product serial numbers may also suffice, but are less preferable at least for unitary heating and cooling equipment. Efficiency incentive programs that have seen market uptake have not required serial numbers in order to lessen administrative burden. For most heating and cooling products, the use of an AHRI number will reduce steps for the IRS since that number enables product lookup directly, whereas a serial number would create an additional step of matching that number to AHRI number via validation against manufacturer data.

Likewise, should PIN requirements be applied to exterior window/skylight/exterior door products, the existing National Fenestration Rating Council (NFRC) certified product numbers should be used as the PIN, and the Treasury Department and IRS should not create a new labeling requirement. PIN requirements should be extended only to whole electrical panels and not to replacement sub-panelboards, branch circuits, or feeders, as referenced in 25C(d)(2)(D), since such products would be extremely difficult to track.

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

*Comment*

Additional guidance is needed around credit stackability, panel upgrade requirements, and who can take advantage of the tax credit. We recommend:

- Release clear guidance clarifying that the **annual tax credit limit is \$3,200, inclusive of a \$1,200 limit generally and an additional \$2,000 for heat pumps**. Legislative intent was for the \$1,200 credit limit and the \$2,000 exception to be stackable up to \$3,200, as confirmed by both Senate Finance and House Ways and Means committee staff. It would be helpful for Treasury to be explicit in this recommendation as this is a consistent point of confusion within our networks, inclusive of consumers, industry, and advocates. Releasing clear information that confirms stackability up to \$3,200 is critical for the heat pump industry to effectively respond to and plan for these credits, as well as for consumers to make informed purchase decisions. In addition, the cost-effectiveness and emissions reduction potential of home upgrades will be optimized if households can claim a \$1,200 credit for insulation (or other energy efficiency improvement) and a \$2,000 credit for a heat pump in the same year. This would reduce the likelihood of oversized heat pump installations, which strain the grid and cost consumers money. By making clear that taxpayers can claim credits for both building envelope upgrades and efficient electrification in the same year, Treasury can enable consumers to make the investments needed to reduce their energy costs and conserve energy. This clarification will also advance the Biden Administration's 2030 goal of reducing U.S. greenhouse gas pollution 50 to 52 percent below 2005 levels, by ensuring that residential decarbonization is cost-effective, streamlined, and efficient.
- In Treasury guidance, **explicitly state that 25C can stack with HEEHR or HOMES**, specifically stating that consumers can claim the credit for the amount remaining after any rebate or incentive is received. Further, guidance should ensure that 25C is maximally stackable with rebates, grants, loan products, and tax credits available from the federal government, states, municipalities, utility and programs. There is nothing explicitly in the legislative text that prevents 25C from stacking with HEEHR or HOMES. However, without clarity, homeowners and contractors may be uncertain about what tax credits and rebates they can use for financing their projects, delaying projects and/or resulting in projects not moving forward that would have if the incentive amount was more guaranteed.
- **Allow electric panel upgrades to happen in the year prior to the electrification project**. While section 25C(d)(2)(D)(iii) and (iv) in the legislative text states a panel upgrade is only eligible when completed in conjunction with other upgrades and only if required for those upgrades to be possible it is NOT explicit that the qualified energy upgrade needs to be installed in the same tax year. It is very expensive to upgrade the electric panel. A household may be able to upgrade their panel in one year, but then they may have to wait until subsequent years until they have saved more to install their electric stove and their heat pumps.
- Explicitly state that **renters can use 25C to install qualifying energy properties** like window-unit or other portable heat pumps if the renter purchases them. 25C has removed the residence "ownership" requirement from 25C energy property expenditures (the new language: "installed on or

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in connection with a dwelling unit located in the United States and used as a residence by the taxpayer." ). This implies that renters can use 25C to claim a tax credit for something like a window-unit heat pump. This is important because it would extend incentives to renters that often face unique challenges like energy burden, poor infrastructure, and lack of AC and/or lack of adequate/safe heating, and that otherwise would be excluded from consumer-facing electrification incentives. As such, IRS guidance should make this interpretation explicit.

.02 Residential Clean Energy Credit (§ 25D)

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

*Comment*

Qualified battery storage technology expenditure should be defined to include the cost of any electric panel upgrade needed due to the new battery. Additionally, we encourage Treasury to be expansive in their definition of qualified battery storage technology to include upgrades such as EV chargers that have vehicle to grid capabilities.

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

*Comment*

Additional guidance is needed around how 25D handles electric panel upgrades, community solar subscriptions and stackability. We recommend:

- In Treasury guidance, **explicitly state that 25D can stack with HEEHR or HOMES**, specifically stating that consumers can claim the credit for the amount remaining after any rebate or incentive is received. There is nothing explicitly in the legislative text that prevents 25D from stacking with HEEHR or HOMES. However, without clarity, homeowners and contractors may be uncertain about what tax credits and rebates they can use for financing their projects, delaying projects and/or resulting in projects not moving forward that would have if the incentive amount was more guaranteed.
- Clarify the **conditions under which community solar subscriptions can claim 25D**. In a 2015 Private Letter Ruling, the IRS permitted a taxpayer to claim a [section 25D tax credit](#) for purchase of a portion of a community solar project. Considering the diversity of ways in which community solar projects are structured and operate, additional guidance is needed. PLR 2015-36-017 and Notice 2013-70 identify certain circumstances under which 25D credits may apply to off-site solar and community solar subscriptions. To provide more certainty to taxpayers, IRS should issue authoritative guidance that taxpayers can rely upon that clarifies the types of community solar programs that section 25D covers (including corporate structure and contractual arrangements, such as title to electricity generated) and any applicable limitations (including net metering arrangements and documentation of electricity expected to be consumed or actually consumed at the taxpayer’s residence).
- Provide clarity on which tax credit (25C or 25D) applies to the panel upgrade when households upgrade their electric panel to enable a qualified energy property covered by 25C (e.g. heat pump) and

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a qualified energy property covered by 25D (e.g. rooftop solar). Allow the **taxpayer to select which tax credit to apply to the panel upgrade (between 25C and 25D)**. This guidance would incentivize whole-home, single-year electrification retrofits that feature both heat pump and rooftop solar installations. If this were not the case (i.e., if electrical panels upgrades in this situation were limited to whichever credit is lower), individuals pursuing whole-home, single-year electrification retrofits would be penalized and incentivized to split their retrofit over multiple years to separate their 25D project from their 25C project. This would create inefficiency in the markets and slow down electrification retrofits. In addition, by proactively enabling taxpayers to do panel upgrades with either a heat pump or solar installation, the Treasury will be promoting consumer choice and allowing taxpayers to maximize their energy cost savings by doing both. As such, IRS guidance should clarify that, in this situation, the panel upgrade is eligible for whichever tax credit is higher.

.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?*

*Comment*

The IRS should define ‘substantial reconstruction and rehabilitation’ as any existing building that is able to achieve Energy Star or Zero Energy Ready Homes certification. No additional definition is necessary, because it could create confusion in the market.

Additionally, the name of this tax credit is misleading and appears to only apply to new construction. Treasury should make it explicit that this tax credit can be used for both new and existing homes that meet Energy Star or Zero Energy Ready Homes certifications.

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

*Comment*

Additional guidance is needed around stackability and program updating authority. We recommend:

- In Treasury guidance, explicitly state that **45L can stack with HEEHR or HOMES**. Further, guidance should ensure that 45L is maximally stackable with rebates, grants, loan products, and tax credits available from the federal government, states, municipalities, utility programs. There is nothing explicitly in the legislative text that prevents 45L from stacking with HEEHR or HOMES. Having this certainty will allow developers to feel more confident in their financing as they move forward with projects.
- **Treasury should clarify that neither eligible basis nor depreciable basis is reduced for Section 42 Low Income Housing Tax Credit (LIHTC) properties.** The legislative intent was to improve 45L so that it would not negatively impact the basis of Section 42 LIHTC properties, and thus allow these properties to use the 45L tax credit. The legislation states that the basis adjustment that is typically made to a property under 45L “shall not apply for purposes of determining adjusted

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basis under section 42.” However, it is unclear if the depreciable basis for Section 42 LIHTC properties is reduced due to the legislation stating that there is no reduction to “adjusted basis.” The Treasury should clarify that neither eligible basis nor depreciable basis is reduced for Section 42 Low Income Housing Tax Credit (LIHTC) properties. Section 42 defines eligible basis for a building as its adjusted basis as of the close of the first tax year of the credit period. Section 42 also states that the determination of eligible basis is made before any adjustments to basis are made for depreciation. In order for an expenditure to be included in eligible basis, it must be depreciable. Low-income housing tax credits are allocated based on the allocation of depreciation, therefore a reduction to depreciable basis may preclude an expenditure from being included in eligible basis.

- The Treasury should make it clear that “the Secretary” in question in updating the DOE ZERH program is the Secretary of Energy, not the Treasury Secretary since this program sits within DOE’s jurisdiction. Similarly for EPA’s ENERGY STAR program, EPA should have authority to change which version of the program is associated with the tax credit.
- **For incentives for prevailing wage, administer an alternative reporting process that uses self-certification that can take advantage of third-party cost certification that are already administered within the Section 42 Low Income Housing Tax Credit and HUD projects.** Compliance and reporting requirements for prevailing wages can create a barrier to entry within the contractor and subcontractor marketplace. This recommendation would increase the number of contractors and subcontractors that would be available for these projects.

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

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

#### *Comment*

On-site renewable energy should not be allowed in the calculation of energy use intensity since it is already covered by 25D, and projects could meet the 179D threshold through just rooftop solar alone, which doesn’t meet the legislative intent of 179D supporting an energy efficient property. Site EUI is included in the ENERGY STAR Portfolio manager software, so Treasury could defer to the EPA definition. Importantly, this EUI should remain calculated on SITE energy and not SOURCE energy.

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

#### *Comment*

Additional guidance is needed around how multi-tenant commercial buildings can use this deduction and software requirements:

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- Provide guidance for how tenants and building owners purchasing equipment for a specific tenant in a **multi-tenant building can take advantage**. [Over half](#) of commercial square footage is leased and a significant portion of leased space is in multi-tenant buildings, so if this isn't designed for multi-tenant commercial buildings, we are missing out on a big energy saving opportunity. Specifically, provide clarity that the site EUI reduction can be prorated for the square footage of their space, even if it's not submetered. For example, if a 10K SF tenant space in an 100K SF building got upgraded and they needed to reduce site EUI by 25 kBtu/SF, this would mean the whole building would only need to see a 2.5 kBtu/SF reduction for the tenant or landlord to qualify.
- **Update baseline energy code year** and allow for automatic updating in the future to ensure the US isn't providing incentives to new buildings that are just meeting their local energy code baseline.
- **Ensure that the DOE-approved software provides reference buildings** tuned to more recent code year and provide clear savings outputs. Under the current notice, taxpayers must spend time and money defining their own "Reference Building" in order to establish that the minimum eligible amount of savings will be achieved. The complexity of defining the Reference Building is costly to the taxpayer, and allows for the introduction of errors that affect the anticipated savings. DOE and the National Labs are capable of accurately describing the characteristics of a Reference Building. Reference Buildings could be provided by region to reflect different consumption and energy cost profiles around the country. In addition, DOE could scope packages of common efficiency measures to further simplify modeling, which would be consistent with the original intent. Also, appropriately identifying the positive and negative interactions between efficiency measures is well within the capabilities of DOE and the National Labs. The methods for calculating savings in any updated Notice should accurately reflect the total savings achieved.
- **Require uniform outputs that clearly show savings in DOE-approved software.** Combined with a reliable Reference Building, a consistent and easy-to-read output would also support additional services from software providers by allowing them to more readily indicate compliance with other standards such as Energy Star, Net-Zero Ready, the IECC code, or even local utility-led energy efficiency programs. By providing robust and easy-to-use guidance for 179D compliance, the IRS and DOE can establish a uniform national standard that serves multiple purposes.
- **Training and certification on DOE-approved software should be available** to both Qualified Individuals, as well as any officials that needed to verify certifications, in order to expand the pool of Qualified Individuals and improve administrability.