

December 8, 2008

PA Public Utility Commission
Attn: Secretary
P.O. Box 3265
Harrisburg, PA 17105

Re: Docket Number M-2008-2069887

Dear Secretary:

Attached are Performance Systems Development's comments, submitted on behalf of PA Home Energy, on the Pennsylvania Public Utility Commission's November 26, 2008 draft staff proposal relative to the first phase of the Act 129 of 2008 implementation plan, in anticipation of the working group meeting being held on December 10, 2008.

Thank you for the opportunity to submit comments on the draft proposal.

Sincerely,



Gregory Thomas
CEO, Performance Systems Development
On behalf of PA Home Energy



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PA Home Energy and Performance Systems Development
Answers to Additional Questions Related to the Commission's Energy Efficiency and
Conservation Program at Docket No. M-2008-2069887

Program Design

Program coordination across utility service areas makes particular sense for the residential sector. There is already an existing statewide effort to provide consumers with access to Home Performance with ENERGY STAR services and to ENERGY STAR Qualified New Homes. The statewide service provider infrastructure to support these programs already exists and can easily be expanded.

The ENERGY STAR programs are national programs, supported by the US Environmental Protection Agency, the US Department of Energy and the US Department of Housing and Urban Development. As such these programs already have broad consumer brand recognition, have already attracted third party support in Pennsylvania, and are a platform under which the incoming national administration will likely provide a range of national financial support for residential energy efficiency. The State Department of Environmental Protection is also considering whole building incentive approaches which leverage the ENERGY STAR brand and programs.

Coordination across the state, federal, utility and third party efforts may not be as simple as a utility operating a program unilaterally, but this coordination is definitely in the interest of the state and the ratepayers. Cost test approaches that penalize utilities if consumers take advantage of federal or state incentives do not pass the common sense test. For example, imagine the ratepayer reaction to utilities putting in place procedures that prevent consumers from accessing federal or state incentives in order to protect the utilities' own cost recovery efforts.

PA Home Energy has already created a successful Home Performance with ENERGY STAR program with over 30 companies statewide active as service providers. The same service providers also support the PA Home Energy ENERGY STAR new construction program. This combined approach has greatly increased the cost effectiveness of the program as well as the activity level of the service providers of the PA Home Energy program as compared to some other Home Performance with ENERGY STAR programs. Over thirty Pennsylvania based businesses, from small to large, have invested considerably in this market. These businesses are now moving to incorporate solar site assessments, supporting the residential solar energy industry also. Over 50 contractors and consultants have signed up for PA Home Energy's December solar site assessment training. And the infrastructure in PA is growing; PA Home Energy has additional energy auditor/rater trainings scheduled for 2009, beginning with a fully enrolled training cycle in January. In addition, a solar photovoltaic installation training and an additional energy auditor/rater training cycle will be offered in the spring of 2009 with co-sponsorship from strategic partners.

This successful advance work by the West Penn Power Sustainable Energy Fund and its partners will greatly reduce the cost and risk of starting up utility funded whole house programs for new and existing homes relative to program startups in other states.

TRC

The most important consideration for the use of the TRC is that it provide an easy to interpret mechanism for assessing the cost effectiveness of the utilities' programs. It is critical that the effort to assess cost effectiveness should not also prevent utility programs from taking common sense actions. Too often the rules for utility programs are set up using methodologies that only take into account energy and therefore do not allow the programs to work with existing markets that integrate energy efficiency into their other activities. The result is utility programs that make sense to the utilities and the regulators but not to the ratepayers or to existing residential and commercial contractors.

The TRC can be an effective and simple mechanism for measuring the cost effectiveness of programs, if the true customer cost for efficiency is clearly identified. An investment in a furnace or new windows, for example, is more than an investment in efficiency. Consumers buy these items every day despite the fact that their return on investment is not as good as other competing energy efficiency options, replacing light bulbs for example. They buy these items because of the combination of value provided to them. That value may include the replacement of old equipment, increased resale value of their home, comfort, safety, building durability, among others. Efficiency is just one of many motivations.

Without consideration of consumer non-energy benefits, the only efficiency programs that make sense are ones with minimal coordination of investment on the part of the consumer. These types of programs can also be good for the consumer but are typically limited to broad and shallow investments in efficiency. Larger investments in efficiency that are driven by more than just efficiency are prevented from accessing utility support unless the non-energy benefits are taken into account in calculating consumer costs and benefits.

It makes common sense to support the investment of consumers in improving the efficiency of the purchases that they are otherwise making be it new buildings or existing buildings. This can be done simply by conducting evaluation surveys designed to allow evaluators to identify how much, on average, consumers are relying on energy efficiency as a reason to make an upgrade and by collecting information on the age of equipment. The results can be used to reduce the consumer cost applied to the TRC calculation, limiting that cost to the proportion of the cost that the consumer would have paid to increase efficiency. There is an increasing body of work to support this approach, including evaluations conducted by NYSERDA and studies done by the American Council for an Energy Efficient Economy that have been funded by the US EPA. (ACEEE Report A061, Valuation of Non Energy Benefits to Determine Cost Effectiveness of Whole House Retrofits Programs- A Literature Review) Simply referencing these approaches may be all that is necessary at this time in the process. Simply put, consumer costs should be reduced in the TRC calculation to reflect the portion of the total cost attributable to the energy savings benefit for the measure(s).

Inclusion of societal costs and environmental benefits is a good idea also, but many of these benefits may not have readily available dollar values that can be plugged into the TRC equation. For example, putting a societal value on comfort may not be possible, even though it may be a significant factor in a consumer's decision to invest. Adding definable values for societal cost savings and environmental benefits into the TRC is a helpful way to make sure that utility programs integrate with societal needs.

Tax credits, possible federal rebates, state rebates, and fees from AEPS credits should also reduce participant costs in the TRC calculation. This approach is in line with the participant cost reduction approach described above.

Measurement and Evaluation

Statewide standards for evaluation will benefit programs by ensuring a minimum level of quality. Custom measures can be accommodated through the application of the International Performance and Measurement Verification Protocol.

PA Home Energy supports the concept of pay for performance. Programs that incorporate performance testing and performance based incentives can co-exist with simple deemed savings programs if the performance tested work is given greater flexibility and greater incentive than the work done under deemed savings.

Deemed savings calculations reflect the average savings for average work done to an average house. Within deemed savings programs there is no direct incentive for doing any work beyond the minimum to meet the requirement to get the incentive. Deemed savings calculations can be adjusted based on measured performance (realization rate). This process further penalizes the contractors that do better than average work by mixing their savings performance with contractors who did below average work. This approach might work for the utility but when translated down to providing incentives, the ratepayer suffers since there is no enhanced payment for quality performance.

For example, a deemed savings approach for air sealing would have all houses getting similar levels of sealing regardless of their actual condition. Deemed savings programs may be less expensive to evaluate, but the costs of evaluation are small compared to a full program cost. Deemed savings do have a role when the energy impacts of measures installed are small relative to the full energy bill of a facility. Good examples are residential lighting retrofits or appliance savings. The IPMVP can provide guidance on what level of savings impact could be appropriate for deemed savings.

Performance testing and performance based incentives allow incentives to be adjusted to needs of the building and the potential for energy savings is maximized. PA Home Energy currently uses an incentive structure that provides a variable incentive based on the predicted performance of the retrofits in the building based on a calibrated energy model. This approach accommodates a wide range of retrofits.

Savings are calculated using modeling tools that pass the National Renewable Energy Lab's BESTEST software testing criteria. Pre retrofit energy models for existing homes are required to be calibrated to actual energy bills. This approach has worked quite well and is similar to proposed performance based national tax credits.

Simple deemed savings can be an effective way of creating energy savings predictions for certain kinds of measures. But significant energy savings opportunities will be lost and overall savings performance will be degraded if deemed savings are the only savings approach available. As pointed out by the commissioner in the En Banc hearing, energy billing data based performance measurement is impossible for measures that do not significantly impact a facility's or building's energy bills. The signal (the amount of energy savings) gets lost in the noise created by other variations in usage. This is especially true for

commercial and industrial facilities where variations in production or occupancy overwhelm the impact of the energy improvements. It is also true for small but important residential energy savings measures such as light bulb replacements.

Conclusions

Home Performance with ENERGY STAR has already made significant progress in Pennsylvania. The pace of the program expansion in Pennsylvania has outpaced many other Home Performance programs around the country, a testament to both the need of consumers and the desire of Pennsylvania's contractors to meet that need. The service provider infrastructure of PA Home Energy program is rapidly expanding with new service providers accessing training and joining the program, and existing service providers expanding their participation and hiring new employees. This infrastructure is trained and able to meet a broad range of energy needs in Pennsylvania, including the support for the ENERGY STAR Qualified New Homes program and providing solar site assessments. The level of training and certification has not been a barrier for participation. Classes have remained full despite the recession. The certifications required by the PA Home Energy, in addition to meeting EPA program requirements are a likely requirement for accessing federal incentives. A statewide coordinated utility effort that leverages the advance work of this program will serve Pennsylvania's ratpayers well.



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