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BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

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

COMMENTS OF THE KEYSTONE ENERGY EFFICIENCY ALLIANCE TO
TENTATIVE IMPLEMENTATION ORDER REGARDING THE DESIGN AND IMPLEMENTATION OF
ANY FUTURE PHASE OF ENERGY EFFICIENCY and CONSERVATION PROGRAMS UNDER ACT 129

I. Introduction

The Keystone Energy Efficiency Alliance ("KEEA"), a nonprofit trade association with a membership of fifty-six (56) energy efficiency and demand response companies and organizations, appreciates the opportunity to submit comments to the PUC's Tentative Implementation Order for Phase Two of Act 129. Our comments will be focused on the key areas raised in the Tentative Order. We thank the Commission for this opportunity.

II. Comments

1. Proposed Savings Targets Are Too Low

KEEA asserts that the new saving targets do not capture the full program savings potential of Electric Distribution Companies (EDC) or appropriately reflect the success of Phase One. The targets recommended by the Statewide Evaluator (SWE) are based on its Market Potential Study. KEEA believes that the study is based on assumptions that undervalue the achievements of utility programs in Phase One, claim higher acquisition costs than other states, and undercount the potential of lower cost measures by overstating current saturation levels. The SWE's resources to fully analyze all factors that could affect the outcome of the savings goals recommendations were understandably limited. Therefore, despite the SWE's thoughtful work, the Commission should not rely solely on the Market Potential Study when setting goals for Phase Two.

Support for Higher Savings Goals

KEEA bases its support for higher savings goals on the advice of our technical consultants: Energy Futures Group, Optimal Energy, and the American Council for an Energy-Efficient Economy (ACEEE)—all top national energy efficiency experts. Based on ACEEE's in-depth analysis of programs across the country, its response to this docket provides detailed comments in support of higher savings goals. KEEA will not repeat ACEEE's analysis, but fully supports its comments to this docket. Its examination of comparable states with similar programs, as well as its review of the Market Potential Study, leads KEEA to continue our support for a 1% per year savings goal for each EDC over the next three years. Statewide goals promote continuity and equity across all service territories, while acknowledging budget differences that may lead to different program designs. Smaller utilities under Act 129 may have lower revenues, but consumers across the state deserve equal access to energy savings and bill reductions no matter where they live. In addition, the fact that the EDCs have already successfully delivered 1,743,883 MWh in savings between 2009-2011, or 1.2% total annual electricity savings, demonstrates that the savings goals should not be reduced going forward. The 2% spending cap will not interfere with the implementation of a 1% annual savings goal for each EDC if the calculations for acquisition and other costs take into account a larger pool of low-cost measures and the expected decrease in some lighting measure costs over time. Several considerations suggest that higher goals in the next phase are warranted:

A. Acquisition costs calculated by the SWE are not in line with other states' analysis of programs at a similar level of development. The Study assumes a 25% increase in costs to compensate for market cost uncertainties, which assigns acquisition costs for the period from 2013-2018 that are 60% higher than current costs. This figure is not supported by other states with similar levels of market maturity. Program averages of $165 per MWh in states that have had programs for five or six years provide a reasonable indicator of true costs.[1] According to GDS Associates' "Electric Energy Efficiency Potential for Pennsylvania Final Report" (May 2012),[2] Pennsylvania's current statewide weighted average acquisition cost is $139.38 per MWh saved, which is more in line with other states. To assume Phase Two costs will dramatically rise from $139.38 per MWh to $221.39 per MWh does not account for utility program startup costs or national averages. Programs in Pennsylvania are not very different from, or more expensive than, those in 14 states around the country. For example, in the neighboring state of Ohio, levelized costs run $120 per MWh, placing it more in line with Pennsylvania's Phase One costs to date.

Additionally, for the achievable potential in Phase Two, the Market Potential Study assumes incentive percentages that differ between residential and non-residential applications based on Phase One. This forms the basis of current program potential. The SWE Saturation Studies and Market Potential Study presume penetration rates of lower cost measures to be higher than they should be for either residential or commercial, which in turn leads to an assumption of limited available "low hanging fruit." Drawing this conclusion assumes the need for higher cost measures to meet the goals. For example, in the SWE's Statewide Residential End-Use and Saturation Study,[3] the utility data shows that although 83% of residences have one CFL, only 17% of all available sockets currently have CFLs in place. The evidence does not indicate that "the low hanging fruit," which lowers acquisition costs, is largely gone. Many examples reinforce this point. Unlike Vermont or other states with longstanding energy efficiency goals, Pennsylvania is still a young market for energy efficiency savings. The true impact of the new lighting standards is partially offset by what is expected to be much lower costs for LEDs, which the analysis fails to account for. According to Energy Futures Group in its Northeast Energy Efficiency Partnership (NEEP) lighting study titled "Northeast

[1] Molina, Maggie. ACEEE information on utility energy efficiency program acquisition costs. 2012.

[2] GDS Associates. 2012. *Electric Energy Efficiency Potential for Pennsylvania Final Report.*

[3] GDS Associates, Nexant, and Mondre Energy. 2012. *Pennsylvania statewide residential end-use and saturation study.*

Residential Lighting Strategy" (March 2012), even if lighting standards increase lighting acquisition costs, on average, the lower prices for new lighting help offset those costs and can provide cost-effective energy savings over the next 8 or 9 years.

Moreover, the "Northeast Residential Lighting Strategy" discusses only the impacts of new lighting standards, and failed to discuss raised federal standards for refrigerators (2014) and electric water heaters (2015). Further, under the current analysis, the measure savings appears to be fixed over time, yet changes are pending for ENERGY STAR specifications and building codes. In the end, over-reliance on a small sample of standards to draw conclusions for lower goals than potentially could be attained does not reflect true market conditions or the extent of the benefits available to consumers.

B. After PPL and PECO stakeholder meetings on their proposed Phase Two plans, the utilities reported that that many programs are expected to continue during Phase Two, and some new programs would be added. Therefore, program startup costs in Phase Two should be significantly lower and help balance out potentially higher costs. Consider again the case of lighting costs: SWE cites lighting standards as a price indicator that will increase (which it may) due to the new EISA lighting standards. Yet even that conclusion is uncertain, since only three types of CFLs were studied out of a large number of CFL options on the market, raising the question of whether the three studied are indicative of the full market potential.

C. ACEEE's 2011 State Energy Efficiency Scorecard found that most states are meeting or exceeding their targets and have already achieved savings of 1% per year or more, including states with cost caps like Illinois. To our knowledge, no state that has achieved its annual goals has reduced its goals in the next phase of the program; in fact, most have annual or cumulative goals that grow steadily over time. Arizona, Colorado, Illinois, Ohio, Hawaii, Iowa, Indiana, Maryland, Massachusetts, Michigan, Oregon, Rhode Island, Vermont and Washington all have targets of 1% per year or greater.

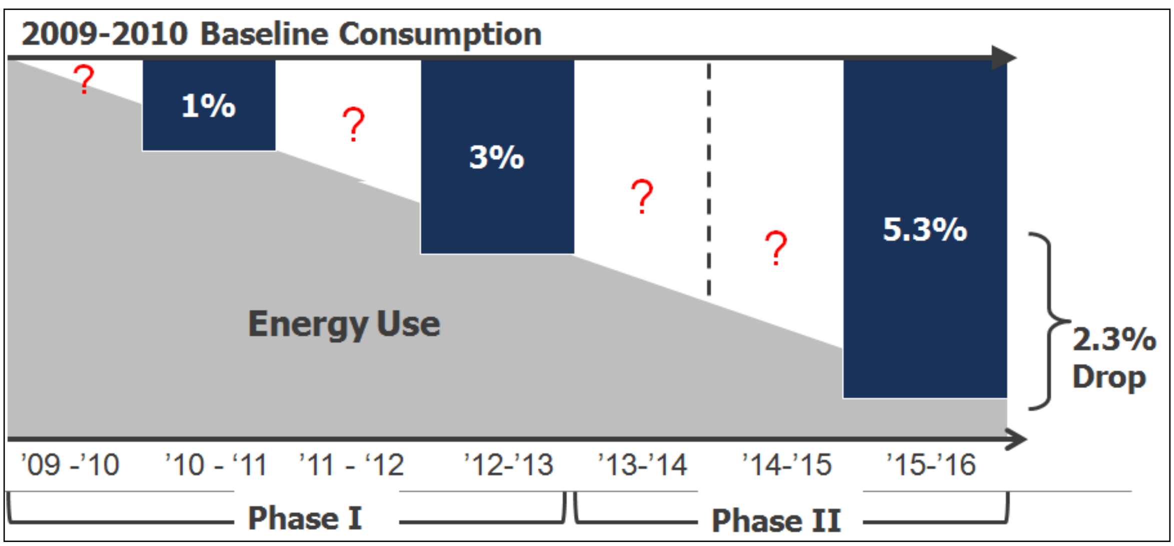
Goals should be achieved annually

KEEA requests that the Commission clarify the Tentative Order to require EDCs to demonstrate savings in each year of the three-year cycle, as consistent with best practice in other states and the intent of Act 129.

The proposed system for measuring savings in the Tentative Implementation Order sets Pennsylvania apart as the only state that does not require interim-year savings goals to be met, either through annual goals or a cumulative goal for the entire compliance period. It is best practice for states with energy efficiency standards to set annual goals. States with annual goals include Arkansas, Colorado, Illinois, Indiana, Kentucky, Maryland, Massachusetts, Michigan, Minnesota, New Jersey, New York, and Ohio. Pennsylvania is the only state that does not set firm annual savings goals.

Further, Pennsylvania legislators clearly intended for customers to receive the benefits of energy efficiency programs throughout the Act 129 compliance cycle. At the recent Market Potential Study meeting, one participant cited the analogy of setting three-year cumulative diet

Figure 1. Source: OPower



goals for people trying to lose weight. It is all too easy to postpone activity only to find out they are too late at the finish line. Similarly, if the EDCs do not save until the last year to meet the goal, savings could be lower in the interim years, leading to lost savings for ratepayers and an uncertain market for energy efficiency service providers. The 66 Pa.C.S. §1307 review will be helpful in keeping goals on track, but having clear annual milestones provides a level of assurance that can be a clear indicator of quantifiable progress. Furthermore, setting clear annual goals would allow the utilities to count on banking, if approved, and keep goals on track. Ratepayers and shareholders will also benefit from clear market indicators that the goals are on track.

For the purposes of cost recovery, the Commission continues to interpret the total cost of any plan as an annual amount, rather than an amount for the full three-year period, which KEEA supports. Since costs are applied on an annual basis, it's consistent to tie the goals to a firm annual schedule as well.

Accumulated Savings in Excess of Reduction Requirements

The Commission's Tentative Order allows EDCs to bank excess reduction requirements from Phase One to Phase Two. If the goals are increased to 1% per year for each EDC, then continuity from Phase One to Phase Two could provide some benefits, particularly in terms of meeting the Phase Two first-year requirement. If clear annual goals are not established in Phase Two, it will be harder to track what programs are moving forward and how much the utilities are simply relying on banking until they have to gear up again. For example, without clear annual goals, it is possible that EDCs could effectively turn off programs implemented in Phase One that have shorter than three-year measure lives, such as behavioral programs, and then turn them back on in the final year of Phase Two. This could lead to a double counting of savings from Phase One in Phase Two, which would lower the cumulative energy savings achieved across the two phases. Such an outcome would be inconsistent with the goals of Act 129 and not in the ratepayer interest. The Commission should clarify in the final order that EDCs are expected to maintain savings achieved in Phase One in Phase Two, and should only permit banking if it is coupled with clear, annual goals.

2. EDC Cost Recovery

KEEA supports the Commission's current position on cost recovery. However, KEEA believes that any revenues outside the program expenditures or generated through PJM auctions should not be returned to ratepayers. Rather, dollars should be re-allocated to energy efficiency programs. This could include potential funds left over from Phase One, revenues from bidding energy efficiency resources into the PJM capacity market, and allocation for demand response programs if they are not continued in Phase Two. Any available funds would likely amount to only a small amount per customer and that same money could be applied to deeper efficiency measures or programs.

If those dollars were invested in energy efficiency instead of being returned to customers, they would be leveraged 8 to 1.[4] Put another way, every dollar returned to ratepayers is worth $8 if invested in energy efficiency. Uses could include funding utility or shareholder incentives, support for possible new consumer financing of energy efficiency, support for expanding behavioral programs, or boosts to the cost-effectiveness of marginal programs that may not currently qualify.

Incentives and Banking

Incentives and/or banking provide utility shareholders assurances that any goals exceeded will be treated in a positive manner. KEEA supports banking from Phase One to Phase Two if the savings goals are increased to 1% per year with clear annual incremental targets. If goals remain cumulative, banking and incentives could be difficult to assess. It is KEEA's hope that the Commission will consider incentives for EDCs that exceed savings goals to encourage maximum value under the 2% cap. Other states where energy efficiency utility incentives exist include Minnesota, Ohio, Maryland, Michigan, Indiana, Alabama, Colorado, Kentucky, Louisiana, South Dakota, and 27 others (totaling 37 states).

3. Benchmarking

KEEA recommends that the Commission require all utilities to facilitate energy benchmarking of buildings by automating the electronic transfer of customer usage data into proven benchmarking software such as U.S. EPA's Portfolio Manager. This will support the growing number of benchmarking efforts statewide, including the Department of

[4] Optimal Energy, Inc. 2011. *Pennsylvania 2013 - 2018 energy efficiency goals.*

Environmental Protection's recent school benchmarking program and those of a growing number of municipalities, including Philadelphia. This will also facilitate utilities' programs by providing the kind of verifiable baseline data that currently does not exist, which makes true verification and comparison more difficult. Benchmarking is a tool deployed increasingly across the country, now in place in 11 states and 9 cities and recently approved in Philadelphia. By requiring annual benchmarking of publicly and privately owned buildings, building owners and potential buyers will have access to more data on a buildings' energy consumption. This, in turn, helps to gradually shift the market to increasingly value efficient, high-performing building stock. Benchmarking helps building owners set investment priorities, identify under-performing buildings, verify efficiency improvements, and most importantly, save money on energy bills. A high level of M&V in place will continue to reassure shareholders and the Commission and will help programs continue to prove their worth.

Benchmarking is particularly critical in schools and municipalities in Pennsylvania that have been hit hard with budget cuts. To support the Corbett administration's recent initiative in schools, utilities should be encouraged to develop benchmarking programs for all schools and to ensure that schools have access to the technical expertise they need to plan and implement energy efficiency upgrades in all their buildings.

The Institute for Market Transformation estimates that a national building energy rating and disclosure policy would create more than 23,000 net new jobs in 2015, reduce energy costs for building owners, consumers, and businesses by approximately $3.8 billion through 2015, and reduce annual energy consumption in the U.S. building sector by about 0.2 quadrillion Btus by 2020.[5] Clearly this type of policy has significant economic development potential, energy savings potential, and most importantly monetary savings potential for end-users. Pennsylvania has the opportunity to tap into these savings now by requiring utilities to implement energy benchmarking in Phase Two of Act 129. In addition, according to a 2011 industry survey by Johnson Controls, building owners who monitor energy performance are more likely to make

[5] Burr, Andrew C., Cliff Majersik, Sarah Stellberg, and Heidi Garrett-Peltier. 2012. *Analysis of job creation and energy cost savings from building energy rating and disclosure policy.* http://www.imt.org/files/Analysis_Job_Creation.pdf

investments in energy efficiency.[6] Benchmarking provides an effective lead-in to energy efficiency and conservation (EE&C) programs for end-users. Further, KEEA recommends that the Commission require utilities to participate in national efforts such as the "Green Button" initiative, designed to give consumers better information and tools to control their own energy use and costs. It is important to note that some Pennsylvania utilities have already begun to participate in benchmarking. KEEA recommends that the Commission require each EDC to incorporate benchmarking into Phase Two, at a minimum in all commercial buildings.

4. Inclusion of a Reduction Target Carve-Out for the Government, Educational, and Non-Profit Sector

Act 129 stipulates that at least 10% of the required reductions in energy consumption come from government, schools, hospitals, and nonprofits.[7] KEEA continues to support the Commission in its position to require this carve-out. Section 2806.1(b)(1)(B) establishes that the GENP carve-out is a requirement of EDC plans, while Section (c) describes the reductions to be achieved by EDC plans. Therefore, section (c) is inclusive of the GENP sector carve-out, which is a requirement of EDC plans and should be subject to penalties.

The SWE studies appear to under-report the energy consumption of the GENP sector, specifically the government sector, which is included in the "Other" category of this subsection within both the commercial and industrial customer base. In particular, it is important that all savings benefits be recognized for energy consumption associated with water supply, water treatment and wastewater treatment, which represent 50-75% of local government energy use.[8] Under-reporting or excluding this data in the baseline studies skews the market potential and may result in lost opportunities for savings from this sector, which needs all the help it can get to reduce its costs.

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[6] Johnson Controls. "2011 Energy Efficiency Indicator Global Survey". http://www.institutebe.com/Energy-Efficiency-Indicator/2011-global-results.aspx

[7] 66 Pa.C.S. § 2806.1(b)(1)(i)(B)

[8] Richards, Stacy. SEDA-COG information on local government energy use. 2012.

In addition, the statewide evaluator has also not recognized energy savings from lower cost behavioral approaches in schools and other public buildings in particular. All savings that can be measured and verified need to be counted. Measurement and verification in this area has evolved over the last several years, so that savings from behavioral changes are more easily calculated.

Financing: On-Bill Financing and On-Bill Repayment

Consumers' ability to finance the cost of energy efficiency measures is important to ensuring that the pool of eligible energy efficiency customers is greatly expanded. The uptake in consumers, in turn, will lead to more robust and sustainable EE&C programs. KEEA strongly supports the Commission's interest in convening a working group for an on-bill financing and repayment program.

On-bill financing or repayment programs assist property owners with the upfront costs of efficiency improvements by tapping into the utilities' unique relationship with their customers. Such programs also help customers finance the investments through the bill savings achieved, often allowing for cash neutral or even cash positive schedules. While utilities may have to adjust their billing systems to incorporate on-bill repayment, most of the program options avoid putting utilities in the role of banker or capital supplier. For example, utilities can structure offerings as loans or tariffs or they can partner with financial institutions so that the lending burden is placed on a third-party. KEEA looks forward to participating in this upcoming working group.

5. Low-Income Programs

KEEA supports the changes recommended by the Tentative Order for the low-income carve-out. Raising the income guideline to 250% of the Federal poverty level will give the utilities flexibility in program design and help them improve cost-effectiveness for these programs. The Commission recognizes the economic realities of many families earning between 150% and 250% of the poverty line, including the "working poor" and elderly Pennsylvanians living on pensions—both of whom are currently unable to participate in conventional programs.

Given the relatively high acquisition costs of some low-income programs, the utilities should be encouraged to develop new approaches, including stronger behavioral approaches, better coordination with other weatherization programs, and better incentives through Customer Assistance Programs. Utilities should also ensure that costs more appropriately assigned to low-income programs are not charged under Act 129.

6. Inclusion of a Demand Response Curtailment Program

KEEA supports the continuation of demand response programs without "fits and starts" in the market place, which are disruptive to the overall continuity of customer benefits and job creation. During the start-up phase, much investment has been made in metering and communications devices. That investment would be compromised if programs go dark. Demand response will continue to produce value by reducing energy consumption in addition to PJM programs, which are generally focused on larger energy users and not on the small commercial and residential sector. The PJM programs are not designed to achieve the demand response goals under Act 129 as described by the Joint Demand Response commenters.

It is also important that the SWE's Market Potential Study for Demand Response be shared in draft form with stakeholders to solicit feedback on its conclusions—something that did not happen with the EE&C Market Potential Study due to timing constraints. KEEA has signed on to the Demand Response Coalition comments filed in this docket and fully supports its filing.

7. Cost-Effectiveness – TRC Test

KEEA recommends that the Commission continue to apply the cost-effectiveness test at the portfolio level and particularly supports counting the monetary value of energy savings from all fossil fuels and water, ensuring that the test be "fuel neutral." KEEA would also like to see the inclusion of benefits currently not calculated in Pennsylvania's model and will file comments on the TRC Tentative Order, Docket Nos. M-2012-2300653 and M-2009-2108601, by June 29, 2012.

III. <u>Conclusion</u>

KEEA is grateful for the opportunity to participate in the robust stakeholder process as the PUC reviews the progress of Act 129. We look forward to working together to make Phase Two of the Commonwealth's energy efficiency policy as successful as possible.

Respectfully submitted on behalf of KEEA,

President
Board of Directors