NATIONAL ASSOCIATION OF STATE ENERGY OFFICIALS

Implementation of HOMES & HEEHRA for Private Industry

Submitted to:

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COMPREHENSIVE PROGRAM DESIGN

Company Characteristics

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

CONTACT NAME	Duane Baldwin, Vice President
CONTACT INFORMATION	EFFProcurement@TRCcompanies.com | 347-504-2674
COMPANY NAME	TRC Environmental Corporation

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

TRC prioritizes EDIA in our company, in our offerings, and in developing industry partnerships, from hiring practices to training programs to contractor and consumer engagement. For programs, we partner with organizations and community groups to provide equitable access and use inclusive language and messaging to encourage participation.

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.

TRC implements 40 energy efficiency and decarbonization programs serving residential and multifamily consumers across 16 states. Programs include low-income-focused solutions for single family, low-rise multifamily, and high-rise multifamily properties, and existing buildings and new construction. TRC is happy to provide interested states with a specific list of our clients, qualifications, links to active program websites, and client references.

Program Goals

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

TRC's goal is to develop comprehensive, customer-centric HOMES and HEEHRA Programs tailored to statewide needs and goals. Our framework guides states through questions to inform custom solutions, like:

Our HOMES & HEEHRA designs use a **flexible framework** that allows states to develop **custom solutions** aligned with their unique goals, regulatory environments, & current market conditions.

- **Aligning with Justice40:** How will the program identify, reach, and serve those with the highest energy burdens?
- **Evaluating how state legislative and regulatory environments could impact the design:** Should HEEHRA funding target fuel-switching from natural gas, conversion from more expensive delivered fuels, building high-efficiency electric new homes, or promoting safe wiring upgrades in older existing homes?
- **Determining other factors that require custom approaches:** Is helping those impacted by natural disasters a consideration for program targeting?

The resulting programs will achieve lasting market transformation even after program funding is expended.

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

Using answers to questions noted above, TRC will structure the HOMES and HEEHRA Programs to address all, or a subset of, eligible building types. Below, we share scenarios that may influence building types addressed.

BUILDING TYPE	EXAMPLE SCENARIO	TRC ADVANTAGE
Multifamily	State wants to quickly achieve a positive economic impact	We expertly navigate the property owner/tenant relationship in low-income multifamily buildings to maximize tenant benefits while protecting their long-term interests.
New Construction	Fuel-switching is not a state priority, creating an opportunity for all-electric new homes or dual-fuel heat pumps	TRC's all-electric new construction programs (single family, multifamily, manufactured) align with ENERGY STAR® standards and integrate with RESNET.

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

As stipulated in the law, TRC's program design will target LMI customers for HEEHRA and, at a minimum, align with Justice40 for HOMES. We will use state-specific data to solidify targeted consumer income levels. In areas where no utility programs exist and where federal weatherization assistance programs have had low uptake, we will prioritize low-income consumers with the highest energy burden. In states with long-term weatherization efforts and low-income-focused utility programs, funds may be better directed toward moderate-income consumers—an often-neglected segment that does not qualify for most assistance programs but still has a high energy burden.

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

Complementary HOMES and HEEHRA offerings will maximize the programs' reach. Each program has unique benefits and may appeal to different customers; together, they offer the greatest value to the most vulnerable LMI customers.

HOMES

- Appeals to those who have made efficient upgrades and **want to go further**
- Provides opportunities for participants of **all income levels** to reduce energy waste and save money
- Offers greater access **to envelope measures**
- Incorporates opportunities for those with **gas-fueled** homes (or other fuel types) to save energy

HEEHRA

- Offers a **simplified point of entry** for those new to energy upgrades
- Dedicates funding to the **low- and moderate-income** population
- Creates opportunities to reach the **new construction** market
- Allows **nonprofits** or other entities to complete projects on behalf of eligible participants

This complementary, combined approach offers SEOs the greatest opportunity to meet customers where they are and support them in achieving utility bill reductions. Customers and contractors can use a single application to identify the best participation pathway for them and maximize their rebates through a streamlined experience.

EXAMPLE COMBINED DELIVERY PACKAGE

PROGRAM	MEASURES	PARTICIPANT REBATE	CONTRACTOR REBATE
HOMES	Modeled savings: 20% -35%	$4,000	$200
HEEHRA	Heat Pump HVAC	$8,000	$500
	Heat Pump Water Heater	$1,750	
	Breaker Box	$4,000	
	Electric Wiring	$250 (reaches max HEEHRA consumer rebate)	
TOTAL		**$18,000**	**$700**

Using our workflow management software, we can ensure SEOs comply with program requirements, like confirming that participants aren't incentivized through both programs for the *same single upgrade*.

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

TRC's program design is heavily weighted toward **modeled savings** because measured savings projects will create program delivery complexities that could impact participation and customer satisfaction.

MEASURED SAVINGS	• Residential customers must either wait 12 months before receiving an incentive payment, or SEOs must pay the incentive upfront. For the latter, if forecasted savings don't align with actual savings, recouping payments will be challenging. • Free DOE tools for weather-normalized utility bill analysis exist, but the level of effort required to analyze individual homes may not be a cost-effective use of program administrative dollars. • Third-party software can analyze and aggregate homes but can also be high cost for potentially minimal impact. Additionally, vendors focused on a single participation track can be biased toward that track, resulting in a degraded customer experience and the possibility of reduced incentives.
MODELED SAVINGS	• Incentive payments based on historical energy use, consistent with BPI 2400 quality assurance specifications. • Aligns with familiar utility energy efficiency program models, reducing market confusion.

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

TRC anticipates substantial incentive funds allocated to heat pump water heating and HVAC equipment, which will propel states with carbon emissions reduction targets toward their goals. **We also expect a portion of incentive funds for breaker boxes and electric wiring that will create a reliable infrastructure for new heat pump equipment and contribute to the health and safety of LMI customers.**

To **protect high energy burden customers** from increasing electricity costs, we'll **bundle HEEHRA projects with available weatherization programs** and incentives when possible.

EQUIPMENT	HP HVAC	HPWH	ELECTRIC STOVE & HP CLOTHES DRYER	BREAKER BOX & ELECTRIC WIRING	WEATHERIZATION
DELIVERY CHANNEL	• HVAC Contractors	• Plumbing Contractors	• Retail	• Electrical Contractors	• Retail or WAP
RISKS & CHALLENGES	• Contractor education & electrical contractor coordination • Utility bill impacts • Sizing & cold climate model selection • Back-up heat • Income verification	• Contractor education & electrical contractor coordination • Sizing • Income verification	• LMI not purchasing at retail stores • In-store availability • Electrical contractor coordination • Fuel type verification as needed for retrofits • Income verification	• HVAC/ plumbing contractor coordination • Not applicable to new construction • Income verification	• Coordination with weatherization programs • Self-installation verification as needed • Higher HOMES Weatherization incentives (with 20% threshold) • Income verification
ANTICIPATED PARTICIPATION	High	High	Low	Medium	Low

Market Conditions

10. What market conditions are necessary for your program design to be successful? What policies are necessary? What relationships? If these conditions are not available, how would a state create them?

Three critical market conditions are needed for HOMES and HEEHRA to succeed in any state:

1. Trained Installer Network | **2. Aware, Educated, & Trusting Consumers** | **3. Available High-Efficiency Equipment**

While all states require these main conditions for success, progress toward and pathways for achieving each condition vary significantly. TRC's program design starts with the use of planning funds to research the local market, then applies the findings to develop state-specific strategies to create the necessary market conditions. This research will provide the added benefit of helping SEOs establish baseline market metrics used to measure programs' success and influence. The following table highlights how planning efforts will benefit SEOs.

CONDITION	EXAMPLE PLANNING ACTIVITIES
Trained Installer Network	• Conduct a workforce gap analysis (skills and locations) for electrical, plumbing, HVAC, and retail networks • Work with training/accreditation organizations to understand capacity for training installers, existing courses available in the market, and recommended courses based on gap analysis • Interview manufacturers, contractors, utility program implementers and evaluators, and other stakeholders to set appropriate installer standards/credentials and quality control processes
Aware, Educated, & Trusting Consumers	• Research consumer understanding of the programs and their benefits, as well as their satisfaction with programs available in the market (e.g., utility, federal) and participation drivers/motivators • Engage key stakeholders with market influence to demonstrate the programs' value to community members • Develop actionable program designs that will address state and market needs • Complete a market assessment, using findings to shape/prioritize marketing and outreach and build trust
Available Equipment	• Identify and assess current availability of eligible equipment through field visits and interviews • Research preferred participation/incentive structures for distributors/retailers • Determine customer and installer purchasing preferences for different equipment (online vs. in-store)

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

TRC will interview local permitting staff to understand each jurisdiction's permitting process and requirements as well as review relevant permit process documentation, permit application forms, and recent permit data, as well as ask contractors for feedback on code compliance challenges in interviews. This engagement will:

1. **Identify eligible equipment that may be new to local inspectors**, then create training, checklists and materials, and hands-on support for inspectors. We have developed similar training and quality assurance protocols for code officials and field inspectors, which offers a foundational knowledge base that we can continue to develop and regularly review for SEOs and that inspectors can draw from to ensure safe, high-quality installations.
2. **Work with local codes and standards stakeholders** to support code updates and adoption (e.g., utilities, municipalities, aggregators, government agencies, regional energy efficiency organizations). SEOs can leverage our experience developing and advocating for code advancement to overcome any barriers or challenges in the permitting process that could impede or delay the adoption of eligible equipment.
3. **Incorporate training for installation networks to help them align with state and local code requirements**. By focusing on contractors with DOE-accredited training, we can reduce the risk of quality issues. Arming contractors with training, online videos, and presentations covering technology installation, maintenance, and sales will contribute to high-quality installations as well. These trainings also create opportunities to connect with equipment suppliers and related professional organizations, increasing equipment availability.

Implementation Proposal

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

a. A description of the program concept. Who pays whom, when, for doing what.

Comprehensive & Complementary Program

- **Streamline the customer and contractor experience** while maximizing access to *all* available incentive funds
- **Deploy custom solutions** that align with each state's unique market conditions, demographics, and environmental goals
- **Minimize the market's cost of money** and inventory burden
- **Have the greatest impact on customers with the highest energy burdens** while protecting their long-term interests

Incentive Structure Based on SEO Goals

- **Maximize program reach:** Set incentive levels below the maximum allowed
- **Maximize economic lift:** Offer maximum incentives to accelerate market impacts
- **Low-income focused:** Tiered incentives that offer the highest incentive levels to those who need it most
- **Market-based:** Incentive levels based on market adoption and other incentive program availability

Eligible Measures (Customized by State)

HOMES

- Modeled
- Measured

HEEHRA

- Heat Pump Water Heater
- Heat Pump HVAC
- Electric Stove
- Heat Pump Clothes Dryer
- Breaker Box
- Electrical Wiring
- Weatherization

Contractor Training, Management, & Quality Control

Train	• Provide industry- and program-specific and sales training, with refresher training at least annually • Offer technical assistance and network connections to support quality delivery and contractor growth
Manage	• Develop market-based recruitment strategies (e.g., use different messaging for areas where demand for tradespeople is high vs. areas where tradespeople are often looking for work, create open vs. closed networks) • Engage contractors regularly through in-person outreach, events, trainings, webinars, and more
QC/ Monitor	• Define required contractor credentials, standards, processes, and tools (smart diagnostics, mobile applications) • Review applications and participant eligibility/verify income, and inspect projects (virtual or in-person)

Other Funding

- Identify ***ALL*** eligible incentives and services (utility incentive or low-income offerings, federal or state programs and grants)
- Gather information on and coordinate with stakeholders to create complementary, not conflicting, offerings
- Create opportunities for coordinated outreach, education, and cross-promotion

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b. A description of the participant journey through the awareness, application, participation, and close out process

Engagement

Customer hears about the HOMES or HEEHRA Program through SEO/TRC or contractor advertising or outreach, or through another program they are participating in & connects with program staff through preferred communication channel (email, hotline, web interface)

Eligibility

TRC educates customer on program participation pathways and verifies eligibility with HOMES/HEEHRA and/or other available incentive programs. If ineligible to participate in HOMES/HEEHRA, TRC recommends and connects customer with other incentive program implementers

Guidance

TRC guides customer to the most advantageous participation pathway and supports the customer in identifying and prioritizing eligible projects. TRC also helps customer gather materials for other incentive programs they qualify for

Installation

Customer uses TRC guidance to connect with a qualified contractor or to find a participating retail location based on project scope and all programs the project will receive an incentive from. Equipment is installed in accordance with program requirements

Payment

Customer or eligible party submits rebate application to TRC (and other programs, as applicable). TRC reviews the application and coordinates with other implementers to comply with incentive rules. Upon approval, customer (or qualifying third-party) receives incentive based on final program design

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

DOE	SEO	IMPLEMENTER	INSTALLERS	CONSUMERS
• Provide basic program rules & foundational program guidance • Verify states' adherence to law	• Develop a *Plan to Implement* & apply for program funds • Hire third-party support, as needed • Oversee program delivery & DOE reporting	• Support planning & program design/milestone development • Provide turnkey implementation services & rebate processing • Lead marketing and customer outreach and support activities • Track & report on participation and performance	• Understand & adhere to program rules & training requirements • Complete high-quality installations • Provide required project documents	• Purchase eligible equipment and complete eligible projects in home • Coordinate with landlord (if needed) • Submit required project and income documents

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

1 State-Specific
Incorporate market data and state goals & regulations to design custom programs

2 Complementary
Create HOMES and HEEHRA offerings that give consumers the greatest access to rebates

3 Streamlined
Provide a customer-centric experience with one application for both programs

4 Comprehensive
Bundle projects with available weatherization programs to protect high energy burden customers

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

If customers use conventional loans or a financier offers loans for high-efficiency equipment installations, loans could be aggregated and sold to another investor. Additionally, the influx of program funding could have secondary market implications, such as utilities collaborating with legislators to repurpose ratepayer funds from behind-the-meter energy efficiency and demand response programs to front-of-the-meter infrastructure projects.

Types of Implementation Partners

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

Critical implementation partners include investor-owned, municipal, and cooperative utilities, state agencies, and supply chain members (manufacturers, distributors, retailers, installers); community action agencies and other community-based organizations, places of worship, and local community leaders; and trade schools, HVAC accreditation and training facilities, and energy audit/modeling training and certification organizations.

Other/RFP Language

14. Any additional comments. / 15. Any RFP language that could be used to execute your program idea.

Due to page constraints, TRC has not included additional comments or RFP language.

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PROGRAM ELEMENTS

Company Characteristics

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

CONTACT NAME	Duane Baldwin, Vice President
CONTACT INFORMATION	EFFProcurement@TRCcompanies.com | 347-504-2674
COMPANY NAME	TRC Environmental Corporation

16. An overview of your approach to equity, diversity, inclusion, and accessibility (EDIA).

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17. 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.

TRC implements 40 energy efficiency and decarbonization programs serving residential and multifamily consumers across 16 states. Programs include low-income-focused solutions for single family, low-rise multifamily, and high-rise multifamily properties, and existing buildings and new construction. TRC is happy to provide interested states with a specific list of our clients, qualifications, links to active program websites, and client references.

Program Elements

18. Describe the program element that is important for State Energy Office consideration. Be as detailed as possible.

Planning for the HOMES and HEEHRA Programs is one of the most critical tasks for SEOs to launch the programs quickly and to position the programs for long-term success. While the DOE will provide additional guidance on major program components in July, the guidance is not expected to provide a prescriptive solution that each state must follow. It's important for states to prioritize strategic planning, local market exploration, existing workforce and supply chain evaluation, stakeholder coordination, and consumer education analysis now, prior to the DOE releasing all administrative funds.

Specifically, states should consider applying for early administrative funds for the HOMES and HEEHRA Programs to:

- Review state-specific decarbonization and environmental goals and use planning activities to estimate the targeted impact the HOMES and HEEHRA Programs will have on achieving those goals
- Complete a detailed market assessment to identify key stakeholders, market demographics, supply chain practices, disadvantaged communities, and existing programs and available rebates. Using information gathered:
    - Conduct a workforce gap analysis, develop solutions to fill gaps in geography and skillsets, and identify possible program contractor network members
    - Engage stakeholders and market actors to identify best practices and lessons learned to inform delivery and operational strategies in quality assurance, income verification, application processing and rebate payment, reporting, and other operational areas
    - Coordinate with other program implementers to create complementary offerings that offer the greatest value to consumers
    - Apply for other grants that will support efforts to ready the market (e.g., Home Energy Efficiency Contractor Training Grants—IRA Section 50123)
    - Evaluate code differences at the state-, county-, and municipal-level to assess regional design impacts

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- Engage community organizations and members to assess consumer understanding of energy efficiency and decarbonization benefits, measure their knowledge of the HOMES and HEEHRA Programs, and identify potential participation motivators and barriers. SEOs can leverage this information to:
    - Develop a plan for EDIA, including how the programs will contribute to the Justice40 initiative and how programs will incorporate members of diverse workforce communities
    - Create a marketing and outreach plan that will drive program participation from targeted participants
    - Develop program collateral, educational materials, and online resources for contractors, manufacturers, distributors, retailers, consumers, other program implementers,

TRC can work with SEOs to further define planning tasks and to perform planning activities, as desired.

Other / RFP Language

19. Any additional comments. / 20. Any RFP language that could be used to execute your program idea.

TRC has not included additional comments or RFP language.

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INDICATION OF VENDOR INTEREST

Company Characteristics

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

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Company Summary

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

From a planning perspective, SEOs can call on TRC to provide the services described below:

Collect & Analyze Market Data

- Identify needs & perform primary data collection
- Apply TRC's program implementation experience & decades of program data
- Plan and deliver targeted market characterization and potential studies

Lead Stakeholder Coordination

- Support information gathering by facilitating working sessions with implementers, organizations, agencies, and utilities
- Coordinate delivery strategies across stakeholders
- Maximize incentive braiding opportunities and develop reporting and data-sharing protocols
- Identify opportunities for combined outreach/education

Design Program Components

- Develop program logic models and customer journey maps to guide further development of program artifacts and tools (e.g., guidelines, applications)
- Use market data to set optimal incentive rates and forecast performance
- Support scope of work development for third-party implementers
- Align program components with legislative and regulatory guidelines and Justice40 goal

Support Market Readiness

- Create a comprehensive workforce development strategy & help apply for workforce grant funds
- Develop educational tools and resources for customers and contractors
- Identify key organizations to generate awareness with disadvantaged communities

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In addition to our planning capabilities, TRC has over 30 years of experience providing turnkey energy efficiency, decarbonization, and advanced energy program implementation for state and other government agencies, utilities, and other clients.

Our services include:

- Program management and operations for low-income, residential, multifamily, and commercial customers
- Full-service program marketing, advertising, and outreach services
- Customer service support (with an established contact center)
- Contractor network recruitment, training, management, and ongoing engagement
- Technical assistance for customers and contractors
- Data management and reporting
- Quality assurance and quality control program
- Application process and incentive payment services
- Regulatory and evaluation support and consulting services

We are interested in providing turnkey implementation services to SEOs to support the HOMES and HEEHRA Programs.

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