

# The Residential Capital Stack

## Maximizing Impacts of HOMES, HEAR, 25C Tax Credit, WAP, GGFR, and Utility Programs for Existing Single-Family Homes

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The Home Energy Rebate Programs, enacted in the Inflation Reduction Act (IRA) of 2022, provide the largest-ever new funding for residential buildings to improve home efficiency and electrification. The historic \$8.8 billion for these programs has tremendous potential to reduce residential greenhouse gas emissions, while also helping low- and moderate-income households to better heat and cool their homes, save money on their utility bills, and reduce overall energy consumption—setting the stage for renewables and storage to make grids cleaner and more resilient. While this funding will meet the needs of just a fraction of the estimated 140 million<sup>2</sup> housing units in the U.S., these rebates provide critical, directional incentives - a foundational step to helping millions of homeowners make climate-friendly choices in their home energy investments. To ensure these federal investments reach their full potential, the State Energy Offices (SEOs) that are charged with accessing the funding and implementing the rebate programs must coordinate with other federal, state, and utility incentives also aimed at supporting residential upgrades, including expanded federal tax credits when practicable.

### Background

The IRA's \$8.8 billion for Home Energy Rebates is managed by the U.S. Department of Energy (DOE) but implemented largely by SEOs.<sup>3</sup> Funding is split into two rebate programs - \$4.3 billion for whole-home, performance-based Home Owner Managing Energy Savings (HOMES) rebates



(also referred to as Home Efficiency Rebates in DOE Program Requirements) and \$4.5 billion for the Home Electrification and Appliance Rebate (HEAR) program (originally the High-Efficiency Electric Home Rebate program, or HEEHR in the IRA). Per DOE requirements, states must direct approximately half of rebate dollars towards low-income households (less than 80% Area Median Income). While some states may choose to focus an even greater portion of funding on low-

<sup>1</sup> This is the **third** iteration of this paper (**v3**) – prior versions released August 2023 and October 2023. This document reflects Department of Energy (DOE)'s updated v2 Program Requirements & Application Instructions (referred to throughout as "DOE Program Requirements") as of June 17, 2024. DOE may make additional clarifications and modifications – a new administration will take office in January 2025 and could reevaluate the non-statutory requirements set by the Biden Administration. [https://www.energy.gov/sites/default/files/2024-06/program-requirements-and-application-instructions\\_061324.pdf](https://www.energy.gov/sites/default/files/2024-06/program-requirements-and-application-instructions_061324.pdf).

<sup>2</sup> U.S. Census Bureau, "Occupancy Status," 2020. Decennial Census, DEC Redistricting Data (PL 94-171), Table H1, 2020, <https://data.census.gov/table/DECENNIALPL2020.H1?g=010XX00US>.

<sup>3</sup> The total amount of Home Energy Rebate funding for state energy offices (SEOs) is approximately **\$8.309 billion** – per IRA Secs. 50121-50122, of the \$8.8 billion total, \$225 million is reserved for Indian Tribal Nations and \$257.25 million is reserved for DOE administration. In addition, pursuant to the Consolidated Appropriations Act, 2024 (**P.L. 118-42**), DOE transferred approximately \$8.4 million from state HOMES allocations to the DOE Office of the Inspector General. See DOE's state allocations as of May 2024 at <https://www.energy.gov/sites/default/files/2024-05/IRA-50121-50122-home-energy-rebates-state-allocations.pdf> (note: these allocations will need to be updated based on South Dakota's announced non-participation in either rebate program, per [energy.gov/save/rebates](https://www.energy.gov/save/rebates)).

income households,<sup>4</sup> options for moderate income (80%-150% of AMI) and market-rate<sup>5</sup> homeowners (only allowable in the HOMES rebates) make the “stacking” of rebates with either other low-income programs or tax credits a critical opportunity. Funding synergistic upgrade measures (e.g., insulation and HVAC) across a home project will unlock maximum decarbonization outcomes while saving consumers the greatest amount of money. However, the more complicated the stacking process becomes for the contractor, the less likely it is that they will offer rebates at all - let alone braid them with other state or utility incentives.

Unlike the deliberations behind the “capital stack” for multimillion-dollar commercial and industrial projects, household upgrade decisions are often made in a half hour at the kitchen table. Residential projects are rarely focused on proactive energy efficiency upgrades – instead, households pursue upgrades during unplanned heating or cooling emergencies when the weather has turned and equipment stops working.<sup>6</sup> In these dire situations, the contractor and homeowner need to build a funding stack quickly and efficiently – particularly for low-income households, when the financing alternative is often unsecured credit card debt.

### Federal Program Stacking Requirements

Though the IRA does not allow HOMES and HEAR to be used to co-fund the same single upgrade,<sup>7</sup> the law does allow individual households to stack these rebates across federal funding sources, including the Weatherization Assistance Program (WAP)<sup>8</sup> - provided that “each Federal grant only funds distinct, separable upgrades.”<sup>9</sup> Per v2 of DOE Home Energy Rebate guidance, HOMES *Measured* Energy Savings rebates can be stacked with HEAR at a single address, but only for non-energy-saving measures (electric wiring and load service centers).<sup>10</sup> Meanwhile, HOMES *Modeled* Energy Savings rebates can be stacked with **any** HEAR rebate in a home project – again, provided each rebate covers different upgrades (in a model for a HOMES rebate, the HEAR measures can be removed from the model). This is to ensure that the energy savings are not attributable to the same project for both rebates.

DOE Program Requirements affirm both HOMES and HEAR rebates are **not** taxable and can be paired with the 25C Energy Efficient Home Improvement tax credit for certain upgrades.<sup>11</sup> Per DOE requirements, households receiving HOMES and/or HEAR rebates can still claim the 25C tax credit on remaining costs *after* the rebate is applied, reducing the amount of the expenditure

<sup>4</sup> Per DOE FAQ #109, released September 26, 2024, states **cannot** exclude households whose income level is 80-150% AMI from their HEAR programs. <https://www.energy.gov/scep/home-energy-rebates-frequently-asked-questions>.

<sup>5</sup> “Market Rate” in this document is a household with >80% AMI for HOMES.

<sup>6</sup> Indeed, according to a survey conducted by Clear Seas Research on behalf of the ACHR News, “86% of contractors surveyed answered that the most frequent reason they are called for a replacement is when a homeowner’s equipment is no longer working.” ACHR News, September 3, 2024. <https://www.achrnews.com/articles/155127-what-triggers-a-homeowner-to-replace-hvac-equipment>.

<sup>7</sup> DOE Program Requirements define an “upgrade” as “a single energy improvement to a dwelling unit or multifamily building that is a distinct and separable part of the overall scope of work of a home efficiency or electrification project” (p.9). See p.12 for details on HOMES Modeled/Measured stacking with HEAR.



<sup>8</sup> Per DOE, “funds may be used to supplement, and no funds may be used to supplant, weatherization activities under the Weatherization Assistance Program for Low-Income Persons” (p.91).

<sup>9</sup> See v2 of DOE Program Requirements for additional details on funding separation requirements, including invoice line-item requirements and subdivided labor cost requirements (p.45, p.83).

<sup>10</sup> DOE Program Requirements, p.12. Because HOMES rebates require projects to meet certain energy saving thresholds overall, it is more challenging for non-energy saving measures to qualify for HOMES rebates - making potential stacking with HEAR, which does include non-energy saving measures like electrical wiring and breaker box upgrades, more important.

<sup>11</sup> For more on the 25C tax credit, see the AnnDyl Policy Group & Building Performance Association [Energy Efficient Home Improvement Tax Credit \(25C\) Factsheet](#).

on which the consumer calculates their tax credit.<sup>12</sup> Per DOE, consumers receiving IRA rebates are not required to report the value of the rebate as income.

 Allowed	 Prohibited
<p><b>HOMES <u>Modeled</u> Rebate</b> + <b>HEAR</b> (for <b>separate</b> upgrades)</p>	<p><b>HOMES <u>Measured</u> Rebate</b> + <b>HEAR</b> (for separate upgrades that include <b>HEAR <i>energy saving</i></b> upgrades)</p>
<p><b>HOMES <u>Measured</u> Rebate</b> + <b>HEAR</b> (for <b>separate</b> upgrades – and <b>HEAR <i>non-energy saving</i></b> upgrades)</p>	<p><b>HOMES <u>Measured</u> Rebate</b> + <b>HOMES <u>Modeled</u> Rebate</b></p>
<p><b>HEAR or HOMES* Rebate</b> + <b>25C tax credit</b> Can apply the 25C credit to <b>remaining costs for the same single upgrade</b> after HOMES or HEAR rebate is applied  <i>*HOMES: Deduct proportional share of rebate from tax credit cost basis for eligible equipment, based on share of whole-home project cost. See <a href="#">IRS Announcement 2024-19</a>.</i></p>	<p><b>HOMES <u>Measured</u> Rebate</b> + <b>HOMES <u>Modeled</u> Rebate</b></p>
<p><b>Stacking either rebate with other federal funds (e.g. WAP) for <b>SEPARATE</b> upgrades</b></p>	<p><b>Stacking rebates with other federal funds (e.g. WAP) for the <b>SAME</b> single upgrade</b></p>

However, when it comes to the funding provided by states and utilities, DOE guidance “strongly encourages” states to design rebate programs in a way that allows SEOs to creatively combine and leverage various funding streams—including state, local, utility programs, or philanthropic support.<sup>13</sup> According to DOE Program Requirements, these non-federal funds can cover “any remaining costs for upgrades and individual components of qualified electrification projects beyond the value of the Federal rebate” under both HOMES and HEAR – provided other funding programs also allow for the combining of resources. DOE urges careful accounting, however, noting that “home energy upgrade packages that use multiple Federal grants must braid the funding in a manner that ensures each Federal grant only funds distinct, separable upgrades” and also does not cover more than 100% of the cost of the project.<sup>14</sup> When considering how to

<sup>12</sup> DOE Program Requirements, [p.46, p.83](#).

<sup>13</sup> DOE Home Energy Rebates Program Requirements & Application Instructions, [p.45 & p.83](#).

<sup>14</sup> Indeed, in guidance to states, DOE warns any “attempts to claim multiple Federal rebates for the same single upgrade is a violation of Federal law and must be reported to DOE” ([p.45 & p.83](#)).

pair these incentives in the same project, state programs **may rely on household income** to best understand what options are available to each state resident.

Although residential multifamily buildings are a vital market in need of home efficiency upgrades, for the purposes of this brief, included below are examples of how to fully maximize the available capital stack for residential energy efficiency and electrification retrofits in existing<sup>15</sup> single-family homes. Such criteria below are broken into three income categories:

- 1) **Low-Income Households** – Households at or below 80% of Area Median Income (AMI),<sup>16</sup> including those qualifying for WAP at under 200% of the Federal Poverty Level (FPL).<sup>17</sup>
- 2) **Moderate-Income Households** – Households between 80% - 150% AMI.
- 3) **Market Rate Households** – Households with over 150% AMI and/or no income qualification.

Funding options listed will vary state by state based on existing state and utility programs, the status of other federal funding in both the IRA (including the Greenhouse Gas Reduction Fund)<sup>18</sup> and the Infrastructure Investment and Jobs Act (including the Energy Efficiency Revolving Loan Fund Capitalization Grants)<sup>19</sup> - as well as state-level decisions on HOMES and HEAR program design and participation,<sup>20</sup> and each state's rebate program funding allocation.<sup>21</sup> Per October 2023 EPA guidance, forgivable GGRF loans **are considered loans, not grants** – and therefore can be used to cover the remaining balance of a single upgrade after a HOMES or HEAR rebate has been applied.<sup>22</sup>

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<sup>15</sup> Existing homes are residences that have been built and occupied for a period of time. New homes must adhere to current state energy codes which drive their initial efficiency baseline.

<sup>16</sup> See the U.S. Department of Housing and Urban Development (HUD) 2023 AMI levels [here](#).

<sup>17</sup> See DOE's 2024 WAP income eligibility [here](#) (WPN 24-3). Note, some states utilize their LIHEAP funds to expand on the eligibility and measures supported by their state WAP.

<sup>18</sup> See EPA's GGRF framework [here](#). EPA has also released detailed Notices of Funding Opportunity (NOFOs) for all three subprograms: the \$13.97B National Clean Investment Fund ([NCIF](#)); the \$6B Clean Communities Investment Accelerator ([CCIA](#)); and the \$7B Solar For All ([SFA](#)) competition.

<sup>19</sup> See DOE's EERLF Capitalization Grant Program page [here](#).

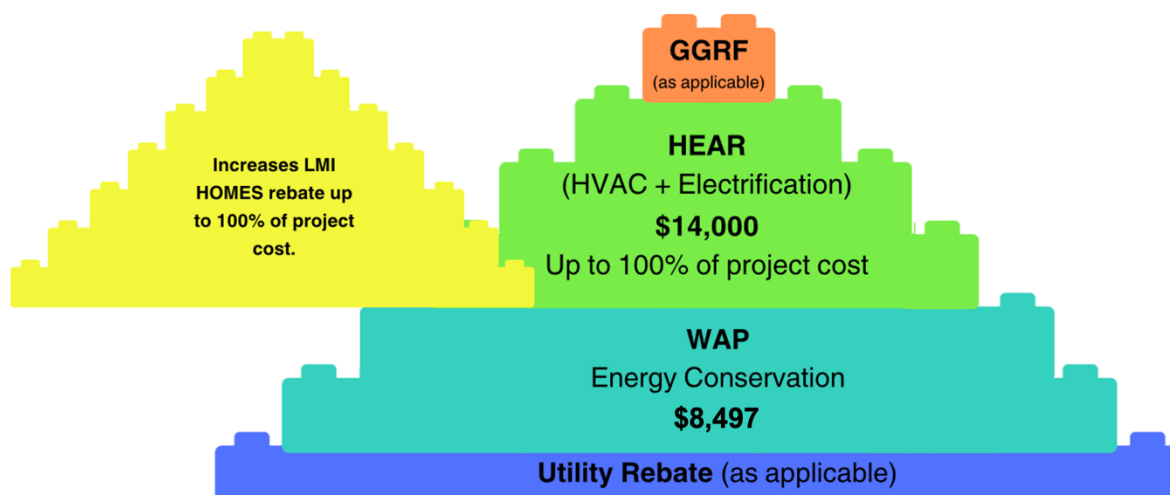
<sup>20</sup> Per DOE guidance, "States may choose to implement the modeled path, measured path, or both." ([p.34](#)).

<sup>21</sup> See DOE HOMES and HEAR State Allocation Amounts [here](#).

<sup>22</sup> See EPA [CCIA](#) and [NCIF](#) FAQs. Per DOE, "loans from previously granted Federal funds [like GGRF] are not considered Federal grants [and] may be used to finance any remaining costs for upgrades and individual components of qualified electrification and energy efficiency projects additional to and separate from the value of the rebate." ([p.45, p.83](#)).

# 1) Low-Income Households

Below 200% Federal Poverty Level (FPL) for WAP eligibility  
Below 80% of Area Median Income (AMI) for maximum HOMES/HEAR rebate eligibility



Low-income families below the 200% FPL should first qualify for the Weatherization Assistance Program to receive up to \$8,497 to fully cover cost-effective energy conservation measures.<sup>23</sup> This initial investment can be coupled in the same home with up to \$14,000 in HEAR Rebates for up to 100% of the HVAC and electrification upgrades, provided WAP and HEAR funds are not for the same measure(s) – plus any additional support from utility rebates or potential funding in the form of loans or grants provided by GGRF recipients under the National Clean Investment Fund (NCIF), Clean Communities Investment Accelerator (CCIA), or Solar for All (SFA).<sup>24</sup> Importantly, HEAR rebates must be provided at the point-of-sale or project.

Additionally, a *Modeled* HOMES rebate of \$4,000 for 20% improvement or \$8,000 for a 35% improvement<sup>25</sup> could be included (up to 80% of the project cost<sup>26</sup>). Because the savings in the model must be achieved without accounting for the same measures included in WAP or HEAR, the most cost-effective pairing for a low-income homeowner would likely be to take advantage of WAP, HEAR, and other funding state low-income programs. Where the resident qualifies for low-income HEAR (<80% of AMI) and not WAP (200% FPL), HOMES should be considered. HOMES should also be considered if the homeowner chooses a gas furnace upgrade and therefore will not qualify for a HEAR heat pump rebate. However, if the state takes advantage of increasing the rebate for low-income HOMES participants by using the flexibility provided by IRA Sec. 50121(c)(3) to “increase rebate amounts for low or moderate-income households,” **this**

<sup>23</sup> See DOE’s WPN 24-1 (2024) WAP Adjusted Average Cost Per Dwelling Unit (ACPU) calculation on p.7 [here](#). Per DOE’s WPN 25-1, the 2025 WAP Adjusted ACPU will be \$8,547 (p.9).

<sup>24</sup> All three GGRF categories list energy efficiency retrofits as an eligible expense: NCIF and CCIA projects may include “whole-home retrofits for 1- to 4-family homes and manufactured homes to improve energy efficiency” (NCIF [p. 11](#); CCIA [p.12](#)); SFA projects may include enabling upgrades that include energy efficiency measures, up to 20% of the cost (SFA [p. 9](#)).

<sup>25</sup> This assumes the HOMES rebate follows the *Modeled* Approach to energy savings and is based on predictions. A *Measured* Approach may provide similar or greater rebate based on an aggregator model and actual savings of at least 15% across a portfolio – but, as noted, only HEAR non-energy saving measures can be combined with HOMES *Measured* rebates.

<sup>26</sup> DOE requirements allow states to request authority to provide even larger HOMES rebates – up to 100% of project costs and larger rebate dollar caps ([p.15](#)).

would allow the state to cover up to the full costs of an LMI upgrade with the HOMES rebate, after taking advantage of the other resources such as WAP or utility programs (see the yellow portion of the figure above). To take advantage of an LMI increase for HOMES rebates, the homeowner must be <80% of AMI.

Tax incentives are a less effective option for many low-income homeowners because many lack the tax liability needed to claim a credit.<sup>27</sup> *Utilizing only HEAR and WAP, a low-income households could receive at least \$22,000 in potential federal support.* We do not include financing in this section (beyond potential forgivable loans issued by GGRF grant recipients), since the ability to qualify and provide debt repayment is particularly challenging for low-income residents.

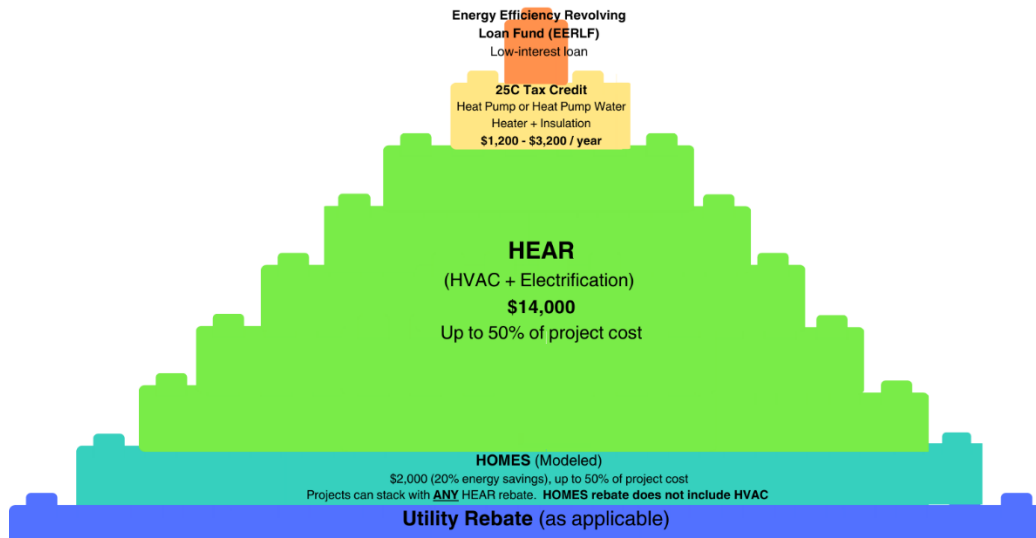
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<sup>27</sup> According to the National Bureau of Economic Research (NBER), from 2005-2012, just 11 percent of the benefits from previous iterations of the 25C and 25D (Residential Energy Efficient Property Credit) tax credits went to taxpayers making under \$40,000 per year. Taxpayers making under \$20,000 per year received just one percent of the benefits. In contrast, 62 percent of the benefits went to taxpayers making over \$75,000 per year. National Bureau of Economic Research, “The Distributional Effects of U.S. Clean Energy Tax Credits.” <https://www.journals.uchicago.edu/doi/epdf/10.1086/685597.211>. These results were mirrored in the Internal Revenue Service’s August 2024 release of 2023 25C claims data, which showed taxpayers with income under \$50,000 received a total \$188.2 million in credits across 282,710 returns – while, in contrast, those with an income over \$100,000 received \$1.2 billion across 1.3 million returns. Internal Revenue Service, “Department of Treasury and IRS release Inflation Reduction Act clean energy statistics,” August 7, 2024. <https://www.irs.gov/newsroom/department-of-treasury-and-irs-release-inflation-reduction-act-clean-energy-statistics>.

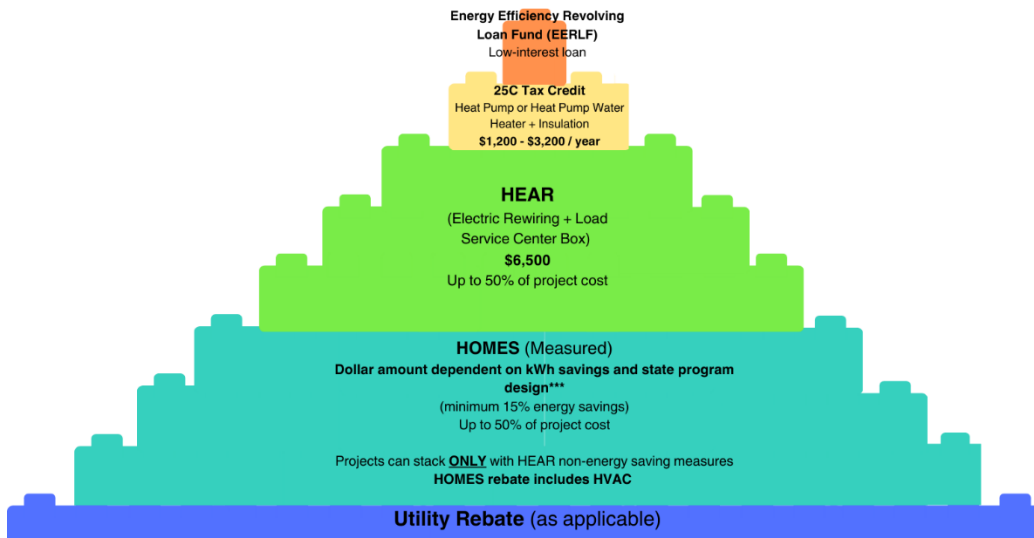


## 2) Moderate-Income Households Between 80% - 150% AMI

### A. Household Leveraging HOMES Modeled Approach



### B. Household Leveraging HOMES Measured Approach



Moderate-income households will be able to recover up to 50% of the costs of their electrification projects with HEAR Rebates and receive 30% of the remaining balance of the cost of key equipment with the 25C tax credit when they file their taxes (up to a \$3,200 maximum annual credit). As noted above, to combine *Modeled* HOMES<sup>28</sup> and HEAR rebates in the same

<sup>28</sup> An ENERGY STAR natural gas furnace/propane/oil furnace also could potentially qualify for both HOMES (*Modeled* and *Measured* approaches) and a 30% tax credit (up to \$600) via the 25C tax credit. If not using energy saving HEAR measures, the HOMES *Measured* approach should be considered and has more flexibility on the size of the rebate.

home, the contractor will need to use a model that has been calibrated with the home’s utility data to affirm that measures from the HOMES rebate alone are predicted to save at least 20% of the home’s energy usage.<sup>29</sup> Households in states choosing to include high-efficiency gas HVAC as an allowable HOMES measure may also consider the HOMES *Measured* or *Modeled* Energy Savings approaches instead of the HEAR heat pump rebate.<sup>30</sup> The 25C tax incentive can still be applied to the balance of the upgrade costs (the rebate reduces the basis for the tax credit).

HOMES and HEAR rebates cannot cover more than 50% of the project cost for this income bracket, nor can their measures overlap. In the past, this analysis noted states could limit both HOMES and HEAR programs to only households with under 80% AMI – however, per recent DOE guidance, **all states must eventually offer HEAR rebates to moderate-income households at or below 150% AMI.**<sup>31</sup>

The charts on the previous page show two different paths moderate-income households can take, stacking either the HOMES *Modeled* or *Measured* approaches with HEAR and other incentives. The first path (A) assumes a project is electrification-focused, reaches the maximum HEAR project cap, meets at least the 20% *Modeled* energy savings HOMES program requirement (assumes HOMES would not meet more than 35% savings due to energy savings from HEAR), and costs over \$32,000. As a result, this potential path would enable a **moderate-income household to potentially receive some \$19,000** in federal incentives when stacked. The second path (B) charts an electrification-focused (or high-efficiency gas) project that uses non-energy saving HEAR measures and assumes deep energy savings using the *Measured* HOMES rebate with a total project cost over \$21,000 – which could enable a moderate-income household to receive **more than \$13,700 in federal incentives.**<sup>32</sup> Alternatively, a project incorporating high-efficiency gas HVAC could achieve \$5,200 - \$11,700 in federal support without receiving HEAR HVAC rebates. Per DOE, projects may also use low interest loan and utility rebates. In fact, DOE guidelines affirm that any loans from DOE EERLF, GGRF, and HUD “are not considered Federal grants in that the recipient household receives these programs as financial products rather than as grants or rebates.”<sup>33</sup> Therefore, these programs may be used to support projects that leverage the value of the rebate to finance any remaining costs for upgrades and individual components of qualified electrification and energy efficiency.

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\*\*\* Depending on state plan design, households can pursue *Measured* Energy Savings, a pathway relies on granular energy savings and features a **\$2,000** payment rate per kilowatt hour saved equal to a **20 percent** reduction for the average home in the state, up to **50 percent** of project cost (minimum 15% energy savings). With no dollar cap, this has the potential to result in larger rebates. Rebate amounts will vary per state and aggregator business model.

<sup>29</sup> In the moderate-income chart, the first scenario assumes that since HEAR offers much more generous HVAC rebates, households would pursue HEAR for HVAC upgrades and use the HOMES *Modeled* approach for other home energy savings. As a result, this scenario also anticipates that moderate-income households would likely pursue the 20% *Modeled* energy savings tier, since achieving the 35% *Modeled* energy savings tier on a HOMES project without any HVAC upgrades would be challenging.

<sup>30</sup> DOE allows states to restrict HOMES rebate eligibility to solely electric HVAC upgrades (see DOE Home Energy Rebate [FAQ #28](#): the “SEO will determine through its program design which specific products and building materials may be eligible for your home upgrade or retrofit”), though per IRA statute HOMES is performance-based and fuel neutral. DOE has additionally required all HOMES space heating, cooling, and water heating products to be ENERGY STAR certified (DOE Program Requirements, [p.11](#)).

<sup>31</sup> Per DOE Home Energy Rebate [FAQ #109](#), states cannot exclude households whose income level is between 80-150% AMI for the HEAR program: “Section 50122 of the Inflation Reduction Act explicitly states that eligible entities must be provided with rebates, and eligible entities include any household whose income is less than 150% of area median income.” However, some states have limited their moderate income rebate dollar caps to be less than those of their programs’ low-income amounts.

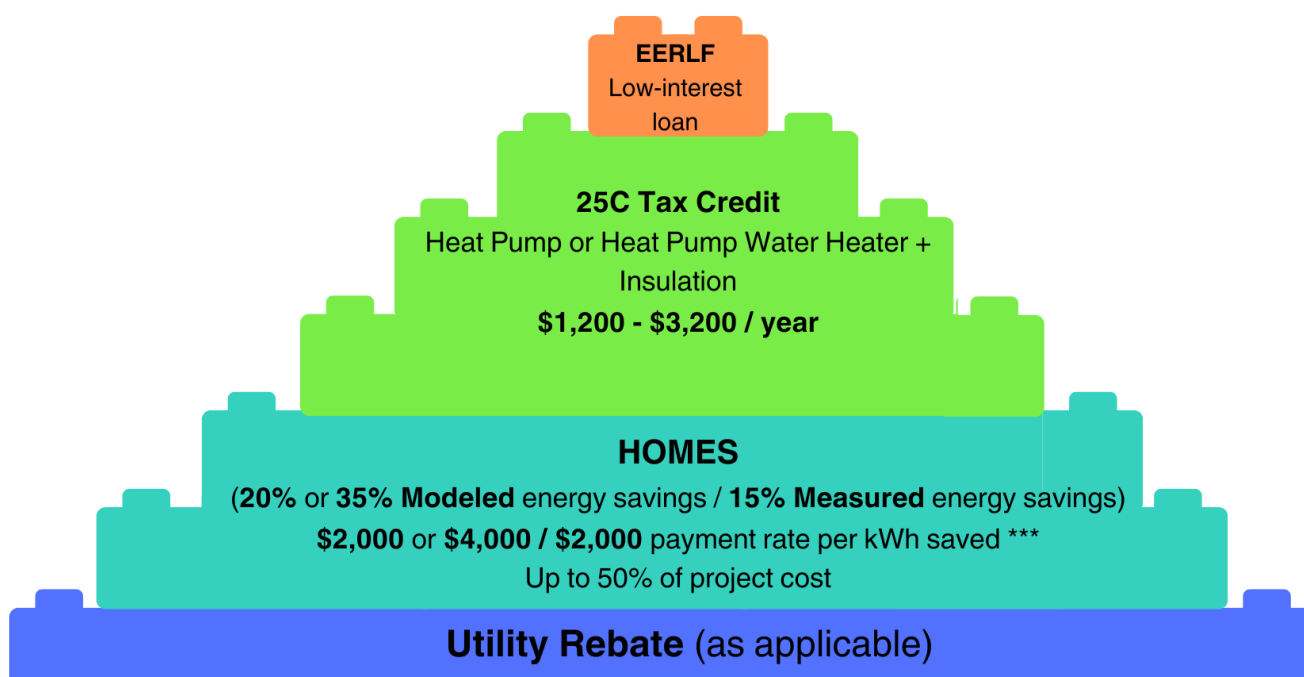
<sup>32</sup> This figure is approximate. As noted, HOMES *Measured* rebate amounts will vary per state.

<sup>33</sup> DOE Home Energy Rebates Program Requirements & Application Instructions, [p.45 & p.83](#).



### 3) Market-Rate Households

Over 150% AMI / no income qualification



Market-rate homeowners (>150% AMI), while not income-qualifying for support from HEAR, are still a critical part of the public policy solution to climate change, grid reliability and meeting essential decarbonization goals. In addition to any utility rebates, programs should incentivize these households to invest heavily in high-efficiency HVAC, electrification, and insulation. By undertaking a home performance retrofit that saves at least 20% of household energy use under the *Modeled* approach, market-rate households can receive up to \$2,000 from a HOMES<sup>34</sup> rebate, and up to \$4,000 for measures that achieve over 35% energy savings. Under the *Measured* approach, aggregators can provide rebates for actual energy savings and not be subject to the \$2,000 or \$4,000 caps, provided their portfolios achieve at least 15% of energy savings on average from the baseline year.<sup>35</sup> In addition, a homeowner may receive up to \$3,200 off their tax bill each year for the qualifying products included in an annual energy efficiency upgrade.<sup>36</sup> If high-efficiency gas HVAC is included in the state's HOMES program, some households might not take advantage of the 25C \$2,000 heat pump tax incentive – though these households could still pursue the 25C credit of 30% up to \$1,200 for other energy efficient

<sup>34</sup> An ENERGY STAR natural gas furnace/propane/oil furnace also could potentially qualify for both HOMES (*Modeled* and *Measured* approaches) and a 30% tax credit (up to \$600) via the 25C tax credit.

<sup>35</sup> Unlike the *Modeled* energy savings pathway, the *Measured* energy savings pathway does **not** have a statutory dollar cap, and features additional flexibility, since the rebate is offered by an aggregator that could potentially rebate more than the *Modeled* rebate dollar amounts. Importantly, both the *Measured* and *Modeled* pathways have a cost cap equal to 50 percent of the total project cost for market-rate households.

<sup>36</sup> Critically, the IRA makes 25C an annual credit, meaning eligible taxpayers can claim it every year for new improvements (but cannot carry the credit forward to future years).

\*\*\* As noted, depending on state plan design, households can pursue *Measured* Energy Savings, a pathway relies on granular energy savings and features a **\$2,000** payment rate per kilowatt hour saved equal to a **20 percent** reduction for the average home in the state, up to **50 percent** of project cost (minimum 15% energy savings). With no dollar cap, this has the potential to result in larger rebates. Rebate amounts will vary per state and aggregator business model.

home improvements such as building envelope upgrades or an ENERGY STAR gas furnace (up to \$600).

**Market-rate households could potentially receive over \$7,200** in incentives – while this may be a fraction of the cost of the upgrade, the total provides a key incentive for households to perform more efficient, electric, and climate-friendly upgrades. If installing qualifying gas HVAC, the total incentive could amount to **\$5,200** (since the heat pump / heat pump water heater tax credit would not be used). Furthermore, market-rate households may be able to access low interest loans and additional utility incentives because they are pursuing clean home energy upgrades that support a stable grid.

Importantly, this analysis assumes states will offer HOMES rebates to market rate households. Although households of all income levels are included in IRA statute under HOMES, DOE guidance allows states to limit HOMES programs to low and/or moderate-income households.<sup>37</sup>

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### Stacking with the Weatherization Assistance Program – Key Considerations

As outlined in the low-income capital stack above, state Weatherization Assistance Programs (WAP) can provide an important no-cost starting point for low-income households pursuing home efficiency upgrades. DOE Program Requirements stipulate that HOMES and HEAR programs must “supplement, but not supplant” state WAP programs.<sup>38</sup> States should ensure qualified households pursue WAP upgrades in advance of additional HEAR (or HOMES) rebates to maximize benefits and ensure critical upgrades are addressed.

In January 2024, DOE released a resource encouraging states to evaluate opportunities to coordinate HEAR program launches with state WAP programs.<sup>39</sup> Indeed, some states have elected to direct HEAR funding through community action agencies (CAPs) for low-income households. To build off this resource, DOE announced the launch of a working group for states in October 2024 to assist with this coordination. Approximately half of all state energy offices also administer state WAP programs.

States considering administering their rebate programs by leveraging their existing Weatherization Assistance Programs will **only be able to use the HOMES modeled approach** to pair with WAP measures to ensure they do not overlap. As a result, states electing this approach will be challenged to address the law’s requirement that BPI-2400 compliant software be used when modeling the home. Currently, WAP programs are not required to calibrate the baseline of a home’s energy use with its utility data prior to an upgrade and, consequently, the programs do not typically use BPI-2400 compliant software. This marks a barrier states will need to address when considering this approach.

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<sup>37</sup> Per DOE Home Energy Rebate [FAQ #72](#), “States are not required to offer Home Efficiency Rebates for all technologies or all household types identified within the Inflation Reduction Act.”

<sup>38</sup> DOE Program Requirements, [p.91](#).

<sup>39</sup> U.S. Department of Energy, “Getting Started: Integrating the Weatherization Assistance Program (WAP) with Home Electrification and Appliance Rebates (HEAR),” January 2024. <https://www.energy.gov/sites/default/files/2024-01/WAP%20and%20Rebates%20Getting%20Started.pdf>.

## Stacking with the Greenhouse Gas Reduction Fund and Davis-Bacon – Key Considerations

Because Congress authorized GGRF funding in the Inflation Reduction Act by amending the Clean Air Act (CAA), projects assisted with GGRF dollars are subject to Davis-Bacon Act (DBA) (40 USC §§ 3141-3144) labor standards and reporting requirements.<sup>40</sup> DBA sets out labor standards, including prevailing wages determined by the U.S. Department of Labor, and applies to both federally-funded contracts for construction of public works and also projects funded by Davis Bacon-Related Acts (DBRA) such as CAA. Though many GGRF awardees across the three GGRF programs (Solar for All, National Clean Investment Fund, Clean Communities Investment Accelerator) aim to finance single-family home upgrades, **most home performance contractor companies serving the single-family market (especially market-rate households) do not meet DBRA reporting requirements. In fact, many small contractor firms view these reporting requirements as a major deterrent to their program participation due to the associated additional administrative requirements.**

In recognition of this market landscape, Congress has specifically **streamlined or eliminated DBRA** requirements to drive **single-family contractor engagement** with other residential incentives. For example, the Weatherization Assistance Program only requires DBA for work performed on multifamily buildings with at least 5 units.<sup>41</sup> Similarly, the 45L tax credit for New Energy-Efficient Homes exempts single-family homes from meeting prevailing wage requirements to earn the full amount of the credit.<sup>42</sup> NASEO and other key stakeholders have urged EPA to consider **streamlining** DBRA reporting requirements for residential projects under the GGRF Solar for All program – NASEO noted DBRA “project-specific reporting and quality assurance needs can be particularly onerous for the contractors completing the work, since DBRA requirements flow down.”<sup>43</sup>

Notably, EPA plans to issue “additional guidance on how Davis-Bacon and Related Acts apply to this competition at a later date.”<sup>44</sup>

Though this resource focuses on the single-family residential capital stack, contracting firms servicing multifamily buildings are often not deterred by DBRA reporting requirements (particularly in the affordable housing market, where contractors often use other funding streams tied to DBRA requirements). As a result, GGRF projects aimed at supporting multifamily buildings likely would not face the same market challenges.

## Stacking with Retail-Focused Upgrades – Key Considerations

Many of the home energy upgrades explored above require insulation or HVAC contractors for installation. However, consumers generally purchase several products under HEAR – namely, heat pump clothes dryers and electric cooking products - from **retailers, not HVAC or insulation contractors**. As a result, several states have chosen to launch portions of their HEAR programs as “retail-focused” programs - working with retailers to provide point-of-sale coupons to qualified households for eligible products that **do not require contractor installation**.<sup>45</sup> In

<sup>40</sup> Pursuant to Section 314 of the Clean Air Act (DBRA) (42 USC § 7614).

<sup>41</sup> DOE, Davis-Bacon Act as Applicable in BIL WAP, <https://www.energy.gov/scep/wap/davis-bacon-act-applicable-bil-wap>.

<sup>42</sup> Inflation Reduction Act of 2022, Section 13304.

<sup>43</sup> National Association of State Energy Officials (NASEO), Letter to EPA GGRF Deputy Director Julie Zavala, September 25, 2024, “[https://www.naseo.org/Data/Sites/1/documents/tk-news/naseo-comments-epa-hq-0a-2023-0393\[24\].pdf](https://www.naseo.org/Data/Sites/1/documents/tk-news/naseo-comments-epa-hq-0a-2023-0393[24].pdf).”

<sup>44</sup> Environmental Protection Agency, “Frequent Questions about the National Clean Investment Fund.” <https://www.epa.gov/greenhouse-gas-reduction-fund/frequent-questions-about-national-clean-investment-fund>.

<sup>45</sup> DOE Program Requirements, [p.78](#). Upgrades DOE requires to be installed by a contractor on the qualified contractor list are heat pumps, air sealing, electrical wiring, and electrical load service centers.

September 2024, DOE released a detailed resource encouraging states to offer these retail-focused programs.<sup>46</sup>

Retail-focused programs can help contractors, states, and program implementers more easily stack incentives. HEAR program requirements ensure consumers must be **pre-verified** before making retail purchases, including meeting low- and moderate-income requirements and submitting photos of existing appliances to ensure they are eligible. Consequently, states launching retail-focused programs can leverage these lists of pre-qualified households for additional home energy upgrades offered by contractors, driving program participation. Since electric cooking product and heat pump clothes dryer categories are each eligible for up to \$840 in rebates, if a participating consumer purchases both products, their now-qualified household **will still be eligible for a remaining \$12,380 for contractor-focused projects like insulation, heat pumps, and heat pump water heaters under HEAR** – and potentially more incentives from other sources, too (as shown above).

Contractors often report it is extremely complicated to arrive at a home in need of a new HVAC system and not know if the homeowner qualifies for a rebate, or the size of the rebate. Retail-focused HEAR programs can help fill in these gaps to improve outcomes for contractors and homeowners alike.

## Conclusion

New federal resources enacted in the Inflation Reduction Act and Infrastructure Investment and Jobs Act constitute an important opportunity for states to not only upgrade a large portion of America's homes but also to educate Americans about home energy efficiency and decarbonization. Changing how people think about the homes they live in and their energy consumption, increasing data flows to assist measuring energy savings, and providing attention to overlooked energy-consuming appliances will support all states in supercharging their existing programs and spurring a new future for homeowners. Contractors that have invested in training because incentives can only be offered by a skilled workforce will use that knowledge long after the IRA and IIJA funds have expended. The ultimate legacy of these new federal resources is the creation of self-sustaining and growing markets where the whole home is viewed as an upgradable system - and energy-efficient products and offerings emerge from successful, well-designed, and innovative programs.

*For more information, see the following resources:*

[\*Recommendations for Contractors Seeking to Engage in Federal and State Incentive Opportunities\*](#)

[\*Contractor Perspectives for States Designing Federal Home Upgrade Programs\*](#)

*If you have any questions or comments, please email [info@anndyl.com](mailto:info@anndyl.com).*

*This factsheet is for informational purposes only and is designed to advise based on legislation and policy guidance released by Congress, the White House, and various federal agencies including the Department of Energy (DOE) and the Internal Revenue Service (IRS). The AnnDyl Policy Group is not offering tax advice and the information provided in this document should not be relied upon as legal or accounting advice.*

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<sup>46</sup> DOE, "Getting Started: Launching a Retail-Focused Home Electrification and Appliance Rebates Program (IRA Section 50122)." September 2024. [https://www.energy.gov/sites/default/files/2024-09/getting-started-on-retail\\_092424.pdf](https://www.energy.gov/sites/default/files/2024-09/getting-started-on-retail_092424.pdf)