

Living Up to the Challenge:

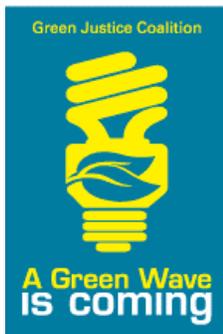
**An Issue Brief Addressing Massachusetts'
3-year Statewide Energy Efficiency Plans**

The Green Justice Coalition

July 14, 2009

The Green Justice Coalition

The Green Justice Coalition is a growing partnership of more than thirty-five community organizations, labor unions, environmental organizations, and faith-based alliances from across the Commonwealth that have come together to build support for Massachusetts' move towards an environmentally and economically sustainable green economy. In early December, the Green Justice Coalition launched a statewide campaign to dramatically increase public and private investment in energy efficiency building retrofit measures. As a chapter of the national Apollo Alliance, the Green Justice Coalition is part of a national movement that supports investment in energy efficiency building retrofits as the best, most immediate and cost-effective opportunity to reduce carbon emissions, create good 'high road' jobs, and make our communities healthier and more sustainable



The Green Justice Coalition came together because:

- **Greening is not only our responsibility, it is our right.**
Resources for greening must be accessible to all if we are to stabilize our climate.
- **A sustainable economy must be as equitable as it is green.**
We must repair economic inequalities by promoting family-sustaining green jobs, career pathways, and local and community-owned businesses.
- **Economically marginalized communities must be at the forefront of the green wave.**
Lower income communities and communities of color that have been overburdened by the dirty fossil fuel economy and systematically disenfranchised from decision-making structures must take a lead role in building a sustainable green economy.

Our Coalition Partners

Convener: Community Labor United

Steering Committee: Alternatives for Community & Environment (ACE), Association of Community Organizations for Reform Now (ACORN), Alliance to Develop Power (ADP), Boston Climate Action Network (BCAN), Coalition Against Poverty/Coalition for Social Justice (CAP/CSJ), Chelsea Collaborative, Chinese Progressive Association, Clean Water Action, Dudley Street Neighborhood Initiative, MassCOSH, Massachusetts Energy Consumers Alliance, Neighbor to Neighbor Massachusetts, New England Council of Carpenters, Painters & Allied Trades DC35, Project RIGHT

Coalition Members: Action for Regional Equity, Adaptive Environments, Boston Connects, Boston Workers Alliance, Boston Youth Environmental Network, Construction Institute, Coop Power Metroeast, Dorchester Bay Economic Development Corporation, Greater Boston Labor Council, Greenport, Green Roundtable, Home Energy Efficiency Team, JP Green House, Massachusetts AFL-CIO, Massachusetts Interfaith Committee for Worker Justice, Massachusetts Interfaith Power & Light, Plymouth-Bristol Central Labor Council, SEIU Local 615, Sheet Metal Workers Local 17, Somerville Climate Action, Unitarian Universalist Mass Action, Urban Ecology Institute, Urban Massachusetts Green Alliance, YouthBuild Boston

One Year Ago: Massachusetts Sets Course Towards a Sustainable Green Economy

In 2008 Massachusetts stood up to the prospect of a bleak energy future and began to take responsibility for changing it. To steer away from climate disaster, the Commonwealth set a new course toward a more sustainable clean energy economy. Legislators committed to cut back greenhouse gas emissions by up to 25 percent in the next decade and a total of 80 percent by 2050.¹ Massachusetts set out to purchase all available energy efficiency improvements that cost less than energy supply and to buy at least 15 per cent of our power from renewable sources.

Massachusetts' political leaders looked to an expanding green economy to be a major vehicle for driving the Commonwealth's economic growth, and passed significant new green energy legislation.² The Commonwealth staked a claim as a national leader in moving towards a clean energy economy, investing in green-collar jobs and training to create 'pathways out of poverty', as well as beefing up support for emerging technologies. Forward-looking policies like the Green Communities Act, the Green Jobs Act and the Global Warming Solutions Act mapped out a process and timetable to move towards the state's aggressive goals.

One year later, Massachusetts citizens and policymakers face the challenge of living up to these energy commitments. Big changes this year have both advanced Massachusetts' clean energy agenda and made it even more critical. The economy has deteriorated, making job creation and energy savings more compelling goals than ever. At the same time, the Obama Administration has embraced the green economy challenge, making new funding available to states and cities for energy efficiency and renewable energy investment. In the next 18 months, the American Recovery and Renewal Act (the ARRA or federal stimulus bill) will direct more than \$230 million towards energy efficiency and renewable energy projects in Massachusetts. Hundreds of millions more stimulus dollars will go to water conservation and investment in the grid and other green infrastructure in Massachusetts.

Energy Policy Needs a Broad Base

This Issue Brief is part of the Green Justice's Coalition's effort to bring our wide-ranging constituencies into important debates surrounding the green economy. It is also a tool to engage policymakers and the public in making equity and justice central elements of the climate agenda. This publication will offer recommendations on a key part of Massachusetts' energy efficiency system, the utility-administered energy efficiency programs, at a critical moment in the evolution of those programs.

Together with our partner organizations, we have been reviewing the preliminary electric and gas energy efficiency plans submitted April 30th, focusing on the residential and small business elements. Our process engaged hundreds of lower income community members across the state talking with them about their utility usage and their knowledge of and access to energy efficiency opportunities for their homes. Through community outreach and discussions with community leaders, we have developed a better understanding of some of the major barriers to moving energy efficiency programs to scale. This Issue Brief will examine:

- 1) What the statewide electric and gas efficiency plans should include;
- 2) Gaps and limitations in the preliminary statewide plans;
- 3) Proposals for addressing these gaps and limitations;
- 4) Recommendations and proposed next steps.

Beyond this issue brief, the Green Justice Coalition will continue to build partnerships that involve low income communities and workers in scaling up Massachusetts' utility programs. We recognize the impressive work the Energy Efficiency Advisory Council (EEAC) has been doing to ensure the Green Communities Act is implemented effectively, efficiently, and with the spirit the law intended and are looking forward to serving as a resource as they review and oversee the implementation of energy efficiency plans.

"Legislators committed to cut back greenhouse gas emissions by up to 25 percent in the next decade and a total of 80 percent by 2050."

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Equity: A Bottom Line for Avoiding Climate Crisis

Ramping up residential energy efficiency programs offers a very real opportunity to jumpstart an economic recovery and to repair our increasingly unequal regional economy. Developing an equitable regional economy could be achieved through:

- targeting energy efficiency jobs and resources to lower income communities and communities of color that have borne the largest environmental and economic burdens, and without whose active participation Massachusetts will not achieve its clean energy goals;
- promoting job and training standards to make energy efficiency jobs into ‘good jobs’ with family-sustaining wages and benefits, training and career pathways, and union opportunities;
- bringing communities and workers to the table where green economy decisions are being made.

“An equity agenda has a pragmatic bottom line critical to the success of our climate change efforts.”

An equity agenda has a pragmatic bottom line critical to the success of our climate change efforts. To avoid the dramatic climate, health and economic consequences triggered by continued global warming, carbon emissions must be reduced substantially: current science mandates at least an 80% reduction by 2050. Small pockets of greening cannot meet this goal. To transform our energy system on this scale, all communities must have broad and deep engagement of residents and workers.

Achieving Scale to Meet Climate and Equity Goals

For more than twenty years, utility-operated energy efficiency programs have anchored the Massachusetts energy efficiency system, and are now subject to new mandates under the Green Communities Act. The utility-operated programs are also by far the best funded piece of the Commonwealth’s energy efficiency system, paid for through a mix of customer and public funds. Now, for the first time, electric and gas utility companies must submit comprehensive three-year energy efficiency plans detailing how they will use consumer and public money to meet more ambitious state energy efficiency goals.

The plans that the utility companies submitted to the state will to a large extent determine what kinds of energy efficiency retrofit programs and jobs are available to Massachusetts communities. They will also have a major impact on how well the Commonwealth will succeed in reducing greenhouse gas emissions and fighting off climate crisis. In addition, since these programs are paid for by gas and electric customers and taxpayers, they need to be accountable to both groups.

Until now, utility-administered programs yielded annual savings of less than 1% of the state’s energy supply. The Department of Energy Resources (DOER) and its consultants from *Optimal Energy* estimate that to comply with the Green Communities Act and Global Warming Solutions Act targets will require programs that **triple** the level of energy savings these programs now attain, increasing energy savings to 3% of supply each year.³ These estimates, which have been discussed at length at EEAC meetings, underlie plan guidelines that:

- Electric program must realize a combined savings from energy efficiency programs and combined heat and power (CHP) of at least 3 percent per year over the 2010-2012 period;
- Gas programs must realize at least 2.0 percent per year in savings.

By the DOER and Optimal Energy estimates, the April 30 preliminary utility plan submissions did not set aggressive enough energy savings and emission reduction goals for the 2010-2012 plan period. The preliminary plans will not meet the Green Communities Act mandate to acquire “all cost-effective efficiency” or to put the state on track to meet the Global Warming Solutions emission reduction target. Although the April 30 preliminary plans set goals well above 2009 program levels (almost double their existing level of 1% emissions reductions), they still fell short of the levels needed.

“...to comply with the Green Communities Act and Global Warming Solutions Act targets will require programs that triple the level of energy savings these programs now attain.”

Barriers to Achieving Scale

The history of energy-efficiency programs is one of painstaking effort and retail, individual—and therefore—expensive successes. The challenge. . . is to design a retrofit program of massive scale and reasonable cost that has a measurable impact at the individual and aggregate level.⁴

--Green Jobs, Green Homes New York

Massachusetts gas and electric utility programs have some record of success they can and should build upon. However, to meet or exceed the 3% emissions reduction goal required by the Green Communities Act and the Global Warming Solutions Act targets, utilities must not simply retool or expand their existing program models. Instead they should take this opportunity to adopt a visionary and ambitious approach to this work. While there are clearly challenges and complexities involved in achieving scale, the utility plans under consideration should identify barriers to large-scale residential and commercial retrofit and re-orient their plans to address these barriers.

In addition, the 2010-2012 energy efficiency plans must dramatically expand access to energy efficiencies for all customers. In particular, the plans need to develop solutions that expand access to energy efficiencies for customers in communities that have been least served by the utilities, lower income communities and communities of color. Addressing barriers to access would explode demand for residential and commercial energy efficiency retrofits, since barriers to access *also* operate as barriers to scaling up.

“..utilities must not simply retool or expand their existing program models... they should adopt a visionary and ambitious approach to this work.”

Positive Plan Elements to Build On

The preliminary electric and gas plans have begun to address several common customer barriers to access which have limited the expansion of energy efficiency programs and savings in Massachusetts. These redesigned plans largely build on existing program models, but are better coordinated, make better use of initial consumer contacts and have the potential to result in deeper energy savings in both the early contacts and over time. These positive elements include:

- A streamlined process for responding to customer inquiries about energy efficiency needs, options and costs;
- Progress towards a ‘whole building approach’ that integrates gas and electric utilities and addresses most energy savings potential (oil heat and water systems are still not fully included);
- A new ‘3 visit approach’ that begins with a ‘screening visit’ and moves to a ‘diagnostic visit’ which will build in some free air and duct sealing as well as identifying other cost effective retrofit measures ones;
- Technologies like blower door testing and infrared scanning incorporated in audit visits to more accurately assess retrofit needs, predict likely savings, and verify work;
- A third-party quality assurance visit (the third one) to verify energy savings and correct any problems made standard;
- Re-orientation of the 1-4 residential program model to a Roadmap /Path to Net Zero Energy that reflects the progression and success of the Low-Income (LEAN) model (a combination of lighting, appliance & shell improvements such as air sealing, insulation, windows and possible heating system upgrade) that will save an average of 40-50% on total gas/electric/oil utility usage;
- Packaging measures to include solar hot water and other renewable energy sources;
- Anticipating the need to build a long-term relationship with customers that gets them on a path to doing energy efficiency work over a period of years;
- Continuation of the collaborative ‘Best Practices Working Group’ approach to program development involving Program Administrators, LEAN, Department of Housing and Community Development (DHCD) and the Low Income Weatherization and Fuel Assistance Program Network (the Network); as well as its possible expansion to other utility programs;
- The collaboration by LEAN, DHCD and the Network with the Clean Energy Center to improve and standardize training for auditors, contractors and installers;
- Commitment to carrying through a multifamily working group process that will assess all existing multi-family options, and will develop integrated program models and streamlined outreach strategies for owners of buildings with 5 or more units, including options specific to low income multi-family customers.
- A possibility of developing new residential financing options that would incorporate findings from the 2009 ‘Pay and Save’ pilots.

Four Major Barriers Still Need to be Addressed

Progress in the areas listed above will help deepen and broaden the energy savings that are captured through residential retrofits; but they do not go far enough to achieve the mandated levels of energy savings. Existing programs work primarily through incentives to individual customers, and do not have broad reach. In addition, only 20-25% of customers who get far enough to have an audit then follow through with implementation of any retrofit measures – only one of every four or five.

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A number of studies have assessed barriers to energy efficiency program expansion.⁵ Addressing these major barriers will make energy efficiency retrofits universally accessible and would ‘explode’ demand for retrofit. Addressing these barriers would also bring down the costs of retrofits by enabling programs to take advantage of economies of scale and bulk purchasing and would likely significantly reduce the level of rebate incentives required. This would allow funding to be shifted away from marketing and incentives to funding larger numbers of audits and retrofit measures.

Barrier #1: Upfront Costs for Deep Retrofits

Solution: Financing should make deeper energy efficiency retrofits accessible to all residents and small businesses

- Set up on-bill cost recovery and a state revolving loan fund to eliminate the ‘upfront cost’ barrier
- Use the LEAN model as a residential baseline and make it cost-effective for most customers to finance it through the on-bill mechanism

Barrier #2: A Disconnect with Economically Marginalized Communities

Solution: A community-driven approach must be part of effectively engaging economically marginalized residents in carrying out retrofits

- Adopt a community mobilization model that partners with organizations with existing relationships with working class communities
- Target Outreach
- Address landlord/tenant split incentive issues and requirements that make sure it won’t lead to gentrification.

Barrier #3: Jobs are low paying, with inadequate training and safety measures

Solution: Establish high road jobs with quality, training and safety standards with accessible career pathways

- Leverage state funding and approval to attach job quality and training standards to all contracts with utilities, their contractors and sub-contractors.
- Bundle homes and neighborhoods for large-scale contracts to create more local jobs and attract responsible contractors
- Establish a centralized workforce development training system that ensures professional standards, quality controls and is accessible to working class communities

Barrier #4: Community Input and Ownership

Solution: Set up an Equity subcommittee of the Energy Efficiency Advisory Committee

- Include community members and leaders involved in community mobilization
 - Ensure the subcommittee has the information and resources to monitor utility programs’ progress to meet equity as well as climate goals
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Barrier #1: Upfront Costs for Deep Retrofits

Most low and moderate-income homeowners, tenants and small business owners can't afford up-front costs for deep retrofits, even with rebates and tax credits.

Upfront costs are one of the major barriers for customers seeking to participate in energy efficiency programs and therefore a major barrier to scaling up these programs. Forty to fifty percent of the population do not have incomes low enough to qualify for free weatherization programs, yet do not have the money or access to credit to pay for retrofits up front. The redesigned residential proposal, called the Residential Conservation Services ("RCS")/MassSAVE Program, notes that program administrators are considering an expansion of the program's existing zero-interest HEAT loan that would allow it to fund a wider range of retrofit measures, including more renewables. Even with the proposed broader criteria, the HEAT program is inadequate for addressing the barriers of upfront costs that limit universal access to residential energy efficiency programs. HEAT is subject to the limitations of all off-bill programs: it depends on creditworthiness and excludes those with credit barriers; it is not structured so that participants can immediately enjoy some portion of the savings realized through retrofit measures; and credit terms do not always support deeper retrofit measures that have longer pay-back periods.

Solution: A Revolving Loan Fund with On-Bill Cost Recovery for Deep Retrofits

Setting up a universally accessible revolving loan fund with utility on-bill 'cost recovery' will make it attractive to residents to carry out fuller retrofits since they won't have to front money, and they will realize a certain percentage of the cost savings from the very beginning. There are a number of ways this fund could be set up and the loans secured to minimize risk for investors, the Commonwealth and utilities.

Program administrators should adopt and offer financing options for a comprehensive retrofit model that combines home weatherization (air sealing and insulation) with system replacements to get deep energy savings of 40-50%. Deep retrofits are an essential ingredient in reaching Massachusetts' ambitious energy efficiency goals.

On-bill financing is not new to Massachusetts utilities. National Grid and several other Massachusetts utilities have successfully used on-bill financing for their small business customers for a number of years with very low default rates, and more recently have extended on-bill financing to municipal customers. In addition, this year Massachusetts' electric companies piloted residential Energy Pay and Save (EPS), with a very small pilot program offering on-bill financing for energy saving retrofits to residential and commercial customers, in order to comply with a Green Communities Act mandate.⁶ Unfortunately, the electric companies' commitment to carry out and evaluate this mandated EPS pilot falls far short of the explicit commitment to an 'on-bill' financing program that the Green Justice Coalition believes is necessary and possible in these 3-year plans.⁷

Energy Efficiency Programs in a number of other places have adopted on-bill Tariffed Installation Programs (TIPs), which address the problem of creditworthiness by attaching the charge to the meter rather than the individual. New York State is also considering a large-scale TIP proposal. Working together, utility program administrators and DOER could have a TIF-based on-bill recovery program in place before the end of 2012.

Example: Midwest Energy: HowSmartSM, Program, Kansas

- In August 2007, Midwest Energy launched a tariffed installation program (TIP) for all residential customers, including owners of multifamily and rental units.
- Midwest Energy worked with the Energy Efficiency Institute, developer of the Pay As You Save Program (PAYS®) model, to set up the program.
- Midwest Energy has a well-trained internal auditing team that provide free audits for customers who enroll in HowSmartSM. Audits recommend specific improvements such as insulation levels and new equipment sizing; and generate an estimated savings level.
- The customer then selects a contractor to perform the work as specified by Midwest Energy.
- Once the customer signs off on the completed work, Midwest Energy pays the contractor directly and adds the loan repayment charge to the customer's bill. The HowSmartSM charges must be less than 90% of the estimated monthly savings.
- In the first year and with very little marketing, the pilot program has seen a strong response

The Massachusetts DOER and other policymakers should also introduce legislation by the end of 2009 that would create a statewide revolving loan fund and associated loan loss reserve to finance residential energy efficiency retrofits. This vehicle may be funded from a number of non-state sources--including federal stimulus money, tax-exempt bonds and private financing, and it may be complemented by other municipal or neighborhood programs.

Barrier #2: Community 'Disconnect'

Our neighborhoods lack information about energy efficiency retrofits from trusted sources. Traditional customer-by-customer 'marketing' approaches do not effectively engage low and moderate income residents and small businesses.

Energy efficiency programs (other than federally subsidized very-low-income weatherization programs) serve relatively few people, most of them people with higher-than-average incomes. A Green Justice Coalition survey of Massachusetts residents in June found that fewer than one-quarter of respondents had ever been contacted about energy audits or energy-saving opportunities. Fewer still actually had an audit done.

A community-driven strategy is necessary to achieve the levels of energy efficiency implementation that Massachusetts requires. Community organizations with a proven track record of education and organizing would involve residents and small businesses in gaining access to retrofit resources and financing, and in adopting maintenance and conservation practices that maximize savings. Incentives for participation could include high-quality auditing and retrofit jobs that help rebuild the local economy.

Many of the community-based organizations participating in the Green Justice Coalition were also involved in developing a pilot community mobilization proposal that the state is currently considering as a vehicle for extending energy efficiency services to reach 100,000 of Massachusetts' under-served oil-heated households over a 24-month period.⁸

"...fewer than one-quarter of respondents had ever been contacted about energy audits or energy-saving opportunities."

Solution A: Community-Driven Strategy

Build outreach around a community-driven strategy rather than a 'marketing' strategy focused on individual homeowners & businesses. Community-based groups that already have relationships with and access to home-and building-owners, displaced workers, and local information structures will be enlisted to support the steep ramp-up of participation in energy efficiency, from home retrofits to green jobs.

Lack of information cannot fully explain the gap in access and participation; the way information is communicated and by whom is extremely important. Studies of citywide programs such as Houston's "Power to the People" offer evidence that creating channels for more direct, grassroots outreach through groups that people already know and trust is a critical element for increasing participation--often more important than the level of incentives offered. Researchers reported that in Houston "*community groups outperformed both private subcontractors and utilities in implementing energy efficiency programs when performance was measured by cost, energy savings, and response rate, perhaps because the level of mutual trust and familiarity homeowners had with the community groups.*"⁹

Community-based *marketing*, as proposed in the utilities' plans, will fall short of involving in energy efficiency activities the large numbers of residents and businesses needed to meet emissions reductions goals.¹⁰ They rely on large institutions such as schools or unemployment centers as intermediaries; and they target individual unit and business owners, rather than coupling efforts to build community ownership with bundling strategies that could more easily reach whole blocks or neighborhoods. Their approach will fail to motivate and build ownership among critical constituencies, including:

- low income residents who are outside the federal fuel-assistance network;
- moderate-income residents (60-120% of the state median income);
- tenants who pay their own heat; and
- oil-heat customers.

"Lack of information cannot fully explain the gap in access and participation; the way information is communicated and by whom is extremely important."

Solution B: Targeting

The EACC should concentrate a significant portion of each year's energy efficiency program funding in a limited number of 'green zones': geographic target areas of 1000 units (smaller in more rural areas), where community organizations will organize block by block and create large-scale demand for retrofits. Criteria for selecting green zone will include equity and access.

Green zones would target communities with:

- dense poverty and/or high energy cost burdens in relation to income
- unmet need and barriers to accessing energy efficiency programs
- housing that is energy-inefficient due to lack of income for repairs and improvements;
- high geographic concentrations of emissions and pollution (environmental justice communities)
- higher than average residential energy consumption
- high unemployment and low opportunity, where access to training for work in emerging industries has been limited
- committed community-based organizations capable of reaching large numbers of residents and businesses and successfully engaging them in a community mobilization strategy.

"...the green zones approach offers more concentrated outreach, contracting and workforce development."

Although some utility programs have experimented with 'neighborhood sweeps' in places such as Marshfield, and the Cambridge Energy Alliance has been working on a customized approach for its residents and businesses, the green zones approach offers more concentrated outreach, contracting and workforce development. It also creates more equitable criteria for selecting targets than the *competitive solicitation* that utility plans propose.¹¹

Solution C: Address landlord/tenant split incentives and the displacement threat

On-bill cost recovery or financing can keep the charge for retrofit work with the apartment, giving tenants incentives to participate. Multifamily initiatives must be structured not only to overcome differing landlord/tenant incentives, but also to require that landlords benefiting from the program also offer "green leases" longer than one year so that building improvements do not lead to displacement.

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Multifamily initiatives must be structured not only to overcome differing landlord/tenant incentives, but also to require that landlords benefiting from the program also perform low-cost retrofits for their tenants. On-bill cost recovery or financing can support this by keeping the charge for retrofit work with the apartment, so tenants have incentives to participate. Residential green leases must go farther than existing federal weatherization contracts, in which landlords receiving free weatherization on units they own must agree only to a 1-year lease. If low and moderate income tenants are kept on the margins of energy policy debates, there is a very real danger that public and system-benefit funded energy efficiency investments will fuel their displacement.

Barrier #3: WORKFORCE LIMITATIONS

An inadequately trained, skilled and compensated workforce will limit the number and quality of energy efficiency retrofits that can be carried out, especially in diverse communities.

Ramping up energy efficiency programs to a scale that can meet our emission reduction goals, targeting deeper retrofits, will inevitably confront the limitations on the industry's workforce. Analysts agree that the energy efficiency retrofit workforce is inadequately trained, credentialed and compensated, particularly in the residential retrofit sector. The contractor pool has also remained stagnant, with few larger contractors involved in this sector. These limitations will ultimately constrain the number and quality of energy efficiency retrofits and will limit Massachusetts's ability to meet its emissions reduction goals. At present:

- Many energy efficiency retrofit jobs are low paying and seasonal, with inadequate training and safety measures;
- Scattered demand and a fragmented contracting system helps to keep wages low, making it hard for new contractors and union contractors to enter;
- Recruitment that is limited to online job postings on company web sites never reaches job seekers in many low-income communities;
- Having very few Spanish or Chinese speakers, for example, limits programs capacities to serve customers in those communities;
- Limited training and extensive subcontracting makes it hard to enforce occupational health and safety standards or to provide adequate safety training and equipment.

“Analysts agree that the energy efficiency retrofit workforce is inadequately trained, credentialed and compensated, particularly in the residential retrofit sector.”

Solution A: “Good Job” and “Responsible Employer” Standards

The state should leverage its investment in this system to attach ‘good job’ and ‘responsible contractor or employer’ standards—including a comprehensive environmental health and safety program—to all contracts with program administrators, their contractors and sub-contractors. Make sure retrofit funds support ‘work that pays’ and that is also accessible to low-income residents with barriers to employment

Good wages, long-term career pathways, health and safety standards, and unionization opportunities will attract and keep the high quality workforce that the Commonwealth needs to meet its emissions reduction goals. They will also build the industry's capacity to become an economic driver in our state. High standards will meet Green Communities Act requirements, which mandate that the utility plans address the economic and workforce benefits of our public and consumer energy efficiency investments. When these standards are connected to local hiring incentives, they bring maximum economic benefits to low-income communities and communities of color.

Good jobs support families and communities, pay decent wages and provide good health care and retirement benefits, ...enable employees to freely exercise their freedom to form unions and bargain collectively, ...ensure fair and nondiscriminatory treatment, are safe and healthy, give workers the flexibility and resources they need to nurture their families and provide them with skills and opportunities for advancement.¹²

Contractors must be held to high standards of “good public citizenship,” including compliance with codes and labor laws, including mandatory health and safety training and reporting systems, in addition to any additional commitments to hiring, quality of work, and warranting services.¹³

“Good wages, long-term career pathways, health and safety standards, and unionization opportunities will attract and keep the high quality workforce....”

“A rationalized approach to retrofit outreach, contracting, recruitment and training offers the best potential for creating ‘pathways out of poverty’ that lead low-income community members into lifetime careers.”

Solution B: Bundling

“Bundle” dozens of units in a single retrofitting contract in order to concentrate demand and workforce development in targeted communities.

Scaling up residential, small business and multifamily retrofit programs will require the Commonwealth and the utilities to develop new contracting strategies. Targeting ‘green zones’ and bundling the work in larger-scale contracts will multiply the universe of contractors willing to bid on this work and will allow for the effective enforcement of job quality, training, safety and performance standards. A community-driven approach, with local organizations reaching energy efficiency consumers *and* potential workers, will build a diverse and committed workforce and contractor base – if coupled with local hiring incentives. A rationalized approach to retrofit outreach, contracting, recruitment and training offers the best potential for creating ‘pathways out of poverty’ that lead low-income community members into lifetime careers. It can also help increase the cost-effectiveness of retrofits by allowing contractors to take advantage of economies of scale not available under the existing marketing and contracting systems.

Solution C: Extend LEAN/DHCD and Clean Energy Center training and credentialing

Build on the 2008-2009 LEAN/DHCD and Clean Energy Center activities to establish more standard and universal workforce training and credentialing system. Promote direct links between workforce training and program expansion. Build on the “Pathways Out of Poverty” grants to open accessible to energy efficiency jobs to low-income communities and workers, including those with limited English proficiency. Build on Massachusetts extensive network of union apprentice training to create linkages to energy efficiency jobs.

“More attention should be focused on the training needs of both existing and new retrofit workers.”

The revised electric and gas plans anticipate and discuss additional *contractor* training needs in many areas including HVAC, deep residential retrofit.¹⁴ More attention should be focused on the training needs of both existing and new retrofit workers. The plans should specify what kinds of mechanisms they propose to bridge gaps: how they plan to create access for un- and underemployed workers to these positions, in partnership with community-based workforce development organizations, labor/management apprenticeship programs, and community colleges. This kind of planning will help Massachusetts to build a bridge between training and jobs, and to maximize access to new federal “green jobs” resources.

Barrier #4: Very Limited Community Input & Ownership

Energy efficiency programs lack a vehicle for ongoing community input and

Community members can make important contributions to program planning, implementation and oversight, but a short and intense timeline have limited opportunities for community participation during the development of statewide energy efficiency plans. Program administrators have proposed program-specific ‘Best Practices’ working groups to help implement the plans over the next three years. Community members should be invited to participate in these Best Practices working groups.

Solution A: Equity Subcommittee

Set up an Equity Subcommittee of EEAC to provide input to and monitor implementation of utility plans for all programs. This will include addressing equity concerns as they evolve. This body will be chaired by one or more EACC members and will include other members who are not EACC members but who are stakeholders from low and moderate income communities and communities of color across the Commonwealth, as well as the energy efficiency workforce.

In addition to the “Best Practices” working groups, the Green Justice Coalition would like to propose that the Energy Efficiency Advisory Committee establish an ‘Equity Committee’ as a counterpart to the program-specific bodies, with a mandate to focus on progress in addressing barriers to access, workforce barriers and other ‘equity’ concerns that are especially relevant to Green Justice constituencies. This body would be chaired by one or more EACC members and would include other non-EEAC participants representing low and moderate income communities and communities of color across the Commonwealth, as well as the energy efficiency workforce. This Committee will monitor the implementation of utility plans, reporting to the EACC, and will make proposals to the EACC on addressing equity concerns as they arise.

Solution B: Transparency

Assure that program budgets and evaluations are independent, fully publicly available and online.

Both electric and gas plans build in extensive program monitoring and evaluation of energy efficiency outcomes. The electric plan alone budgets over \$42 million for evaluation, monitoring & verification. A substantial amount of this should go to independent evaluation, with the full reports to be publicly available and online.

Finally, there should be a transparent and publicly available assessment of the financing mechanisms and formulas in the utility plans, including the mechanisms that are intended to compensate utility companies for earnings lost to reduced power sale. These include an Energy Efficiency Reconciliation Factor (“EERF”) that for the electric companies alone total more than a half *billion* dollars for the three-year period 2010-2012 (\$543,735,826). It is important to assess these financing mechanisms because these charges will increase energy costs for consumers, particularly those who do not participate in energy efficiency programs and therefore do not realize savings to offset these increased costs. Increased system benefit charges will be needed to support expanded energy efficiency programs, but consumers need to understand these charges and feel that they are equitable.

“Community members can make important contributions to program planning, implementation and oversight.”

“...there should be a transparent and publicly available assessment of the financing mechanisms and formulas in the utility plans.”

Summary: Goals, Barriers and Solutions

Energy Efficiency GOALS	Barrier that Needs to be Addressed	Proposed Solutions
<p>#1: FINANCING: Make deeper energy efficiency retrofits accessible to all residents and small businesses</p>	<p>Upfront Costs for Deep Retrofit: Most low and moderate-income homeowners, tenants & small business owners can't afford up-front costs for deep retrofits, even with rebates and tax credits.</p>	<p>A Revolving Loan Fund with On-Bill Cost Recovery for Deep Retrofits: Program administrators should adopt and offer financing options for a comprehensive retrofit model that combines home weatherization (air sealing and insulation) with system replacements to get deep energy savings of 40-50%. Deep retrofits are an essential ingredient in reaching Massachusetts' ambitious energy efficiency goals.</p> <p>Setting up a universally accessible revolving loan fund with utility on-bill 'cost recovery' will make it attractive to residents to carry out fuller retrofits since they won't have to front money, and they will realize a certain percentage of the cost savings from the very beginning and full savings when financing is paid. There are a number of ways this fund could be set up and the loans secured to minimize risk for investors, the Commonwealth and utilities.</p>
<p>#2 COMMUNITY-DRIVEN STRATEGIES: Effectively engage low and moderate income residents who have not previously participated in large numbers in meeting efficiency goals;</p>	<p>Community Disconnect: Our neighborhoods lack information about energy efficiency retrofits from trusted sources. Traditional customer-by-customer 'marketing approaches do not effectively engage low and moderate income residents and small businesses. Piecemeal retrofitting (home by home) makes it hard to build market and achieve economies of scale. Landlords' and tenants' different interests keep many rental apartments from getting retrofitted.</p>	<p>Build outreach around a <i>community-driven</i> rather than a 'marketing' strategy focused on individual homeowners & businesses. Community-based groups that already have relationships with and access to home-and building-owners, displaced workers, and local information structures will be enlisted to support the steep ramp-up of participation in energy efficiency, from home retrofits to green jobs.</p> <p>Targeting: The EACC should concentrate a significant portion of each year's energy efficiency program funding in a limited number of 'green zones': geographic target areas of 1000 units (smaller in more rural areas), where community organizations will organize block by block and create large-scale demand for retrofits. Criteria for selecting green zone will include equity and access.</p> <p>Address landlord/tenant split incentive issues & displacement threat: On-bill cost recovery or financing can keep the charge for retrofit work with the apartment, giving tenants incentives to participate. Multifamily initiatives must be structured not only to overcome differing landlord/tenant incentives, but also to require that landlords benefiting from the program offer "green leases" longer than one year so that building improvements do not lead to displacement.</p>
<p>#3 HIGH ROAD JOBS & WORKFORCE: Creating good energy efficiency jobs and career pathways accessible to low income communities</p>	<p>WORKFORCE LIMITATIONS An inadequately trained, skilled and compensated workforce will limit the number and quality of energy efficiency retrofits that can be carried out, especially in diverse communities</p>	<p>"Good Job" and "Responsible Employer" Standards: The state should leverage its investment in this system to attach 'good job' and 'responsible contractor or employer' standards--including a comprehensive environmental health and safety program--to all contracts with program administrators, their contractors and sub-contractors. Make sure retrofit funds support 'work that pays' and that is also accessible to low-income residents with barriers to employment.</p> <p>Bundling: "Bundle" dozens of units in a single retrofitting contract in order to concentrate demand and workforce development in targeted communities.</p> <p>Extend LEAN/DCHD and Clean Energy Center training and credentialing: Build on the 2008-2009 LEAN/DHCD and Clean Energy Center activities to establish more standard and universal workforce training and credentialing system. Promote direct links between workforce training and program expansion. Build on the "Pathways Out of Poverty" grants to open accessible to energy efficiency jobs to low-income communities and workers, including those with limited English proficiency. Build on Massachusetts extensive network of union apprentice training to create linkages to energy efficiency jobs</p>
<p>#4: ONGOING OPPORTUNITIES FOR COMMUNITY INPUT</p>	<p>VERY LIMITED COMMUNITY INPUT & OWNERSHIP. Energy efficiency programs lack a vehicle for ongoing community input and attention to equity concerns</p>	<p>Set up an Equity Subcommittee of EEAC: Set up an Equity Subcommittee of EEAC to provide input to and monitor implementation of utility plans for all programs. This will include addressing equity concerns as they evolve. This body will be chaired by one or more EACC members and will includes other members who are not EACC members but who are stakeholders from low and moderate income communities and communities of color across the Commonwealth, as well as the energy efficiency workforce.</p> <p>Transparency: Assure that program budgets and evaluations are independent, fully publicly available and online.</p>

End Notes

¹ There continues to be debate over the scope of the 2020 emissions reduction goal. The legislation only mandates a 10% reduction, while the Department of Energy and Environmental Affairs believes that a 13-15% reduction is achievable and advocates are seeking an explicit 25% goal.

² Massachusetts' 2008 Green legislation and policy includes: the wide-ranging Green Communities Act (GCA, Chapter 169 of the Acts of 2008); the Global Warming Solutions Act (GWSA, Chapter 298 of the Acts of 2008); the Clean Energy Biofuels Act (Chapter 206 of the Acts of 2008); the Green Jobs Act (Chapter 307 of the Acts of 2008); the Oceans Act of 2008; and the Department of Public Utilities' decoupling regulations.

³ While Massachusetts has not yet completed a full 'technical potential' study to approximate how much energy efficiency investment is available and how much of it will be cost-effective to attain, Department of Energy Resources (DOER) and its consultants from *Optimal Energy* have provided estimates to guide the utility program plan development. Their estimates are drawn from recently completed 'technical potential' studies completed by neighboring states, and have been discussed at length at EEAC meetings.

⁴ Center for Working Families New York *Green Jobs, Green Homes New York*, p.17.

⁵ For example, a 2008 study of 18 residential energy efficiency programs in the U.S. and Canada that have tried to expand access identified "a number of important limitations of most existing programs including: limited applicability for households most in need; low participation rates; difficulty assuring that savings will exceed payments; limited support for deep energy retrofit; the inability of most programs to cover their costs.

From Merrian Fuller, *Enabling Investments in Energy Efficiency, A Study of Programs That Eliminate First Cost Barriers for the Residential Sector*, Efficiency Vermont, August 2008. pp. 4-6.

⁶ Green Communities Act **SECTION 84**. *The secretary of energy and environmental affairs shall, in conjunction with the department of public utilities, implement an "energy pay and save", hereinafter referred to as EPS, pilot program, allowing electric utility customers to purchase and install energy efficient or renewable energy products in their residences or commercial facilities by paying the cost of the system over time through an additional charge on the customer's electricity bill. The cost of the products purchased under the pilot program shall be added to the electric utility customer's utility bills in a form approved by the department, as a monthly EPS tariff, and shall be paid until the cost of purchase and installation of the products is paid off. The payment structure shall be implemented so that the charge on the electric utility customer's utility bill shall be less than that customer's energy savings over the course of each given year.*

⁷ The very small number of participants in this EPS pilot (no more than 200) and the very low finance limits (a maximum \$500 per residential unit and \$1000 per commercial unit) make it unlikely that the Commonwealth or the utilities will learn from this pilot will be relevant to the kinds of large-scale or universal on-bill finance programs that other states have already established, which typically offer unsecured financing for much more extensive retrofit measures, including insulation and heating systems, with payback periods of up to 15 years. The electric companies' decision to assign the loan repayment obligation to the customer rather than the meter further limits the applicability of what can be learned from these PILOTS.

⁸ *Improving Oil Heating Efficiency Statewide & Reshaping the Heating Oil Industry As Part of a Burgeoning Green Economy*. Proposal submitted in May 2009 to the Massachusetts Department of Energy Resources by a number of parties, including Steve Cowell, Larry Chretien, the Green Justice Coalition.

⁹ Fuller, op cit, p. 42.

¹⁰ Program Administrators Electric Program Description, 090714-Electric, pp. 4-6.

¹¹ Other targeting criteria include factors that maximize potential retrofit gains and cost-effectiveness, such as neighborhoods with similar housing construction where efficiency measures are easily replicable

¹² From the AFL-CIO Working Families Vote, http://www.aflcio.org/issues/politics/issues_goodjobs.cfm.

¹³ Criteria adapted from the Center for Working Families, op cit, p. 28. Sample Health and Safety contract language is suggested by the National Coalition for Occupational Health and Safety: "All companies receiving funding. . . must establish a comprehensive safety and health program including but not limited to a written program, preplanning and a worker reporting system to identify safety problems. Companies must provide health and safety training that addresses the specific hazards and methods for controlling hazards as part of pre-employment job training programs. For projects that require OSHA 10HR construction safety training, this training shall incorporate hazards and controls that are anticipated on the site for which funding is being received."

¹⁴ Electric Plan 090714 op cit, p. 28-33, p. 91-97, p. 103. Program Administrators Gas Program Description, Gas 090714, pages 1-14, pp. 24-28, pp. 31, pp. 55-57.