

**COMMONWEALTH OF MASSACHUSETTS  
DEPARTMENT OF PUBLIC UTILITIES**

)	
Petition of Massachusetts Electric	)
Company and Nantucket Electric	)
Company for Review and	)
Approval of its 2010-2012	)
Energy Efficiency Plan.	)
)	

D.P.U. 09-116

**DIRECT TESTIMONY OF MARY JO CONNELLY  
(November 20, 2009)**

1     **Q.     Please state your name, position, and business address.**

2     A.     My name is Mary Jo Connelly. I am the Research Director at Community Labor United,  
3     Inc. located at 8 Beacon Street, Second Floor, Boston, MA 02108.

4     **Q.     On whose behalf are you testifying?**

5     A.     Community Labor United, Inc. (“CLU”), intervenor in this proceeding.

6     **Q.     Please summarize your professional and educational background.**

7     A.     I have worked as a researcher for CLU since 2005 and have been Research Director since  
8     early 2007. I previously carried out research on economic and workforce development at the  
9     Labor Resource Center, UMass Boston, for five years and carried out other studies and  
10    evaluations as a consultant. I earned an AB in Government from Harvard University in 1981 and  
11    a Master’s degree in Education at the University of Massachusetts, Amherst in 1992. I also  
12    completed graduate course work in labor and economic research at the University of  
13    Massachusetts, Amherst. I published several reports on economic and workforce development  
14    and completed program evaluations of workplace education, training and apprenticeship  
15    programs. Please see my résumé for further details, which follows as Attachment A.

16    **A.     Please identify any regulatory proceedings in which you have previously testified.**

1 A. I have not testified in any regulatory proceedings.

2 **Q. What is your testimony regarding?**

3 A. I am testifying regarding five issues: up front financing, community-driven outreach,  
4 quality jobs, equity metrics, and representation.

5 **Q. Please discuss up front financing.**

6 A number of studies document that up front costs are one of the major barriers for  
7 customers seeking to participate in energy efficiency programs, and therefore a major barrier to  
8 scaling up these programs. Many low to moderate income homeowners, tenants and small  
9 business owners, who do not qualify for federally subsidized weatherization, cannot afford up  
10 front costs for deep retrofits, even with rebates and tax credits. The existing HEAT loan program  
11 will not fully address the barriers of upfront costs that limit universal access to residential energy  
12 efficiency programs. HEAT is subject to the limitations of all off-bill programs: it depends on  
13 creditworthiness and excludes individuals with credit barriers; it is not structured so that  
14 participants can immediately enjoy some portion of the savings realized through retrofit  
15 measures; and credit terms do not always support deeper retrofit measures that have longer pay-  
16 back periods.

17 Energy efficiency programs in a number of other places have adopted on-bill Tariffed  
18 Installation Programs (“TIPs”), which address the problem of creditworthiness by attaching the  
19 charge to the meter rather than to the individual. The Pay As You Save Program developed a TIP  
20 model that has been used in a number of states including Kansas and New York. Further details  
21 about reducing up front cost barriers in the residential sector is located in a report by Merrian

1 Fuller as Attachment B, titled “Enabling Investments in Energy Efficiency.”

2 In Kansas, Midwest Energy launched a TIP for all residential customers, including  
3 owners of multifamily and rental units under a program called How\$martSM. Midwest Energy  
4 has a well-trained internal auditing team that provides free audits for customers who enroll in  
5 How\$martSM. Audits recommend specific improvements such as insulation levels, new  
6 equipment sizing, and also generate an estimated savings level. The customer then selects a  
7 contractor to perform the work as specified by Midwest Energy. Once the customer signs off on  
8 the completed work, Midwest Energy pays the contractor directly and adds the loan repayment  
9 charge to the customer’s bill. The How\$martSM charges must be less than 90% of the estimated  
10 monthly savings. In the first year and with very little marketing, the pilot program has seen a  
11 strong response.

12 In New York, consistent with the Green Jobs/Green New York Act, the state developed a  
13 large-scale TIP program that is backed by a state-administered finance pool. This mechanism  
14 will allow the state to bring in outside capital and expand energy efficiency retrofit installation to  
15 one million homes and businesses in the next five years. This ‘scaling up’ will also create 14,000  
16 new jobs, reduce stress on the electrical grid, and provide environmental, public health and  
17 economic benefits.

18 On-bill financing is not new to Massachusetts utilities. National Grid and several other  
19 Massachusetts utilities have successfully used on-bill financing for their small business  
20 customers with low default rates and, more recently, have extended on-bill financing to  
21 municipal customers. This year Massachusetts electric companies piloted residential Energy Pay

1 and Save with a small pilot program offering on-bill financing for energy saving retrofits to  
2 residential and commercial customers, in order to comply with a Green Communities Act  
3 mandate.

4 **Q. Please explain why up front financing should be included in the utility's energy**  
5 **efficiency plan to fully implement the resolution of the Energy Efficiency Advisory**  
6 **Committee and the Green Communities Act.**

7 A. Including on-bill repayment in National Grid's energy efficiency plan will prepare the  
8 utility to implement on-bill repayment and financing programs that the Department of Energy  
9 Resources is working to bring online during the three-year plan period. Setting up utility on-bill  
10 cost recovery, when backed by a universally accessible loan fund, can enable Program  
11 Administrators to offer residential and small business financing options for a comprehensive  
12 retrofit model that combines home weatherization (air sealing and insulation) with system  
13 replacements to get deep energy savings of forty to fifty percent. Deep retrofits are an essential  
14 ingredient in reaching Massachusetts' ambitious energy efficiency goals.

15 Addressing the up front cost barrier through on-bill repayment and outside financing can  
16 increase demand for retrofit installations. On-bill repayment programs are attractive to residents  
17 because they will not have to pay money out of pocket and they will immediately realize a  
18 percentage of the cost savings from the installed measures. Linking repayments to the meter  
19 makes it possible for tenants to participate as well. In addition to making energy efficiency  
20 retrofits more broadly available, adopting on-bill repayment programs linked to a funding pool  
21 can allow National Grid and other Massachusetts utilities to scale up in an unprecedented way

1 that will bring significant economies of scale. Finally, adopting on-bill repayment and a  
2 financing pool can reduce the energy efficiency programs' bill impacts on customers, with  
3 ratepayers assuming fewer of the program costs.

4 **Q. Please discuss community-driven outreach.**

5 Energy efficiency programs (other than federally subsidized very-low-income  
6 weatherization programs) have found that traditional customer-by-customer mass media  
7 marketing approaches have not effectively engaged many low and moderate income residents  
8 and small businesses. A Green Justice Coalition survey of more than 125 Massachusetts  
9 residents completed in June 2009 concluded that fewer than one-quarter of respondents had ever  
10 been contacted about energy audits or energy-saving opportunities. Fewer still actually received  
11 an audit. The survey was informal and not randomized, but nonetheless may be of interest. Lack  
12 of information cannot fully explain the gap in access and participation. Rather, the way  
13 information is communicated and by whom is extremely important. A comprehensive study of  
14 citywide programs, discussed in the Fuller report in Attachment B, offers evidence that creating  
15 channels for direct, grassroots outreach through groups that people already trust is a critical  
16 element for increasing participation -- often more important than the level of incentives offered.

17 A community-driven outreach approach must be part of effectively engaging the  
18 following critical constituencies: low income residents who are outside the federal fuel-  
19 assistance network; moderate-income residents (60-120% of the state median income);  
20 communities of color, including speakers of languages other than English; tenants who pay their  
21 own heat; and oil-heat customers.

1           A number of communities across the country have begun to use community mobilization  
2 approaches to carrying out energy efficiency programming including Kansas City and New York  
3 City. The Community Mobilization Initiative (“CMI”) that the Green Justice Coalition has  
4 developed is one such approach. CMI facilitates the implementation of neighborhood-scale  
5 bundled energy efficiency retrofits in a designated hard-to-reach neighborhood and will include  
6 1-4 family residential, multifamily and small business units. CMI aims to: promote energy  
7 efficiency, energy conservation and the installation of clean energy technologies in the  
8 designated neighborhood; reduce the designated community’s energy consumption and energy  
9 costs; reduce the designated community’s greenhouse gas emissions; support sustainable  
10 development in the community; create green job opportunities for community residents,  
11 including new entrants into the workforce, long-term unemployed and underemployed residents,  
12 and displaced workers; create energy efficiency job training opportunities for community  
13 residents, including on-the-job training and pathways into construction careers; pilot innovative  
14 community-mobilization outreach mechanisms to engage residents and small businesses in  
15 implementing energy efficiency building improvements and behaviors; and pilot bundled  
16 neighborhood-scale contracting mechanisms to engage a responsible contractor and an  
17 adequately trained and compensated workforce to install energy efficiency building  
18 improvements

19       **Q.     Please explain why community-driven outreach should be included in the utility’s**  
20 **energy efficiency plan to fully implement the resolution of the Energy Efficiency Advisory**  
21 **Committee and the Green Communities Act.**

1 CLU believes that to produce the level of energy savings mandated by the Green  
2 Communities Act and to make energy efficiency programs accessible to all consumers, National  
3 Grid and all other Massachusetts utility companies must incorporate into their plan programs that  
4 engage consumers in retrofit programs through trusted community sources. In the Three-Year  
5 Statewide Electric Energy Efficiency Plan, National Grid and NSTAR report that they are in  
6 negotiation with the Green Justice Coalition about developing pilot programs using the CMI  
7 model. CLU supports the development of pilot programs. CLU believes that this model has the  
8 potential to offer effective and appropriate energy education to groups that have traditionally  
9 been harder to reach, including limited English speakers and economically marginalized groups.  
10 It has the potential to promote higher energy savings through deeper retrofits, as well as cost-  
11 savings through economies of scale, by operating at a neighborhood scale and bundling retrofit  
12 work. A key goal of CMI pilots is that they yield data as to whether the approach explored in the  
13 pilot should be implemented on a larger statewide scale.

14 While including discussion of the CMI negotiations in the statewide plan is significant,  
15 CLU believes that a solid commitment to community mobilization outreach strategies also  
16 requires that National Grid commit in their individual plans to carrying out a pilot community  
17 mobilization program in 2010, and also commit in subsequent plan years to adopting the best  
18 practices from these pilots into a community mobilization program that can equitably serve hard  
19 to reach communities.

20 **Q. Please discuss quality jobs.**

21 A. Ramping up energy efficiency programs to a scale that can meet our emission reduction

1 goals, targeting deeper retrofits, will inevitably confront the limitations on the industry's  
2 workforce. The energy efficiency retrofit workforce is inadequately trained, credentialed and  
3 compensated, particularly in the residential retrofit sector. The contractor pool has also remained  
4 stagnant, with few larger contractors involved in this sector. These limitations will ultimately  
5 constrain the number and quality of energy efficiency retrofits and will limit Massachusetts's  
6 ability to meet its emissions reduction goals.

7 Attaching "good job" and "responsible contractor or employer" standards--including a  
8 comprehensive environmental health and safety program--to all contracts with contractors and  
9 sub-contractors will ensure that retrofit funds support work that pays. The AFL-CIO defines  
10 "good jobs" as follows: "Good jobs support families and communities, pay decent wages and  
11 provide good health care and retirement benefits, ...enable employees to freely exercise their  
12 freedom to form unions and bargain collectively, ...ensure fair and nondiscriminatory treatment,  
13 are safe and healthy, give workers the flexibility and resources they need to nurture their families  
14 and provide them with skills and opportunities for advancement." A report with further details is  
15 attached titled "Green Equity Toolkit: Standards and Strategies for Advancing Race, Gender and  
16 Economic Equity in the Green Economy," labeled as Attachment C. Investment in training and  
17 local hiring will also make jobs accessible to low-income residents with barriers to employment.

18 **Q. Please explain why quality jobs should be included in the utility's energy efficiency**  
19 **plan to fully implement the resolution of the Energy Efficiency Advisory Committee and**  
20 **the Green Communities Act.**

21 A. The Green Communities Act and the EEAC Resolution emphasized that the plan must

1 include an analysis of economic and workforce development impacts, as well as environmental  
2 impacts. Good wages, long-term career pathways, health and safety standards, and unionization  
3 opportunities will attract and maintain the high quality workforce that the Commonwealth needs  
4 to meet its emissions reduction goals. Targeting ‘green zones’ and bundling the work in larger-  
5 scale contracts will multiply the number of contractors willing to bid on this work and allow for  
6 the effective enforcement of job quality, training, safety and performance standards.

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

15 Greater attention must be focused on the training needs of both existing and new retrofit  
16 workers. The 3-year electric and gas statewide plans discuss additional contractor training needs  
17 in many areas including HVAC, deep residential retrofit. More attention should be focused on  
18 the training needs of both existing and new retrofit workers. The utility plan should specify what  
19 kinds of mechanisms they propose to bridge gaps: how they plan to create access for un- and  
20 underemployed workers to these positions, in partnership with community-based workforce  
21 development organizations, worker centers and labor/ management apprenticeship programs.

1 This kind of planning will help Massachusetts to build a bridge between training and jobs, and to  
2 maximize access to new federal “green jobs” resources.

3 **Q. Please discuss equity metrics.**

4 A. Section 116(b)(3) of the Green Communities Act prioritized equitable distribution of the  
5 benefits of energy efficiency programs as a critical element to be addressed by the energy  
6 efficiency plans. Equity metrics are outcome measures that show the distribution of energy  
7 efficiency program benefits across different geographic, demographic, and income groups. The  
8 utility plan lacks metrics to measure the equitable distribution of program benefits. Programs  
9 outcomes are currently assessed and compensated on the basis of energy savings and cost  
10 effectiveness, but not equity.

11 It is necessary to track the equity impacts of the public and ratepayer investments in the  
12 energy efficiency plan. Because energy efficiency programs are paid for largely through  
13 ratepayer charges, customers who do not participate in the energy efficiency programs will bear  
14 additional costs compared to those who do participate. This is illustrated in Exhibit 1 attached to  
15 CLU’s Pre-Hearing Statement. In National Grid’s electric plan submission, in Exhibit NG-7 on  
16 Bill Impacts, it projected that in 2012 the average MECO R-1 customer who had participated in  
17 the energy efficiency program in 2010 would have a monthly electric bill decrease of  
18 approximately 4 cents, while the National Grid electric customer who had not participated in the  
19 energy efficiency program would see her or his electric bill increase by \$3.40.

20 **Q. Please discuss representation.**

21 A. The Applied Research Center’s Green Equity Toolkit, Attachment C, includes

1 representation at the top of its list of Equity Success Indicators that are critical to achieving  
2 equitable outcomes in publicly supported ‘green’ programs. CLU is aware of the short timeline  
3 and intense pressures of the utility plan approval process. Even with these limitations, CLU and  
4 its partner organization participate as fully as possible in the process, attending all EEAC  
5 meetings and meetings of EEAC Working Groups: the Multifamily Low Income Working Group  
6 and the On-Bill Working Group. CLU is concerned that the utility plan does not offer  
7 opportunities to continue this level of participation. To work out program details over the coming  
8 months and years, National Grid’s Program Administrator and other Program Administrators  
9 proposed program-specific “Best Practices” working groups to implement the plan. CLU and its  
10 partner organizations can make important contributions to program planning, implementation,  
11 and oversight. Representatives from CLU and the Green Justice Coalition should be invited to  
12 participate in these Best Practices working groups, and any other working groups that the EEAC  
13 establishes. Programs that seek equitable outcomes must make a positive, proactive effort to  
14 include under-represented groups.

15 **Q. Please explain why equity metrics and representation should be included in the**  
16 **utility’s energy efficiency plan to fully implement the resolution of the Energy Efficiency**  
17 **Advisory Committee and the Green Communities Act.**

18 A. In particular, the plans need to develop and implement solutions that expand access to  
19 energy efficiencies for customers in low to moderate income communities and communities of  
20 color. At minimum, the plan should contain a procedure that details how the utility will gather  
21 data and report on: which households & communities are getting what kinds of energy efficiency

1 investments/programs/services (broken out for income, age, ethnicity, language as well as  
2 geographic factors); who is hired for / employed at which energy efficiency audit & retrofit jobs  
3 (broken out for income, age, ethnicity, language as well as residency); and wages and benefit  
4 rates for these positions. It is particularly important to track the equity impacts of the public and  
5 ratepayer investments in the electric and gas energy efficiency plans because of the differential  
6 bill impacts on participants and non-participants. Energy efficiency programs are paid for largely  
7 through ratepayer charges, so customers who do not participate in the energy efficiency  
8 programs will bear more costs than those who do participate. CLU wants to ensure that failure to  
9 put in place equity measures and metrics does not consign low and moderate-income consumers  
10 and communities to being non-participants, thereby both missing out on the benefits of energy  
11 efficiency programs and being forced to bear the higher costs that the programs will require of  
12 non-participants.

13 **Q. What are examples of studies and reports that are relied upon in your field that**  
14 **support your testimony?**

15 A. The following studies are attached:

16 Attachment B: Merrian Fuller, *Enabling Investments in Energy Efficiency, A Study of*  
17 *Programs That Eliminate First Cost Barriers for the Residential Sector,*  
18 *Efficiency Vermont, August 2008.*

19 Attachment C: Yvonne Yen Liu and Terry Keleher, *Green Equity Toolkit: Standards and*  
20 *Strategies for Advancing Race, Gender and Economic Equity in the Green*  
21 *Economy.* Applied Research Center: November 2009

1 Exhibits 1 and 2 to the Pre-Hearing Statement is incorporated herein by reference:

2 Exhibit 1: Community Labor United, *The Green Justice Solution: A Win-Win Plan to*  
3 *Prevent Climate Crisis and Jumpstart an Equitable and Sustainable*  
4 *Economic Recovery*, Boston, Massachusetts: December 2008.

5 Exhibit 2: Community Labor United, *Living Up to the Challenge: An Issue Brief*  
6 *Addressing Massachusetts' 3-year Statewide Energy Efficiency Plans*,  
7 Boston, Massachusetts: July 2009.

8 I hereby certify that the attached exhibits, on behalf of CLU, are true and accurate to the  
9 best of my knowledge and belief.

10 **Q. Does this complete your testimony?**

11 A. Yes it does.