



**Comments by Richard Burbank, President, Evergreen Home Performance LLC
EMT Triennial Plan V**

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Market Barriers to Home Energy Savings

In the Triennial Plan draft, in section 5.5.3 on HESP Market Barriers, we recommend adding an item to identify and discuss a significant lack of capacity in Maine with the current vendor network and the significant challenges faced by the industry to scale up and meet the goal of doubling the pace of weatherization. The current pace of weatherization is modest in relation to the scale of the need to address homes lacking it in Maine.

In 2006, the Maine Home Performance with ENERGY STAR® Program (MaineHP) was initiated by the Governor's Office of Energy Independence and Security. In 2008, State management of MaineHP moved to the Maine Public Utilities Commission's Efficiency Maine division. The program was suspended a short time later after a three year pilot at the time that the Efficiency Maine Trust was founded and charged with deploying ARRA funds to support the initial launch of the HESP program.

We quote program purpose and description of the term "Home Performance" from the Maine HP standards document of 2008:

"The objective of MaineHP is to enhance the delivery of building performance services that use state-of-the-art diagnostic tools and the principles of building science to reduce energy consumption cost-effectively, while simultaneously addressing issues pertaining to indoor air pollutants, ventilation, moisture control, and indoor water consumption. The Program aims to accomplish this by increasing awareness of and demand for building performance while building an infrastructure of trained and certified service providers able and willing to deliver such services."

Most of the present and past HESP vendor building envelope contractors were originally Maine HP program service providers. Our company was founded and launched specifically within this model. It is our observation that the historical success of the HESP program at Efficiency Maine starting in 2009 was built upon the foundation provided by the MaineHP pilot.

In the decade since, the vendor network has diminished to the current low point of about half a dozen companies providing half of all annual HESP insulation and air sealing completions.

Maine homeowners have a very limited pool of contractors able to serve them with HESP building envelope measures and this is a serious market barrier.

We would like to suggest that that Efficiency Maine consider developing programs and partnerships to address the EMT statutory goal of "increasing new jobs and business development to deliver affordable

energy and energy efficiency products and services” now that there is expanded funding available for weatherization. We offer the following ideas:

- Relaunch a version of the MaineHP pilot to support expansion of current businesses and, for longer term results, new businesses especially in underserved markets and regions.
 - Get “Home Performance” back into the program discussion
 - The marketing and education of MaineHP would restore the identification of indoor air pollutants, ventilation, moisture control, and indoor water consumption considerations as essential elements of energy efficiency improvements. (This contrasts with simply educating the public on the rebates for airsealing and insulation which leaves contractors with the heavy lifting of complying with BPI and home performance best practices. Basement moisture and radon problems pose serious complications to weatherization.)
 - Provide more detail on assessment and improvement standards for HESP program projects. An out-of-date example of what we suggest is the Maine HP Standards from 2008 which are accessible here:
<http://www.karg.com/pdf/MHP%20Standards%20Book%20Final%200908%20v2.pdf>
 - Without standards, Maine homeowners may get some contractors skipping important details that may cause moisture, safety, health, or indoor air quality problems.
 - While recommending standards, we ask for a process for approving alternate methods that meet or exceed the standard’s intent and building science rationale.
 - Provide quality assurance that incorporates BPI standards and the program standards. (Adding this level of QA/QC to the program will ensure that an expanded and scaled up HESP will not suffer from home improvement errors and problems due to lack of contractor training, systems, or deliberate contractor non-compliance)
 - Recruit new businesses to add home performance to their service offering and become HESP vendors, especially in underserved regions of the state
- Provide incentives to contractor vendors to scale up and add long term capacity to perform more insulation and air sealing work in compliance with standards.
 - Provide on-the-job training wage subsidy to HESP vendors that expand their headcount and completions of HESP jobs to cover half the wages of new employees during training period
 - Facilitate vendor companies to get the business development support and services to scale up sustainably and successfully by partnering with a Small Business development organization like Coastal Enterprises Inc.
 - Provide HESP vendors with financing and/or grants for trucks and equipment to support adding more long-term weatherization crews performing HESP program completions

- Partner with the State of Maine on helping contractors overcome the challenges of workforce development, recruitment, and training

Cost Effectiveness in the HESP Program

We request that within the next Triennial Plan, that research and revision be considered within cost effectiveness evaluation for home energy improvements. We encourage EMT to not include the cost paid by the homeowner for the energy improvement unless all the benefits obtained by the improvement are included within the calculation. It is our experience that when our customers are making energy efficiency improvements to their home, energy cost savings is not the benefit they invested in. They frequently are most concerned about improving comfort, improved home value, improved air quality or the social benefit of reducing their personal carbon footprint.

If EMT includes participant costs, then the cost effectiveness calculation should also include reasonable estimates of the participant benefits, including non-energy benefits. If EMT is unwilling or unable to include reasonable estimates of participant non-energy benefits, then it should not allow the participant costs to be included.

We realize that EMT may not have the authority to make changes in cost-effectiveness testing methods but hope that it does have the ability to research the matter. We are concerned that even with adequate funding to expand weatherization, that cost effectiveness methods may hinder the hard work of retrofitting Maine's homes.

Clarifying the definition of a Weatherized Home

We encourage the adoption of a definition for a weatherized home within EMT and State of Maine planning and policy. We suggest that it includes the following elements:

- Housing Stock appropriate variations (different expectations for homes build in different eras and styles, (such as wood frame vs brick, late 1700s vs 1990s).
- Ensuring full building envelope has insulation and some measure of air tightness aligned at the same envelope layer.
- Minimum air tightness standard
- Assurance of indoor air quality and ventilation
- Assurance of health, safety, and moisture control

We realize that becoming a "weatherized" goal may well be a stretch goal for many homes, achieved in several phases. We encourage a pilot program to be developed to highlight home weatherization projects that make significant improvements in the above areas.

Thank you for the opportunity to provide comments on the EMT Triennial Plan. I may be reached at richard@evergreenyourhome.com with any questions.