



Northeast Energy Efficiency Partnerships

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APR 17 2012

PA PUBLIC UTILITY COMMISSION  
SECRETARY'S BUREAU

April 17, 2012

Rosemary Chiavetta, Secretary  
Pennsylvania Public Utility Commission  
Commonwealth Keystone Building  
P.O. Box 3265  
Harrisburg, PA 17105-3265

Re: Act 129 Energy Efficiency and Conservation Program Phase Two  
Docket No. M-2012-2289411

Dear Secretary Chiavetta:

Enclosed please find one original and three copies of Northeast Energy Efficiency Partnerships' comments in the above-referenced proceeding.

Please do not hesitate to contact me should you have any questions.

Sincerely,

Joshua Craft  
Senior Policy Associate  
Northeast Energy Efficiency Partnerships

Enclosures

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BEFORE THE  
**PENNSYLVANIA PUBLIC UTILITY COMMISSION: PA PUBLIC UTILITY COMMISSION  
 SECRETARY'S BUREAU**

Act 129 Energy Efficiency and  
 Conservation Program Phase Two

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Docket No. M-2012-2289411

**COMMENTS OF  
NORTHEAST ENERGY EFFICIENCY PARTNERSHIPS (NEEP)**

**INTRODUCTION**

As the regional organization working to promote energy efficiency in buildings throughout the Northeast and Mid-Atlantic, Northeast Energy Efficiency Partnerships (NEEP) welcomes the opportunity to comment on Docket No. M-2012-2289411, regarding Pennsylvania's Act 129 energy efficiency programs.<sup>1</sup> We believe that these programs provide significant economic and environmental benefits to Pennsylvania ratepayers and we look forward to working with the Public Utilities Commission as it seeks to build on this record of success. As part of this proceeding, we ask the Commission to consider the following recommendations:

- Extend the Act 129 energy efficiency programs for five years through 2018 to continue the program's successes in saving energy for the state's ratepayers
- Maintain the one percent annual energy savings targets for the electric distribution companies (EDCs) in Phase Two
- Continue to shift towards joint, statewide program planning and create a permanent stakeholder advisory board
- Ensure that EDCs spend their full energy efficiency budgets up to the two percent budget cap
- Examine program incentive mechanisms that align ratepayer and utility financial interests and improve program performance
- Harness complementary policies, such as building energy codes, building energy rating and disclosure, and appliance efficiency standards, that provide additional opportunities for cost-effective energy savings
- Consider participation in the Regional Evaluation, Measurement, and Verification (EM&V) Forum

**EXTEND THE ACT 129 ENERGY EFFICIENCY PROGRAMS**

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<sup>1</sup> These comments are offered by NEEP staff and do not necessarily represent the view of NEEP's Board of Directors, sponsors or underwriters.

We strongly encourage the Commission to extend the Act 129 energy efficiency programs for five years through 2018. Our experience has been that states with coordinated, multi-year energy efficiency programs overseen by a state regulatory commission achieve substantial energy savings and economic benefits for their ratepayers. Based upon year-end reports from the Statewide Evaluator and analysis done by Optimal Energy, Pennsylvania utilities saved a total of over 2.0 GWh of electricity in program's second year. That represents savings of approximately 1.24 percent of retail electric sales, which is in line with the leading states in the Northeast. The programs have proven to be exceptionally cost-effective, generating \$8 in consumer benefit for every ratepayer dollar spent.<sup>2</sup> If programs are not extended in a timely manner, Pennsylvania risks disrupting the progress it has made during Phase One.

Having Phase Two last five years will allow the electric distribution companies (EDCs) to build upon their experience administering energy efficiency programs, create certainty in the marketplace, and design programs that can both acquire cost-effective, near-term savings opportunities and promote market transformation in buildings and products.

#### STATEWIDE GOALS & PROGRAM PLANNING

**Retain 1 Percent Annual Savings Targets:** The program review provides an opportunity to refine current program goals. We recommend that the Commission continue to require the EDCs to achieve energy savings of 1 percent annually in Phase Two, in line with analysis of energy savings under the expected program budgets by Optimal Energy.<sup>3</sup> Meanwhile, the Commission could put a petition process in place for EDCs that fail to make the 1 percent target that have made a good-faith effort to implement programs but fall short because of budget constraints.

**Joint Programs:** While we appreciate that the utilities do meet and share insights on program administration, we believe that a great deal of progress remains in this regard. Lessons from other states teach us that coordinated programs with a single brand are more effective than separate efforts. This is true from a customer point of view, and also in terms of reducing overhead and maximizing ratepayer dollars. When each utility offers even slightly different programs, it complicates energy efficiency outreach, education and training for consumers and contractors. True statewide coordination among the utilities in how they plan, market, deliver and evaluate their programs could improve clarity and consistency while allowing the utility administrators to maintain their position as the customer touch point.

**Create a stakeholder efficiency advisory board:** Furthermore, NEEP recommends creating an energy efficiency program advisory board that can inform future program planning and help forge consensus on important program issues. Our experience throughout the Northeast has been that a permanent stakeholder advisory board is a highly effective way to build consensus on what works and what does not, helps determine realistic energy savings goals, and creates

<sup>2</sup> Optimal Energy, "Pennsylvania 2013-2018 Energy Efficiency Goals," December 19, 2011: [http://www.pennfuture.org/UserFiles/File/FactSheets/Report\\_Act129goals\\_20111220.pdf](http://www.pennfuture.org/UserFiles/File/FactSheets/Report_Act129goals_20111220.pdf)

<sup>3</sup> Optimal Energy, "Pennsylvania 2013-2018 Energy Efficiency Goals," p. 3.

space for discussion of challenges and concerns by program implementers and stakeholders alike.<sup>4</sup>

States	Advisory Board
Connecticut	Energy Efficiency Board
Maryland	New Program Advisory Group
Massachusetts	Energy Efficiency Advisory Council
New York	EEPS Evaluation Advisory Group
Rhode Island	Energy Efficiency & Resource Management Council

### LIMITATIONS POSED BY THE 2 PERCENT BUDGET CAP

The Commission should not only permit but require each of the EDCs to spend their full efficiency program budgets, up to the 2 percent cap, to deliver as much energy savings as their current budgets permit to their customers. As stated above, this level should be sufficient for the utilities to achieve at least 1 percent annual savings.

As soon as is feasible, we recommend that the budget cap should be lifted in order for Pennsylvania to meet its full measure of economically achievable, cost-effective energy savings potential. The two percent cap limits the EDCs from being able to achieve higher savings, and real economic and environmental benefits for their customers. We are fully aware that this issue must be addressed outside of this proceeding. But opening a dialogue with members of the legislature and key stakeholders over the implications of the cap will be important as Pennsylvania seeks higher levels of energy savings. We believe that a better policy would allow the Commission to determine program budget levels that balance energy savings with higher rates.

### ALIGNING RATEPAYER & UTILITY INTERESTS

Recent experience demonstrates that successful energy efficiency programs align the financial interests of utilities with that of ratepayers. Act 129 is an important first step in treating energy efficiency as an energy efficiency resource alongside supply-side energy options. The results thus far stem from this important policy shift.

NEEP encourages the commission to examine shareholder performance incentive mechanisms (SPIs) that provide utility program administrators with a financial incentive to deliver more

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<sup>4</sup> Examples and recommendations are on page 34 of NEEP's report, *From Potential to Action*, <http://neep.org/public-policy/policy-outreach-and-analysis/potential-study>

savings to their customers.<sup>5</sup> SPIs allow utilities to earn a rate of return on energy efficiency programs in line with what they make on investments in other resources, particularly large transmission projects.

Two common options include a net benefits approach, which allows utilities to keep a small portion of savings delivered to customers, or a budgetary set-aside approach that reserves a small part of ratepayer funds for utilities to exceed their savings goals.<sup>6</sup> With a limited budget cap, Pennsylvania could consider allowing utilities meeting or exceeding their savings goals within their program budgets to keep a small portion of those funds. We caution that SPIs must be designed to reward only exceptional program performance and not reduce funds available for program implementation. Therefore, any performance incentives should create savings targets that require strong performance across all program and customer sectors, are linked to verified energy savings, rather than simply spending program dollars, and incentivize market transformation and long-term energy savings in favor of short-term resource acquisition.

## COMPLEMENTARY PUBLIC POLICIES

Together with a flexible regulatory environment, we encourage the Commission to support public policies that leverage ratepayer-funded programs to achieve even greater energy savings. These policy tools include building energy codes, energy performance rating and disclosure for both new and existing buildings, and appliance efficiency standards. These are critical tools being used by many states that lock in savings and spur technological innovation.

In addition, there are important roles for utility program administrators to play as well. While it sometimes occurs that utilities may consider such policies as a threat that could alter baselines and undercut some of the more cost-effective Act 129 programs, Pennsylvania can learn from states that are actively engaging utility companies in areas such as state and federal advocacy or training initiatives. NEEP believes it is valuable to have customer-facing program administrators involved in and able to share credit for their work to advance such complementary policies. This is true especially in light of the fact that continually advancing codes and standards is part of the push to raise the bar, and the efforts and interests of the program administrators should be aligned with these larger public policy benefits.

Specifically, we recommend that the Commission require the utilities to include activities to advance and implement building energy code and appliance efficiency standards into their program plans, and that the Commission work with them to develop methods for program administrators to measure and claim the energy reductions that result from their work in advancing codes and standards (through education, training, testing, etc.) and attribute them to

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<sup>5</sup> See NEEP paper on Revenue Decoupling in the Northeast:  
<http://neep.org/uploads/policy/Revenue%20Decoupling%20Brief-Final%20Version%201.30.12.pdf>.

<sup>6</sup> For an overview of shareholder performance incentive options and effects, see Peter Cappers, et. al, "Financial Analysis of Incentive Mechanisms to Promote Energy Efficiency: Case Study of a Prototypical Southwest Utility," March 2009:  
<http://eetd.lbl.gov/ea/ems/reports/lbnl-1598e-ppt.pdf>.

savings targets. NEEP and a number of other stakeholders have done a great deal of work in this area and welcome the opportunity to assist the Commission and utility staff on such an effort.

#### **PARTICIPATE IN THE REGIONAL EM&V FORUM**

*We respect and appreciate the intensity of the effort that has been required to build up Pennsylvania's energy efficiency program activities. As Pennsylvania develops its plans for the next phase, we invite Pennsylvania's energy efficiency stakeholders to give serious consideration to joining the Regional EM&V Forum. Pennsylvania could benefit from leveraging costs for large, hard-to-deliver research projects such as loadshape studies, development of incremental cost curves for priority measures, and timely research on emerging technologies. Pennsylvania would gain increased access to shared information and an opportunity to shape regional research and evaluation priorities, and by participating as a member of the Forum, Pennsylvania stakeholders could further increase the impact of their voices in regional and national arenas.*

Briefly, the Regional EM&V Forum (Forum) is a cost beneficial partnership established among 10 Northeast states and the District of Columbia to develop technical information and protocols that would assist states in developing solid evaluation, measurement and verification strategies and standards for energy efficiency and demand response programs. Projects are developed through a series of committees - staffed by representatives from the various state regulatory commissions, energy offices and utilities - that make recommendations to the Forum Steering Committee. In addition to project activities the Forum supports the facilitation of committees, a web-based library of EM&V studies and policy documents from across the region, an Annual Public Meeting, and in 2012, the development and implementation of the Regional Energy Efficiency Database (REED) that is being developed in coordination with some ISOs.

*The Steering Committee consists of representatives from each of the participating states. The overall premise for the EM&V Forum is that by combining the evaluation interests of the region along with the multistate experience of staff from up to 11 states, all states could benefit from sharing the research costs as well as overall expertise of the group effort. We highlight in particular the work that the Forum is doing with regard to net savings calculations and program screening for cost-effectiveness, but areas that have major implications for how the EDCs can meet their Act 129 goals and what programs the state will implement over the next Act 129 compliance period.*

*We would like to highlight the work the Forum has done recently regarding cost effectiveness and net-to-gross savings issues, driven by a recognition that as states have made new and more significant commitments to energy efficiency, they need to consider anew whether the regulatory tools and methods that they have relied upon up until now are still the best ones to help them meet their state energy goals. Currently, the Forum is facilitating an examination of issues of program cost-effectiveness and attribution by initiating a dialogue*

among regulators, program administrators and others as to common goals, obstacles and potential solutions when considering cost effectiveness testing.<sup>7</sup>

We include, for illustrative purposes, Attachments A and B, which provide information about the 2012 Forum project agenda. Each Forum project has been vetted with program administrators and Commissions and has been determined to meet criteria of increasing transparency and consistency in methodologies informed by state and regional standards where appropriate/applicable.

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<sup>7</sup> NEEP recently submitted to the Massachusetts Department of Public Utilities, recommending a technical session to address challenges to current methods used to estimate net savings, both free-ridership and spillover effects. Comments of Northeast Energy Efficiency Partnerships (NEEP): Under Massachusetts Department of Public Utilities (DPU) Order No. 11-120 *Net Savings and Environmental Compliance Costs of the Energy Efficiency Programs*

## Attachment A. 2012 Forum Agenda &amp; Budget

2012 Regional EM&V Forum Agenda & Budget															
Adopted by the Forum Steering Committee (December 8, 2011)															
STATE	BASE COSTS						PROJECT COSTS <sup>1</sup>							TOTAL 2012 BUDGET	
	7% Min Base Costs % Alloc	NEEP Forum Operations	NEEP Project Management Plus Technical Advisors	Regional EE Database (REED) <sup>4</sup>	Educ & Info Access	TOTAL BASE COSTS	Project Cost % Alloc	PD12-1 Cost Effectiveness Project <sup>2</sup>	PD12-2 Mid-Atlantic TRM Phase 4	PD12-3 Impact of EE on Codes & Standards	RE12-1 Loadshape Research (from 2011)	RE12-2 Incremental Cost Research Phase 2	RE12-3 Market Share Res Lighting Research <sup>3</sup>		TOTAL PROJECT COSTS
NY	27.6%	\$51,108	\$82,689		\$40,228	\$174,026	35.0%	\$ 35,825			\$218,750	\$47,250	\$109,160	\$410,986	\$585,012
MD	12.4%	\$22,962	\$37,151		\$18,074	\$78,187	19.5%		\$36,731		\$121,688	\$26,285	\$60,724	\$245,427	\$323,615
MA	11.0%	\$20,321	\$32,879		\$15,996	\$69,196	17.2%	\$ 17,637			\$107,694	\$23,262	\$53,741	\$202,335	\$271,530
CT	7.0%	\$12,956	\$20,961		\$10,198	\$44,115	9.8%	\$ 10,015			\$61,153	\$13,209	\$30,516	\$114,893	\$159,008
ME	7.0%	\$12,956	\$20,961		\$10,198	\$44,115	3.8%				\$23,833	\$5,148		\$28,980	\$73,095
DE	7.0%	\$12,956	\$20,961		\$10,198	\$44,115	3.6%	\$ 3,674	\$6,771			\$4,845		\$15,289	\$59,404
NH	7.0%	\$12,956	\$20,961		\$10,198	\$44,115	3.4%	\$ 3,526			\$21,531	\$4,651	\$10,744	\$40,452	\$84,567
DC	7.0%	\$12,956	\$20,961		\$10,198	\$44,115	3.4%		\$6,499		\$21,530	\$4,651	\$10,744	\$43,423	\$87,538
RI	7.0%	\$12,956	\$20,961		\$10,198	\$44,115	2.4%	\$ 2,481			\$15,147	\$3,272	\$7,558	\$28,457	\$72,572
VT	7.0%	\$12,956	\$20,961		\$10,198	\$44,115	1.8%	\$ 1,842			\$11,245	\$2,429	\$5,611	\$21,126	\$65,241
Grants				\$96,815		\$96,815				\$100,000				\$100,000	\$196,815
Totals	100%	\$185,080	\$299,450	\$96,815	\$145,680	\$727,025	100%	\$75,000	\$50,000	\$100,000	\$602,570	\$135,000	\$288,800	\$1,251,370	\$1,978,395
% Share		25%	41%	13%	20%	100%		6%	6%	8%	48%	11%	23%	100%	

<sup>1</sup> Project costs include 10% contingency

<sup>2</sup> The cost allocation for the project PD12-1 is slightly changed from version adopted by Steering Committee as costs are lower for states due to DE's ultimate decision to fund project

<sup>3</sup> The original budget for project RE12-3 was \$300,000 but is reduced to reflect feedback in December 2011 from DE which opted to fund PD12-1 instead of RE12-3.

<sup>4</sup> This budget reflects low case scenario of US DOE funding for REED, with an estimated \$40,000 funding from US EPA. NEEP has requested a higher level of Base Costs funding from US DOE. TBD by March 2012.

## Attachment B. Regional EM&amp;V Forum 2012 Project Descriptions

## 2012 FORUM PROJECT DESCRIPTIONS

**PD12-1: Cost-Effectiveness Project.** This project would review and build on a forthcoming ACEEE report "Energy Efficiency Evaluation Review Project" that will describe how each state handles analyzing the C/E of their energy efficiency programs. This project will identify and explore relevant issues for interested Forum states, which may include a review of the Total Resource Cost (TRC) test and how it is implemented throughout the region, opportunities to improve implementation of the test (e.g., examining input assumptions), and consideration of other recommendations for overcoming challenges with use of the TRC test. The goal of this project includes addressing how to increase transparency and potentially build consistency across the region, where appropriate, in applying C/E tests to help facilitate comparisons across states.

**PD12-2: Mid-Atlantic TRM Phase 4 (Sub-region project).** This project provides the mid-Atlantic EM&V Forum members with the opportunity to designate funds for a fourth phase of development of the mid-Atlantic technical reference manual (TRM). The project could add measures and/or update the existing TRM, or potentially scope/establish an online TRM database.

**PD12-3: Estimate EE Impact on Advancing Energy Building Codes & Standards**

The purpose of this project is to support states interested in attributing and claiming savings associated with EE program activities directed at improving C&S and compliance. The project will build on the Forum's 2010 workshop on this subject, as well as on recent research. Specific tasks are to: 1) prepare an overview of current policy and practice in the Forum region; 2) catalog activities suitable for EE PAs to support or influence development, adoption and compliance of national and state C&S; 3) develop high level state estimates of gross energy savings associated with improved code and compliance levels; 4) prepare guidelines that recommend approaches for attributing savings from EE programs; and 5) recommend roles/pathways for stakeholders to secure regulatory approval of selected activities and attribution frameworks.



**RE12-1: Loadshape Research (Phase 3)** - (100% Carryover from 2011). This project will address additional measure(s) to those researched in 2009-2011 projects (commercial lighting and unitary HVAC). Project subcommittee is in process of confirming priority measure(s). The goal of the Forum's loadshape studies is to make loadshape data (impact of electric energy efficiency programs during identified periods of time e.g., hourly, seasonal and annual consumption data used to analyze coincidence factors and other usage patterns) available to Forum participants for use in implementing EE programs, participation in capacity markets, and meeting air quality needs. The project will likely refer to metering data collection protocols being developed by the Forum that are intended to increase transferability and usability of metering data by programs.

**RE12-2: Incremental Cost Research (Phase 2)**. This project would develop incremental costs for new measures and/or program types (gas and/or electric) beyond those included in the Forum's 2010 Incremental Cost Study. This project will be undertaken as an extension of Navigant's existing contract for the 2010 ICS per Forum subcommittee recommendation, and will be supplemented with 2011 Add-On Research funds. The subcommittee for this project is currently working to confirm 2<sup>nd</sup> tier group of priority measures. The total budget for this project is estimated at \$235,000, of which about \$100,000 is covered by 2011 Add-on Research budget and \$135,000 in 2012 funds.

**RE12-3: Residential Lighting Sales Market Research**. This project would provide insight into emerging and regional lighting sales trends (post EISA) developed over 12 months that allow for adjustments to lighting incentive design and execution. The project will include developing pilot projects in 2-3 states to test the efficacy of the "market lift" model in promoting sales of efficient lighting, using acquired full category retail lighting sales data for evaluating residential lighting sales trends and shifts in the baseline wattage of inefficient lamps.

#### **FORUM OPERATIONS, PROJECT MANAGEMENT, REED AND EDUC & INFO ACCESS (BASE COSTS)**

##### **Forum Operations**

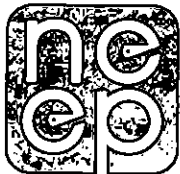
1. Planning/facilitating quarterly Steering Committee, Project Committees meetings
2. Forum agenda/budget planning
3. Securing Forum revenues from states/grants
4. Serving as fiscal agent / Forum accounting/invoicing
5. Coordinating/facilitating state PUC, PA and air regulatory efforts regarding access to energy efficiency data to support air quality and climate change planning;
6. Monitoring and participating in state, regional (ISO-NE, PJM), and national M&V meetings/efforts (NAPEE, NAESB M&V projects);
7. Maintaining Forum operational policies, including ensuring access to Forum materials and protecting confidential information

##### **Regional EE Database (REED) Implementation**

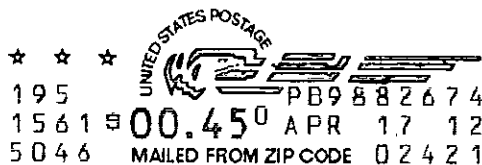
This effort involves implementing REED in the Forum region, working with Forum states to complete data collection tools, ensure quality control/data validation, and provide technical support/training to state reps using REED. The project also involves NEEP interaction with ISOs/RTOs in region to explore use of REED as potential data source for supporting EE forecasting in system planning, where helpful. NEEP is seeking funding from US EPA and DOE for this effort.

##### **Education & Information Access**

1. EM&V library of studies/research and other EM&V resources
2. EM&V Forum website
3. Forum 2012 Annual Public Meeting
4. Forum communications (monthly updates, quarterly newsletters)
5. Outreach to states to support state adoption of Forum products (e.g., presentations, attend state evaluation meetings, submit public comments)



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