

Keystone Energy Efficiency Alliance
 33 Greening Life Lane
 Shermans Dale, PA 17090
 717-582-7484

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Investigation of Conservation, Energy Efficiency Activities & DSR by Energy Utilities & Ratemaking Mechanisms to Promote Such Efforts

Docket No. M-00061984

Keystone Energy Efficiency Alliance (KEEA) submits comments on the Demand Side Resources investigation at Docket No. No. M-00061984¹ which was reopened in September 2006 and resulted in the compilation of a Working Group Report in June 2007. KEEA is a statewide network of 65 organizations and energy service providers focused on assisting individuals and businesses reduce their energy usage and bills. KEEA knows that the deepest and most persistent energy savings results from comprehensive improvements to homes and businesses using energy audits provided by certified building analysts.

HB 2200 EN BANC HEARING -November 19, 2008

CEEP'S QUESTIONS

1. ***Conservation Service Providers***
 - a. ***Should the EDCs collaborate/coordinate on contracting with conservation service providers?***

KEEA believes EDC collaboration on contracting could save money, time and effort for both the EDC's and the prospective service providers. EDCs could coordinate a common request for qualifications for each type of service provider. They could then allow providers to specify the service territories in which they provide services. This approach can also benefit the ability to develop consistent education messages across the state and prevent confusion on the part of consumers.

- b. ***Are there enough common programs for the conservation service providers to provide effective measures across Pennsylvania?***

To meet the goals of Act 129 most cost effectively, utilities should implement programs which have a proven track record across the country. In the residential sector, this means national programs including Home Performance with ENERGY STAR®, ENERGY STAR Homes and LEED for Homes. These programs are well established nationally, have very clear performance criteria, use nationally certified building analysts, and raters, and produce real, cost effective energy savings. It is essential to rapidly build consumer confidence in energy conservation and efficiency across Pennsylvania, and it will be essential to use nationally proven programs in order to do so. In addition, the Keystone HELP Loan Program has a list of contractors tied to their loan program that may be interested in getting further certification.

The American Council for an Energy Efficient Economy (ACEEE) has been commissioned by the Department of Environmental Protection (DEP) to assess the energy efficiency and solar resources in Pennsylvania and to recommend to policy makers the most cost effective approaches to deploy these clean energy resources. The first draft of this report will be available for comment before Thanksgiving. This report may be helpful in focusing on the most effective approaches for Pennsylvania.

- c. ***Does the provision providing for competitive bidding for all contracts with CSPs require the utility to competitively bid all energy efficiency and conservation services? If not, what energy efficiency and demand services should not be competitively bid?***

The EDC's are required to use third parties for some or all of program delivery. Where a third party will be given control of an entire program, i.e. will administer a program, then competitive bidding should be required. For other aspects of program delivery the EDC may rely upon a stable of service providers. For example, a residential energy audit program could make use of multiple auditing firms. Such firms could be selected through a Request for Qualification (RFQ) rather than through price-based bids. Similarly, the EDC will likely have a need for multiple quality assurance / quality control contractors to perform site inspections, review applications, and review the work of other contractors. These quality assurance/quality control (QA/QC) contractors could be selected through an RFQ.

- d. ***Under definitions, a CSP is an unaffiliated entity providing information and technical assistance. Under 2806.1 (A), however, a CSP is said to provide conservation services. How should this Commission interpret this apparent inconsistency?***

While the language is not as precise as it could have been, the term conservation services provider (CSP) clearly means an entity that provides conservation services. That said, there are a broad range of such entities, which may provide any one or all

of the following services: program design, marketing, outreach, customer screening, enrollment, auditing, savings estimation, direct installation, quality assurance, etc. KEEA has also commented more extensively on this issue in our filing of November 3, 2008 on Act #129.

e. Under 2806.2, the Commission must establish a registry of approved CSPs. What basic business elements (better business bureau rating, bonding, for example) should be required to be registered?

In addition to demonstrating their technical proficiency, CSPs should be required to meet the insurance requirements, demonstrate financial fitness and other requirements consistent with related state contracts. The Keystone Home Energy Loan Program (HELP) Program may serve be a useful guide for establishing proper requirements. Any additional requirements are probably unnecessary and may create unwanted barriers. It is important to recognize that much of the nation is in the process of building its capacity in the energy efficiency and renewable energy industries, and unnecessary or burdensome requirements may prevent qualified Pennsylvania companies from entering this important market.

One point worth mentioning about the reference to the Better Business Bureau ratings: many sound businesses are not members of the BBB due to the added cost and KEEA does not believe businesses should be required to take on that registration cost to be listed on the registry.

f. What experience and qualifications should be required of registered CSPs?

Service providers should be selected for each program through a qualifications based approach. Certain national programs such as the Home Performance with ENERGY STAR program requires all auditors, or building analysts, to be certified through the Building Performance Institute (BPI). Likewise the ENERGY STAR Homes program requires that the building be inspected and reviewed by a Home Energy Rating System (HERS) rater. These national certifications are extremely important in assessing the technical competence of the auditor and inspector and are well established.

In the commercial sector, many firms have a professional engineer (P.E.). However, this is not a universally accepted or required credential in either sector, unless design services are being offered beyond the scope of energy assessment. Certification and technical credentials will vary depending on the program. Demonstrated experience over time is probably the most important qualification.

A mechanism for removing companies or individuals from the registry should be developed so that it is clear the Commission has the authority to do so.

2. Measurement of Meeting Statutory Requirements:

- a. How would the addition of new load in an EDC territory (i.e. RCI new development/construction) be measured, and at what point do these additions meet the “extraordinary load” exceptions?**

Customary load growth within a utility service territory consistent within range of the last ten years should be considered “ordinary”. If load growth for more than two years exceeds the highest year of that range by a specific amount to be determined by the PUC, it could be considered extraordinary.

- b. How would one distinguish between reductions in consumption as a result of customer participation in technology programs in an EDC territory, implemented as part of an EDC’s Energy Efficiency and Conservation Plan, as opposed to unrelated and independent consumer actions (i.e. manually adjust thermostat heat/cooling settings, turn lights off, etc.)?**

A program impact evaluation will look at the reported program activity, as tracked by the EDC, and then apply realization rates to the reported results. Such evaluations are not typically based in any way on the EDCs total load.

Changes in customer behavior such as manually adjusting thermostat settings etc. may also result from utility consumer education programs. A more likely source of reductions in demand outside of utility programs will be the current economic downturn. It will be important to disaggregate these effects from those resulting from intentional utility activity. One way to accomplish this is to collect baseline customer data and a mechanism to report changes.

- c. How will economic activity within Pennsylvania and an EDC’s service territory be considered when measuring the performance of EE/DR programs? For example, an EDC’s territory that is experiencing a recession may meet their goals from decreased economic activity from plant closures, business failures and worker migration out of the service territory.**

The Act states that the program activities must lead to the reduction. There is thus no way that a recession can help the EDC meet their goals for this Act. The impact evaluation must be capable of disaggregating any reduction due to economic downturn from the intentional EDC program activity.

3. ***Evaluation:***

- a. ***Should the Commission establish a standardized total resource cost manual to evaluate projects? If so, is there a state or utility this Commission should use as a starting point for discussions?***

Yes. We suggest that the recent assessment of the Commonwealth of Massachusetts TRC, as outlined in the Massachusetts Dept. of Public Utilities D.P.U. 08-50, August 22, 2008, may represent the most recent and comprehensive reference for this purpose. The Massachusetts TRC has been in effect for ten years, during which time the state has experienced a significant growth in the capacity and delivery of electric energy efficiency savings through a portfolio of programs. (*MA D.P.U. 08-50 – “Investigation by the Department of Public Utilities on its own Motion into Updating its Energy Efficiency Guidelines Consistent with An Act Relative to Green Communities.”*)

- b. ***What other cost benefit tests should the Commission use to achieve reduction in consumption requirements pursuant to Section 2806.1(C)(3).***

The Societal Cost Test should be used either as a stand alone metric, or elements of the Societal Cost Test can and should be incorporated into the definition of a more appropriately defined Total Resource Cost Test (i.e. true “total resources”). Important impacts that such an approach would encompass include job creation, improved utility collections (and reduced utility service terminations), operations and maintenance (“O&M”) benefits, reduced capital replacement costs, as well as significant environmental benefits, all of which are of critical interest to the Commonwealth at this time. If the tests are being considered in the context of an electric savings program, a supplemental test of electric ratepayer benefits versus electric ratepayer costs can be an effective companion test to a comprehensive TRC.

- c. ***Act 129 requires utilities to file a plan to assure quality assurance [includes evaluation, measurement and verification by independent parties to ensure quality of completed measures], and further requires an annual independent evaluation of cost effectiveness of the Plan. Given the exposure to penalties by EDCs for potential non-compliance on meeting statutory energy efficiency and conservation goals, what approaches are appropriate to ensure that such independent, third parties are free of coercion from the EDCs they evaluate?***

It is important to differentiate between the QA/QC contractors and the Evaluation Contractors as they have very different roles. QA/QC contractors will be actively involved in the implementation of the programs. It is not to their advantage or the EDC’s advantage for the QA/QC contractor to fudge numbers, since those numbers will later be subject to the impact evaluation.

The annual impact evaluations should be conducted by a reputable Evaluation Contractor that specializes in that work and that has no involvement in the implementation of the programs. In order to insure that evaluation methodologies are consistent across utilities, and in order to save money on the evaluation process, it will be best if a single evaluator is hired statewide to evaluate all programs. If this scope is too large for a single evaluation team, then one evaluator should be selected statewide for residential programs and another evaluator should be selected for commercial and industrial programs. In order to insure the independence of the evaluator, it would be best if the PUC itself issued the RFP and selected the evaluator. That way there would be no opportunity for collusion or coercion of the evaluator by one or more utility company. If the Commission decides to set up an Act #129 Advisory Board, one role the board could fill would be to review key documents such as any RFPs before they are released.

4. ***Cost Recovery:***

a. What are the appropriate time frames to expense or amortize energy efficiency and demand response expenditures?

The American Council for an Energy Efficient Economy (ACEEE) has done a great deal of analysis of energy efficiency and conservation programs across the country and has found that 3 cents per kilowatt hour (kWh) is the current average cost of a negawatt (a kilowatt hour saved). However, since the capital cost of measures is almost always an up front cost, the initial investment can be more on the order of \$.30 (thirty cents) per kilowatt hour.

Ideally, one of two standard accounting methods would be employed to determine cost effectiveness of the investment. Either the Net Present Value of the savings versus up-front cost, or the levelized investment versus levelized benefits. In either case, the expenses should not be amortized, but rather expensed up to the 2% per year as defined in the legislation.

b. How should this Commission ensure recovery of only “prudent and reasonable” costs? Is this established at the time of plan approval? Is it established only after quality assurance and performance is measured, verified, and evaluated, or is it established during the annual independent analysis?

The annual independent impact evaluation should analyze both savings and costs for the programs. Program costs are recoverable after they have been expended and evaluated.

c. If services are not competitively bid, how will this Commission determine such costs are reasonable and prudent?

It is KEEA's hope that all services will be competitively bid using the standard RFP approach. That is not to say the least cost bid should prevail, quite the opposite; the strongest candidate whether in state or out of state should prevail. Further, the Commission can use the national average cost of three cents per kilowatt hour as its benchmark to determine whether the utilities' costs are reasonable and prudent. In other words, if a utility is spending close to 3 cents per kWh of energy savings, across a portfolio of residential and commercial/industrial programs, that could be considered a reasonable expense. If the utility is spending significantly above that level, for example higher than 4 cents per kWh, the Commission would consider that unreasonable and could decide not to allow the utilities to recover any imprudent or unreasonable costs. However, program level comparisons should be sector specific given that national average costs for residential and commercial programs vary significantly while averaging close to 3 cents per kWh overall.

5. Program Design

- a. How should the statutory requirement be interpreted and implemented that requires energy efficiency and conservation measures be equitably provided to all classes of customers?**

Clearly the intention of Act 129 is that all customer classes benefit and be offered significant energy conservation programs. The most equitable way to accomplish this is to ensure that significant programs are offered to all classes of customers to capture the greatest reductions which will ultimately benefit all customers. It shouldn't be expected that all customer classes will receive the same benefits from the programs.

- b. Should all EDCs be required to implement the same type of EE/DR programs? Is it likely that programs will be equally cost effective in every EDC territory?**

The EDCs should be given some latitude to create a unique program portfolio. For example, some EDCs may have a program that includes agricultural end-uses while such a program would have limited applicability in other territories. The makeup of each EDC's load is different so the overall portfolios will have different levels of cost effectiveness.

Within a rate class however, especially the residential customer class, all utilities should offer the same programs, that is the ENERGY STAR suite of programs. These are the fundamental building blocks of residential energy efficiency across the country and have a proven track record.

- b. Which programs are more cost effective if implemented on a statewide basis?**

Some program types will be cost effective across all territories and should be coordinated statewide. For example, Home Performance with ENERGY STAR and ENERGY STAR Homes are well established programs that should be delivered consistently statewide. In fact these programs could be administered by a single

administrator statewide. The utilities could contribute a proportionate share of funding to statewide administration of these core programs.

Energy conservation education for consumers should also be done statewide. Not only will it be much less expensive to run one statewide energy education campaign, it will be much more effective by reducing customer confusion and providing for consistent, standard messages. Whenever consumers are confronted with different and seemingly conflicting information, they become confused and do not take action. It is critical that the PUC itself oversee the administration of statewide energy education campaign. Again there are several states which offer useful models.

6. Reporting Requirements

a. What additional information should the Commission require the EDCs to report under Section (I)(1)(IV)?

The Commission should work with the EDCs in their service territories to report “load savings” that could impact the goals, e.g. significant increases or decreases in load due to construction of buildings or closing of businesses.

EDCs should be required to cooperate fully with all parties involved in program evaluation. This includes cooperating with individual customers in their efforts to reduce consumption and/or peak load.

7. The EDCs already have some DSR Programs available to various customer classes. They have developed these programs voluntarily without any mandates.

a. Please provide a brief overview of current EDCs’ DSR programs.

KEEA does not have access to this information.

b. What has been your experience with customer interest and participation levels in current programs?

KEEA does not have access to updated EDC program information.

c. What level of weather-normalized peak load and demand consumption reductions have been achieved under the current programs?

KEEA does not have access to this information.

d. What types of new programs or changes to existing programs, if any, would be needed to achieve the targets contained in Act 129?

The existing programs do not serve all customer classes and the results are much

smaller than will be required under Act 129. Electricity consumption has been growing in Pennsylvania at the rate of 1.4% per year during a period in which these programs have been in place. We urge the EDCs to enter into a program design process that looks at the best programs in the country.

e. *What is the projected level of customer interest or savings in these new programs?*

KEEA does not have access to this information.

f. *Please provide references to any market research pertaining to specific EDC programs in Pa.*

KEEA does not have access to any current EDC market research. What we will have is an assessment of Pennsylvania's energy efficiency and solar resources which includes recommendations. As a result of a US DOE grant, DEP contracted with ACEEE to study the current state of energy efficiency in Pennsylvania and its initial recommendations will be ready for review and comment by the PUC, the EDCs and all interested parties in late November 2008.

Examples of existing EDC DSR Programs (2007):

1) Duquesne, First Energy, PECO, PPL and UGI have load reduction programs requiring use of an interval meter for Commercial & Industrial customers.

Expansion of these programs should take into account the existing PJM programs.

2) Duquesne and FirstEnergy have load control programs for residential and small C&I customers.

3) FirstEnergy has a distributed generation program for C&I customers.

4) PennPower has an hourly pricing program available to C&I customers.

5) Most of the EDCs already have some Time of Use (TOU) or Billing Demand programs available to various customer classes.

6) UGI offers to audit customer facilities as well as provide a rebate program for high-efficiency heat pumps.

7) FirstEnergy offers customers a web-based calculator. FirstEnergy is also currently considering two new programs: Power Factor correction for C&I and a Thermostat/Appliance Price Response Program for residential and small commercial customers.

8. *In reference to question 1(e) above, the PA Treasury Department already offers the Keystone Home Energy Loan Program (Keystone HELP™). The Department refers to this as Pennsylvania's official streamlined, lower rate financing program for ENERGY STAR® rated and other high efficiency and renewable energy improvements.*

a. *To what extent will there be overlap and duplication between this program and Act 129 programs?*

Act 129 programs will complement the Keystone HELP Program, provided the Keystone HELP Program is extended beyond January 2009. EDC residential programs can use the loan program to leverage consumer investment in energy efficiency measures.

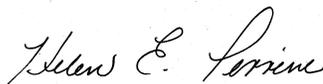
- b. The Treasury Department already has an application process established for customer enrollment and contractor registry. To what extent could this process be used as a model under Act 129 compliance?***

KEEA recommends that the processes established by the Treasury Department be used as a model for Act 129. An important addition for contractors or any conservation service providers would be the notation of technical proficiency as indicated by certifications from the Building Performance Institute and / or the Residential Energy Services Network.

- c. The Treasury already has a registry of certified contractors. Consumers are able to input a zip code to find certified contractors in their area. To what extent could these contractors' qualifications be used to register CSPs?***

The Treasury registry recognizes the financial fitness and insurance coverage of contractors and should continue to be used as basic sound business criteria for any registry. The term "certified" will cause confusion when used in conjunction with other professional and technical competency certifications held by conservation services providers. KEEA recommends specific definitions for the various certifications that may apply to service providers including contractors.

Submitted by:



**Helen E. Perrine, Executive Director of Affordable Comfort, Inc.
On behalf of the Keystone Energy Efficiency Alliance (KEEA)**