

Contractor Perspectives for States Designing New Federal Home Upgrade Incentive Programs

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The Inflation Reduction Act of 2022 established the \$8.8 billion Home Energy Rebate programs, the Home Efficiency Rebates (HOMES) and the Home Electrification and Appliance Rebates (HEAR), in addition to extending and expanding the 25C tax credit. Along with existing and new federal funding like the Greenhouse Gas Reduction Fund, these initiatives will assist households, including low and moderate-income households, in improving energy efficiency and indoor air quality, curbing greenhouse gas emissions, and saving money on energy bills. The IRA also includes \$200 million to support workforce training that would support these upgrades through state energy offices.

States across the country are working to establish state-specific rebate programs that adhere to Department of Energy (DOE) guidance and ensure the new rebate programs braid well with the newly expanded federal tax incentives, the Weatherization Assistance Program, and state utility programs, while also incorporating and addressing the unique building and workforce needs of their individual states.

The AnnDyl Policy Group, on behalf of the Building Performance Association (BPA), has been gathering information on the readiness of the home performance workforce to implement these unprecedented initiatives. Since January 2024, AnnDyl has been convening roundtables, and holding in-person and individual conversations with contractors across the country. These recommendations are developed from the input of contractors we heard from during the research process.

It is critical that policymakers designing the programs hear the voices of the contractors who may need to alter their business models and practices in order to support program implementation. This level of procedural justice provides both equity and inclusion while ensuring programs succeed and that the energy efficiency and workforce practices they encourage are maintained after the programs expire.

Top Ten Recommendations for States

This paper includes ten ways for states to address contractor concerns and needs in the design and implementation of their rebate programs. These recommendations are backed by extensive contractor input gathered at roundtables, in one-on-one conversation, and via a detailed national survey.¹

In the below recommendations, we note that “states” should take specific actions. While the “state” entity is most likely the State Energy Office (SEOs), since many of these incentives will be led by SEOs, it is possible that other state-focused stakeholders (environmental, foundation, or business groups), public utility commissions, or utilities and/or their program implementers may be the entity making these program design choices.

Based on our findings, we recommend that states:

1. Focus on targeted communications and contractor training.
2. Offer free, accessible, in-person training for contractors on rebate program protocols, including consumer and measure eligibility.
3. Balance the availability of HOMES rebates available to low-income and/or multi-family with market rate and single-family home customers from the beginning and throughout the program.
4. Prioritize covering 100% of the costs for low-income recipients and simplifying income verification OVER raising contractor incentives for working in disadvantaged communities (if the state is concerned about inclusion of low-income residents by contractors).
5. Provide uniform, easy pre-project verification of eligibility and income, and do not rely on contractors to verify customer income or program eligibility. Utilize a retail approach with HEAR rebates, to support quick program rollout, income qualification, and lead generation to support contractors.
6. Provide rebate funds to contractors within two weeks, or help contractors work with bridge-loans or aggregators to address the resource gap.
7. Ensure careful consideration of contractor and homeowner needs in developing and requiring licensure, certification, and Qualified Contractor Lists (QCLs).
8. Balance and streamline QA inspections where possible, after initial verification of quality installations.
9. Continue engaging contractors in your state on the best way to align envelope upgrades with rebate and tax credit funding.
10. Provide a one-stop shop to both contractors and the public.

¹ Approximately 200-250 contractors have been included in this research.

1. Focus on targeted communications and contractor training

1a. Develop and distribute clear, simple consumer-facing handouts for contractors to distribute to customers and a simple way to receive answers to questions about the program.

- State energy offices will be making program design decisions unique to each state. It is important to know, in the simplest form (a fact-sheet hand-out), what the rebate/incentive is and how it can be accessed including guidance on determining eligibility based on income, potential upgrades, any prerequisites, and action steps like applications. Contractors and their customers do not have time to dig through websites where there is often conflicting or confusing information.
- In all cases, states should provide translated materials in major local languages and multilingual helplines or call centers (if providing such assistance in English or other dominant languages).
- This recommendation addresses contractor concerns including:
 - Homeowner confusion around aligning rebates with existing incentives.
 - Homeowner confusion about eligibility.
 - The need for contractors to train their own staff on program structure and develop confidence in the program themselves.

1b. Provide established, trusted community organizations with messaging support, guidance on eligibility and participation, stacking and braiding, and similar consumer FAQs in order to effectively reach low-income communities.

- These organizations may be able to engage contractors that are already working in target communities and have a trusted relationship in place to encourage their participation in the program.
 - They may also expand access to contractors with language skills in target communities while supporting contractor diversification and workforce training.
- This recommendation addresses contractor concerns including:
 - Low participation and low uptake by low-income households that do not trust government programs or support.
 - Rebate funding being consumed by market-rate customers who are better prepared, experienced and confident in taking advantage of government/utility rebates.
 - Lack of trust between communities and contractors, and between communities and the government.

2. Offer free, accessible, in-person training for contractors on rebate program protocols, including consumer and measure eligibility.

- Contractors will need training in compliance for specific, to-be-determined state program requirements.
- They may also require training in the software the state chooses to use for program compliance, as there is currently little consensus around what constitutes industry-standard home energy modeling and energy measurement tools.
- This recommendation addresses contractor concerns including:
 - The need to thoroughly understand programs in order to effectively convey the rebate options to customers.
 - Limited experience with mandated tools and standards.

3. Balance the availability of HOMES rebates available to low-income and/or multi-family with market rate and single-family home customers from the beginning and throughout the program.

- States should aim to balance the availability across segments of the built environment and income levels to ensure broad support and participation for these programs across the contractor base and support market transformation.
- States can designate certain amounts of funding for low-income households to ensure that market-rate households don't use up all the program funding and allow more time for low-income households to access the program. Including market-rate households can help achieve broader market transformation goals by reaching all classes of contractors and building enthusiasm for decarbonization across all eligible customer classes.
- A 100% low-income program does not necessarily transform the market, since these homes often need ongoing support and may not be positioned to receive more advanced upgrades. States should consider pursuing market transformation via market-rate customers while preserving robust set-asides for low-income households to ensure equity in access to rebates.
- This recommendation addresses contractor concerns including:
 - Most contractors already support market rate homeowners; fewer contractors are currently working with low-income households.
 - Low-income projects are often more complicated with tighter budgets, making whole-house upgrades a challenge if not fully subsidized.
 - Low-income customers may be slower to enroll in the program due to confusion about the program, perceived inability to make proactive upgrades, need to engage landlords, etc. Standing the program up quickly is important to get both low-income and market-rate viable programs.

4. Prioritize covering 100% of the costs for low-income recipients and simplifying income verification OVER raising contractor incentives for working in disadvantaged communities (if the state is concerned about **inclusion of low-income residents by contractors**). However, states **must** understand the existing market – including the costs in fuel-switching and technology – through conversation with distributors and contractors BEFORE stating that 100% of costs will be covered.

- States should pursue early (and ongoing) engagement with contractors and distributors to adequately understand the cost breakdowns of both labor and technology (which will vary across contractors based on skill, size, location, and customers served). States must also clearly communicate these costs to homeowners to avoid price increases that may look to consumers like contractors inflating prices, when the costs may be due to manufacturer costs or rising wages.
 - Stating the intention to cover 100% of costs out-front risks driving up costs at every point of the process and watering down the impact of the rebate.
- When contractors were asked about the contractor incentives (for working in disadvantaged communities), the response was minimal and mixed, but most noted higher incentives would **not** help incentivize a market-rate contractor to work in disadvantaged communities.
 - Rather, contractors predominantly redirected the conversation to the difficulty of working with LMI households and highlighted that *no financial incentive aimed at contractors would really address the core challenge of limited customer budgets*.
- While most contractors are in favor of covering 100% of costs for LMI families, there were some concerns that households with no financial stake in the project wouldn't fully engage with the new maintenance or operation requirements, negating energy savings. These respondents were a small minority of all the contractors engaged.
 - NOTE: The maintenance of a heat pump is significantly more important to proper functioning than for a gas furnace, and contractors are concerned that LMI customers, who regularly go a few years without maintenance, may not realize that service is needed. This is also an ongoing expense. Contractors are also concerned that the rebate programs did not factor-in maintenance support for LMI customers.
- **This action step addresses contractor concerns including:**
 - LMI families will not take advantage of rebates if they must pay anything. Such households do not have the option to undertake non-essential, proactive upgrades.
 - Without 100% covered, the contractors will not have access to jobs.
 - Incentives that are too large and too easy to get may encourage more fraudulent or predatory fly-by-night contractors to do poor work in LMI communities.

5. Provide uniform, easy pre-project verification of eligibility and income, that does not rely on contractors to verify customer income or program eligibility. Consider using a retail-first approach for lead generation and income qualification.

5a. Provide uniform, easy pre-project verification of eligibility and income, that does not rely on contractors to verify customer income or program eligibility

- Importantly: Current PNNL workflows place income verification as a step to be completed after the contractor submits the proposed project details. However, understanding a household's eligibility for different rebate levels may change the proposed scope, and therefore needs to be completed before the contractor develops a project proposal/invoice.
- Categorical eligibility can and should provide income verification for those earning below 80% AMI.
- For those earning 80-150% AMI, tax documentation may be a sufficient source of income information.
- There is consistent interest in having customers pre-qualify their income, although there is some support for contractors supporting income verification during the sales process (sharing links, helping fill out forms, and handling questions about potential upgrades).
- This recommendation addresses contractor concerns including:
 - Liability concerns if crews are handling personal identification and financial data.
 - Privacy concerns from homeowners.
 - Lack of experience on the part of contractors and crews with determining a household's eligibility.

5b. Utilize a retail-first approach to the HEAR rebates, in support of quick program rollout, workforce support, and simplification of the income qualification aspect for contractor-involved jobs.²

- The retail-first approach to the rebates allows non-contractor-involved measures like induction stoves and heat pump clothes dryers to reach the market quickly through a DIY installation, allowing customers to income qualify for the full program with an easier to install measure.
- Under the retail first approach, eligible customers will income-qualify in advance, purchase their electric cooking product or dryer from a participating retailer, and install it in their home without being required to use a contractor.

² DOE released a resource for launching a Retail-Focused approach to HEAR, September 2024: <https://www.energy.gov/scep/articles/getting-started-launching-retail-focused-home-electrification-and-appliance-rebates>

- As eligible customers complete their income qualification, they can be added to a statewide list of prequalified residents, becoming job leads for projects that are higher-cost and require a contractor, such as heat pump installations. This allows support and access to rebate funding quickly and means the contractor will know what the homeowner qualifies for when they meet and not delay the project.
- This recommendation addresses contractor concerns, including:
 - Contractors should not be expected to provide income verification or handle personal financial documents for customers.
 - Pre-qualified customer lists offer important lead generation opportunities to contractors.
 - Without pre-verified income eligibility, a contractor doesn't know what the customer qualifies for and can't take that into account when developing the work scope.

6. Provide rebate funds to contractors within two weeks.

- Many companies, particularly small businesses or contractors with a high volume of rebate projects, cannot afford to wait for rebate payments for longer than two weeks. If rebate payments are too slow, contractor participation in the program will drop.
- This recommendation addresses contractor concerns including:
 - Ensuring program accessibility for small contractors.
 - Accounting for some companies' lack of ability to carry a debt and the need to keep their accounts current (such as those for equipment purchases from manufacturers).

7. Ensure careful consideration of contractor and homeowner needs in developing and requiring licensure, certification, and Qualified Contractor Lists

7a. Exercise restraint and caution when defining criteria for inclusion in the Qualified Contractor List (QCL).

- While the QCL is an opportunity to ensure that only the best contractors are participating by setting high certification standards, overly stringent requirements may unjustifiably and unnecessarily limit the pool of support for homeowners seeking upgrades.
 - In states with robust existing licensing requirements, additional certifications were viewed as of lesser importance due to the existing high quality of the workforce.
 - While BPI credentials were widely supported, they are not always accessible.
 - Survey responses were split, with a small majority responding in favor of additional certifications, over and above state license requirements, for HVAC and home performance, and a small majority not in favor of additional certification requirements for water heating.

- Contractors generally note that the certifications chosen for eligibility must have a health and safety component.
- It may make sense to have separate QCLs for different programs to ensure that the requirements are appropriate for each situation.
 - States should also think carefully and remain conservative in instituting stringent requirements to complete jobs that may not need them. For HOMES, the health and safety of the whole home must be assessed but as long as an assessment is being completed, the highest certifications may not be required to complete the actual work on a job.
 - HEAR projects may only require an electrician’s license to complete (BPI is not required to install an induction stove) but because it may involve capping gas, health and safety is important. High quality installs are particularly important when considering that these programs will serve low income and marginalized households.
- Some of the first states to roll out rebate programs chose to require the following:
 - **Michigan** has customized the certification requirements based on the measure being installed, with active licensure required as a baseline.³
 - **Wisconsin**, which is offering its rebate program through the existing Focus on Energy state efficiency program, has developed a list of potential certifications that contractors must hold to participate in the programs, based on the service they plan to provide.⁴ Proof of licensure and insurance is also required.
- This recommendation addresses contractor concerns including:
 - Poor quality installations may reflect poorly on the industry and the program.
 - Preservation of the health and wellbeing of the home’s occupants.
 - Accessibility of participation for a large number of contractors.
 - Balancing stringency of requirements with accessibility of the program.

7b. When determining which standards to put in place, ensure there are processes to verify that contractors actually hold those licenses and certifications.

- While de-listing processes are required for the QCL, these must actually remove a contractor from the program rather than offering a “three strikes” system or providing too much additional time to renew a license or certification.
- Consider offering information about Best Practices for installations along with the incentive education to homeowners so they know what certifications to request of the contractor.

³ See Michigan’s requirements here: <https://www.michigan.gov/egle/about/organization/materials-management/energy/rfps-loans/home-energy-rebate-programs/contractors/qualifications>

⁴ See Wisconsin’s requirements here: https://assets.focusonenergy.com/production/inline-files/WI_RCN_Participation_Application.pdf

- If a contractor is not required for an installation, ensure that any DIY efforts are aware of what should be considered in an installation and/or in hiring a qualified contractor instead of self-installation.
- This recommendation addresses contractor concerns including:
 - Lack of fairness in the marketplace; some contractors invest time and resources in training and licensing and others do not.
 - Poor quality work may reflect poorly on the industry and the program.
 - Homeowners may lack sufficient insight on how to choose a qualified contractor.

8. Balance and streamline QA inspections where possible, after initial verification of quality installations.

- Avoid fraud by reviewing a sample of installations after a contractor joins the program.
 - States may choose to institute other follow-up procedures or QCL delisting if a certain number of those installs are done incorrectly.
 - Consider using a survey to follow up with homeowners to reduce friction with contractors and homeowners (potentially with prizes or sweeteners to increase response rates: “Fill out our survey and be entered to win!”). Those with strong experiences (positive or negative) are more likely to complete a survey, which helps the state identify particularly good, bad or incomplete jobs with less administrative investment.
- Homeowners that need to take time off of work in order to be available for audits will be frustrated with repeated visits and reviews, and scheduling challenges may slow jobs down.
- This recommendation addresses contractor concerns including:
 - The risk of homeowner frustration and blowback on contractors if a job receives too much state follow up.
 - Minimizing the invasiveness of the program for homeowners and maximizing the simplicity for contractors.
 - A slow QA/QC process may delay payment of rebate, hindering contractors’ ability to participate in the program.
 - A random inspection process ensures that each job is done *as if* it is being QA/QC’d by the state.

9. Continue engaging contractors in your state on the best way to align envelope upgrades with rebate and tax credit funding.

- Contractors agreed that envelope improvements prior to electrification upgrades (in particular, fuel switching from gas to heat-pump for home heating) are ideal to ensure energy savings, comfort improvements, and bill savings. However, contractors emphasized that envelope improvements may not always be practical under emergency

replacement scenarios. The best way to align envelope upgrades with rebate improvements was a consistent point of disagreement among contractors throughout the research.

- Importantly, the location of the installation is critical, as contractors and policymakers must consider the following state conditions, **especially when working with LMI homes**:
 - Age and type of building stock
 - Extreme weather conditions
 - Price of gas vs price of electricity
 - Level of contractor training
- Given the diversity of weather, building stock, and fuel prices, it is critical that states listen to practitioners on the ground.
- The Weatherization Assistance Program is often cited as the best way to support preparation of homes for rebate upgrades, although the eligibility income level differs from that of the rebates.
 - Many states see high deferral rates due to issues that WAP cannot address, such as windows. Contractors are concerned that the same barriers will emerge with the rebate program if there is no additional funding to address asbestos, mold, and other non-funded barriers.
- While these are not formal recommendations, some proposals from contractors that were frequently noted include:
 - Align with “Solar for All” enabling upgrades wherever possible to fully prepare homes for electrification and to make funding go further under both programs.
 - For HEAR-eligible homes, states can require heat pump installation to be paired with insulation.
 - All regions captured in the survey had a majority respond that envelope improvements should be required. The smallest majorities were in the Mid-Atlantic and West, where gas is cheaper.
- Contractor concerns regarding envelope improvements and rebates included:
 - Adding heat pumps to unprepared homes risks substantial bill increases in many parts of the country.
 - Unprepared homes may not see comfort and safety improvements as a result of heat pump installation.
 - Achievement of energy savings will require upgrades to insulation and air sealing as well as doors and windows.
 - Consistent misunderstanding about the differences between types of incentives (i.e. rebates vs tax credits).
 - Many homes only address heating and cooling when there is an emergency, which leaves little time for pre-installation upgrades.

10. Provide a one-stop shop to both contractors and the public.

- The most consistent thread throughout all contractor engagements was the need for a simple process for both customer and contractor. A common example of how to provide simplicity is to set up a “one-stop shop” with a contractor facing side and a public facing side.
 - The tool should include:
 - A way for all parties to track where their rebate payment is (in the mail if a check is being sent, funds direct deposited, awaiting post-install review, etc.).
 - Information and tools to determine income and measure eligibility.
 - A way for residents to apply directly for their rebate.
 - List of qualified contractors for the installation of the measures.
 - Best practices for installation and “what to ask the contractor” when they arrive.
 - Financing opportunities to support the incentive programs and contractors that may need to front capital for participation
 - Information in multiple languages (in alignment with recommendations 1a and 1b).
 - Information on stacking state and federal funds, as well as how to claim additional state-specific funding (such as from utility programs).
- **A robust one-stop shop will go a long way towards meeting many of the above recommendations.** All tools and interfaces should be intuitive to use, including definitions wherever necessary. All factsheets (such as those developed under recommendations 1a and 1b) should also be available, either as downloads or as linkable webpages.
- Look to DOE to provide guidance on what to include in a one-stop shop and how to align with neighboring states, as this will be a state-by-state effort.
- Allow for a one-stop shop for contractors for compliance information, audit details, and job completion.
 - Contractors note they often lack in-house administrative support and are best reached via text, therefore a simple data entry form using a smartphone would help smaller contractors.
 - Homeowners need a desktop site as well as a mobile interface to ensure inclusion of those who may lack broadband access.
- This recommendation addresses contractor concerns including:
 - Homeowners may become overwhelmed and confused by their funding options and potential differences in eligibility.
 - Each state has a unique set of existing programs to stack and braid with the rebates, and each program has its own slate of eligible participants and measures – this is confusing to contractors and homeowners.

- Too large an administrative burden on the contractor will disincentivize their participation.
- ⊖ Carrying a balance over a long period of time with little or no communication is both frustrating and a business risk.

About the Research

During 2024, AnnDyl organized and hosted multiple in-person and virtual contractor roundtables across the country, while disseminating an in-depth survey seeking input from contractors on a range of issues. In addition, AnnDyl spoke one-on-one with contractors from different regions to better-understand the regional pressures on contractor business models. Overall, some 200-250 working contractors were captured in this research.

All respondents self-selected into participation, meaning that this data represents contractors that are motivated and engaged on these new funding sources. Our research showed that much of the workforce feels unheard by policymakers which has caused confusion and a lack of trust. As researchers we believe there are more voices to engage who were hard for us to reach, but this research is an instructive first look from those contractors who have remained engaged.

Survey Distribution

The survey was distributed primarily via email and using QR codes and URLs shared at conferences and in PowerPoints. The Building Performance Association distributed the survey via email to multiple newsletters and via social media throughout April and May. We estimate that well over a thousand contractors received the survey. Distribution began in March 2024 and the survey remained open through June. The survey was hosted by SurveyMonkey, and the questions were drafted by AnnDyl staff.

Note on distribution methods: At NHPC and other events, many contractors noted that text is their preferred communication method since they are in the field and do not regularly check email.

About the Respondents

Location: There were one or more respondents from every single state and territory except Guam. The most well-represented state was Maryland with 26 respondents. The “state” is that which the contractor operates in, not necessarily where they live.

The next most respondents were from New York and Virginia (9), Delaware and New Jersey (8), and Massachusetts, DC, and California (7). Several respondents selected multiple states because they work across state lines. Only three respondents registered a national scope.

Company size: 47% of respondents work for a company with nine or fewer employees. Only 5.7% of respondents work for a company with more than 100 employees.

A majority of respondents (81%) work at the management level of their companies and have over five years of experience in the field.

Primary work type: 37% of respondents were primarily home performance companies. 35% are HVACR contractors. 20% are weatherization contractors.

Single vs. Multifamily: 69 respondents work on single-family homes; 11 respondents work on multifamily. Respondents were permitted to select both.