



NASEO RFI Response

A Program Implementation Concept for the HOMES Measured Savings Method



Submitted to:
National Association of State Energy
Officials (NASEO)
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1 Category 1: Comprehensive Program Design

1.1 Company Characteristics

Company: ICF

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ICF 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. **Signed by:** *David Pickles*, Senior Vice President

2. An overview of your approach to equity, diversity, inclusion, and accessibility (DEIA).

At ICF, we live the values we wish to see in the world: our values become our actions, and these actions reinforce our corporate culture. Promoting Diversity, Equity, Inclusion and Accessibility (DEIA) is a critical focus in developing and maintaining our employee workforce, supporting our clients, and engaging our suppliers and partners. Internally, ICF's more than 9,000 employees speak over 70 languages, are more than 50% female, more than 45% non-white, and more than 50% Millennial or Gen Z. ICFs' Supplier Diversity framework has subcontracted nearly \$1.5 Billion dollars with small and disadvantaged businesses. In 2023, Forbes recognized ICF as a [Best Employer For Diversity](#).

3. As applicable, a short description and a link to programming that your company is contracted or has been contracted to implement for planning, administering, and/or field delivery of federal or state programs.

ICF has planned, managed, and supported implementation for federal clean energy programs for more than three decades, including contract support for EPA's [ENERGY STAR® New Homes](#), [Home Performance with ENERGY STAR \(HPwES\)](#), [ENERGY STAR Labeled Products](#), and [ENERGY STAR Buildings](#), and [DOE's Better Buildings](#) and [Better Climate programs](#), and its [Combined Heat and Power \(CHP\) program](#). As EPA's HPwES contractor, we also helped several states and localities field test and pilot the methods and practices that are in wider use today. At the state level, we have supported state energy office efforts including Maryland Energy Administration's Strategic Energy Investment Fund programs and their administration of the ARRA funds in 2010, Pennsylvania's Energy Program Office, Massachusetts' Green Communities initiative, and various NYSEDA programs. During the American Recovery and Reinvestment Act period of 2009-12, ICF fulfilled Maryland Energy Administration's appliance rebates under State Energy Efficient Appliance Rebate Program (SEEARP) funding, leveraging our utility program business center capacity. ICF is currently supporting several SEOs in the development of their DOE supported Energy Security Plans. ICF's 45 offices in 28 states enable us to serve state needs in all regions of the country.

ICF is also a leading implementer of ratepayer-funded programs, primarily working as an implementation contractor for utilities. ICF currently implements eleven comprehensive home performance programs for utilities, including programs in Maryland (for [Baltimore Gas & Electric](#), [Pepco](#), and [Southern Maryland Electric Cooperative](#)), Michigan (for [Consumers Energy](#) and [DTE Energy](#)), Oklahoma (for [Public Service Company of Oklahoma](#)), and New Jersey (for [Public Service Gas and Electric](#)). ICF's implementation activities for these programs generally involves full end-to-end services, including program design, outreach, scheduling, field implementation, advertising, marketing, database tracking and management, back-office and call center support, and QA/QC. Example utility programs using a measured approach include PG&E Home Energy Optimization Program (HEOP), SoCalGas Smart Home Optimization Program (SHOP), NGrid Home Energy Savings Program (HESP), SoCalGas [Commercial Building Energy Solutions and Technologies](#) (CBEST), and agriculture programs for [SoCalGas](#) and [Southern California Edison](#).

1.2 Program Goals

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

The HOMES rebate program is intended to upgrade the energy performance of hundreds of thousands of American homes, and in the process transform the nation's residential energy efficiency market. ICF's program



design goals support these broader goals by fostering a market for Aggregators who develop consumer awareness and an effective, scalable contractor-based business model that connects payments to actual (measured) energy and GHG savings. The ultimate market transformation goal is to realize enhanced energy performance in all American homes in the coming years. Our overall program goal encompasses several subgoals:

- Deliver at least 40% of the benefits to low and moderate-income households
- Maximize and demonstrate reliable energy savings through an open-source advanced M&V approach
- Gain market acceptance by trade allies of an open-source advanced M&V approach
- Support workforce development of Aggregators and trade allies for capacity to deliver at scale
- Foster customer awareness of the benefits of comprehensive home energy upgrades
- Leverage other funding sources, such as utility incentives, green bank, and other financing mechanisms to provide lasting ways to fund energy upgrades
- Deploy a program design that is easy for states to administer, minimizes fraud, waste, and abuse, and withstands Inspector General audits.

ICF looks to achieve the kind of market transformation that we have helped achieve over the last 30 years, by supporting EPA's ENERGY STAR® programs, including Home Performance with ENERGY STAR and similar programs for utilities in several states. We have helped trade allies learn the tools and the skills to make whole-house solutions commonplace in the market. We believe our HOMES measured savings program can realize such results across the nation.

5. Does your program address a specific building type? If yes, which?

Our program design is widely applicable to single-family and multifamily building types, and to owner-occupied as well as rental dwelling units.

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

The design is applicable to all income levels. However, the tiered incentive structure places added market interest on low and/or moderate-income homes.

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

This program design addresses the measured savings path in HOMES in its technical features; however, from a program delivery standpoint we can easily combine it with the modeled savings path and/or the HEEHR program to provide a full-service program delivery solution.

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

This program design is for the measured path in HOMES; however, we can easily combine it with the modeled path to allow states to offer individual or combined programs. The differences in measured vs. modeling savings are mostly technical, but the program management dimensions can be handled in a single program administration structure.

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

Our design is technology-agnostic, though its flexibility allows states to encourage specific technologies if a state desires. For example, we could prioritize promotion of heat pumps or other electrification technologies, through a wide variety of solutions that would be eligible as long as the project projects measured savings of at least 15%, the measurement method uses DOE-approved open-source advanced measurement and verification software, and the measures meet any DOE- or state-defined requirements. ICF will work with each SEO to identify technologies that best advance the state's objectives by carefully considering the best matches among technologies, end-uses, customer applications, and state-specific intentions. We will then adjust measure specifications and rebates to meet state preferences.

1.3 Market Conditions

10. What market conditions are necessary for your program design to be successful? What policies are necessary? What relationships?

This program design uses Aggregators who take on customer acquisition, analysis, and installation costs. There are no specific policy requirements needed to enable this program design in a legal sense; however, states whose utility regulators have approved programs of this type are more likely to have the trade allies and other players needed for success. In terms of relationships, electric utilities can be key partners as they can provide the customer usage data to establish baseline conditions and for measuring actual savings from improvements. However, this information can also be obtained through third party entities, so long as customers provide their consent. Utilities may also have complementary efficiency programs, which could provide opportunities for leveraging funding. A second key relationship is with a sufficient corps of trade allies experienced in the measured savings approach, and in the analytics and financing that may be needed to support this business model. In our field experience, the supply chain partners, including manufacturers, distributors, and retailers, and local governments, can all be helpful partners, though we have not found any programs stymied in those respects. Customer internet access is also helpful, but not essential; our outreach, communications, and marketing teams use the channels needed to reach the target audiences, be they electronic, print, TV, radio, or community networks.

11. How would building permits and inspections impact the program?

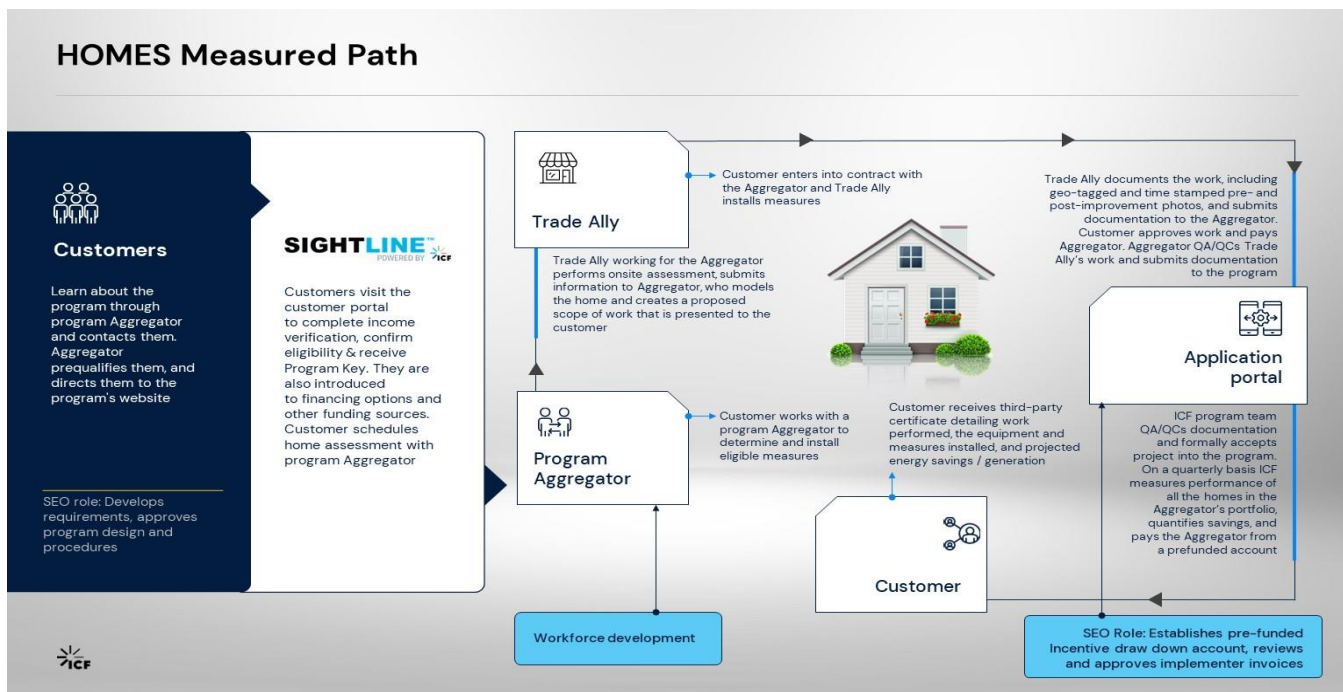
Where applicable, the program will require contractors to obtain building permits and inspections. In many cases, permits are not required for interior remodeling or like-for-like replacement projects, which tend to be the majority of such projects. Our experience is that such issues will not significantly impact the program.

1.4 Implementation Proposal

12. Describe your vision for implementation in as much detail as possible. Include:

a. A description of the program concept.

Exhibit 1: Illustration of ICF’s Concept for the HOMES Measured Path Program



Our program concept, illustrated in Exhibit 1, is to access an existing and/or develop a market of program aggregators who: 1) market and sell energy and electrification improvements to customers, 2) work with their

own trade ally networks who perform energy assessments and properly install customer approved measures, and 3) assume performance risk of the homes by being incentivized for savings realized through a DOE-approved open-source advanced measurement and verification (M&V) software.

Customers learn about the program from Aggregator marketing, and they contact the Aggregator who prequalifies them and directs them to the program's website to set up an account and verify income eligibility. Upon completion, customers receive a Key, which reserves incentive funding for a specified period of time, and they schedule a site assessment with their Aggregator. The Aggregator sends one of their trade allies to perform a site assessment, which the Aggregator uses to model and identify appropriate improvements. The Aggregator provides customers with a proposed scope of work that will result in at least 15% energy savings.

Once accepted by the customer, the Aggregator's trade ally will perform the work, document pre and post conditions using geo-tagged and time stamped photos and provide documents to the Aggregator. Aggregator performs QA/QC and submits documentation including the measure data and energy model to ICF, who performs additional QA/QC, including fraud detection and prevention, and formally accepts the project into the program. The trade ally arranges for all required appliance and material recycling. Customers will be responsible for paying the Aggregator for the work performed and they receive a third-party certificate detailing the work performed, the equipment and measures installed, and projected energy savings / generation.

All energy efficiency measures are eligible if the modeled energy saving thresholds are achieved and meet any DOE or SEO imposed requirements. Typical measures could include air sealing, insulation, space heating and cooling updates (e.g., air conditioners, furnaces, heat pumps, etc.), more efficient water heaters, and appliances. On a quarterly basis, the program measures performance of all the homes in the Aggregator's portfolio and quantifies savings using M&V software approved by DOE and determines payment to Aggregator. This process repeats for a specified period, after which payments are no longer made (either pay the payment rate until end of POP or the project cost cap is met). The aggregator continues to receive incentives and pay contractors according to their contractual obligations.

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).

The participant's journey is depicted in Exhibit 1.

c. A description of the roles and responsibilities of all parties involved in the process, including the responsibilities of the State Energy Office.

The roles and responsibilities of the parties involved are depicted in Exhibit 1.

d. A statement of the benefits and comparative advantages of this program concept (including grid impacts related to electrification, ability or inability to cover a state's entire geography).

ICF's program design supports attainment of the goals outlined in our response to question 4, and also offers benefits and advantages including:

- **Transparency.** ICF receives no payments or other revenue for products purchased through proprietary or affiliated web portals or other channels. This keeps us independent, objective, and transparent in our service delivery integrity and in our program fee structures.
- **Efficiencies** realized by leveraging a proven supply chain network capable of selling and installing energy efficiency and electrification measures, which ICF helped build through our ENERGY STAR work and perfect through our utility work. It enables lower program costs and larger scaling of impacts.
- **Market transformation.** By driving market share growth in targeted products, this design will make HEEHRA products more mainstream and lower cost. As these products gain market share, they will become the preferred market choice, and may ultimately lock in savings across the entire market by raising federal appliance standards for covered products.

- **Utility grid benefits**, especially reductions in peak demand through measures such as programmable and Wi-Fi HVAC thermostats and water heaters. These measures support DOE's Grid-Interactive Efficient Buildings (GEBs) goal; and when aligned with utility-provided incentives for such GEBs-enabling strategies, can result in the development and enablement of Virtual Power Plants (VPPs).
- **Statewide coverage.** Our program concept provides statewide coverage by leveraging existing and to-be-added contractor and installer networks. Though layering of other incentives and financing and promotional support from utilities and local governments may vary across states, our contractor recruiting and training will actively engage participation statewide, and especially in disadvantaged communities.

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

Secondary markets for residential energy savings in the U.S. are generally limited to forward capacity markets operated by regional transmission organizations, such as PJM, New England ISO, or the California ISO. Participation in such markets requires aggregators, which in the past have been distribution utilities, but under HOMES could potentially be unregulated aggregators. In some cases, voluntary carbon markets have paid for emissions offsets from energy efficiency projects, but those have typically been large projects involving major energy users, where the transaction costs could be justified. In the future, some investors could be willing to pay for the CO2 emission reduction value associated with HOMES projects, but this would require additional EM&V mechanisms and other market development actions.

HOMES will provide a stream of longer-term benefits, such as recognition of the value of upgraded homes in the real estate market, through certification, appraisal methods, and similar schemes. The improvements will reduce the customers' energy burden and free up money that can flow directly to local communities. In disadvantaged communities, HOMES investments could reverse the decline in housing quality and value, and increase local employment, supporting community revitalization and resilience, not to mention providing opportunities for these often disadvantaged and hard to reach communities to participate in other energy related programs that could also contribute to other grid and climate planning efforts.

1.5 Types of Implementation Partners

13. Types of partners, businesses or other entities will be necessary for program implementation (Do not specify a third-party name. NASEO may delete your entire submission if a specific third-party name is included).

We will interact with a wide range of partner organizations, including disadvantaged citizens and their community representatives, utilities, aggregators, contractors, third-party certifiers, workforce development training providers, trade, and industry associations.

1.6 Other

14. Any additional comments.

NA.

1.7 RFP Language

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

ICF prefers not to supply RFP language here, to ensure that we are eligible to bid on implementation RFPs. It is our understanding that if a vendor participates in developing an RFP, they are subsequently prohibited from bidding on that RFP. We recommend that NASEO and member state energy offices clarify this policy before any RFPs are issued.

2 Category 3: Indication of Vendor Interest

2.1 Company Characteristics

22. Name, contact information, company or organization that you represent.

Company: ICF

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Contact for State Energy Offices: Mike Mernick. Email: Michael.Mernick@icf.com. Phone: +1 (401) 465-0674

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23. An overview of your approach to equity, diversity, inclusion, and accessibility (DEIA).

At ICF, we live the values we wish to see in the world. Our values become our actions, and these actions reinforce our corporate culture. Promoting Diversity, Equity, Inclusion and Accessibility (DEIA) is a critical focus in developing and maintaining our employee workforce, supporting our clients, and engaging our suppliers and partners. Internally, ICF's more than 9,000 employees speak over 70 languages, are more than 50% female, more than 45% non-white, and more than 50% Millennial or Gen Z. ICFs' Supplier Diversity framework has subcontracted nearly \$1.5 Billion dollars with small and disadvantaged businesses, graduated eight companies from the Federal Mentor/Protégé Program, and worked as a subcontractor to local prime diverse suppliers.

Our focus on DEIA internally gives us the knowledge and framework needed to root our client programs in DEIA principles. We ensure best practices are applied consistently across program activities through the development of tools, systems, and staff capacity to implement our expertise. We use advanced GIS and demographic data analytics to prioritize communities so that we know where our efforts need to be directed. Our stakeholder engagement process helps connect those priority communities and other populations to our programs, ensuring that underrepresented groups are involved, and their needs met. Our communications teams produce culturally relevant, multilingual materials and distribute them through the channels that can best reach these communities. Finally, our program management systems are designed to report key DEIA performance indicators, such as the percentage of total incentives delivered to priority communities and defining of non-financial benefits.

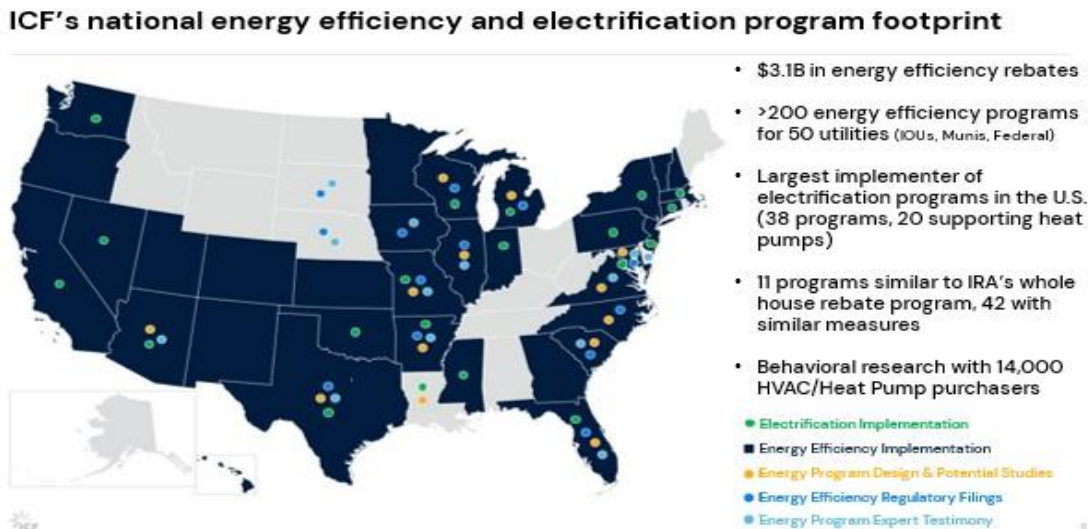
24. As applicable, a short description and a link to programming that your company is contracted or has been contracted to implement for planning, administering, and/or field delivery of federal or state programs. Note which, if any, provides low- and moderate-income and affordable home energy upgrades, especially with and in disadvantaged communities.

ICF has planned, managed, and supported implementation for federal clean energy programs for more than three decades, including contract support for EPA's [ENERGY STAR® New Homes](#), [Home Performance with ENERGY STAR \(HPwES\)](#), [ENERGY STAR Labeled Products](#), [ENERGY STAR Buildings](#), and [DOE's Better Buildings and Better Climate](#) programs, and its [Combined Heat and Power \(CHP\) program](#). ICF has a deep history with HPwES, having helped EPA develop, design, and implement this whole house retrofit program since its inception in 2001.

At the state level, we have supported state energy office efforts including Maryland Energy Administration's Strategic Energy Investment Fund programs, Pennsylvania's Energy Programs Office, Massachusetts' Green Communities initiative, and a wide range of NYSERDA programs since 1999. In our role as EPA's Home Performance with ENERGY STAR contractor, ICF helped states and localities field test their initial HPwES program efforts. ICF is also a leading implementer of ratepayer-funded programs, primarily working as an implementation contractor for utilities, as summarized in Exhibit 2 below. Leading examples include our work in MD, MI, OK, and NJ for [Baltimore Gas & Electric](#), [Pepco](#), [Southern Maryland Electric Cooperative](#), [Consumers Energy](#), [DTE Energy](#), [Public Service Company of Oklahoma](#), and [Public Service Gas and Electric](#).

ICF is also a leading implementer of ratepayer-funded programs, primarily working as an implementation contractor for utilities, as summarized in Exhibit 2.

Exhibit 2: ICF's National Energy Efficiency and Electrification Program Footprint



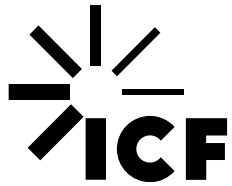
2.2 Company Summary

25. Summarize the services your company or organization could provide to a State Energy Office in the execution of these programs.

ICF is a nationwide program implementer that provides full end-to-end services, including program design, stakeholder engagement, community outreach, grant administration, field implementation, marketing, and program management, such as:

- ICF's own **full-service call center** to answer program questions, manage business processes, support customer care, and process incentive applications and payments.
- Our **analytics support** includes planning analyses such as energy and demand savings potential, error-checking modeling tool results, and midcourse adaptive design changes.
- ICF's award winning **marketing and communications teams** develop messaging strategies, marketing materials, media campaigns, integrated with technical and management teams.
- ICF **recruits, trains, supports, and supervises trade allies** including aggregators, contractors, and supply chain partners via our National Accounts team. We also support merchandising field services such as retailer staff training and in-store events.
- ICF conducts **QA/QC processes** directly and through third-party verifiers, to ensure that work performed reflects modeling tool projections and performance testing results.
- ICF applies our **information technology (IT) systems such as Sightline™** to support both customer engagement and experience and client reporting.
- Development of **equity and justice programs** in 6 states and for the EPA, DOE and numerous public utilities.

In providing any of these services, ICF's program leaders live a culture of responsiveness and mutual trust. They build strong relationships with our clients, our trade allies, and our various ICF sub teams. They are 'on it' in responding to situations that arise during our programs, and find solutions that quickly address any performance, logistics, personnel, or other issues.



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About ICF

ICF (NASDAQ:ICFI) is a global consulting and digital services company with over 7,000 full- and part-time employees, but we are not your typical consultants. At ICF, business analysts and policy specialists work together with digital strategists, data scientists and creatives. We combine unmatched industry expertise with cutting-edge engagement capabilities to help organizations solve their most complex challenges. Since 1969, public and private sector clients have worked with ICF to navigate change and shape the future. Learn more at icf.com.