

Northeast Energy Efficiency Partnerships, Inc.



November 14, 2008

Secretary James J. McNulty
Pennsylvania Public Utility Commission
P.O. Box 3265,
Harrisburg, PA 17105-3265

RE: Comments of Northeast Energy Efficiency Partnerships in Docket No. M-00061984; Investigation of Conservation, Energy Efficiency Activities, and Demand Side Response by Energy Utilities and Ratemaking Mechanisms to Promote Such Efforts

Chairman Cawley, Vice Chairman Christy, and Commissioners,

On behalf of Northeast Energy Efficiency Partnerships (NEEP)¹, I would like to thank the Public Utilities Commission for allowing interested parties the opportunity to submit comments in relation to Docket M-00061984, concerning the investigation of conservation, energy efficiency activities and DSR mechanisms. Due to resource constraints we are not able to attend the November 19 public *en banc* hearing, however we hope you will accept in writing the following comments regarding the questions raised by the Commission on October 29.

Introduction

Based in Lexington, Mass., Northeast Energy Efficiency Partnerships (NEEP) is a nonprofit organization founded in 1996 whose mission is to promote the efficient use of energy in homes, buildings, and industry in New England, New York, and the Mid-Atlantic states through regionally coordinated programs and policies that increase the use of energy efficient products, services and practices, and help achieve a cleaner environment and a more reliable and affordable energy system. NEEP supports government policies and coordinates regional initiatives that promote and build market adoption of quality, energy efficient products and services. Working in partnership with environmental and consumer groups, state and federal agencies, businesses, utilities and

¹ These comments are presented by NEEP staff, and don't necessarily reflect the views of NEEP's Board of Directors, sponsors or underwriters.

other non-profits, NEEP serves as a strategist, planner, facilitator, information and training resource, and project manager to help develop and implement regional programs for energy efficiency.

In informing the development of energy efficiency program portfolios, NEEP is able to bring a regional expertise in both policy and program implementation. It is with this capability that we submit the proceeding comments.

Important Aspects of a Successful Energy Efficiency Program/Portfolio

The benefits of successful energy efficiency programs are numerous. They include the economic benefits of lowering customer energy bills and the development of a “green jobs” sector. The environmental benefits are also pervasive; reduction in energy demand reduces greenhouse gas emissions, as well as emissions of harmful particulates. . Through lowered demand, energy efficiency improves the reliability of our electric distribution system, and enhances our national energy security, as fewer fossil fuels are required as imports from countries that pose risks to our country. Lastly, energy efficiency programs have many social justice benefits, such as improving the standard of living of the low-income population by enabling them to attain affordable, efficient heating during the winter months. In Act 129 (the “Act”), the Pennsylvania legislature recognized that in the best interests of the state and its citizens, it is necessary to take full advantage of this energy resource. The Act sets out goals for the programs to reduce electricity use by 1 percent by 2011 and 3 percent by 2013. It also requires that a 4.5 percent peak load reduction be realized by 2013. NEEP feels confident that with existing technology and current best practice programs being implemented in the region, Pennsylvania will be able to attain these aggressive goals, and possibly even surpass them. It will be important, however, that the Commission establish solid guidelines to steer the development and implementation of the new efficiency programs.

NEEP finds that there are several basic principles inherent in any successful energy efficiency program. These include:

- Adequate funding
- Program flexibility, comprehensiveness and consistency
- Use of appropriate screening methods to determine cost-effectiveness
- Appropriate evaluation of cost savings, as opposed to simple rate impacts
- Utilizing appropriate rate structures and mechanisms that reward successes and create accountability

Below, we discuss in more detail these guiding principles that we hope the Commission will keep in mind when developing its guidelines for energy efficiency program portfolio development, implementation, and evaluation.

1. Adequate Funding

Act 129 legislatively mandated clear goals for the reduction of energy through 2013. NEEP wishes to stress that the implementation of a successful energy efficiency portfolio will require proper time for the programs to reach maturation and full efficiency savings and cost effectiveness. In the early stages of implementation, the Commission should ensure that adequate funding is approved for the Electric Distribution Companies (EDCs) to allow them to attain the goals set by Act 129, and do so in a way that encourages innovation rather than creating programs that simply “cream skim,” or get the easiest and lowest cost savings while leaving behind other cost-effective opportunities.

2. Programs Must Be Flexibility, Comprehensive and Consistent

When developing evaluation and cost-effectiveness guidelines, it is important that the Commission build in sufficient flexibility for the energy efficiency programs to change, grow, expand, and contract, as necessary. This flexibility is specifically needed in the areas of cost-effectiveness screening, program selection, and budget fluidity.

The Commission should be sensitive to the reality that not all programs, even if their benefits are wide-reaching, will demonstrate cost-effectiveness in the same manner under all frameworks. Some programs benefits can not be fully recognized, even with the use of the Total Resource Cost test, which is the most effective benefit/cost test available at this time. To mitigate the effects of this issue, the Commission should evaluate the cost-effectiveness of each program individually as well as on a portfolio-wide basis. Evaluating cost-effectiveness of the entire portfolio will allow the Commission to view how all of the programs work together for a common benefit of reducing energy demand. This portfolio-wide evaluation will also ensure that some programs that may have average short-term results, but great long-term results are included. Should some of the programs have a lower benefit/cost than expected, the Commission should view the programs within the entire portfolio, and if doubt as to effectiveness lingers, accept explanation from the program administrators on this issue and make a decision of whether to continue, modify, or expire that particular program. This flexibility is necessary not only in the development of the program portfolio but also in the evaluation.

Additionally, there are several programs that should be isolated from the cost-effectiveness test. These programs include research and development, evaluation, education, and building energy codes and appliance efficiency standards. All of these programs have extensive benefits that are difficult to measure, as their benefits are more general in nature and increase the effectiveness of the entire portfolio by increasing market penetration, innovation, and raising the baseline for efficiency. It is also important that funding for these programs be independent from other programs and set-aside to guarantee the implementation of these programs and not have them dependent on the success of another program. Likewise, they should not be evaluated under the TRC or other cost-effectiveness test as part of the portfolio, because, among other reasons, using a cost-effectiveness test that looks at short-term progress of these programs will grossly underestimate their importance and benefits, which will be seen over the long term, and in the overall success of the portfolio of programs.

Energy efficiency programs operate in an evolving market, therefore, flexibility needs to be given so that the portfolio can adapt to new and changing market demands. One reason is that program administrators may find that during certain times, some programs will be more in demand than others. For example, at the present time, largely due to the national financial crisis, many program administrators in the Northeast have found a significant reduction in demand for new residential construction programs, but their commercial and industrial retrofit programs have experienced greater popularity. Accordingly, program administrators should be given flexibility to transfer funds from these less in demand programs to those more in demand.

Finally, energy efficiency programs need to be as comprehensive as practicable, serving all customer sectors and classes, particularly given the state's aggressive energy reduction goals. To avoid customer confusion and leverage resources, programs should be consistent across the state and its service territories, planned for and executed in a coordinated fashion among all of the EDCs and their contracted providers. And NEEP would also encourage that the Pennsylvania EDCs join with other program administrators from the Northeast and Mid-Atlantic states in regional initiatives that will provide opportunities for sharing of best practices and other experiences, as well as allow them to leverage their valuable resources through coordinated efforts to achieve similar goals.

3. Cost-effectiveness

The issue of determining cost-effectiveness of the programs is central to the development of efficiency guidelines. NEEP believes that the most effective method currently available for evaluating efficiency programs is the Total Resource Cost (TRC) test. In its benefit and cost calculations, the TRC takes into account multiple externalities, such as the consumer cost, environmental benefits, and energy stabilization benefits. It is important for the Commission to know, however, that although the TRC is the best current test to demonstrate energy efficiency benefits and costs, the TRC test is not perfect. It has been very valuable to this point in time, but we recommend the Commission should not continue to be open to evolutions of the TRC test in the future, especially as innovation and greater experience take energy efficiency programs to new heights.

We also urge Pennsylvania, as we have urged other states throughout the region, to strive for consistency and transparency in input assumptions, and to develop common methodology and common input assumptions, where appropriate. This is becoming progressively more important as regional initiatives and policies to capture energy efficiency savings become more prevalent, as seen for example with the inclusion of energy efficiency in the PJM Interconnection reliability pricing model (RPM). One example of a helpful common assumption is in measuring general economic benefit, since customers within the region face similar economic conditions.

4. Evaluation of Cost Savings

NEEP urges the Commission to concentrate on the impact energy efficiency programs have on customers' costs, rather than solely focus on energy rates. In the current rapidly changing energy climate, a focus on rates could inappropriately undermine increased program execution. With the implementation of a new energy efficiency program portfolio, it is conceivable that rates, at least for some customers, will increase to some degree as a result of rate recovery that follows from a reduction in energy sales. Energy efficiency, however, has proven to be an energy resource that is significantly less expensive than supply, and as such, the efficient use of energy will reduce customers' bills across the board as a result of lower wholesale energy prices, and certainly as compared to customers' use of traditional energy supply. It is this benefit that should be the primary focus. Evaluating the impact of energy efficiency on customer *bills* will also provide a much clearer representation of the effects of energy efficiency on the average consumer. The impact of the rate increase should be smaller than the benefits experienced by decreased demand. By analyzing customer bills after increased energy efficiency implementation, taking into account maturation of the ramp up programs and other market effects, one can see the degree to which the programs have affected customers in real terms.

Additionally, NEEP notes that no cost-effective test accurately demonstrates rate impact. This is due in large part to the difficulty of determining what energy rates would be in the absence of energy efficiency. Instead, the Commission should consider rate impacts on an overall set of programs compared to overall revenue requirements, including to the extent possible, the demand reduction reduced price effect (DRIPE). Through DRIPE, the reduction in demand will create lower prices for all customers, and thus increase the benefit of aggregate energy efficiency to all customers.

5. Appropriate Rate Structures and Mechanisms for EDCs

NEEP believes that shareholder incentives are an indispensable and integral piece of a successful energy efficiency portfolio where EDCs are the delivery agents. Shareholder incentives create important benefits for the utilities to implement inventive and proficient energy efficiency programs. These benefits will be especially necessary in Pennsylvania, where energy efficiency is a new focus and the degree of energy efficiency program ramp up is an unprecedented venture for the EDCs. In most of the New England states, energy efficiency program administrators receive some form of performance incentive. This occurs for regulated utilities in New Hampshire, Connecticut, Massachusetts and Rhode Island, as well as for the third party contractors that delivers programs in Vermont. And as energy efficiency, or a newly emphasized role for energy efficiency, emerges in the Mid-Atlantic region, those states will all need to consider how to make their EDCs full and effective partners in program delivery.

An effective energy efficiency policy must make energy efficiency a profitable resource because, as businesses, utilities must satisfy their shareholders. As David Goldstein, Energy Program Director for the Natural Resources Defense Council, stated in "Quantitative Financial Analysis of Alternative Energy Efficiency Shareholder Incentive

Mechanisms,” presented at the 2008 ACEEE Summer Study on Energy Efficiency in Buildings:

Any incentive mechanism adopted should provide the framework for addressing the terms of this modified regulatory framework. Specifically, the mechanism should not impair the utility’s ability to meet the fundamental goal of acquiring all cost-effective energy efficiency. Regulators may, for political or other reasons, limit rates of deployment of energy efficiency, but the business-regulatory framework should enable and not obstruct acquisition of all available cost-effective energy efficiency. (Emphasis added.)

Energy efficiency needs to be able to compete financially within utilities, so that when the utilities are determining how to allocate their investments, they will continue to invest in innovative and expansive efficiency programs, or may even see energy efficiency as the best investment alternative. At the end of the day, the utility programs must be able to demonstrate a monetary benefit for the implementation of the programs (i.e., a return on investment). Performance incentives achieve that while assuring that ratepayers benefit, too.

As part of developing shareholder incentives, clear goals should be established for the electric distribution companies. These goals should be set for both megawatt (MW) and megawatt hours (MWh). Establishing clear goals for the programs will create stability and transparency for the program administrators, so that they can be certain of the expectations of the Commission.

Comments in Answer to Specific Questions Posed By the CEEP

1. Conservation Service Providers

The Commission posed several questions regarding the contracting/coordinating of EDCs with conservation service providers (CSP). Experience in other regions of the country, particularly other states in the Northeast, have shown CSPs (also referred to as Energy Service Companies or ESCOs) to be highly effective contracted agents for energy efficiency program implementation. In the Northeast, program administrators routinely use CSPs for the on-the-ground implementation of energy efficiency programs and services, rather than maintaining that service in-house. The program administrators retain the management and evaluation of the programs, while the CSPs actually deliver the programs to the customer, whether in conducting energy audits, certifying new construction requirements or providing direct-installed measures. This structure works effectively because the program administrators, which are primarily utilities, have pre-existing relationships with customers, as well as the customer data needed to accurately target the programs. This information allows them to reach out to their customers, and vice versa, in the most efficient and comprehensive manner. The CSPs, however, are the most knowledgeable on the techniques and technologies involved to actually increase the energy efficiency in homes and buildings.

CSPs are very useful in ensuring successful energy efficiency programs in areas where the program administrators do not have adequate resources; be that workforce or expertise. NEEP does not believe, though, that it is necessary for the program administrators to contract out all of energy efficiency programs. The program administrators should be allowed to retain some programs in-house if they feel they can adequately implement them, and can demonstrate cost-effectiveness of the programs. In particular, education programs should be performed by the utilities due to their pre-existing relationship with the customers.

Additionally, it is useful for the EDCs to jointly contract with CSPs. This coordination will create two benefits simultaneously. First, it will create more consistent programs throughout the state. Secondly, it will make best use of the current energy efficiency resources in Pennsylvania. If the Commission finds, however, that there are not enough qualified CSPs to serve all of the utility programs, NEEP stresses that this should not be a reason to limit program implementation. In fact, by forging ahead and implementing aggressive energy efficiency programs, the Commission will create an economic driver; generating jobs and encouraging the development of new practitioners in the CSP field.

The Commission also questioned whether enough programs exist that could be commonly implemented state-wide. There are number of programs that not only could but should be implemented throughout the state and coordinated among the various program administrators. Because Pennsylvania's weather climate is largely consistent across the state, the majority of programs will be applicable to all regions. Some examples of these programs include: whole building solutions, residential new construction, lighting, and commercial and industrial retrofits.

2. Measurement of Meeting Statutory Requirements

The Commission requested information on how to determine whether the EDC programs are meeting the statutory requirements of reducing energy demand by 3 percent by 2013 and peak demand by 4.5 percent by 2013. To determine the net impact of the EDCs' energy efficiency program plans, among other things, it is important to quantify and remove "natural occurring efficiency" in the form of program free-ridership. A variety of evaluation approaches are available and used by program administrators to estimate this effect. .

In addressing the question of how effective EDC programs are in reducing energy demand, it is also important to look at the energy savings of the programs. There is a lively debate in many states concerning whether states should evaluate programs in terms of net or gross energy efficiency savings and demand. Many evaluators believe that using gross savings is a more accurate way to view the programs for several reasons. First, there is the belief that the reason for implementation is not as important as the overall goal of reducing consumption and greenhouse gas emissions through changing market penetration. Second, the calculation of net savings is not an exact science, and the

chosen formula may exclude or undervalue some benefits of energy efficiency savings. Measurement of net benefits of the programs, i.e. free-ridership and spillover, can be expensive. For this reason, some evaluators believe that the gross savings number results in a balanced number in the end, and in so doing, may give regulators a more complete analysis of the success of a program or portfolio of programs. NEEP is not recommending, however, that Pennsylvania move from its current practice to gross savings calculations. However, we believe it would behoove the Commission to be aware of this evolution of savings calculations as the programs progress and the debate between net and gross evolves.

3. Evaluation

The Commission requested input from parties on various aspects of evaluation and cost-benefit guidelines. NEEP believes it is important for the Commission to develop standardized guidelines for the TRC test. There are many potential benefits and costs that can be included in TRC test calculations, and providing standardized guidelines will ensure that each of the EDCs are using the same inputs in their calculations, allowing for accurate comparisons of different EDC programs. Consistency among the program inputs and an accurate comparison will best allow the Commission to identify EDC's, and ultimately, the Commonwealth's progress towards the Act 129 goal. One helpful resource is "Understanding Cost-Effectiveness of Energy Efficiency Programs: Best Practices, Technical Methods, and Energy Issues for Policy Makers." This report is being compiled as part of the Environmental Protection Agency's National Action Plan for Energy Efficiency and will become publicly available by the end of November.

Several states have thorough guidelines for the TRC test that the Commission could use in deciding which costs and benefits should be included. Among these states, NEEP suggests that the Commission look to guidelines developed by Massachusetts, New York, and California. All three of these states use the TRC test in evaluating the cost-effectiveness of their programs and have developed aggressive efficiency program portfolios.

The Commission also questioned whether other benefit cost tests should be employed in evaluating the efficiency programs. As previously stated, NEEP believes that the TRC test is the most accurate test for determining efficiency program cost-effectiveness. We find that the use of the TRC test, with adequate flexibility for program cost-effectiveness, is adequate for creating a well-balanced portfolio. Some states, however, use multiple tests, such as California, which uses a two-pronged process for assessing cost-effectiveness. In California, the Public Utilities Commission evaluates their EDC energy efficiency programs with the TRC test, to which it gives a majority of the weight as the primary test, as well as the Participant Cost Test. A two-test evaluation is able to provide more details about the programs, but it can also cause confusion if not structured appropriately. If multiple tests are used in cost-effectiveness screening, it is important that the Commission set one test as its primary test to allow for consistency and transparency of its decision method.

NEEP notes that many of the questions that the CEEP has raised in this section, as well as the section on measurement, are cutting edge issues also being debated throughout the region. As such, NEEP highly recommends that the Commission consider participating in the Regional Evaluation, Measurement, and Verification (EM&V) Forum². The purpose of this forum is to bring states in the Northeast and Mid-Atlantic region together to enhance consistency and transparency in evaluation, measurement, and reporting of energy efficiency program results. Its goal is also to develop common protocols to measure, verify, and report energy savings. The EM&V Forum has support from all states in the Northeast, including those within the Mid-Atlantic region. We believe that it would be of tremendous benefit to Pennsylvania to participate in, have access to, and reap cost savings from the standards and information being created by this group.

4. Program Design

In interpreting the statutory requirement that energy efficiency and conservation measures be equitably implemented amongst all classes of customers, NEEP believes that the Commission should set general program design guidelines under which the EDCs will develop their program plans. The Commission should set a minimum percentage for each customer sector that the EDC program portfolio will address. This should also include a requirement for low-income programs. Regardless of how the Commission decides the programs should be constituted, NEEP reiterates that program flexibility should be maintained within and between program sectors.

The Commission also requested input on whether EDCs should be required to implement the same type of energy efficiency and demand response programs. NEEP believes that this structure can be very effective. In the state of Connecticut, the utilities file their program plans jointly although their programs are implemented, for the most part, individually. In these plans, the utilities have agreed upon the collective programs that they will implement as a group. This provides clear and consistent structure and branding for the programs. The utilities, however, maintain flexibility in determining how much they will fund each program, which programs are appropriate for their customers, as well as how they will manage it. This allows them to tailor the programs according to their particular customer composition.

Finally, the Commission raised the question of which programs are most cost-effective if implemented on a state-wide basis. The experience of the Northeast states has shown that programs coordinated amongst program administrators within the state, as well as in other states, produce more effective and efficient programs. For example, in Massachusetts, efficiency program administrators work to coordinate incentive levels for particular products, which maintains consistency of the programs to consumers throughout the state. EDC coordination also is beneficial in that it increases the vetting of program complications and solutions and creates a solid recognition of the programs by the customers.

² For more information on EMV Forum projects, members, and resolutions, please visit <http://www.neep.org/EMVinfo.html>

In particular, NEEP urges the Commission to encourage the EDCs to work to create up-stream negotiated cooperative promotions for energy efficiency products. In an up-stream negotiated promotion, program administrators work together as a group to negotiate with efficiency product manufacturers to “buy down” the wholesale price of the product rather than giving rebates to customers. This results in lower program implementation costs and higher market penetration.

Conclusion

NEEP thanks the Commission for opportunity to comment on this proceeding. We praise the Commission for its initiative in expediently establishing thorough and successful energy efficiency program guidelines. As stated above, we believe there are several key aspects of effective energy efficiency programs. These aspects include the allowance of flexibility, the use of the total resource cost (TRC) test, incorporation of EDC shareholder incentives, and the guidance of an Energy Efficiency Advisory Board to ensure coordination of the programs and provide third party technical research. Furthermore, we encourage the Commission to measure the success of the programs by the reduction in use of energy, and decreasing customer bills, rather than simply looking at electric rates. Energy efficiency programs have proven to be nearly a third of the cost of supply. Additionally, its greatest benefit is reduction in energy demand and the many related benefits that come with it. Therefore, even if electricity rates temporarily increase for some customers, or even overall, due to short-term cost recovery of EDC program budgets, customer demand over the long term will decrease, resulting in lower bills.

The Commission has demonstrated its commitment to developing effective energy efficiency programs through the questions it has asked. Despite the short current timeframes that Commission has to work with under Act 129 at the moment, NEEP encourages the Commission to look at energy efficiency as a long-term solution to rising energy demand. We look forward to following this policy development and are available for future consultation as the Commission continues this proceeding.

Sincerely,

Doug Denny-Brown
Manager of Public Policy

Natalie Lovett
Public Policy Analyst