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April 17, 2012

Rosemary Chiavetta, Secretary
Pennsylvania Public Utility Commission
Commonwealth Keystone Building
400 North Street
Harrisburg, PA 17120

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 the Alliance to Save Energy's
comments in the above-referenced proceeding.

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

Sincerely,

Merrilee Harrigan (handwritten signature)

Merrilee Harrigan
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**BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION:**

Act 129 Energy Efficiency and
Conservation Program Phase Two

**COMMENTS OF
THE ALLIANCE TO SAVE ENERGY**

I. Introduction

The Alliance to Save Energy (Alliance) is a nonprofit organization that promotes energy efficiency worldwide through research, education and advocacy. We encourage business, government, environmental and consumer leaders to use energy efficiency as a means to achieve a healthier economy, a cleaner environment and greater energy security. We work with a variety of people and groups to:

- Prove that business can be efficient and make money at the same time
- Educate consumers about the impact of energy choices – especially on their wallets
- Ensure that lawmakers build smart and fiscally sound energy policy
- Carry the message of efficiency to established and developing economies around the globe

The Alliance appreciates this opportunity to provide comments on Act 129 Energy Efficiency and Conservation Program Phase Two, Docket No. M-2012-2289411. We concur with the comments of Citizens for Pennsylvania’s Future (PennFuture) and others that the first two program years of Act 129 implementation have proved the value of energy efficiency for Pennsylvania’s ratepayers as well as utilities. The Alliance directs its comments specifically to the potential for energy efficiency in the educational sector to provide energy and cost savings to school districts as well as measurable savings for utilities.

II. Energy Efficiency as a Crucial Resource for Strapped School Districts

Schools throughout Pennsylvania, and in particular Pennsylvania’s urban school districts, have suffered a decrease in state and local funding According to the Pennsylvania League of Urban Schools, *“A quick analysis of the final numbers reveals that the school*

districts with student poverty in excess of 50 percent suffered average cuts in state funding of \$643 per student.”

Energy efficiency can provide a source of dollars to supplement school budgets. Unlike budget cuts in other areas, energy efficiency has no down side. It produces savings in energy costs while enhancing student learning through a more comfortable environment and opportunities for meaningful, hands-on student engagement with science, technology, engineering and math (STEM) subjects.

Act 129 can help schools save money and energy in two ways. First, utilities can facilitate energy efficiency improvements in schools through specific programs, financing and other supports.

Second, schools have opportunities to save significant amounts of energy through behavior and operations changes. While this can be done strictly using facility staff and administrators, the unique opportunity schools present is achieving these savings by engaging students and teachers. Energy fits in to many aspects of curriculum. Using the school building as a learning lab, students can learn the science of energy and apply their learning to understanding how their school uses energy, conduct research to identify energy waste, and make recommendations for no-cost changes that will save energy. We have found that once students understand the connections between energy, the environment and finances, they can be enthusiastic advocates for energy efficiency. There is nothing more persuasive than a passionate 12-year old with good research data to present to adult decision-makers!

We estimate Pennsylvania schools can save between five and 15% on electricity costs through the type of no-cost, student-led behavior and operations changes that the Alliance has been achieving for 16 years nationwide with its PowerSave Schools (previously Green Schools) Program. For example, our program with 65 schools in Southern California averaged savings of 15.5% in the 2009-2010 academic year, and saved 12.5% in the 2010-2011 academic year. Our program with 60 schools in the Tennessee Valley Authority service area saved over 8% savings in the 2010-2011 school year.

While the Alliance's expertise in the behavior area is with the educational arena, the potential for achieving energy savings through behavior changes is not limited to schools. Other commercial building types could institute a similar rigorously evaluated behavior change program, and residential behavior programs can be operated at a large enough scale to be evaluated through a control group.

The limiting factor for implementing such programs in Pennsylvania is that the Act 129 regulations do not provide for counting these savings toward utility kWh goals. **The Alliance recommends that in Phase Two of Act 129, the PUC develop a protocol for calculating energy savings from behavior programs using a high quality bill analysis, and that utilities be allowed to claim the savings from behavior programs in schools and other building based on that protocol.**

III. Methodology for Estimating Savings

In order to demonstrate that the savings achieved through behavior programs are "real," evaluations must be based on methodology using industry standards. The Alliance contracts with a third party, Utility Management Services (UMS), to provide estimates of electrical, dollar and CO2 savings. UMS calculates the energy savings by establishing a two-year baseline of electric consumption and using utility data to compare expected to actual savings. The data is weather normalized and at the end of the year is adjusted for changes in school equipment and significant changes in usage. These adjustments are transparent based on input from school facility staff.

IV. Additional Benefits

While the Pennsylvania Public Utilities Commission must focus on Act 129's ability to generate measurable energy savings in the coming three (?) years, it is worth noting that educating young people about energy efficiency provides several additional benefits for Pennsylvania's energy future.

- Students who understand and value energy efficiency are effective educators of their parents and their communities that can prompt residential energy savings in the short term. A recent study found that "84% of respondents with children reported that their children have initiated conversations about environmental issues" and that "71% of parents who'd had discussions with their children reported that

these conversations resulted in purchasing and behavior changes.” The full article is at <http://sheltongrp.com/blog/?p=2708>

- Educating young people about energy efficiency creates a generational change to a culture that values and understands energy efficiency’s value.
- “Green Energy” represents a growing field with job opportunities; educating young people about energy efficiency can prepare them for these future employment opportunities.

V. Conclusion

The Alliance recommends that the Pennsylvania PUC extend Act 129 and that it develop a protocol for counting energy savings from no-cost behavior and operation changes. Based on that protocol, we recommend that utilities be allowed to count savings from behavior programs.

As part of the process of developing a protocol, the Alliance further recommends that a pilot school education and behavior pilot program be implemented as soon as possible, preferably in one of the urban school districts that are suffering the most from state budget cuts, such as the School District of Philadelphia.