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May 21, 2024

Sherri L. Golden
Secretary of the Board
New Jersey Board of Public Utilities
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RE: In the Matter of the Implementation of Federal Inflation Reduction Act HOMES (Home Efficiency Rebates) and HEEHR (Home Electrification and Appliance Rebates) Program

Docket No. QO23100733

Dear Secretary Golden:

TRC thanks the Board for the opportunity to provide the following comments in response to the Request for Information (RFI) regarding the design of the programs to implement the federal Inflation Reduction Act Home Efficiency Rebate (HOMES or HER) and Home Electrification and Appliance Rebates (HEEHR or HEAR) formula funding.

The RFI requested comments with respect to program design and parameters as follows:

- Approaches to designing programs serving multi-family buildings in low-income communities.
- Integration of the HOMES program and the HEEHR program with existing energy efficiency and low- and moderate-income programs.
- Optimal pathway to calculating rebates delivered to the customer between modeled versus measured approaches recommended by the U.S. Department of Energy (DOE).
- Developing a clean buildings workforce through the Training for Residential Energy Contractors (TREC) grant to deliver the HOMES program and HEEHR program, from the perspective of establishing long-term jobs; and
- Ensuring efficient delivery of these programs with respect to income verification, outreach, and customer experience.

The attached document provides TRC's general recommendations primarily regarding an approach to developing the M-RISE program. Please let me know if you have any questions or require any additional information regarding TRC's comments.

Very Truly Yours,

Marybeth Brenner
Associate Vice President
TRC

May 21, 2024

TRC's Response Regarding the Proposed Inflation Reduction Act HER and HEAR Programs

The following sets out TRC's recommendations regarding a suggested approach to delivering the proposed M-RISE program, which is one of the programs proposed by the Board that would utilize the HER and HEARs funding. This section is followed by our responses to the specific questions set out in the RFI.

Proposed Funding Levels

TRC supports the proposed allocation of IRA funding as proposed by Staff. Given the limited amount of funding available, it is important to focus the funding on a targeted sector, in this case multifamily buildings in low-income neighborhoods and low-income customers participating in the Comfort Partners program. Focusing the funding on low-income customers will help to reduce the energy cost burden for the State's neediest customers and help to sustain market momentum once the IRA funding is exhausted. Both benefits would be diminished if the Board spread the funding across multiple sectors or programs.

Program Design

The State has aggressive goals related to advancing electrification, with specific focus on the low-income residential sector and providing access to programs that can reduce energy usage and costs. To achieve these goals the State and the utilities are and will continue to collaborate on how best to serve these customers though energy efficiency programs, training, and workforce development. These IRA funds will greatly assist in this effort.

The State's natural gas and electric utilities have in place a broad portfolio of programs and incentives that target low and moderate-income customers. It is expected that the range of programs and incentives targeting low to moderate-income customers will be expanded in Tri-2 which commences on January 1, 2025.

TRC believes that the most efficient, cost-effective approach to delivering the IRA funds is to build upon the utility programs that will be part of their Tri-2 offerings. This can be done by expanding the list of eligible measures and by using IRA funds to increase the level of incentives available to low-income customers.

BENEFITS of TRC's Approach and Utilizing Existing Program Structure	**DRAWBACKS** of Implementing New Program Structure
 • Minimize timeframe to implement programs • Streamlined application process • Minimize market confusion and maximizing number of customers served • Low administrative costs	• Longer timeframe to implement program • Must create program rules and application processing programs from scratch • Increased administrative cost with new processes, IT system development • Requires customers and contractors to apply to multiple programs • Creates market confusion

TRC currently has pending before the Board a proposed program model that could be utilized for the IRA programs. Specifically, the proposed SEP Non-IOU program, designed in collaboration with Board Staff and the utilities, utilizes SEP funds to supplement existing gas utility programs by offering incentives to a previously ineligible customer base.

The utility programs that offer whole home or whole building programs, including for multi-family buildings, offer incentives to customers for comprehensive projects that entail, in most cases, measures that reduce both electric and natural gas usage. In cases where a customer is served by a separate electric and gas utility, the utilities share the cost of the project with the electric utility paying for measures that save electricity, the gas utilities paying for measures that save gas, and sharing the cost of measures that reduce both electric and gas usage such as insulation.

Customers served by Non-IOU electric utilities, except for customers served by Butler Electric, are not currently eligible for incentives related to measures that save electricity since the Non-IOU electric utilities do not currently offer incentives for EE measures. The proposed SEP Non-IOU would operate as follows if approved by the Board:

- The electric and gas utilities would notify their existing Trade Ally networks that customers served by Non-IOU electric utilities are now eligible to participate in the existing whole building residential and commercial programs (Specifically, for the proposed SEP Non-IOU program the Home Performance with Energy Star and Direct Install programs).
- Existing program requirements and incentive levels would apply to Non-IOU customers that participate in the program.
- The Trade Allies would recruit customers in the Non-IOU service territories with support from the Public Power Association of NJ and the municipalities.
- Trade Allies would utilize existing applications and submit applications to the applicable gas utility

serving the Non-IOU electric customer.

- The gas utility would process applications using existing rules and procedures and pay the incentives to the contractor/customer.
- The gas utility would transmit to TRC the information required to process payment of the SEP funds for the electric measures.
    - The same cost sharing agreement that currently exists for sharing costs between gas and electric utilities would be used for sharing costs between the gas utilities and the SEP Non-IOU program.
- TRC will reimburse the gas utility for the incentives related to electric measures and prepare any reports required related to the SEP grant.

This approach has several significant benefits, including:

- Eliminating the need to create new program rules/requirements.
- Eliminating the need to create new applications and application processing and IT systems.
- Reducing administration expenses by utilizing existing processes and systems, allowing more of the grant funds to go towards customer incentives.
- Allowing experienced Trade Allies to quickly pivot to offering the programs to Non-IOU customers.

TRC believes that many of the benefits of the model proposed for the SEP Non-IOU program are applicable to the proposed IRA programs. However, utilizing existing utility programs for the IRA funds may require certain changes to the utility programs as follows:

1. The list of eligible measures may need to be expanded to include measures that may not exist in the utility programs such as electrification ready measures.
2. Definitions of low-income customers would need to be aligned so that customers eligible for a utility program would also meet DOE IRA program eligibility requirements. The chart below outlines some of the different in definitions currently used.
    A. An additional benefit of building upon existing utility programs is that existing procedures could be used for verifying income eligibility.
3. Workforce Development efforts may need to be expanded to address needs specific to the IRA funds, such as training potential resources in the impacted communities.

Comparison of Income Eligibility Criteria

INCOME ELIGIBILITY THRESHOLD	PROGRAMS					
	IRA HER	IRA HEAR	COMFORT PARTNERS	WAP	IQ WX	HPWES
Income Eligibility Criteria	<80% AMI; 80% - 150% AMI; >150% AMI	<80% AMI; 80% - 150% AMI	>250% FPL	>200% FPL	250% - 400% FPL	>400% FPL
Associated 2023 Income Level (family of 4)	<$98,678; ≥$98,678 - <$185,250; ≥$185,250	<$98,678; ≥$98,678 - <$185,250	>$75,000	>$60,000	>$75,000 - $120,000	>$120,000
<80% AMI	ü	ü	ü	ü	ü	
80% - 150% AMI	ü	ü	ü		ü	
>150% AMI	ü					ü

TRC Recommended Next Steps:

- Review the existing list of eligible measures included in the utility program offerings and identify measures covered under HER/HEAR that should be added.
- Identify any changes to the TRM, program procedures and rules, and applications that would need to be made to accommodate any additional measures.
- Review and reconcile any differences between existing utility and DOE income eligibility requirements.
- Review existing Workforce Development efforts offered through utility, State, and NPO programs and identify any changes/additions required to meet the needs of the IRA programs.

Upon completion of the above steps, and barring any unexpected hurdles, the Board should determine that the HER/HEAR funds will be used to build upon the Tri-2 utility programs ultimately approved by the Board and commence the process of developing program specifics, including incentive levels and income eligibility requirements.

Coordinating Utility, HER, and HEAR Programs/Funds/Setting Incentive Levels

Per the RFI, HOMES funding would cover the lesser of 80% of the project costs or $4,000 per dwelling unit, whereas the HEAR funding has a cap of $14,000 per dwelling unit for all eligible measures. TRC recommends that rebate levels be set as follows:

1. Customers/Trade Allies would submit a single application to a utility for both utility and HER/HEAR program incentives.
2. Utility incentives would be applied first, with HOMES/HEAR incentives added to the utility incentives.
    - DOE recommendations for HOMES/HEAR incentives are set out in the table below.

> 3.1.3. Program Requirements: Low-Income Homes: Low-income households are important populations for the Home Efficiency Rebates. IRA Section 50121 provides larger rebates for single-family homes occupied by low-income households (below 80% AMI) and allows States to request authority to provide even larger rebates – up to 100% of project costs – to allow meaningful retrofits of low-income homes.
>
> - Home Energy Rebate Programs Requirements & Application Instructions

Example Incentive Structure*

EQUIPMENT	< 80% AMI				≥ 80% AMI			
	HOMES	HEAR	Utility	WAP	HOMES	HEAR	Utility	WAP
Energy Assessment and BPI-2400 Model (DAC)	$200							
Whole Home Reduction: Heat Pump and Weatherization	$8,000			TBD	$4,000			
Health and Safety Referral (if applicable)				TBD				
Contractor Incentive (DAC)		$500						
Breaker Box		$4,000						
Electric Wiring		$2,500						
Heat Pump Water Heater (Fuel Switch)		$1,750						
Pre-Qualified: Electric Stove/Cooktop (optional)		$840						
Pre-Qualified: Heat Pump Clothes Dryer (optional)		$840						
Additional funds from utility braiding and additional utility measures			$1,600				$800	
TOTAL	**$8,200**	**$10,430**	**$1,600**	**$TBD**	**$4,000**	**$0**	**$800**	**$0**
TOTAL PER HOME	**Up to $20,230**				**Up to $4,800**			

**The incentives for utility programs in the table above are examples only and may differ. The incentives for the HER and HEARs programs are prescribed in the DOE guidance and IRA law*

3. Given that the target market is low-income customers that may have limited or no access to funds to pay the portion of a project's cost not covered by the incentives, TRC recommends the following approach:

    A. Allow the combined incentives to equal up to 100% of project cost.

        1. Per the above guidance, States can request that rebates equal up to 100% of project cost.

2. This option would require certain guardrails to ensure contractors do not inflate prices or

B. Allow the combined incentive to equal 85% or 90% of a project's cost and use utility financing programs to cover the cost of the project not covered by the combines incentives.

1. Require that estimated energy cost savings are greater than any loan payment amount so that the customer sees a total reduction in costs.

2. This option would require the customer to have skin in the game which should apply downward pressure on prices.

Minimize Administration Costs

DOE has established a maximum administrative cost of 20%. By building upon existing programs as opposed to creating new programs the model proposed above can result in a significant reduction in program administration costs. For example, the RFI recommends an electrification adder for the existing Comfort Partners program. This would result in the need to make certain changes to the Comfort Partners program to add new measures and modify application and reporting systems. However, it would avoid the need to set up a new program from scratch and associated expenses.

Likewise, braiding IRA incentives on existing utility program incentives would eliminate the need to create a new program and allow the new IRA programs to build upon existing processes and systems. It is not unusual for the first-year program administration costs to approach or exceed 20% of a programs budget when taking into consideration start-up costs. By taking advantage of existing programs, one could conceivably allocate only the incremental or marginal administrative expenses to the IRA programs. Given the IRA funding levels, reducing administrative costs by 10 or 15% could free up $18 M to $27 M for additional incentives that would benefit low-income customers. A 10% reduction in administration costs could, for example, free up approximately $9 M in HER funds, which would, at a minimum, allow the program to serve at least 2,250 additional customers.

TRC recommends that if the Board concurs with TRC's proposed approach, that it determine what administrative costs would be allocated to the IRA funds, specifically whether only incremental/marginal costs will be allocated to the IRA funds or if the Board will also allocate a portion of a programs fixed administrative costs to the IRA program.

Impacts on Customers

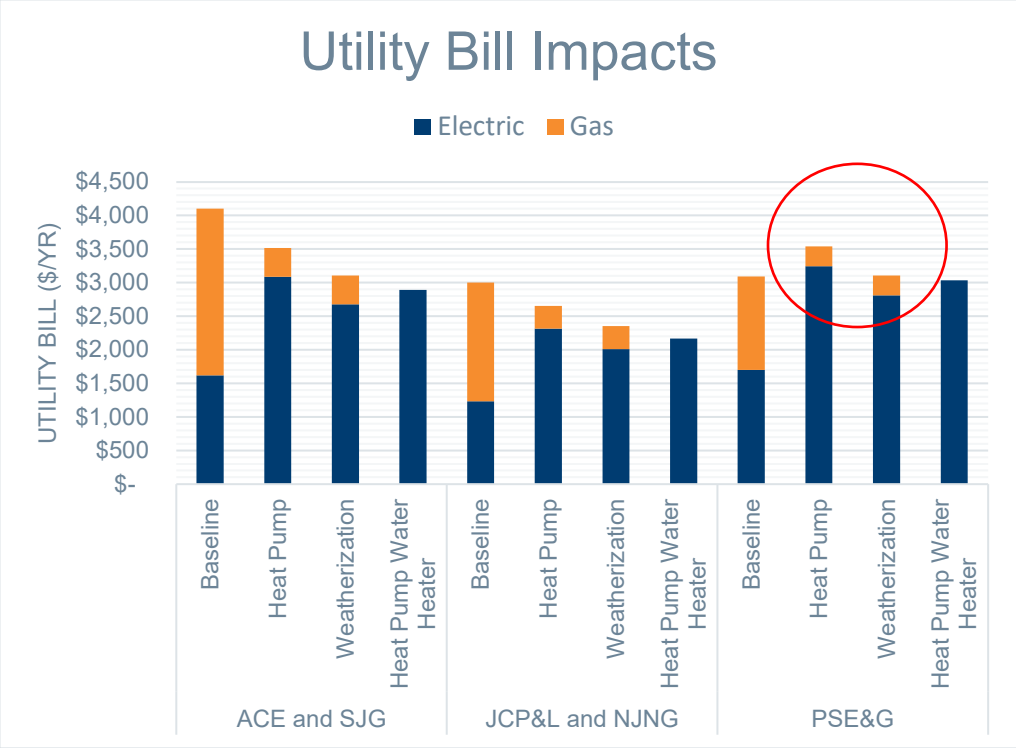
Utility rates vary significantly across utilities. For example, average 2022 residential electric rates vary from $0.14/kWh for JCP&L to $0.19/kWh[1] for ACE, and average residential natural gas rates vary from $1.04/therm for PSE&G to $2.0/therm for SJG[2]. This is important since the impact on a customer's utility costs that result from switching from gas heating to an electric heat pump will be impacted by the price the

1 EIA Form 861
2 Review of utility tariffs

customer is currently paying for gas and the price the customer would pay for a replacement electric heat pump.

TRC calculated the impacts on a customer's utility costs that would result from switching from gas heat to an electric heat pump for several combinations of electric/gas utilities, including:

- ACE/SJG
- JCP&L/NJNG
- PSE&G/PSE&G



- Baseline assumptions: 1,500 sq. ft. house in Newark, 14.2 SEER2 AC, 80% AFUE furnace, 10 ACH50 infiltration, R-13 attic insulation, 20% duct leakage, 0.66 UEF gas water heater.
- Retrofit assumptions: 17.1 SEER2 and 8.2 HSPF2 heat pump, 7 ACH50 infiltration, R-38 attic insulation, 10% duct leakage, 3.5 UEF heat pump water heater.

As shown in the table above, customers that are served by ACE and SJG that switch from gas heat to an electric heat pump realize savings in their utility costs. This is also true for customers of NJNG and JCP&L. However, due to the fact that PSE&G's gas rate, and therefore the cost to heat, is significantly lower than the other gas company rates, customers that switch from gas heating to an electric heat pump without including other energy saving measures could see an increase in utility costs and even with weatherization measures are about break even. While not shown on the table above, customers that switch from delivered fuels, i.e., oil or propane, would see immediate cost savings from switching to an electric heat pump and even greater savings with weatherization measure.

The analysis performed by TRC is intended to be directional only to make the point that assessing impacts on customers will vary across the State and that statewide averages will not reflect that real impacts on customers depending on which electric and gas utility they are served by. The results should not be used for any other purpose.

The results shown in the table above demonstrate that for certain customers, switching from gas heat to an electric heat pump will increase their utility costs, and for other customers they will either break even or have lower utility costs. Given that low-income customers already face the high energy burdens, TRC recommends a program rule that would require that all projects result in a reduction in energy costs for each customer based on analysis of their electric and gas utility costs (current utility rates with an agreed upon escalation factor). This rule may require projects to install other measures that reduce energy usage (insulation, seal up, lighting, refrigeration, etc.) to at least a level that would offset any increase in heating costs. In short, each project should be required to demonstrate that it will reduce the customers energy costs.

TRC recommends that the HER/HEAR programs include the following program components:

- Energy audits include blower door tests.
- Target customers with delivered fuels and customers that would not realize cost savings without weatherization or other energy saving measures.
    - This is intended to target certain customers that would receive the greatest benefits but not limit participation by other customers.
- Robust QC to inspect projects and provide some level of assurance the estimated savings will be realized.
- Assess estimate loan payments and utility bill savings to confirm utility bill savings will exceed loan repayment amounts.
- Track post-installation utility bills to confirm estimates savings are being realized.

Pending Tri-2 Filings

The utilities currently have pending before the Board their proposed Tri-2 programs and budgets. Based on a quick review of the filings each utility has left room in its filing for including program changes related to supporting whatever approach the Board ultimately decides to use for the IRA funds.

TRC believes that the Board can commence discussions with the utilities to iron out any program changes that would need to be made to supplement their programs with IRA funds without delaying the ongoing proceedings or slowing down any ongoing settlement discussions. TRC respectfully suggests that if the Board concurs with TRC's recommendation to use the IRA funds to supplement/compliment utility program incentives, that the Board use the existing Utility Working Group structure to commence related discussions. If limited by resources, these discussions can commence after Staff wraps up any settlement discussions.

Final Recommendations

The following are TRC's responses to the specific questions posed in the RFI:

1. **What would be the best analytical approach – measured or modeled – for calculating energy savings in multifamily buildings? Are there scenarios where one would work better than the other?**

   TRC believes that the existing utility whole building programs for residential, multifamily, and small C&I customers would be the likely programs to build upon for the proposed M-RISE program. While some modifications to these programs may be required, they all have the trade allies, program requirements and tools in place for delivering comprehensive energy savings projects to low-income multifamily customers. The existing whole building utility programs for residential and small C&I customers (such as Home Performance with Energy Star and Direct Install) all use the modeled approach, the Engineered Solutions program for larger buildings uses the measured approach.

   The modeled approach is easier and less costly to implement. It relies upon certain assumptions laid out in the TRM to estimate savings avoiding the need to measure and assess actual post-implementation energy savings and the associated costs.

   The measured approach is more complicated and costly than the modeled approach. For example, the recently transitioned P4P EB program incorporated a measured approach. This approach required the submittal and up-front approval of an M&V plan that demonstrates how the contractor proposes to measure the post-installation energy savings taking into consideration factors like changes in degree days, occupation, etc., and may include plans to sub-meter certain pieces of equipment. Then, one year post installation of the measures, the contractor must gather usage data and submit its assessment of the actual energy savings based on the M&V plan with the final incentive being based on actual measured savings. The measured approach adds additional risk to project financing since the final incentive is not guaranteed and is not known until after the results of the M&V plan are submitted and approved. It also delays the receipt of any final incentive by at least a year which also adds to project cost.

   Given that the measured approach is more complicated and costly than the modeled approach, it has historically been reserved for larger more complex projects that can absorb the added costs and risks while the modeled approach has been used for programs with relatively smaller projects and higher volumes of applications. Further, the measured approach adds costs and risks to a project developer, which costs are typically reflected in higher project costs.

The following table summarizes the pros and cons of the modeled versus measured approach:

DESIGN TYPE	PROS	CONS
Measured	Potentially more accurate energy savings estimates	1. More costly 2. More complex 3. Riskier 4. Requires aggregators and financing partners 5. Increase project costs to cover aggregator and financiers profit 6. Longer project timelines 7. Slower to get funds to market
Modeled	1. Simple Design 2. Less risky (I.e., known incentive levels) 3. Consistent with existing programs – contractors know and understand the modeled approach 4. Maximize participant incentives	Potentially less accurate energy savings estimates

Based on the above, TRC recommends that the Board utilize the Modeled approach.

2. **What criteria and process could be used to select buildings for the M-RISE Program?**

   TRC recommends that the Board develop minimum eligibility criteria and select projects on a first-come, first-served basis. If the Board desires that funds be allocated to certain types of projects, or that projects be geographically disperse, then the Board could establish soft sub-budgets (as was done in the School and Small Business Stimulus Programs), for example, place limits on the level of funds allocated to garden apartments or reserving a certain level of funds for housing authorities or HMFA buildings.

3. **Does this approach address the unique needs of our state in terms of:**

   A. **the need for efficiency and electrification upgrades in multi-family buildings?**

   B. **the need for efficiency and electrification upgrades in low- to moderate-income households?**

   Yes. However, as noted above, the Board needs to be cautious that measures installed in low-income residences do not result in higher energy costs for the customer. This is accomplished by adding a program requirement that all projects must install enough measures such that the project on a whole reduces a customer's energy costs based on an assessment of the customers actual utility rates, not on statewide averages.

4. **Do you believe the proposed budget allocations for the M-RISE Program and the CP-HEAR Program are appropriate?**

   Yes.

5. **Do you have any other concerns regarding this approach or additional ideas for consideration?**

   TRC believes that using the IRA funds to build upon existing utility programs would minimize contractor and customer confusion that might occur if the Board were to implement separate programs for the IRA funds. It will simplify the application process and has the potential to significantly reduce program administration costs potentially freeing up millions of extra dollars that would be available for additional customer incentives.