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December 19, 2008

**Office of Energy and  
Technology Deployment**

717-783-0540

**HAND DELIVERED**

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

Re: Docket No. M-2008-2069887	Energy Efficiency and Conservation Program and EDC Plans
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Dear Secretary McNulty:

Enclosed please find an original and fifteen copies of the Department of Environmental Protection's reply to comments submitted in response to Additional Questions related to the Commission's Energy Efficiency and Conservation Program at Docket. No. M-2008-2069887 and issues raised at the Commission's December 10 stakeholder meeting.

Respectfully Submitted,

Daniel Griffiths  
Deputy Secretary Director  
Energy, Innovations and Technology Deployment

Enclosure

**BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION**

**Energy Efficiency and Conservation Program and EDC Plans** : **Docket No. M-2008-2069887**  
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**REPLY COMMENTS OF THE  
DEPARTMENT OF ENVIRONMENTAL PROTECTION**

On December 8, 2008 the Department of Environmental Protection (“Department”) submitted comments responding to several questions posed by the Commission in its November 26, 2008 Secretarial letter. Representatives of the Department also participated in the Commission’s December 10, 2008 stakeholder meeting. The Department submits the following reply comments to issues raised by other parties’ comments and issues raised at the stakeholder meeting. The Department’s comments will focus on three basic areas – 1) what peak demand reduction goals must be achieved, 2) what funding is available to achieve the energy conservation and peak demand reduction goals and, 3) what programs should be pursued to achieve the goals.<sup>1</sup>

In addressing these issues, the Department is mindful of Act 129’s fundamental purpose – to stabilize and reduce electricity prices. As stated in the policy section of Act 129, low and stable electricity prices are necessary to promote economic growth and to the health, safety and prosperity of the Commonwealth’s citizens. Because of restructuring, the Commonwealth has limited tools to address escalating electricity prices. Act 129 (and Special Session Act 1)

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<sup>1</sup> Representatives of the Commission also requested comments on CSP qualifications. Because the Commission approved a Tentative Order on CSP qualifications at its December 18 meeting, the Department will comment on the

represent the best tools in the Commonwealth's toolbox. While these pieces of legislation will also yield significant environmental benefits and stimulate the economy by creating good "green" jobs, the most important and immediate impact must be to curb electricity prices under any peak demand condition.

**I. EDC's Must Demonstrate That They Have Lowered Peak Demand by 4.5% of the 2008 Base Year.**

There seems to be little debate regarding whether the "savings approach" should be followed to determine compliance with Act 129's energy conservation standards. However, in determining whether an EDC achieved the necessary peak load reduction standard, PECO, Allegheny Power and the Energy Association of PA added a new wrinkle. According to this group of commentators, meeting Act 129's peak demand reduction standard should be based on a "demonstrated ability" to reduce peak demand by 4.5%. The written comments do not provide any detail on what "demonstrated ability" means or how it is to be determined. However, it appears from the EDCs perspective that the demonstrated ability approach is the best of the savings and reduction approaches.

As the Department understands the proposal, the demonstrated ability approach addresses the hypothetical situation where the highest average 100 hours of Summer peak demand as of May 31, 2013 is less than the highest average 100 hours of Summer peak demand from June 1, 2007 – May 31, 2008 because of factors unrelated to EDC plans, such as a cooler than normal Summer. In this instance, the EDC would not have to curtail peak demand at all – but merely demonstrate that it could have curtailed to the requisite level had peak demand been higher. Conversely, if the highest average 100 hours of Summer peak demand in 2013 exceed the

highest average 100 Summer peak demand hours in 2007, then the EDC must demonstrated that its program caused the peak demand to be 4.5% lower than it otherwise would have been (the “savings approach”).

The following examples illustrate the differences between the three possible approaches. In each case the 2007-2008 base year establishes the highest average 100 peak demand hours at 100MW:

**Demonstrated Ability – Hot Summer 2013**

Without EDC programs the 100 highest average peak demand hours would have been 110MW. Because of EDC programs the 100 highest average peak demand hours must be 105.5MW.

**Demonstrated Ability –Cold Summer 2013**

Without EDC programs the 100 highest average peak demand hours is 90MW. The reduction in peak demand from the base year is 10MW but because there were too few peak days to call demand, no reduction in peak demand can be directly attributed to EDC programs. The EDC meets Act 129 requirements if it can demonstrate that but for the cool summer, it would have been able to reduce peak demand by 4.5MW.

**Reduction Approach– Hot Summer 2013**

Without EDC programs the 100 highest average peak demand hours would have been 110MW. Because of EDC programs the 100 highest average peak demand hours must be 95.5MW.

**Reduction Approach –Cold Summer 2013**

Without EDC programs the 100 highest average peak demand hours would have been 90MW. Because peak demand was lower than 95.5MW, the EDC does not need to curtail demand.

**Savings Approach – Hot Summer 2013**

Without EDC programs the 100 highest average peak demand hours would have been 110MW. Because of EDC programs the 100 highest average peak demand hours must be 105.5MW for the EDC to meet Act 129 requirements.

**Savings Approach –Cold Summer 2013**

Without EDC programs the 100 highest average peak demand hours would have been 90MW. Because of EDC programs the 100 highest average peak demand hours must be 85.5MW for the EDC to meet Act 129 requirements.

The Department believes that the savings approach is the best interpretation of section 2806.1(d). The problem with pursuing the “demonstrated ability” approach is that it is both

inconsistent with the savings approach and misconstrues the fundamental purpose of Act 129. The fundamental purpose of Act 129 is to lower electricity prices. The demonstrated ability approach assumes that actual performance is only useful when the grid is at very high demand levels. In other words, it presumes that Act 129's fundamental purpose is to promote grid reliability or deal with the most extreme prices. Under the demonstrated ability approach, the EDC could curtail peak demand but chooses not to because it isn't necessary to address a reliability or critical peak price concern. The logical outcome of the demonstrated ability approach is that consumers continue to pay exorbitant peak prices under many peak demand conditions. As the Commission well knows (but the vast majority of consumers do not) the most expensive electricity generation unit needed at any particular time sets the price all other generators are paid. As peak demand grows, prices climb at an exponential rate. Curbing these peak prices, even at a time that does not constitute a critical reliability or peak price situation will still provide significant savings. If the demonstrated ability approach is followed, consumers will pay for peak demand reduction measures that are not used to their benefit.

## **II. The Limitation on Costs in § 2806.1(g) is an Annual Limit**

Section 2806.1(g) provides in part: "The total cost of any plan required under this section shall not exceed 2% of the electric distribution company's total annual revenue as of December 31, 2006." The Department believes that the correct interpretation of this section is to limit the EDC's Act 129 expenditures to 2% of the EDC's 2006 revenues in any year. The alternative interpretation promoted by the Office of Small Business Advocate would calculate the total program funding over all years at 2% of the reference year revenues.

OSBA's interpretation is not correct for three reasons. First, by referencing the EDC's

“annual” 2006 revenue, the legislature intended the cap to apply to annual expenditures. Second, the EDC plans are more appropriately considered annual plans. Each year the plans are evaluated by an independent party. § 2806.1(b)(1)(i)(j) As a result of that evaluation, the Commission will renew the EDC’s use of the plan or require modifications. Annual evaluations would not have been required for plans that would only spend a few million dollars each year – as would be the case under the OSBA’s interpretation. Finally – and most importantly - the funding cap proposed by OSBA would undermine the purposes of Act 129 by creating a strong probability that EDCs will not achieve the energy conservation and demand reduction requirements of Section 2806.1(c) and (d).

The Department observes that total funding based on the reference year will be no greater than \$247 million. Spread over 2009 – 2010 through 2012 – 2013, it will be nearly impossible to achieve a total of 3% reduction in consumption and 4.5% reduction of peak load. At the stakeholder meeting Duquesne Light informed the Commission that EDC’s in Vermont (one of the leading states in energy conservation) spent \$46 per customer per year to reduce consumption by 1%. Under the OSBA’s proposal, most Pennsylvania EDCs would be able to spend ¼ that amount – or less. Pursuant to section 1992 of the Statutory Construction Act, (1 Pa. C.S. § 1922) it is presumed that the General Assembly does not intend a result that is absurd, impossible of execution or unreasonable. The Department submits that capping EDC expenditures from 2009 – 2013 to 2% of 2006 revenues would make execution of the Act impossible and yield an absurd result.

### **III. The 2% Cost Cap Should Include All Amounts Paid to EDCs Through Consolidated Billing.**

Duquesne Light, PECO and First Energy all commented to the Commission that certain

percentages of their customers were receiving electricity generation service from Electric Generation Suppliers. The Commission’s draft order excludes these payments received by the EDCs through consolidated billing from the EDC’s total annual revenue for purposes of the cost cap imposed by section 2806.1(g). The phrase “Electric Distribution Company Total Annual Revenue” is defined as “Amounts paid to the [EDC] for generation, transmission, distribution and surcharges by retail customers.” The Department believes that this phrase is ambiguous and could easily be read to include money paid to EGSs via EDCs.

It is important to note that while the term “revenue” is used in the phrase – it is not what the phrase is limited to. Instead, the legislature expanded the term “revenue” to mean “amounts paid to the [EDC]”. This indicates that the legislature intended to include any source of money related to generation, transmission, distribution and surcharges. Through consolidated billing, EGS payments are amounts received by the EDC for generation and transmission.

In addition to being legally sound, this interpretation clearly advances the purposes of Act 129. Achieving the Act’s goals will be difficult. Artificially reducing the funding available only reduces the benefits received by consumers. Duquesne Light in particular will simply not be able to achieve the goals of Act 129. The Commission must include all “amounts paid” to the EDCs to be included in the funding limits.

**IV. Home Performance With Energy Star and Energy Star Homes Provides are Statewide Programs that Will Achieve Act 129’s Goals for Residential Customers.**

In comments to the Commission, EDCs (with the exception of Allegheny Power) generally opposed the use of statewide programs at this time. The arguments against statewide programs were that Pennsylvania is not far enough along in the process to understand which

programs are best suited for statewide implementation. As the Department and others such as PA Home Energy and Keystone Energy Alliance demonstrated however, Home Performance with Energy Star and Energy Star Homes are mature programs that can be implemented across the State today. The Home Performance with Energy Star and Energy Star Homes programs address several key issues related to Act 129 implementation including cost effectiveness, measurement and verification of energy conservation measures, and marketing. The benefits of these programs are so significant that the Department recommends that the Commission sponsor these programs for the Commonwealth. Alternatively, the Department encourages the Commission to direct that the EDCs form a cooperative arrangement.

**A. Cost Effectiveness**

If the Commission does not require some programs to be implemented on a statewide basis, each EDC will be reinventing the energy conservation wheel – duplicating efforts and costs. As to the critique that there are insufficient skilled contractors to support a statewide program, the Department notes that PA Home Energy has already created a successful Home Performance with Energy Star program with over 30 companies statewide. On going training efforts by PA Home Energy will increase the number of trained providers and expand their area of expertise. Having this network of trained providers available today reduces the cost associated with implementing new utility funded programs.

To reduce costs, many EDCs favor deemed savings measures. While these measures are easy to implement, they are not necessarily as cost effective as installed measures. In addition, deemed savings measures also require the consumer to use the product appropriately. Finally, smaller (and more popular) deemed savings measures such as CFL programs make little impact

on the consumer's monthly bill. Whole house energy reduction measures like air sealing and insulation projects do not have these problems. In addition, air sealing and insulation projects are far cheaper than new central AC units or geothermal heat pumps and can generate even greater reductions in consumption. Finally, as noted by the Keystone Energy Efficiency Alliance, energy conservation measures need to be deep and long lasting. The whole house approach envisioned by the Home Performance with Energy Star and Energy Star Homes programs fulfills this requirement.

### **B. Measurement, verification and quality assurance**

As previously noted by the Department, monitoring and verification of data could be simplified and streamlined by having the Commission require all EDCs and CSPs to utilize the same evaluation, measurement and verification protocols such as those used by the Energy Star programs. The use of protocols that are already proven, are widely accepted and are specific to customer sectors will facilitate effective monitoring. In addition, by definition quality assurance measures must include independent audits using nationally recognized tools and certification programs. The evaluation procedures in the Energy Star programs fit this definition perfectly.

Although not directly related to the Energy Star programs, the Department was encouraged to see very little objection to requiring an independent statewide annual audit of the EDC programs. The Department believes that the Commission should be the entity that designs the RFP for this evaluator.

### **C. Marketing**

At the stakeholder meeting, some EDCs expressed concern over who would market the EDC programs. Marketing is a very real issue. The EDCs cannot force consumers to accept their

programs. Creating marketing materials is costly and time consuming. However, any amount of money that is diverted from implementing energy conservation measures takes Pennsylvania further away from meeting Act 129's important goals. As noted by PA Home Energy, Energy Star programs are national programs that already have broad consumer brand recognition and can easily be integrated into the Commission's Program.