Maddie Koewler
National Association of State Energy Officials
1300 North 17th Street, Suite 1275
Arlington, Virginia 22209

May 19, 2023

Re: NASEO RFI – Implementation Options for Home Energy Performance-Based Whole-House Rebate Program and High-Efficiency Electric Home Rebate Program

Dear Maddie Koewler and State Energy Officials,

Thank you for the opportunity to provide input on the Inflation Reduction Act's (IRA) Home Energy Rebate Programs: the Home Energy Performance-Based Whole-House Rebate Program ("HOMES") and the High-Efficiency Electric Home Rebate Program ("HEEHR"). We are committed to working with State Energy Offices (SEOs) to maximize these programs' effectiveness in reducing utility bills and energy burdens for families across America.

The Rebate Programs are a historic investment in consumer-facing clean energy access. They are also a unique and high-profile implementation challenge. As such, we urge SEOs to design and implement simple, outcomes-focused Rebate Programs that:

1. Maximize positive experiences for consumers and contractors;
2. Target high-impact retrofit opportunities, including multi-year LIHEAP recipients on delivered fuels or electric resistance;
3. Prioritize comprehensive and holistic retrofits, especially in low-income communities and in distressed building stocks; and
4. Remove friction from the marketplace.

Our responses below offer more detail on the above recommendations. We also provide RFP language that applies not just to our suggested program design, but also to a wider set of potential programs. If you have any questions, please reach out to Sage Briscoe at sage@rewiringamerica.org. Rewiring America authorizes NASEO to publish and distribute this response to the NASEO RFI on its website and through other means to the states and general public. We have included no confidential or proprietary information in our response.

Sincerely,

Rewiring America

Category 1: Comprehensive Program Design

Program Goals

4. How would you describe the goals of this program design? What kind of market transformation are you looking to achieve?

Given the demonstrated rates of uptake in recent state-based rebate programs, it is reasonable to assume that the IRA Rebate Programs' budgets will be exhausted long before their legislatively-set expiration. To achieve lasting impact, SEOs should design and implement rebate programs that accomplish short-term goals while also building momentum for long-term market transformation. Specifically, SEOs should design programs that:

- Maximize positive consumer experiences: SEOs can build popular support for incentive programs by prioritizing comprehensive, high-impact retrofit projects that reduce household energy burdens and insulate consumers from volatile fossil fuel markets.
- Maximize positive contractor experiences: SEOs can encourage contractor uptake by simplifying programs, minimizing friction, and avoiding overly prescriptive requirements.
- Build and expand the pipeline for retrofit projects: SEOs can build the market for retrofit projects by demonstrating the benefits of electrification in low-income communities and distressed housing stocks. These benefits — backstopped with high-quality, publicly available data gathered from the programs — can consequently inspire the confidence needed for additional capacity-building and private-sector financing to enter the market.

To achieve the above goals with low overhead and simple-to-administer programs, we recommend SEOs employ two high-level program design elements:

- Target high-impact retrofit opportunities, including multi-year LIHEAP recipients on delivered fuels or electric resistance. SEOs can also target outreach to households enrolled in other means-tested programs, including utility energy assistance programs and utility discounted rate programs. These projects are most likely to lead to positive user outcomes, build momentum, and broaden the market. They can also relieve pressure on existing benefits programs (like LIHEAP) by addressing the root cause of high energy burdens and alleviating the need for year-after-year assistance.
- Braid the HOMES and HEEHR rebates for different measures within the same retrofit project, which can maximize bill reductions for low-income households and enable comprehensive retrofits even in the most distressed building stocks. DOE has stated its intention to make braiding the two programs as easy and advantageous as possible. SEOs should plan to leverage this opportunity to pair envelope efficiency measures with efficient electric appliances, delivering holistic retrofits that can maximize reductions in energy burdens.

Please note that these recommendations are specifically relevant to programs (or parts of programs) that target low-income households and/or meet Justice40 requirements. We offer a more detailed implementation proposal — incorporating the elements above — in response to Question 12.

6. Does your program target a particular income level? If yes, which? If not, what income levels can your program effectively reach?

This program design targets low-income households below the 80% AMI threshold. SEOs can deploy the entirety of the IRA Rebates funding to these households, and we encourage them to do so.

7. Does your program design address HOMES, HEEHR, or both?

This program design addresses both HOMES and HEEHR. By braiding the two rebate programs, SEOs can achieve holistic retrofits — including both envelope efficiency measures and efficient, electric appliance installations — that maximize energy bill reductions. This is especially important in low-income communities and older/distressed housing stocks, which often face higher retrofit costs. In these cases, braiding the two rebate programs may enable projects that would not have been affordable with just one of the rebate programs.

8. If your program design addresses HOMES, are energy savings measured, modeled, or both?

Within the context of reaching low-income households and/or disadvantaged communities (including affordable multifamily housing), SEOs should retain the flexibility to pursue whichever savings pathway is most accessible.

Generally, though, SEOs should not offer *only* the modeled pathway. While the measured performance pathway is relatively less common than the modeled pathway currently, measured savings deliver larger and more consistent energy reductions by ensuring that energy savings are real, not estimated or predicted. Measured energy savings have an inherent accountability mechanism and are therefore more likely to lead to quality installations and significant energy usage/cost reductions. The measured pathway will also allow for new business models — including performance-based contracts — to enter the market, which can encourage innovation and uptake.

9. Does your program design promote any efficiency or electrification technology in particular? How will you determine which technologies are eligible for rebates?

An accessible and easy-to-use eligible product list is crucial to support successful program implementation. SEOs may choose to use a single product list across both rebate programs to minimize administrative costs and reduce confusion, especially when braiding the two rebate programs. HEEHR rebates apply to heat pumps, heat pump water heaters, electric stoves, heat

pump clothes dryers, electric load service centers, insulation, air sealing and materials to improve ventilation, and electric wiring. These technologies must be Energy Star-certified where such categories exist.[1]

Market Conditions

10. What market conditions are necessary for your program design to be successful? If these conditions are unavailable, how can a state create them?

No rebate program will be successful without a ready and able workforce to actually perform home retrofits. Given widespread workforce shortages, SEOs must prioritize investment in the workforce training pipeline, including through apprenticeship and pre-apprenticeship programs. These programs should expand the shrinking workforce by welcoming new talent pools — including women, mid-career transitions, formerly incarcerated individuals, and fenceline community members in underserved communities. As in all aspects of program design, SEOs should develop metrics of success and track progress against them as they expand their skilled workforce.

Best-practice workforce development programs should: 1) build on and fund existing training pathways, 2) provide broad, flexible skills-based training, 3) include paid, on-the-job training, 4) track gender and racial diversity in training and employment outcomes, and 5) be tied to the labor market. Registered apprenticeship programs, which follow an earn-while-you-learn model and often provide health and pension benefits, are the gold standard for workforce training in the energy sector.

Direct-entry pre-apprenticeship programs work with high schools, community colleges, and community-based organizations to recruit new talent pools into the workforce and allow participants to enter into full apprenticeship programs upon completion of the pre-apprenticeship. Pre-apprenticeship programs should also follow an earn-while-you-learn model and may provide wrap-around services (e.g. child care/elder care, transit stipends) to lower barriers to entry for participants.[2]

Implementation Proposal

12. Describe your vision for implementation:

To build an inexpensive-to-administer program that targets low-income households and can be rapidly deployed and scaled over time, we recommend the following design:

1. Select an initial group of qualified, interested contractors through existing efficiency or rebate programs, or by issuing an open call with a set of reasonable requirements.

[1] Existing Energy Star categories include heat pumps, heat pump water heaters, electric stoves (forthcoming), heat pump clothes dryers, and insulation.

[2] An example of a successful pre-apprenticeship program is the Flintridge Center Apprenticeship Preparation Program in LA County, which focuses on formerly incarcerated women, and provides wrap-around services including childcare, record expungement, and counseling.

2. Identify income-eligible households through programs that already conduct income screening. Start with multi-year LIHEAP recipients on delivered fuels or electric resistance.
3. Send out 3 mailers in 2 weeks to a batch of target households to determine interest.
4. Assign each contractor 10 low-income homes to retrofit. Combine weatherization and air sealing from HOMES and appliance replacements and wiring/panel upgrades from HEEHR.
5. Pay out contractors immediately after the completion of each of the 10 projects.
6. Conduct an on-site inspection of each of the 10 projects against basic, predefined parameters; frame this as a teaching moment to continue to upskill contractors, not as a punitive exercise. Fall back to remote quality assurance (QA) based on photos, or other recommendations for remote QA from DOE, after the first 10 jobs.
7. Issue an additional list of 10 homes to those contractors with satisfactory performance on the previous homes.

The intent of this program design is to offer a "quick start" pathway for a low-income program in states that cannot leverage existing programs.

a. Who pays whom, when, for doing what (including eligible measures, income strata/customer types, incentive strategies, contractor training and management, quality assurance)

Attention should be paid to prompt repayment of small-business contractors — whose cash-flow sensitivity is much greater than that of big businesses — so that contractors can participate in the program without undue burden. Contractor repayment should occur ideally within 1-2 business days of submission of a completed job and no later than the following week.

SEOs may choose to offer fixed, tiered incentive rates for certain measures, especially heat pumps. Whole-home ducted heat pumps could be reimbursed at the full $8,000 rate, while a single-zone, mini-split system in a main living space might be offered a fixed rate below $8,000 (e.g. $5,000).

Quality assurance is crucial to protect the low-income households served by this program, produce good outcomes that promote market growth, and assist in upskilling and developing the workforce. To achieve these objectives while also containing costs, we recommend on-site inspection as a learning exercise for the first 10 retrofits performed by a contractor, followed by remote QA protocols (including photographs or other DOE tools) and a 5-10% on-site inspection rate.

b. A description of the participant journey through the awareness, application, participation, and close-out process (including money flows and options for stacking rebates and financing)

Participants begin their journey by receiving targeted outreach based on their participation in LIHEAP or another means-tested program. SEO outreach could be augmented by CBO support to build trust in and understanding of the program. The application process is lightweight since income

verification is pre-certified; a simple response of interest should suffice. From the consumer's perspective, the rebates should generate a discount at the point of sale. The contractors undertaking the work should be rapidly repaid, preferably in 1-2 business days.

States could choose to augment this design with additional pathways that have different user journeys. In considering these additional pathways, states should be mindful of the myriad user journeys that the rebates could support and thoughtful about which they choose to enable.

DOE's forthcoming guidance will establish the exact procedures for braiding the Home Energy Rebate Programs, and for stacking these rebates with additional state and local incentives and other financing options. Depending on DOE guidance, one braiding option may be that energy savings from HEEHR-funded appliance installations can be attributed to a broader HOMES-funded retrofit that also includes weatherization. However, DOE has stated its intention to make the HOMES and HEEHR programs function well in tandem. We encourage states to prepare for braiding options that enable deep retrofits to maximize energy bill reductions, especially in low-income communities and older/distressed housing stocks, which often face higher retrofit costs that cannot be covered without combining funding sources.

d. A statement of the benefits and comparative advantages of this program concept

This program design targets low-income households and may be especially advantageous for SEOs that cannot leverage existing programs. It also:

- Minimizes administrative burdens and costs for SEOs;
- Maximizes simplicity and ease of use for contractors and consumers;
- Avoids the need for complex income verification processes;
- Achieves wide geographic coverage;
- Delivers significant reductions in household energy burdens;
- Maximizes positive user experiences by targeting high-impact retrofit opportunities;
- Prioritizes vulnerable and low-income households;
- Enables holistic retrofits — even in distressed building stocks — by braiding the rebate programs; and
- Reduces the cost of existing benefits programs (like LIHEAP) by addressing the root cause of high energy burdens and alleviating the need for year-after-year assistance.

e. A description of any secondary market implications (e.g., reselling energy savings)

Energy efficiency and electrification provide significant benefits through energy savings, reduced NOx and greenhouse gas pollution, peak electric load reductions, etc. However, these benefits must be rigorously quantified if they are to be the backbone of additional private-sector investment through models like Pay As You Save (PAYS), Energy as a Service (EaaS), and carbon offset protocols.

Moreover, robust data on the installation of new electric appliances — and ensuring that such appliances are set up to be remotely dispatchable — are essential to the creation of new markets for demand response and virtual power plants (VPPs). These new markets are vital to ensuring grid stability. They will also allow households to monetize their load flexibility to finance home retrofits and further reduce utility bill burdens.

Types of Implementation Partners

13. Types of partners, businesses, or other entities that will be necessary for program implementation.

Building trust in low-income and underserved communities takes time. To ensure low-income and disadvantaged communities are aware of, have access to, and participate in the Home Energy Rebate Programs, SEOs should instruct program implementers to partner with local community-based organizations (CBOs). SEOs and/or program implementers should directly resource CBOs to support their engagement in program design and their capacity-building efforts once programs are underway.

Additionally, strong contractor participation is vital to the success of any rebate program. SEOs should ensure their programs are mindful of the contractor experience and include a plan for workforce development. SEOs and/or program implementers should specifically encourage and support the participation of small and minority-owned contractor enterprises.

RFP Language

15. Any RFP language that could be used to execute your program idea.

The program design for low-income households presented in this RFI response is specifically crafted to have minimal overhead and administrative requirements. Below, we present two sets of potential RFP language: one for that specific program design and one that applies to a wider set of potential programs.

For the streamlined, low-income program:

SEOs should outline the basic structure of the program design and ask implementers how they will:

- Ensure timely payments to contractors — ideally within 1-2 business days, or in a weekly repayment cycle — including an expected average and a guaranteed timeframe for repayment;
- Ensure that works in progress aren't affected when program funding is exhausted (i.e. funds are reserved);
- Perform robust quality assurance of retrofits to maximize positive program experiences;

- Aggregate incentives beyond the Rebate Programs (to include state/local/utility programs, other federal programs like WAP, and/or low-cost/low-risk financing from the Greenhouse Gas Reduction Fund and other sources) to enable the most robust retrofits; and
- Design rigorous (but not onerous) and streamlined data reporting structures that will allow rebate data to be disaggregated by income, geography, product type, and housing type to enable tracking of progress against local and federal equity and emissions goals.

For general program design:

SEOs should ask program implementers how they will accomplish the five outcomes above, plus:

- Conduct stakeholder engagement during the program design to ensure community alignment and support, and to receive and incorporate feedback as the design is refined;
- Enable flexible market solutions and opportunities for new business models, and maximize positive contractor/retailer user experiences;
- Adapt to changing needs and requirements throughout the program;
- Support long-term market transformation — including spurring durable market demand, increased investment in new business models, and the creation of a self-sustaining home efficiency ecosystem — even after the rebate funding is exhausted;
- Ensure access to small businesses in contractor programs and broad access to the programs across a variety of project types, geographies, and housing stocks;
- Ensure funds are dispersed to low- and moderate-income communities and the most impactful projects effectively, including thoughtful outreach to and engagement with affected communities;
- Make homeowner applications and rebate status available online, and ensure that approvals are fast;
- Build in program evaluation from the beginning, to ensure desired outcomes are tracked and achieved;
- Make appliance eligibility lists clear and easy to access for households and contractors;
- Ensure high quality of digital tools by securing talent — potentially via subcontract — with experience in seamless digital delivery; and
- Support project aggregators seeking to utilize the measured savings pathway.

Generally, SEOs should define their desired program outcomes and leave room for program implementers and market actors to achieve those outcomes. By focusing on outcomes instead of

overly prescriptive process requirements, SEOs can provide the flexibility needed for industry to respond quickly and effectively to market signals. This flexibility will ultimately simplify programs, promote efficiency, and maximize ease of use.

Explicit and thoughtful program outcomes also provide a loadstar against which program implementers should be expected to track progress and iterate their programs over time. Program evaluation should be an embedded and recursive process — not siloed in annual reviews — that informs program improvements. SEOs should require prospective implementers to explain what data they will draw upon — before the program and during the program — to identify problems and pursue solutions.

If SEOs decide to build out brand-new, tech-enabled programs, they should seriously consider what resources can be accessed to assist in the endeavor. 18F (the technology consulting arm of GSA) can help SEOs develop user-centered, best-practices processes for digital service design and delivery as they implement the Rebate Programs. 18F can also help SEOs procure vendors and manage their services. For example, 18F worked with Alaska to modernize its public benefit eligibility systems through strategic contracting and open-source technology.