



Submitted electronically via: comments@efficiencymaine.com

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Efficiency Maine Trust
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Re: Request for Information (RFI) On Efficiency Maine Trust Triennial Plan V (Fiscal Years 2023-2025)

To whom it may concern;

On behalf of Northeast Energy Efficiency Partnerships (NEEP)¹, we are pleased to submit comments on Efficiency Maine Trust's Triennial Plan V (Fiscal Years 2023-2025). NEEP is a non-profit whose mission is to accelerate regional collaboration to promote advanced energy efficiency and related solutions in homes, buildings, industry, and communities.

We thank the Efficiency Maine Trust for the opportunity to provide input on Triennial Plan V. We commend Efficiency Maine Trust (the Trust) and the state of Maine for the work it has done so far to accelerate the transition to a clean grid and combat the impacts of climate change. Because of ambitious goals set by the legislature and governor, Maine is a national leader in heat pump deployment and adoption of clean heat technology. In addition, the programs run by the Trust are nationally recognized for their accomplishments. NEEP hopes that these comments will help Maine and the Trust maintain this leadership and continue to innovate and set new ambitious targets in the coming years.

Aside from commenting directly on the key questions raised, NEEP would like to highlight general opportunities of working collaboratively with other states and programs in the region as Maine and the Trust continue towards these goals. Growing markets for building sector solutions in partnership with the region offers symbiotic benefits to Maine and the region. Whether it be through some of NEEP's regional market transformation initiatives, we encourage Maine to consider how strategic partnerships across state lines can be useful in advancing shared goals around energy efficiency and building decarbonization.

The following comments are intended to provide technical assistance and resources relating to the questions outlined by the Trust in the Request for Information (RFI) On the Efficiency Maine Trust Triennial Plan V (Fiscal Years 2023-2025). In addition to the comments and reports referenced, NEEP has additional tools and resources available and can provide direct technical assistance.

¹ These comments are offered by NEEP staff and do not necessarily represent the view of the NEEP Board of Directors, sponsors or partners. NEEP is a 501 (c)(3) non-profit organization that does not lobby or litigate.



Question 1

We are currently planning to organize our programs into the following categories: Commercial and Industrial (C&I) Custom; C&I Prescriptive; Small Business Initiative; Distributor Initiatives; Retail Initiatives; Grid Support and Load Management; Home Energy Savings Program; Low Income Initiatives; Electric Vehicle Initiatives; Renewable Resource Fund (Demonstration Program); and Innovation Program. What discrete initiatives might we be missing? What alternative approaches to organizing these programs should we consider? What are the most important program aspects that the Plan should maintain and what are Program elements we should consider changing?

- **What discrete initiatives might we be missing?**

Workforce Initiative: NEEP applauds the Trust for its work in workforce training. The Trust's website provides materials to help guide interested parties to training and certifications, as well as materials to become a trainer helping to expand the program. As Maine has recognized, a clean energy transition will require more skilled workers and gaps are starting to become apparent. Therefore, NEEP recommends that the Trust consider modifying the programs to take a more proactive approach to scaling up the workforce as well as identifying ways to help workers who are in a career transition or work in a different profession but may be interested in pursuing a clean energy job. For example programs, the Trust can look to the work done by NYSERDA in New York on Clean Energy Workforce Development. NYSERDA has dedicated \$100 million to the effort and is training across all sectors of the clean energy workforce as well as identifying curriculum and career pathways. NEEP recommends considering a similar approach with a whole program dedicated to workforce and career training for energy efficiency and clean energy programs. Through this program, the Trust can identify ways to create a diverse and inclusive workforce, including intentional outreach to certain schools and communities as well incorporating metrics into the programs to ensure representation of every Mainer in the program. For additional information on these policies and a look at programs in New York and Washington DC, see American Council for an Energy Efficient Economy's report [Expanding Opportunity through Energy Efficiency Jobs](#).

Home Energy Reporting and Labeling Initiative: These programs are relatively inexpensive but can serve a wide range of residents and act as tools to identify and target participants for current or future programs. NEEP's tool, [Energy Estimator - Powered by HELIX & ClearlyEnergy](#) is a tool that easily generates and stores customizable home energy labels by homeowners or contractors. The tool combines automated energy modeling capabilities from [HELIX](#) with data from publicly-available tax assessor databases and to generate projected annual energy usage and costs. The energy label also provides resources, recommendations for efficiency measures, and actions that can be taken to reduce energy usage. Due to its customizable nature, Energy Estimator is designed to operate independently or to support both remote and on-site assessments such as Home Energy Score. On a statewide basis, HELIX can serve as the database of new construction and retrofits. Also, HELIX can track residential program implementation and help the Trust attribute energy savings to program expenditures. Energy Estimator provides means for contractors to engage with homeowners and identify candidates for retrofit, weatherization, and appliance upgrades to create a pipeline of work for efficiency contractors.



Both HELIX and Energy Estimator could provide customizable solutions for Maine or the Trust to establish energy labeling programs and track savings attribution. These tools can be done on the state level or through a jurisdiction. [The 2019 Regional Residential Energy Labeling Action Plan](#) is a great resource for jurisdictions looking to implement a successful home energy labeling program. If Maine were to implement building labeling at a future date, [HELIX](#) also operates as a residential labeling database platform for storing home energy labeling program data (home energy labels, certifications, solar PV, program data) and can automatically populate the Multiple Listing Service (MLS) with homeowner approval. Most recently, NEEP has been working with Efficiency Vermont to create a Vermont-specific energy label known as the Vermont Home Energy Profile (VHEP). With the anticipated passage of the Montpelier's [Home Energy Information Ordinance](#), the city will use both HELIX and Energy Estimator as a policy and program management tool. HELIX's open architecture means that Maine could add data fields that are relevant to the state's needs such as fuel type, system type, and the presence of mold/asbestos/ lead, much of which can be drawn from tax assessor data.

- **What are the most important program aspects that the Plan should maintain and what are Program elements we should consider changing?**

Small Business Initiative: It is great that the Trust has implemented a small business initiative. These customers face numerous barriers to participation, but through steps such as tailored program delivery and funding the Trust can help to ensure they receive equal access. NEEP does recommend the Trust consider making some modifications to the program to help expand its access and impact. First NEEP recommends considering a change in initiatives and incentives offered. Plan IV acknowledged that there were numerous challenges to refrigeration and HVAC measures for businesses, as they are more costly and require more trained professionals. Additionally, NEEP recommends the Trust consider providing project managers or [circuit riders](#) for small business customers to help with technical assistance. Assigning a form of technical assistance can help small businesses navigate the process of identifying contractors, appliances, and rebates. Further, this modification can ensure that all small businesses have the same amount of information and opportunity when they participate in the program.

Distributor Initiatives: Distributing incentives in the marketplace is key to transitioning to clean energy technology because it offers incentives at the distribution center, where contractors and builders get supplies. NEEP only has one recommendation for this program. Phase IV plan mentioned that at times these rebates can compensate for the extra installation associated with higher efficiency equipment such as more plumbing or electrical work. It would be great if the Trust could identify this equipment and offer additional rebates for "installation" plus costs. This incentivizes purchasing and will compensate for the additional labor and skilled work of installation.

Retail Initiatives: Retail incentives, similar to distribution incentives, is a great way to promote efficient products throughout the supply chain. NEEP has one recommendation, to reconsider the handling of rebates for the larger appliances. Through changing to mostly or all incentives available through in store markdowns instead of mail-in, the Trust could encourage more participation as this would create a different sticker price which alters the customer experience. Additionally, the Trust can leverage its existing relationship with suppliers to create the in store markdowns.



Home Energy Savings Program: Maine’s new state climate plan, Maine Won’t Wait has outlined ambitious weatherization and clean heat technology goals, including doubling the current pace of home weatherization to achieve at least 35,000 homes weatherized by 2030 and the installation of at least 100,000 new heat pumps by 2025. NEEP recommends that the state consider modifying this program to include deep energy retrofits by adding elements such as weatherization and structural repair to the process and incorporating clean heating systems and other efficiency appliances as the standard equipment. Additionally, the Trust can consider offering a network of contractors plus program managers to help homeowners navigate the process of home retrofits and installation of new appliances. For low- and moderate –income customers, the Trust could look to use add-on or bonus incentives targeted specifically at encouraging participation by affordable housing property tenants or owners and developers as well as projects that embrace innovation to achieve performance levels that approach true net-zero energy or “zero utility bill” housing.

Question 2

(A) The Innovation Program is designed to analyze and demonstrate cost-effectiveness of emerging measures that have reached (or are about to reach) commercialization, and to gain a better understanding of what strategies should be employed to promote a measure if it were to be added to the list of eligible measures through the Trust’s regularly offered programs. What emerging technologies, operational or behavioral conservation measures, or grid support/load management strategies should we consider for future Innovation Program pilot projects?

NEEP recommends the Trust consider creation of a [Total Energy Pathways](#) (TEP) program. TEP is a comprehensive, bundled approach to building energy upgrades that also offers customers the opportunity to finance the energy improvements with the resulting energy savings. Customers interested in reducing their energy use and carbon footprint are often faced with multiple sales pitches and numerous possible first steps. A program like TEP addresses this by providing customers with one certified general contractor who guides customers and coordinates subcontractors with expertise in different energy technologies. In Vermont, the [Zero Energy Now Pilot Program](#) was designed to meet Vermont’s unique building characteristics, energy savings opportunities, and available in-state incentives and financing products. The Trust could create a similar model that would allow for customers who are interested in full comprehensive upgrades an easy pathway. The Building Performance Association of Vermont also released a report on the program, [Zero Energy Now Pilot Programs 2016 & 2017: Project Study Report](#).



Question 3

As part of its Public Information and Outreach initiative, the Trust maintains an extensive website at efficiencymaine.com offering a variety of program descriptions and online tools and videos to help customers select efficient products, locate a vendor, request a rebate, and understand how to operate their efficient products to achieve maximum savings. The Trust hosts training workshops for various trade professionals and occasionally hosts seminars or symposia on topics related to energy conservation and alternative energy. The Trust also provides educational resources and information about efficient equipment directly to Mainers and recent rebate recipients. In what specific ways could we improve these resources and services? What examples from other entities should we consider?

The Trust's current website, efficiencymaine.com, does provide extensive services to its users, consumers, and trade professionals alike. But NEEP recommends the Trust consider changing the structure of the website so that it is more consumer centric. A sample platform to look at is Mass Save. A key difference between the two platforms is the ability to streamline the process for consumers. Mass Save provides a walkthrough of programs and bundles offerings based on the characteristics of the customer or what the customer has identified. Additionally, Mass Save offers an efficient appliance marketplace and allows consumers to schedule contractor visits from the webpage. While the same information is available on the Trust's homepage, offering it in a more customer centric manner may increase adoption of some of the initiatives.

Question 4

In prior Plans, the Trust allocated 2.5% of the program budgets to "EM&V" (Evaluation, Measurement, and Verification). EM&V activities encompass systematic data collection and analysis related to the Trust's programs. For more information, please refer to Chapter 6 of Triennial Plan IV. One type of EM&V activity is third-party evaluations, which are required for every program costing more than \$500,000. Whereas Maine statute requires the Trust to evaluate major programs at least once every five years, the Trust's practice is to initiate these evaluations at least once every three years. Measurement and verification are largely managed by the Trust Staff with assistance from subcontractors. The Trust seeks recommendations on the appropriate amount to budget for this strategic initiative in Triennial Plan V and the basis for such recommendations.

While NEEP cannot recommend an appropriate amount for the budget for EM&V, NEEP recommends that the Trust consider not just the budget for EM&V but the EM&V process as well as it prepares for Plan V. NEEP encourages the Trust to consider modifications to the EM&V process to allow for easier access to data, the addition of metrics and reporting that aligns with state policy goals, and a more inclusive and public facing process. NEEP has created an Advanced M&V (M&V) 2.0 framework that the Trust could use as guidance to ensure that both the EM&V process and the EM&V funding align with goals of Maine and allow for a robust evaluation of the Trust's programs. To learn more about this framework visit NEEP's [EM&V Resource Center](http://www.neep.org).



Question 5

To prepare the Plan, the Trust will analyze the economic benefits and costs of electric (and natural gas) efficiency and conservation measures in order to determine the maximum amount of cost-effective savings potential that could be promoted through the Trust’s programs. As prescribed in Chapter 3 and Chapter 4 of the Trust’s rules, and further memorialized in the Trust’s Technical Reference Manuals (TRMs) and past Triennial Plan filings at the Maine Public Utilities Commission (PUC), the Trust sums the avoided energy costs, marginal avoided transmission and distribution costs, and reduced water/sewer costs to determine the economic benefits of a measure. Please comment on any changes the Trust should make in how it accounts for benefits and costs in its analysis of cost-effectiveness.

As outlined in the recent report *Maine Won’t Wait*, Maine is changing its commitment to climate and decarbonization. NEEP recommends as part of the Trust’s plan review, it consider modifying its cost benefit test to ensure it valuing policies that align with the state climate goals

To modify the test in order to better align it with state goals and properly value the Trust’s investments. NEEP recommends the trust screen for measures at the portfolio instead of the project or measure level. Additionally, NEEP encourages the Trust to use a jurisdiction specific test that is able to incorporate the unique characteristics of Maine and policy goals. A jurisdiction specific test will also allow for stakeholder input in the formation and incorporate additional and progressive metrics to match state priorities. To further see how EM&V metrics can align with state goals see NEEP’s website on [Decarbonization Policies and EM&V Metrics](#).

In addition to fully accounting for decarbonization goals, a state specific cost-benefit test is another avenue where the state can drive investment in low- and moderate- income areas. By fully accounting for the benefits these residents receive in a benefit-cost test (health, safety, comfort, increased property values, indoor and outdoor air quality, and economic development) utilities and other program implementers will be driven to tailor more programs to these underserved sectors. The Trust can also consider creating a low- or moderate-income exception from the cost-benefit test. Such an exception would recognize that while these programs sometimes cost more, intangible benefits of implementing them may not be considered in the current state test.

To conduct a full process that creates a state specific test, NEEP recommends that state look to follow the procedures laid out in the [National Standards Practice Manual \(NSPM\)](#). The NSPM lays out steps for a State Resource Value Framework, which enables state policies to guide the creation of a state specific test that encourages the development of carbon reduction goals and metrics in addition to demand reduction and energy storage goals for the energy efficiency program portfolio. Additionally, the NSPM framework is based on sound economic and regulatory practices.² In lieu of this process, the Trust could convene a stakeholder process to consider additional costs and benefits to add to the current test. NEEP’s report [Non-Energy Impacts Approaches](#)

² National Standard Practice Manual for Benefit Cost Analysis of Distributed Energy Resources, National Energy Screening Project, August 2020, available at https://www.nationalenergyscreeningproject.org/wp-content/uploads/2020/08/NSPM-Summary_08-24-2020.pdf.



[and Values: an Examination of the Northeast, Mid-Atlantic, and Beyond](#) includes a comprehensive list of states that include adders or modifiers that the Trust could consider.

Question 6

In order to support the increased demand for heat pumps and to promote quality installations, Efficiency Maine developed a training module on “heat pump basics” that is required for all heat pump installers working with Efficiency Maine’s residential programs. Efficiency Maine provides other training and workshops to contractors working in its commercial programs and is planning to provide building code training to contractors. Please comment on Efficiency Maine’s efforts to support workforce development in energy efficiency, and include suggestions for additional areas we should consider addressing. What observations can you offer about the capacity or needs of Maine’s trade professionals (e.g., electricians, plumbers, weatherization installers, heat pump installers, heating technicians, distributors, retailers, architects and engineers) to accommodate growing demand from Maine customers for heat pumps, weatherization, high-efficiency heating systems, and other conservation measures offered through the Trust’s programs? Please also share any recommendations about the approach the Trust’s Plan should take to support workforce training.

NEEP applauds the Trust for their work in developing the Heat Pump industry so far; Maine has been a national leader in the rollout of heat pumps due to both its installation and acceleration of the workforce. As Maine continues it should be cautious to “hurry up, slowly” in growing the market and training the workforce. As the state is likely familiar with, high consumer satisfaction at this stage of market adoption will breed sustained growth. To achieve this, there should be a continued focus on installer training around design, installation, and commissioning; as well as ongoing support for installers and inspectors to verify high-quality installations and performance.

In addition to what the Trust has accomplished so far, it can leverage existing resources such as local vocational and technical high schools and community colleges to get students engaged in energy efficiency related workforce tracks. Workforce development can also have beneficial impacts on underserved communities by providing desirable skills and well-paying jobs. A great example is the California Community College’s Advanced Transportation and Logistics Sector program; a partnership between the California Community Colleges and the California Energy Commission (CEC). The CEC provides funding to update facilities and curriculums primarily in underserved communities.

New York (NYSERDA in partnership with the joint utilities) is in the development stages for an installer training program that will leverage the existing training infrastructure of manufacturers. The program will ensure that the training manufacturers are already delivering a core set of design and install practices, especially relevant to New York’s climate, building stock, typical applications, etc. The Trust should consider if such a model would provide greater certainty and cost effectiveness of best practice adoption.

Finally, NEEP has developed resources that may help in building the capacity of the workforce as it pertains to upgrading building envelopes and installing high efficiency equipment. This includes a guide for installers on



[sizing and selecting ASHP's for cold climates](#), and a [buying guide for consumers](#) to provide them with a background of knowledge on the technology, what to look for and the best questions to ask their installer for a high quality installation. More resources for both Installers and consumers can be found on NEEP's [Installer and Consumer Resources](#) webpage. Further, NEEP's regional Air-Source Heat Pump product list can be leveraged to ensure that the systems being installed are energy efficient and capable of handling New England winters. 20 programs across the region and Canada utilize NEEP's cold climate Air-Source Heat Pump specification to validate equipment eligible for incentives.

Question 7

The Trust places a priority on advancing equity in delivery of its programs. For example, recent results of the Trust's programs promoting LED lights, heat pumps, and heat pump water heaters have shown strong distribution among low-income communities and in rural communities. Also, the Trust's programs have met the statutory requirements setting minimum budgets to benefit low-income Mainers. For some low-income initiatives, the Trust requires no financial contribution from the customer; for other low-income initiatives the Trust offers "enhanced rebates" for eligible customers while requiring some customers to have some "skin in the game." Please comment on how the Trust can improve on its goal of equitably delivering benefits to low-income communities while also advancing goals of maximizing energy savings, carbon reductions, and market transformation.

NEEP appreciates that the Trust has identified equity as a key priority in its program implementation and delivery. NEEP recommends that when prioritizing equity it be throughout every phase of the Trust's programs including ensuring access to initiatives and all benefits; access to workforce training and job opportunities; and access to the business capital and investment (ensuring an opportunity to be a meaningful part of the booming clean energy economy).

NEEP recommends that the Trust consider taking steps such as:

- Creating programs that are community based or partnered with community organizations.
- Reducing documentation required for participation. For example, the state could remove income qualifiers and replace them with zip codes or census tracts.
- Streamlining and /or packaging services offered so that the individual does not have to contact individual contractors or coordinate additional resources to participate.
- Incorporating and leveraging all available funds for households and businesses to ensure cost effective, holistic weatherization and electrification.
- Formulating programs alongside communities that are meant to benefit from them to ensure it is designed to accommodate their needs as this will not be a one size fits all approach.
- Utilizing a community based workforce training program to ensure equal access and opportunity to jobs and careers as the workforce to deliver these retrofits is identified.



- Recognizing the existing disproportionate energy burden and offering ways to keep electricity rates low and manageable for low- and moderate- income communities such as increasing access to community solar.

Question 8

The Trust has spent the last two years testing various load management strategies through its Innovation Program and intends to offer a new program to deploy demand response, load shifting, and load management in the next plan. Examples of these pilot projects include load shifting in commercial freezers using phase-change material; a residential “Bring-Your-Own-Device” pilot; and incentives for off-peak EV charging. Please share examples of successful load management initiatives from other jurisdictions that the Plan could draw from, as well as any reports, studies or evaluations that would aid the Trust in designing or prioritizing these strategies.

NEEP values that the Trust is working on both energy efficiency programs and innovative programs that look to deploy flexible load and load management technology. In January 2020, NEEP released a review of [Grid-Interactive Efficient Buildings \(GEBs\) Tri-Region Status Report](#). This report highlights programs throughout the nation that the Trust could look to. NEEP also maintains a catalog of information on [strategic electrification policies](#) and has a report entitled [Action Plan to Accelerate Strategic Electrification in the Northeast](#). In addition to these resources, NEEP is available to provide additional technical expertise on this topic as it is a key part of our research and technical analysis work.

Question 10

The state of Maine recently released Maine Won’t Wait: A Four-Year Plan for Climate Action, which outlines the state’s data-driven outcomes to achieve targeted emissions reductions. The plan sets ambitious goals for beneficial electrification and points to the Trust as a key implementer of beneficial electrification through investment in electric vehicles, heat pumps, heat pump water heaters and other technologies. The Trust anticipates there will be a significant funding gap between the funds the Trust is authorized to seek and the funds required to meet the Climate Action Plan’s goals. Should the Triennial Plan outline how the Trust would work to meet these goals, pending funding? How might the Trust fund the adoption of these technologies to contribute to Maine’s beneficial electrification goals?

- **Should the Triennial Plan outline how the Trust would work to meet these goals, pending funding?**

NEEP applauds Maine for the release of Maine Won’t Wait: A Four-Year Plan for Climate Action. This climate action plan lays out strategies for numerous sectors across Maine, and NEEP believes programs run by the Trust could help Maine achieve goals articulated in all four strategies. NEEP encourages the Trust to outline how it would work to meet these goals and perhaps engage a stakeholder process to collaborate on innovative ways to achieve the goals across the state. It would also be beneficial for the Trust to outline how it would work to meet



these goals to ensure program alignment between the Trust programs and state goals and identify gaps. Additionally, the Trust can use and contribute metrics from the Four Year Plan to help align its programs. Proposed metrics that could be integrated into the Trust's programs now include: clean energy jobs created, EV infrastructure, and, most importantly, energy saved via ongoing energy efficiency measures.

- **How might the Trust fund the adoption of these technologies to contribute to Maine's beneficial electrification goals?**

Maine Won't Wait outlines ambitious climate goals including installing 100,000 new heat pumps by 2025 with at least 15,000 new heat pumps in income eligible households by 2025. As well as doubling the current pace of home weatherization" with the statewide goal of weatherizing at least 35,000 homes and businesses by 2030. To fund adoption of the technologies, NEEP suggests the Trust rethink the role of the utilities in contribution to programs and program deployment.

Utilities can aid in deployment of these programs by increasing the workforce and manpower behind these initiatives. Maine has ambitious state goals but has not outlined the role of utilities in the future energy plans of the state. With the right oversight and workforce support, these companies can be a key part in the transition helping to deploy programs now and maintain a dynamic grid in the future. NEEP recommends that the Trust and Maine consider shifting the energy efficiency programs so that it becomes a hybrid program, similar to NYSERDA in New York.

Additionally, utilities can help in contribution through dedicating more funding to these programs. Maine has a forward thinking rate structure with decoupling, therefore utilities are less likely to be adverse to energy efficiency programs and helping in finance and deployment. Currently in Maine though, utility contribution and participation in programs is capped at 4% of total revenues through legislation.³

Additionally, deploying programs alongside utilities can increase capabilities to meet other state goals tied to electrification, such as advancement in building codes, rate structures, and initial high costs of equipment.

- For example, in Rhode Island and Massachusetts National Grid has started programs to help with compliance of building codes. To see more information on this see NEEP's brief on the issue, [Energy Code Compliance Attribution](#).
- To help with a higher upfront cost, utilities are in a unique position to offer on-bill financing for energy efficiency upgrades with pay as you save (PAYS) programs. This allows utilities to front the cost of energy efficiency upgrades and get reimbursed through charges on utility bills that are lower or equal to utility costs before the upgrades are installed.
- Utilities can also be the vehicle to deploy innovative and more equitable rate structures, like time-of-use.

³ 35-A MRS §10110(2)(A).



Conclusion

NEEP thanks Efficiency Maine Trust for the opportunity to comment on the Trust's Triennial Plan V. Maine is an exemplary state in its energy efficiency and clean heat technology goals and implementation. NEEP looks forward to continuing to work with the Trust as well as various stakeholders in Maine to help the state move towards its climate, resiliency, and equity goals.

Sincerely,

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